



K



## Electrical system

*Trucknology Generation A (TG-A)*

2002

1 | 2

**3**

4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12

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## Wiring diagrams

2nd Edition K 90

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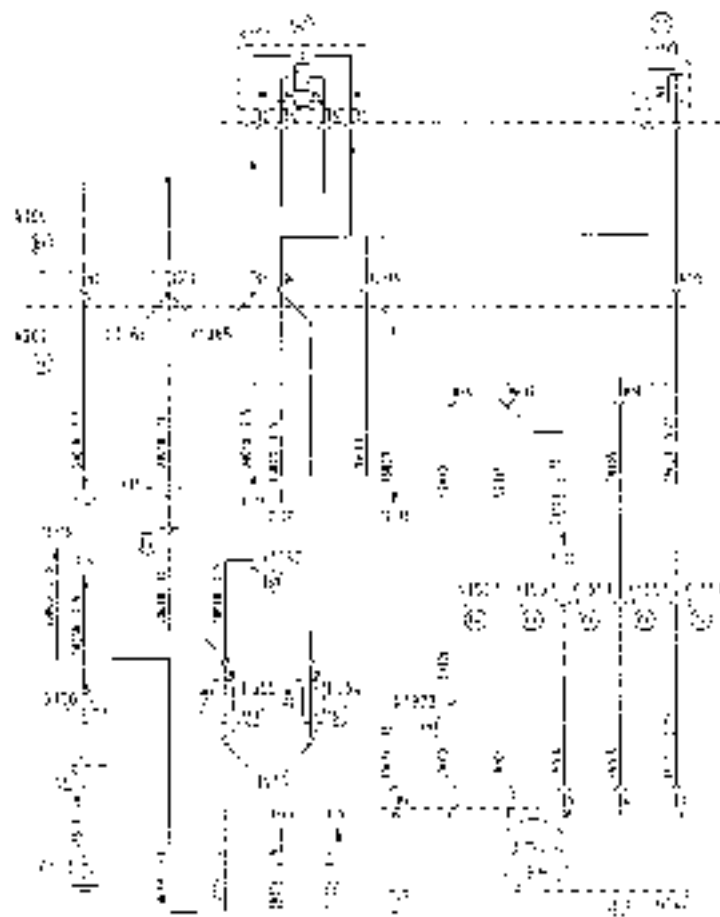
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# Electrical system



## Wiring diagrams K 90 (2nd edition)

### *Trucknology Generation A (TG-A)*



81.99198-5972

Subject to technical changes in the course of continuing development.

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VSWY / OB/AM 03.2002

Satz: emes GmbH  
Friedrichshafen

## Preface

All series and additional wiring diagrams are documented in the instructions for the "wiring diagrams".

The **series wiring diagrams** (Ch. 3-60) and the **additional wiring diagrams** (Ch. 4-00) are shown in detail to include legends and the names of the circuits.

The present manual is based on wiring diagrams that have been created with the help of a graphics program (CAD).

This allows the instructions to be updated at short notice.

This manual represents the series status of the vehicle on the copy deadline date.

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## Abbreviations

As of 11.01

<b>a</b>	Acceleration
<b>ABE</b>	General operating permit
<b>ABS</b>	Anti-lock brake system
<b>ABY</b>	Anti-skid system
<b>AC</b>	Air conditioning
<b>ACC</b>	Adaptive cruise control
<b>ACK</b>	Autocheck
<b>ADC</b>	Analog-digital converter
<b>ADR</b>	International agreement for the transport of dangerous goods
<b>AGB</b>	Automatic road speed limiter
<b>AGND</b>	Analog ground
<b>AGR</b>	Exhaust gas recirculation (EGR)
<b>AHK</b>	Trailer coupling
<b>AHV</b>	Trailer brake valve
<b>ALB</b>	Automatic load-dependent brake
<b>AMA</b>	Antenna mast system
<b>ANH</b>	Trailer/semitrailer
<b>AS</b>	Automated gearbox
<b>ASD</b>	Trailer socket
<b>ASM</b>	Trailer control module
<b>ASR</b>	Anti-spin regulator
<b>ASV</b>	Trailer control valve
<b>ATC</b>	Automatic temperature control
<b>ATF</b>	Automatic transmission fluid
<b>AU</b>	Emission test
<b>AV</b>	Exhaust valve
<b>AVS</b>	Automatic gear preselection
<b>BA</b>	Operator's manual
<b>BBA</b>	Service brake system
<b>BBV</b>	Service brake valve
<b>BKR</b>	Brake power regulator
<b>BUGH</b>	Front heater
<b>BV</b>	Back-up valve
<b>BVA</b>	Brake wear indicator
<b>BVS</b>	Brake wear sensor
<b>BYV</b>	Brake wear sensor supply
<b>BW</b>	German Army
<b>BWG</b>	Brake valve sensor
<b>BZ</b>	Brake cylinder
<b>CAN</b>	Controller area network
<b>CAN-H</b>	CAN-high data line
<b>CAN-L</b>	CAN-low data line
<b>CATS</b>	Computer-assisted testing and diagnostic system
<b>CCVS</b>	Cruise control vehicle speed
<b>CKD</b>	Completely knocked down
<b>CNG</b>	Compressed natural gas
<b>CPU</b>	Central processing unit
<b>CRT</b>	Continuously regenerating trap
<b>CS</b>	Comfort shift
<b>DAHL</b>	Roof ventilator
<b>DBR</b>	Auxiliary brake relay
<b>DECKE</b>	Cover (for doors)
<b>DF</b>	Speed sensor
<b>DFÜ</b>	Data transmission
<b>DIA</b>	Diagnosis and information display

**Abbreviations**

<b>DIAK</b>	Diagnosis, K-line (data line)
<b>DIAL</b>	Diagnosis, L-line (interrogation line)
<b>DIAR</b>	Diagnosis, further interrogation
<b>DIN</b>	German industrial standard
<b>DKE</b>	Throttle valve no-reasu (ASR control)
<b>DKH</b>	Root duct heating
<b>DKL</b>	Root flaps
<b>DKR</b>	Throttle valve reduction (reduction request from ASR to EDC/EMS)
<b>DKV</b>	Throttle valve specification (load sensor signal from EDC/EMS pedal value sensor)
<b>DLB</b>	Compressed air brake system
<b>DM</b>	Diagnostic message
<b>DNR</b>	Drive - Neutral - Reverse (selector switch for automatic gearbox)
<b>DPF</b>	Diesel particulate filter
<b>DRM</b>	Pressure control module
<b>DS</b>	Pressure sensor
<b>DSV</b>	Pressure control valve
<b>DV</b>	Throttle valve
<b>DWA</b>	Anti-theft protection system
<b>DZG</b>	Rpm sensor
<b>DZM</b>	Rev counter
<b>EBS</b>	Electronic brake system
<b>ECAM</b>	Electronically controlled air management
<b>ECAS</b>	Electronically controlled air suspension
<b>ECE</b>	Emergency shut-off to ECE 35
<b>ECU</b>	Electronic control unit
<b>EDC</b>	Electronic diesel control
<b>EDM</b>	Electronic diesel consumption meter
<b>EDR</b>	Maximum speed governor
<b>EEC</b>	Electronic engine controller
<b>EEPROM</b>	Electrically erasable and programmable read-only memory
<b>EFR</b>	Electronic shock absorber control (ESAC)
<b>EFS</b>	Electrical driver's seat
<b>EHAB</b>	Electro-hydraulic shut-off device
<b>ELAB</b>	Electrical shut-off device
<b>ELF</b>	Electronic air suspension
<b>EMS</b>	Electronic throttle control (ETC)
<b>EMV</b>	Electromagnetic compatibility (EMC)
<b>EOL</b>	End-of-line (programming)
<b>EP</b>	Injection pump
<b>ER</b>	Engine retarder (engine brake)
<b>ESAC</b>	Electronic shock absorber control
<b>ESP</b>	Electronic stability program
<b>ESR</b>	Electric sun blind
<b>EST</b>	Electronic control unit
<b>EV</b>	Intake valve
<b>EVB</b>	Exhaust valve brake
<b>FAP</b>	Driver's area
<b>FAQ</b>	Frequently asked questions
<b>FBA</b>	Parking brake system
<b>FDR</b>	Dynamic handling control
<b>FFR</b>	Vehicle management computer (VMC)
<b>FSB</b>	Road speed limiter (RSL)
<b>FGR</b>	Road speed governor (RSG)
<b>FHS</b>	Cab
<b>FIN</b>	Vehicle identification number (VIN)
<b>FM</b>	Vehicle management
<b>FMI</b>	Failure mode identification

## Abbreviations

<b>FMR</b>	Vehicle/engine management
<b>FOC</b>	Front omnibus chassis (bus/coach chassis with front-mounted engine)
<b>FSCH</b>	Windscreen heater
<b>FSG</b>	Ground reinforcement system
<b>FSH</b>	Window/mirror heating
<b>FTW</b>	Driver's partition
<b>FUNK</b>	Radio communication unit
<b>FZA</b>	Destination system
<b>GDK</b>	Controlled diesel catalytic converter
<b>GEN</b>	Alternator
<b>GET</b>	Gearbox
<b>GGVS</b>	Regulations for the transport of hazardous goods
<b>GND</b>	Ground
<b>GP</b>	Gearbox planetary gear group (range-change box)
<b>GS</b>	Gearbox control
<b>GV</b>	Gearbox splitter gear group (splitter box)
<b>HA</b>	Rear axle
<b>HBA</b>	Auxiliary brake system
<b>HGB</b>	Maximum road speed limiter
<b>HGS</b>	Hydraulic gearshift
<b>HLUE</b>	Hydrostatic fan
<b>HOC</b>	Rear omnibus chassis (bus/coach chassis with rear-mounted engine)
<b>HSS</b>	Highside switch
<b>HST</b>	Main control panel
<b>HU</b>	Main inspection
<b>Hz</b>	Hertz (number of cycles per second)
<b>HZA</b>	Bus stop indicator system
<b>HZG</b>	Auxiliary rpm sensor
<b>IBEL</b>	Interior lighting
<b>IBIS</b>	Integrated on-board information system
<b>IC</b>	Integrated circuit
<b>ID</b>	Identification
<b>IMR</b>	Integrated mechanical relay (starter control)
<b>INA</b>	Information indicator (e.g. check lamp)
<b>IR</b>	Individual control (ABS)
<b>IRM</b>	Modified individual control (ABS)
<b>ISO</b>	International Standards Organisation
<b>IWZ</b>	Incremental angle/time measuring system
<b>KBZ</b>	Combination brake cylinder
<b>KFH</b>	Fuel filter heater
<b>KITAS</b>	Kienzle intelligent tachograph sensor
<b>KLI</b>	Air-conditioning system
<b>KNEEL</b>	Kneeling
<b>KSM</b>	Customer-specified control module
<b>KSW</b>	Customer's special request
<b>KWP</b>	Key word protocol (protocol for VAN-cats diagnosis)
<b>LBH</b>	Air reservoir
<b>LCD</b>	Liquid crystal display
<b>LDA</b>	Manifold pressure compensator (boost control)
<b>LDF</b>	Boost pressure sensor
<b>LDS</b>	Air spring/damper system
<b>LED</b>	Light emitting diode
<b>LF</b>	Air suspension
<b>LGS</b>	Lane guard system



## Abbreviations

<b>LL</b>	Idling speed
<b>LLA</b>	Idling speed increase
<b>LLR</b>	Idling speed control
<b>LNG</b>	Liquid natural gas
<b>LOE</b>	Steering oil monitor
<b>LPG</b>	Liquid petroleum gas
<b>LWR</b>	Headlight beam regulator
<b>M-TCO</b>	Modular EU tachograph
<b>MAB</b>	Solenoid valve shut-off (engine shut-off by means of high-pressure solenoid valve in injection pump)
<b>MAN-cats</b>	MAN computer assisted testing and diagnostic system)
<b>MAR</b>	Solenoid valve shut-off relay (redundant engine shut-off relay)
<b>MDB</b>	Engine speed range
<b>MES</b>	Fuel metering control
<b>ML</b>	Midline
<b>MMI</b>	Man-machine interface
<b>MOTB</b>	Engine brake
<b>MP</b>	Engine power box (cable duct on engine block)
<b>MR</b>	Engine governor – ASR
<b>MSG</b>	Engine control unit (EDC)
<b>MV</b>	Solenoid valve
<b>MZ</b>	Diaphragm cylinder
<b>n</b>	rpm
<b>NA</b>	Power take-off (PTO)
<b>NBF</b>	Needle movement sensor
<b>NES</b>	New electronic structure
<b>NFZ</b>	Commercial vehicle
<b>NLA</b>	Trailing axle
<b>NSL</b>	Rear fog lamp
<b>NSW</b>	Front fog lamp
<b>OBDU</b>	On-board diagnostic unit
<b>OC</b>	Occurrence count (errors/faults)
<b>OEAB</b>	Oil separator
<b>OENF</b>	Oil top-up
<b>p</b>	Pressure
<b>PBM</b>	Pulse breadth modulation (→ also see PWM)
<b>PLM</b>	Programmable logic module
<b>PSG</b>	Pump control unit (EDC)
<b>PTO</b>	Power take-off
<b>PWM</b>	Pulse width modulation (→ also see PBM)
<b>RA</b>	Repair manual
<b>RAH</b>	Interior heating
<b>RAM</b>	Random access memory
<b>RAS</b>	Rear axle steering
<b>RAS-EC</b>	Rear axle steering with electronic control
<b>RDRA</b>	Tyre pressure control system
<b>RDS</b>	Radio data system
<b>RET</b>	Retarder
<b>RKL</b>	Priority vehicle light
<b>RLV</b>	Relay valve
<b>RME</b>	Rape seed oil methyl ester (biodiesel)
<b>ROM</b>	Read only memory

## Abbreviations

<b>SA</b>	Special equipment
<b>SAE</b>	Society of Automotive Engineers
<b>SAMT</b>	Semi-automatic mechanical transmission
<b>SB</b>	Service outlet
<b>sec</b>	Second
<b>SER</b>	Series (production)
<b>SG</b>	Control unit
<b>SH</b>	Select-high control (ABS)
<b>SKD</b>	Semi-knocked down
<b>SL</b>	Select-low control (ABS)
<b>SML</b>	Side marker light
<b>SPN</b>	Suspect parameter number
<b>STA</b>	Engine start/stop
<b>SWR</b>	Headlight cleaning system
<b>t</b>	Time
<b>TC</b>	Traction control
<b>TCM</b>	Trailer control module
<b>TCO</b>	Tachograph
<b>TKU</b>	Technical customer document
<b>TMC</b>	Traffic message channel
<b>TRS</b>	Technical road transport directives
<b>TSC</b>	Torque speed control (braking torque)
<b>TUER</b>	Door control
<b>U<sub>Batt</sub></b>	Battery voltage
<b>UDS</b>	Crash recorder
<b>v</b>	Velocity/vehicle speed
<b>VA</b>	Front axle
<b>VG</b>	Transfer case
<b>VLA</b>	Leading axle
<b>WA</b>	Maintenance manual
<b>WAB</b>	Water separator
<b>WLE</b>	Swap-body unit
<b>WR</b>	Warning relay
<b>WS</b>	Position sensor
<b>WSK</b>	Torque converter and clutch unit
<b>z</b>	Braking rate/deceleration
<b>ZBA</b>	Central on-board computer
<b>ZBRO</b>	Central on-board bus computer
<b>ZDA</b>	Intermediate speed governor (ISG)
<b>ZE</b>	Central electrical system (CES)
<b>ZR</b>	Central computer
<b>ZS</b>	Central lubrication
<b>ZUSH</b>	Auxiliary heater
<b>ZWS</b>	Time-based maintenance system
$\lambda$	Slip
$\mu$	Coefficient of friction
$\mu C$	Microcontroller (microprocessor)

**Notes on safety**

The following sections include summaries of important regulations listed according to major topics. The intention is to provide the knowledge needed to avoid accidents which could lead to injury, damage and environmental pollution.

Additional instructions are included in the Operator's Manual that is provided with the vehicle.

**Important:**

Accidents may happen in spite of all precautionary measures having been taken. In such an eventuality, **obtain immediate medical assistance from a doctor.** This is particularly important if the accident involves skin contact with corrosive acid, fuel penetration under the skin, scalding by hot oil, antifreeze spraying into eyes etc.

**Regulations for preventing accidents leading to injury to personnel.**

**Only authorised technical personnel are allowed to perform inspection, adjustment and repair work.**

- Secure the vehicle to prevent it from rolling away.
- Support the frame when working on the pneumatic or spring suspension system.
- Secure units during their removal.
- Only authorised personnel are allowed to start and operate the engine.
- Do not approach moving parts of a running engine too closely. Do not wear baggy clothing.
- Do not touch the engine with your bare hands when it is at operating temperature: Risk of burns!
- Keep the area around the engine ladders and steps free from oil and grease. Accidents caused by slipping can have serious consequences.
- Only use tools that are in perfect condition. Damaged or widened spanners can slip: Risk of injury\*
- No-one is allowed to stand under an engine suspended from a crane hook – Keep all lifting tackle in good condition –
- Collect any brake fluid that emerges. Treat brake fluid as hazardous waste! Comply with the safety regulations for preventing environmental pollution.
- Brake fluid is toxic! Do not allow it to come into contact with food or open wounds.
- Do not open the coolant circuit until the engine has cooled down. If it does need to be opened whilst the engine is at operating temperature, follow the instructions in the 'Maintenance and care' section in the Operator's Manual.
- Do not attempt to retighten or open pipe lines and hoses (lubricating oil circuit, coolant circuit and possible subsequent hydraulic oil circuit) whilst they are pressurised: Fluid spraying out represents an injury hazard!
- Do not hold your hands under the jet of fuel when checking the injector nozzles. Do not inhale fuel vapours.



- Always disconnect the batteries before working on the vehicle electrical system.

**Important!** Oxyhydrogen gas may form in enclosed battery boxes. When the batteries are disconnected, this gas may be ignited by sparks produced by other continuously operating consumers, the tachograph etc. that cannot be shut down. Blow compressed air through the battery box before disconnecting the batteries!

- Only tow-start the vehicle if the batteries are connected (minimum charge 40%)! Do not use a boost-charger to jump-start the vehicle! Always disconnect the positive and negative leads before boost-charging batteries!
- Disconnect the batteries and recharge them every 4 weeks if the vehicle is not in use.

**Caution!** Battery acid is poisonous and corrosive. Battery gases are explosive.

- Follow the manufacturer's instructions for handling batteries
- **Measure voltage** only using suitable measuring devices!  
The input resistance of a measuring device should be at least 10 MΩ
- **The ignition must be switched off** before the wiring harness plugs of electronic control units are disconnected or connected up!

**When performing electrical welding work**, connect up the 'ANTIZAP SERVICE MONITOR' (MAN item number 80.780\*0.0001) or the improved SES-1 version (MAN item number 80.780\*0.0002) in accordance with the instructions supplied with the device.

If this device is not available, disconnect the batteries and join the positive cable to the negative cable in order to make a conductive connection.

Always earth the welding equipment as close as possible to the welding area. Do not lay the cables to the welding equipment in parallel to electrical cables in the vehicle.

For further accident prevention measures, please refer to the "Leaflets for welders".

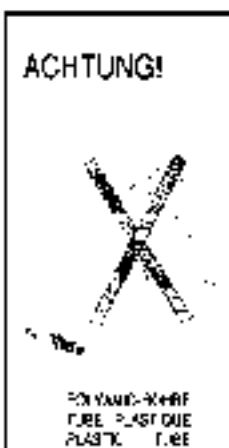
The frame is **not** intended for use as an earth return!

- If attachments are to be retrofitted to the vehicle – e.g. a tail lift – **additional earth lines** with adequate cross-section must be fitted as well. Otherwise the earth connection may be created a long wire cables, wiring harnesses, gearbox shafts, gears etc. Severe damage could result.
- **If painting work is to be carried out**, do not expose the electronic components to high temperatures (max. 95 °C) for more than brief periods; a time of up to around 2 hours is permissible at a maximum of 85 °C. Disconnect the batteries.

#### Plastic tubes (polyamide)

**Important!** – Risk of damage and fire!

- The warning sign opposite can be found on the co-driver's door below the door lock. It warns you against welding or drilling near to plastic tubes



**Limited liability for accessories and parts**

In your own interests, you are recommended to use only accessories expressly approved by MAN and genuine MAN parts for your MAN vehicle. The reliability, safety and suitability of these parts and accessories have been determined specifically for MAN vehicles. Despite constant market observation, we cannot judge the aspects of other products, nor can we accept responsibility for them – even if they have been officially approved by the German TÜV technical inspection authorities or some other official body.

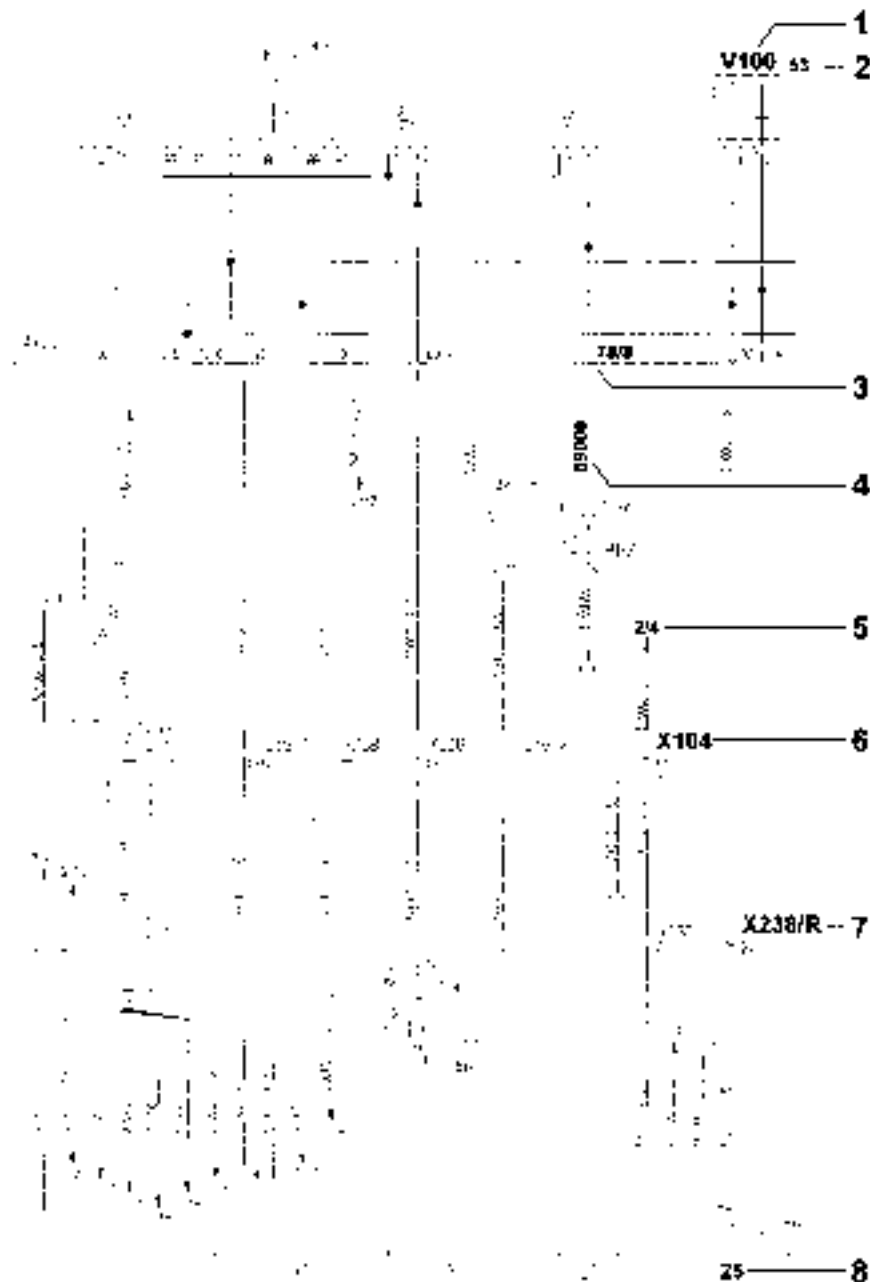
**Bodies and special attachments**

Comply with the safety instructions and regulations issued by the bodymaker in question if bodies or special attachments are fitted.

**Taking out of operation or putting into storage**

The special measures described in MAN Works Standard M 3060 Part 3 apply if buses or trucks are to be withdrawn from service or stored for a period longer than 2 months.

Instructions for using wiring diagrams

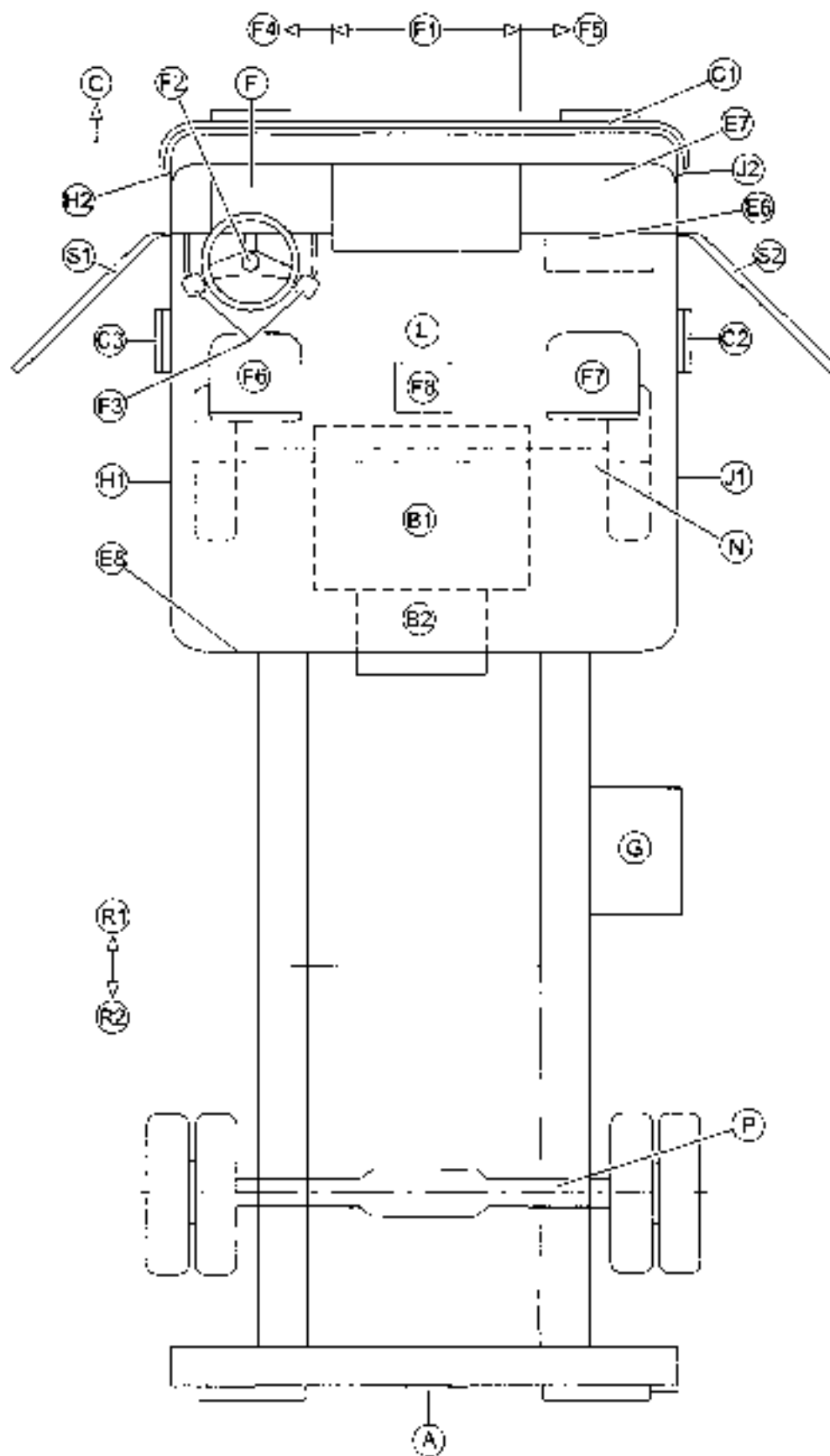


- 1 Name of component (here: fuse V100 on the central fuse relay and terminal box ("ZE"), position 53)
- 2 Mounting position on the front panel of the central fuse relay and terminal box ("ZF") (here: engraved position number 53)
- 3 Plug connector on the rear of the central fuse relay and terminal box ("ZE") (here: plug 78, connection B)
- 4 Cable number; printed on the cable at short intervals (cross-section only if greater than 1")
- 5 Sheet number (not page number) and circuit number  
Marking to show on which sheet and circuit the conductor continues  
(here: continuation of conductor 31002 on sheet 2 on circuit 4)
- 6 Plug connector (here: single-pin connector X104 in the ZE area)
- 7 Component mounting position (here: 21-pin connector X238 Pin R  
- wiring harness cab to engine - in central portion)
- 8 Circuit number (please note: sheets are numbered consecutively from 1 to 55)

**Important note on the use of the wiring diagram legends:** A three-digit number is shown in brackets after various item numbers. This number is the coded part number for this component! These part numbers can be found in the T60 device list.

GENERAL REMARKS

Mounting positions for left-hand drive



## Marks

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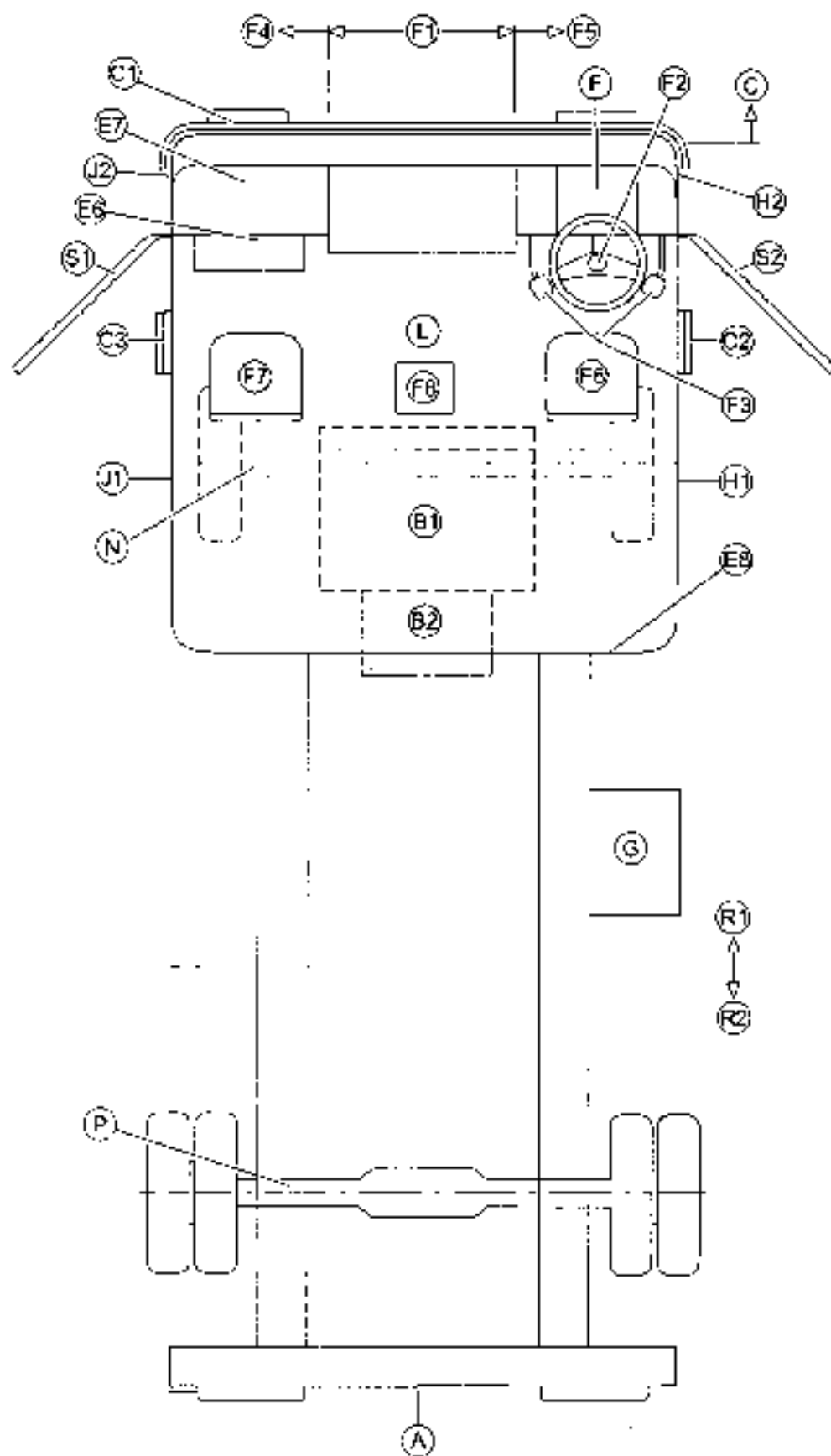
## Mounting position

Tail  
 Engine  
 Gearbox  
 Front  
 Bumper  
 Entrance right  
 Entrance left  
 Central electric area  
 Control unit racks  
 Rear wall of cab  
 Instrument panel  
 Central part  
 Steering wheel/column  
 Foot pedals  
 Front wall, inside left  
 Front wall, inside right  
 Driving seat  
 Passenger seat  
 Control panel  
 Battery box  
 B-pillar on driver's side  
 A-pillar on driver's side  
 B-pillar on passenger's side  
 A-pillar on passenger's side  
 Ceiling/roof  
 Front axle  
 Rear axle  
 Front parts of frame  
 Rear part of frame  
 Door left  
 Door right



GENERAL REMARKS

Mounting positions for right-hand drive



**Marks**

①	.....
②	.....
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**Mounting position**

- Tail
- Engine
- Gearbox
- Front
- Bumpor
- Entrance right
- Entrance left
- Central electric area
- Control unit racks
- Rear wal of cab
- Instrument panel
- Central part
- Steering wheel/column
- Foot pedals
- Front wall, inside left
- Front wall, inside right
- Driving seat
- Passenger seat
- Control panel
- Battery box
- B-pillar on driver's side
- A-pillar on driver's side
- B-pillar on passenger's side
- A-pillar on passenger's side
- Ceiling/roof
- Front axle
- Rear axle
- Front part of frame
- Rear part of frame
- Door left
- Door right

## Search criteria

Ascending according to wiring diagram title

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<b>GENERAL REMARKS</b>
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Retarder, retarder transmission, power take-off	Sheet 21	3.02 - 42



**Legend**

Wiring diagram no. 81.99192.2981 Sheet 1 of 21  
Change status: 03.01

**A = Supply voltage, starting system**

A100	(255)	Central fuse, relay and terminal block
A302	(352)	Central computer 2
A403	(339)	Vehicle management computer
A435	(338)	EDC control unit
F354	(132)	Main fuse (terminal 30-1)
F355	(132)	Main fuse (terminal 30-2)
F399	(111)	Generator fuse (terminal 15)
G100	(113)	Battery 1
G101	(113)	Battery 2
G102	(114)	Generator
K171	(150)	Relay consumer (terminal 15)
K755	(280)	Relay for starter control
M100	(144)	Starting motor
Q101	(110)	Steering wheel lock
X100		Earthing point, engine
X609		Std. start inhibitor
X1364	(176)	Bridge, central fuse, relay and terminal box, central vehicle computer 90/1-90/2
X1365	(176)	Bridge, central fuse, relay and terminal box, central vehicle computer 90/2-91
X1539	(189)	Std. potential insulator -
X1541	(169)	Std. potential insulator +
X1549		Std. engine/EDC/transmission I
X1551		Std. engine/EDC/transmission II
X1644		Earthing point, cab, adjacent to central fuse, relay and terminal block
X1754		Soldered connector, line 59104
X1800	(221)	Crimped connector, line 31002
X1933		Threaded bolt M6 (MP box)

**Marking of mounting positions**

	Tail
	Engine
	Gearbox
	Front
	Bumper
	Entrance right
	Entrance left
	Central electronics area
	Control unit racks
	Rear wall of cab
	Instrument panel
	Control part
	Steering wheel/column
	Foot pedals
	Front wall, inside left
	Front wall, inside right
	Signal, engine is running

	Driving seat
	Passenger seat
	Control panel
	Battery box
	B-pillar on driver's side
	A-pillar on driver's side
	B-pillar on passenger's side
	A-pillar on passenger's side
	Ceiling/roof
	Front axle
	Rear axle
	Front part of frame
	Rear part of frame
	Door left
	Door right

X1004		Threaded bolt M5 (MP box)
X1913	(199)	Bridge, line 3000 (MP box)
X1966		Std. ignition key
X1988		Threaded bolt M5 (MP box)

**Legend**

Wiring diagram no. **81.99192.2981** Sheet **1** of **21**  
Change status: (3.11)

**A = Supply voltage, starting system**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A403** (339) Vehicle management computer  
**A435** (338) EDC control unit

**F354** (132) Main fuse (terminal 30-1)  
**F355** (132) Main fuse (terminal 30-2)  
**F399** (111) Generator fuse (terminal 15)

**G100** (113) Battery 1  
**G101** (113) Battery 2  
**G102** (114) Generator

































**K171** (150) Relay consumer (terminal 15)  
**K735** (280) Relay for starter control

**M103** (144) Starting motor

**Q101** (110) Steering wheel lock

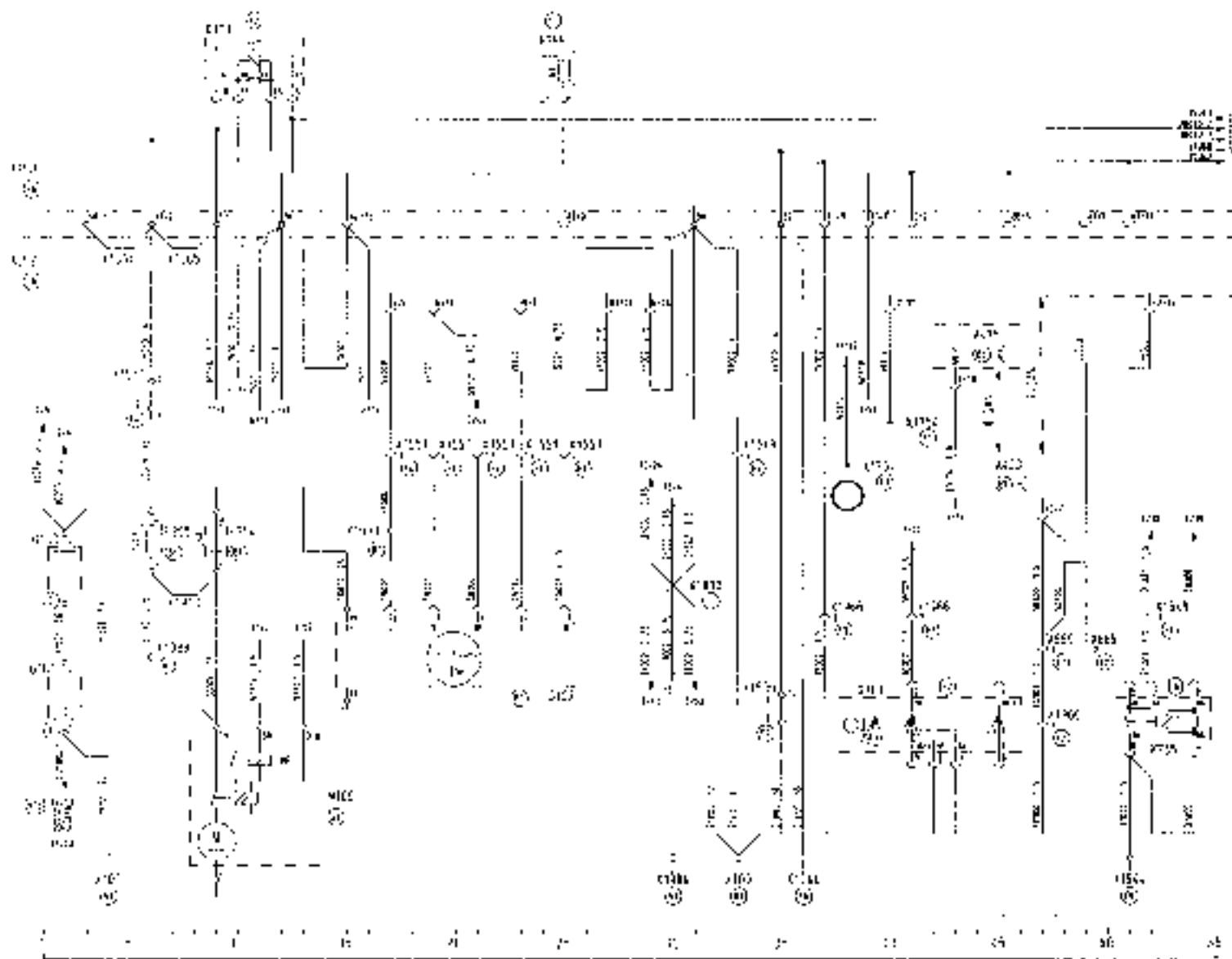
**X100** Earthing point, engine  
**X659** Std. start inhibitor  
**X1364** (176) Bridge, central fuse, relay and terminal box, central vehicle computer 90/1-90/2  
**X1365** (176) Bridge, central fuse, relay and terminal box, central vehicle computer 90/2-91  
**X1539** (158) Std. potential insulator -  
**X1541** (159) Std. potential insulator +  
**X1540** Std. engine/EDC/transmission I  
**X1551** Std. engine/EDC/transmission II  
**X1614** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1754** Soldered connector, line 59104  
**X1830** (221) Crimped connector, line 31002  
**X1903** Threaded bolt M6 (MP box)

**Marking of mounting positions**

- |   |  |
|---|--|
|  Tail                      |  Driving seat                 |
|  Engine                    |  Passenger seat               |
|  Gearbox                   |  Control panel                |
|  Front                     |  Battery box                  |
|  Bumper                    |  B-pillar on driver's side    |
|  Entrance right            |  A-pillar on driver's side    |
|  Entrance left             |  B-pillar on passenger's side |
|  Central electrics area    |  A-pillar on passenger's side |
|  Control unit racks        |  Ceiling/roof                 |
|  Rear wall of cab          |  Front axle                   |
|  Instrument panel          |  Rear axle                    |
|  Central part              |  Front part of frame          |
|  Steering wheel/column     |  Rear part of frame           |
|  Foot pedals               |  Door left                    |
|  Front wall, inside left   |  Door right                   |
|  Front wall, inside right  |  |
|  Signal, engine is running |  |

**X1904** Threaded bolt M6 (MP box)  
**X1913** (199) Bridge, line 3001X (MP box)  
**X1966** Std. ign. ton lock  
**X1988** Threaded bolt M5 (MP box)

Wiring diagram no. 81.99192.2981 Sheet 1 of 21



A



**Legend**

Wiring diagram no. **81.99192.2981** Sheet 2 of 21  
Change status: 03.0\*

**A = Supply voltage, central vehicle computer**

**B = Power supply retarder, EBS, ECAS**

**C = Power supply retarder**

**D = Power supply vehicle management computer**

A100 (255) Central fuse, relay and terminal block

A302 (362) Central computer 2

A403 (339) Vehicle management computer

F152 (101) Fuse retarder (terminal 15)

F160 (105) Fuse EBS/ABS power supply, trailer

F161 (103) Fuse EBS/ABS power supply  
pressure control valve

F162 (111) Fuse EBS/ABS control

F164 (101) Fuse ECAS (terminal 30)

F243 (105) Fuse central vehicle computer, permanent positive

F244 (105) Fuse central vehicle computer (terminal 30-1)

F245 (105) Fuse central vehicle computer (terminal 30-2)

F246 (101) Fuse central vehicle computer (terminal 15)

F371 (101) Fuse vehicle management computer (terminal 30)

F372 (116) Fuse vehicle management computer (terminal 15)

F374 (101) Fuse retarder (terminal 30)

F400 (101) Fuse steering wheel lock

F522 (105) Fuse, lead 30000

F523 (105) Fuse, lead 30000

X1064 (104) Bridge on central fuse, relay and terminal box 2 item 37  
(Fin 1-2)

X1557 Stud, frame left

X1644 Earthing point, cab, adjacent to central fuse,  
relay and terminal block

**Marking of mounting positions**

Ⓐ Tail

Ⓑ Engine

Ⓒ Gearbox

Ⓓ Front

Ⓔ Bumper

Ⓕ Entrance right

Ⓖ Entrance left

Ⓖ Central electrics area

Ⓖ Control unit racks

Ⓖ Rear wall of cab

Ⓖ Instrument panel

Ⓖ Central part

Ⓖ Steering wheel/column

Ⓖ Foot pedals

Ⓖ Front wall, inside left

Ⓖ Front wall, inside right

Ⓖ Inlander

Ⓖ Electronic braking system (EBS)

Ⓖ Electronically controlled air suspension (ECAS)

Ⓖ Retarder

Ⓖ Driving seat

Ⓖ Passenger seat

Ⓖ Control panel

Ⓖ Battery box

Ⓖ B-pillar on driver's side

Ⓖ A-pillar on driver's side

Ⓖ B-pillar on passenger's side

Ⓖ A-pillar on passenger's side

Ⓖ Ceiling/roof

Ⓖ Front axle

Ⓖ Rear axle

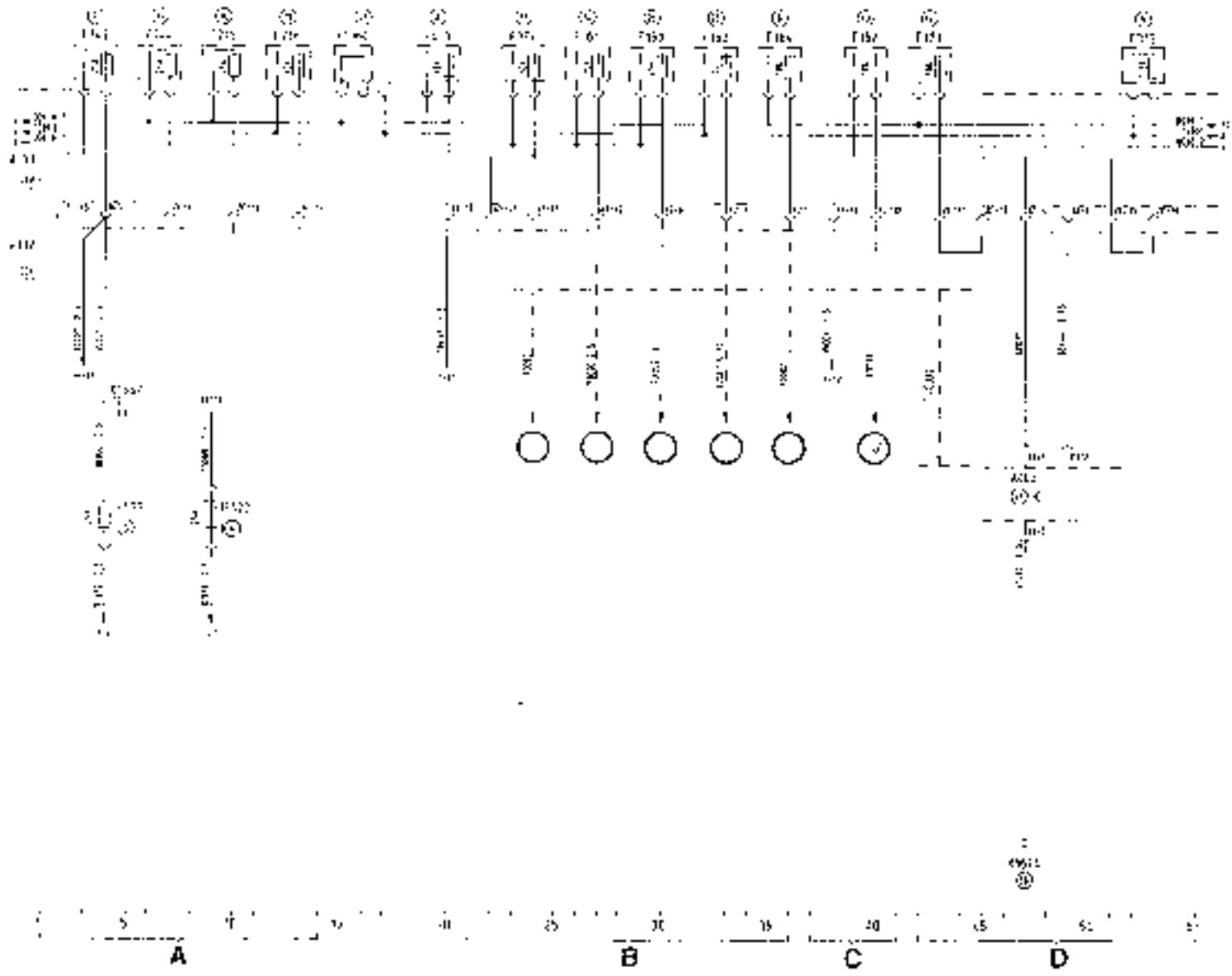
Ⓖ Front part of frame

Ⓖ Rear part of frame

Ⓖ Door left

Ⓖ Door right

Wiring diagram no. 61.99192.2981 Sheet 2 of 21



**Legend**Wiring diagram no. **81.99192.2981** Sheet 3 of 21

Change status: 03.01

**A = Earth distributor**

A100 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

X1569 Std. locker lighting

X1570 Std. locker lighting, right

X1642 Earthing point, cab, behind instrument panel

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block

X1625 (221) Crimped connector, line 31000

X1626 (221) Crimped connector, line 31000

X1827 (221) Crimped connector, line 31000

X1828 (221) Crimped connector, line 31000

X2541 (246) Potential distributor 21-pin, line 31010

**Marking of mounting positions**

⊖ Tail

⊕ Engine

⊕ Gearbox

⊕ Front

⊕ Bumper

⊕ Entrance right

⊕ Entrance left

⊕ Central electric area

⊕ Control unit racks

⊕ Rear wall of cab

⊕ Instrument panel

⊕ Central part

⊕ Steering wheel/co-urn

⊕ Foot pedals

⊕ Front wall, inside left

⊕ Front wall, inside right

⊕ Door module, driver's side

⊕ Door module, passenger's side

⊕ Door module

⊕ Driving seat

⊕ Passenger seat

⊕ Control panel

⊕ Battery box

⊕ B-pillar on driver's side

⊕ A-pillar on driver's side

⊕ B-pillar on passenger's side

⊕ A-pillar on passenger's side

⊕ Ceiling/roof

⊕ Front axle

⊕ Rear axle

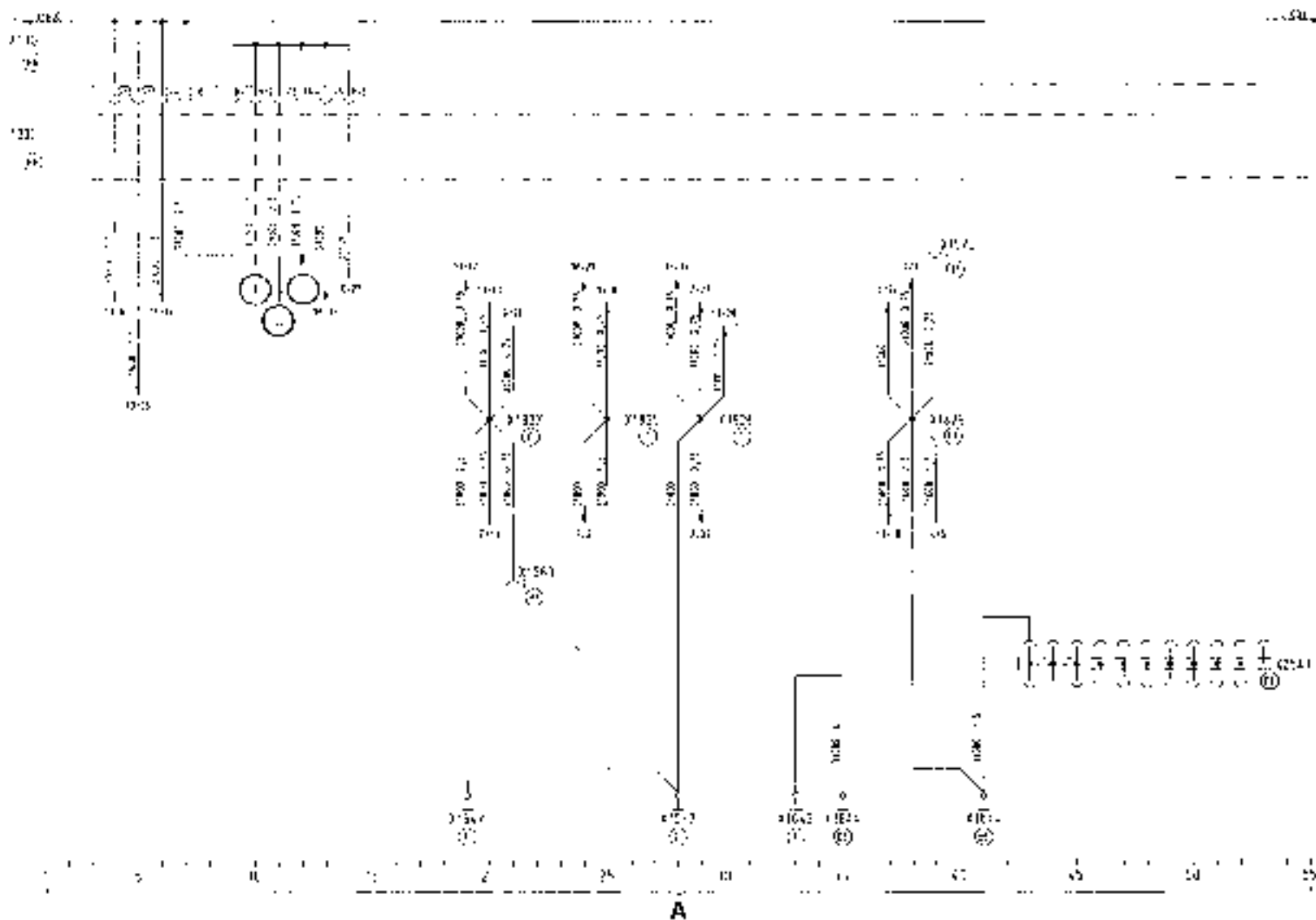
⊕ Front part of frame

⊕ Rear part of frame

⊕ Door left

⊕ Door right

Wiring diagram no. 81,99192,2981 Sheet 3 of 21



**Legend**

Wiring diagram no. **81.99192.2981** Sheet 4 of 21  
Change status: 03.01

**A = Flame start device**

**B = Fan clutch**

**C = Coolant temperature, EDC**

**D = Coolant level**

**E = Reserve lines, engine START-STOP**

A100 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

A403 (339) Vehicle management computer

A407 (342) Instrumentation

A435 (358) EDC control unit

B124 (265) Temperature sensor, coolant water (EDC)

B130 (272) Coolant level sensor

F106 (107) Fuse, flame start device

H101 Indicator light flame start device

K102 (150) Relay flame start device

R110 (144) Flame glow plug 1

R111 (144) Flame glow plug 2

S580 Control switch, engine start (MP box)

S581 Control switch, engine stop (MP box)

X1549 Std. engine/EDC/transmission I

X1557 Std. engine/EDC/transmission II

X1904 Threaded bolt V6 (MP box)

Y100 (189) Solenoid valve, flame start device

Y273 (190) Solenoid valve, fan clutch

**Marking of mounting positions**

(A) Tail

(E) Engine

(G) Gearbox

(F) Front

(R) Rumper

(E) Entrance right

(E) Entrance left

(E) Central electric area

(E) Control unit racks

(E) Rear wall of cab

(E) Instrument panel

(E) Central part

(E) Steering wheel/column

(E) Foot pedals

(E) Front wall, inside left

(E) Front wall, inside right

(S) Driving seat

(P) Passenger seat

(C) Control panel

(B) Battery box

(D) B-pillar on driver's side

(A) A-pillar on driver's side

(D) B-pillar on passenger's side

(A) A-pillar on passenger's side

(I) Ceiling/roof

(F) Front axle

(R) Rear axle

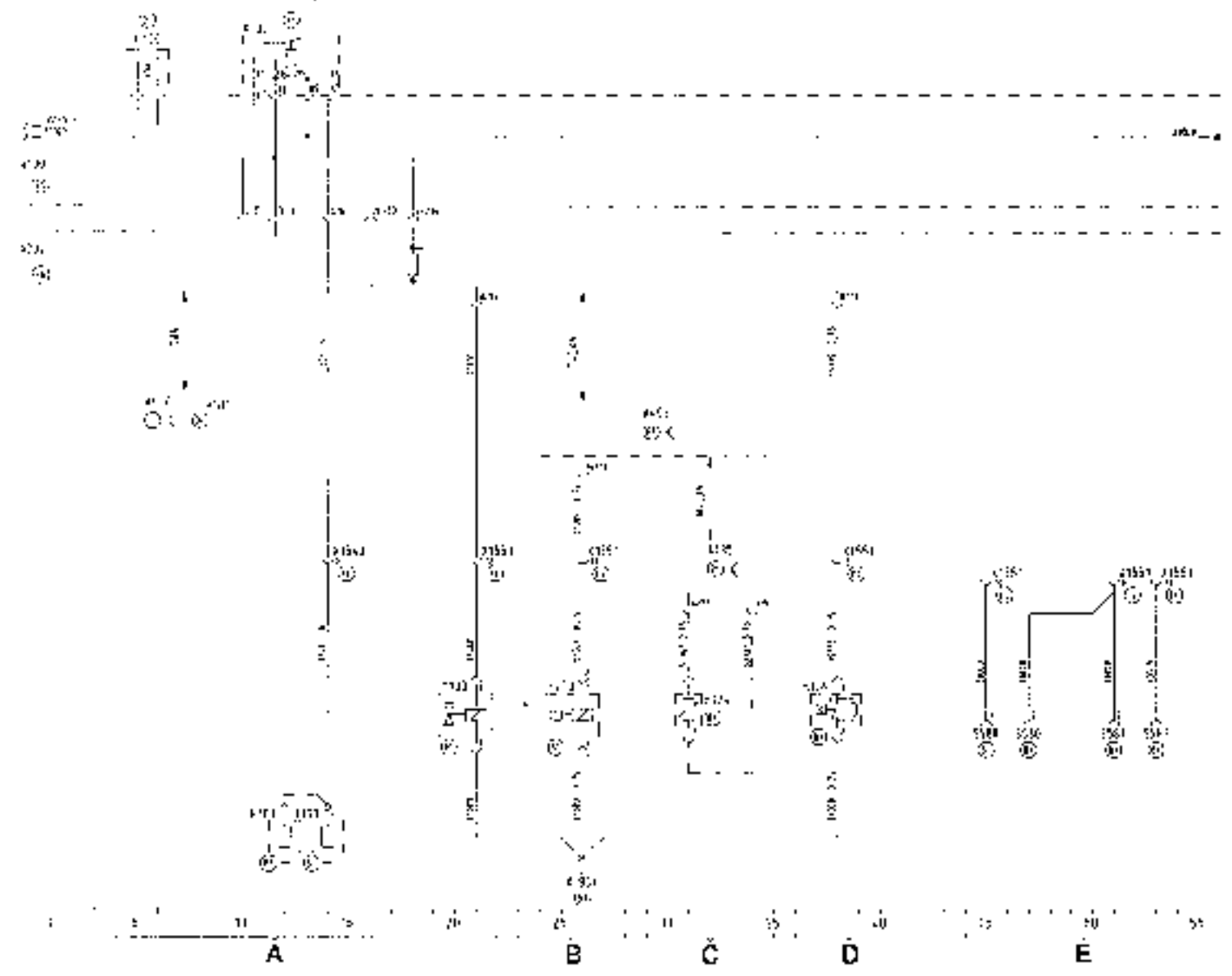
(U) Front part of frame

(R) Rear part of frame

(L) Door left

(R) Door right

Wiring diagram no. 81.99192.2981 Sheet 4 of 21



**Legend**

Wiring diagram no. **61.99192.2981** Sheet 5 of 21  
 Change status: 03.01

**A = Steering hydraulic fluid level**

**B = Diagnosis**

**C = Pressure pickup, air filter**

A100 (255) Central fuse, relay and terminal block

A302 (252) Central computer 2

B371 (318) Steering oil level switch

B433 (273) Pressure pickup, air filter

X200 (201) Plug, diagnostics

X1549 Stvd. engine/EDC/transmission 1

X1547 Stvd. pressure pickup, air filter

X1904 Threaded bolt MG (MP box)

X2544 (246) Potential distributor, 21-pin K line

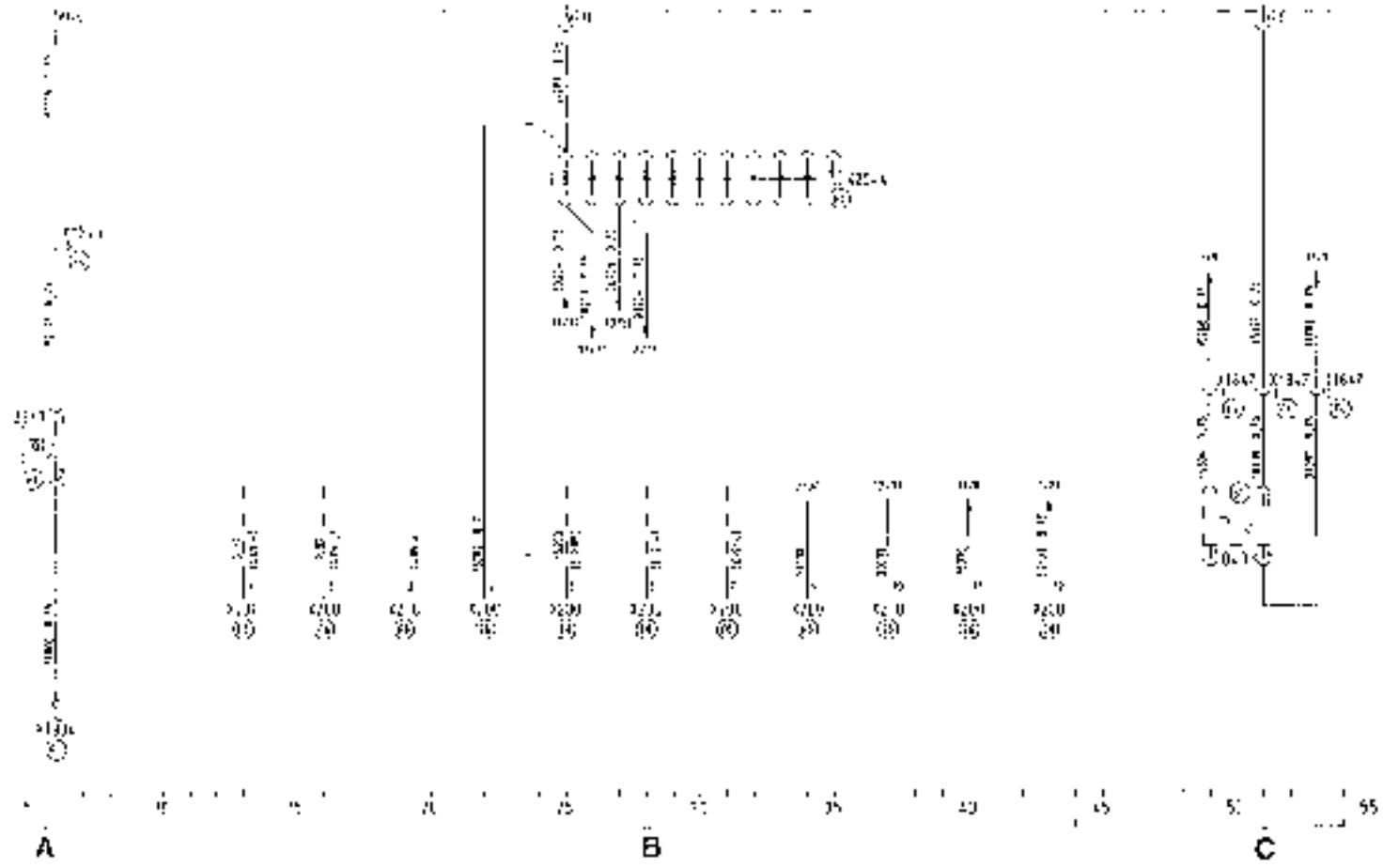
**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electric area    | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2981 Sheet 5 of 21

A 31

A 22





**Legend**

Wiring diagram no. B1.99192.2981 Sheet: 6 of 21  
Change status: C3.01

**A = Clutch fluid level sensor**

**B = Heating thermostat**

**C = ZDR interface (vehicle management computer) (MOB, HGB)**

**A100** (255): Central fuse, relay and terminal block

**A302** (352): Central computer 2

**A403** (339): Vehicle management computer

**B134** (272): Clutch fluid level sensor

**F582** (117): Fuse, vehicle management computer (terminal 15)  
ZDR interface

**R134** (146): EDC resistor group

**X1551** Std. engine/EDC/transmission II

**X1644** Fastening point, cab, adjacent to central fuse,  
relay and terminal block

**X1972** Std. pedals, external

**X1995** Std. intermediate speed control interface (FFR)

**Marking of mounting positions**

④ Tail

⑤ Engine

⑥ Gearbox

⑦ Front

⑧ Bumper

⑨ Entrance right

⑩ Entrance left

⑪ Control electronics area

⑫ Control unit racks

⑬ Rear wall of cab

⑭ Instrument panel

⑮ Central unit

⑯ Steering wheel/column

⑰ Foot pedals

⑱ Front wall, inside left

⑲ Front wall, inside right

○ Power take-off 1

① Power take-off 2

② Special customised module

⑳ Driving seat

㉑ Passenger seat

㉒ Control panel

㉓ Battery box

㉔ B-pillar on driver's side

㉕ A-pillar on driver's side

① B-pillar on passenger's side

② A-pillar on passenger's side

③ Ceiling/roof

④ Front axle

⑤ Rear axle

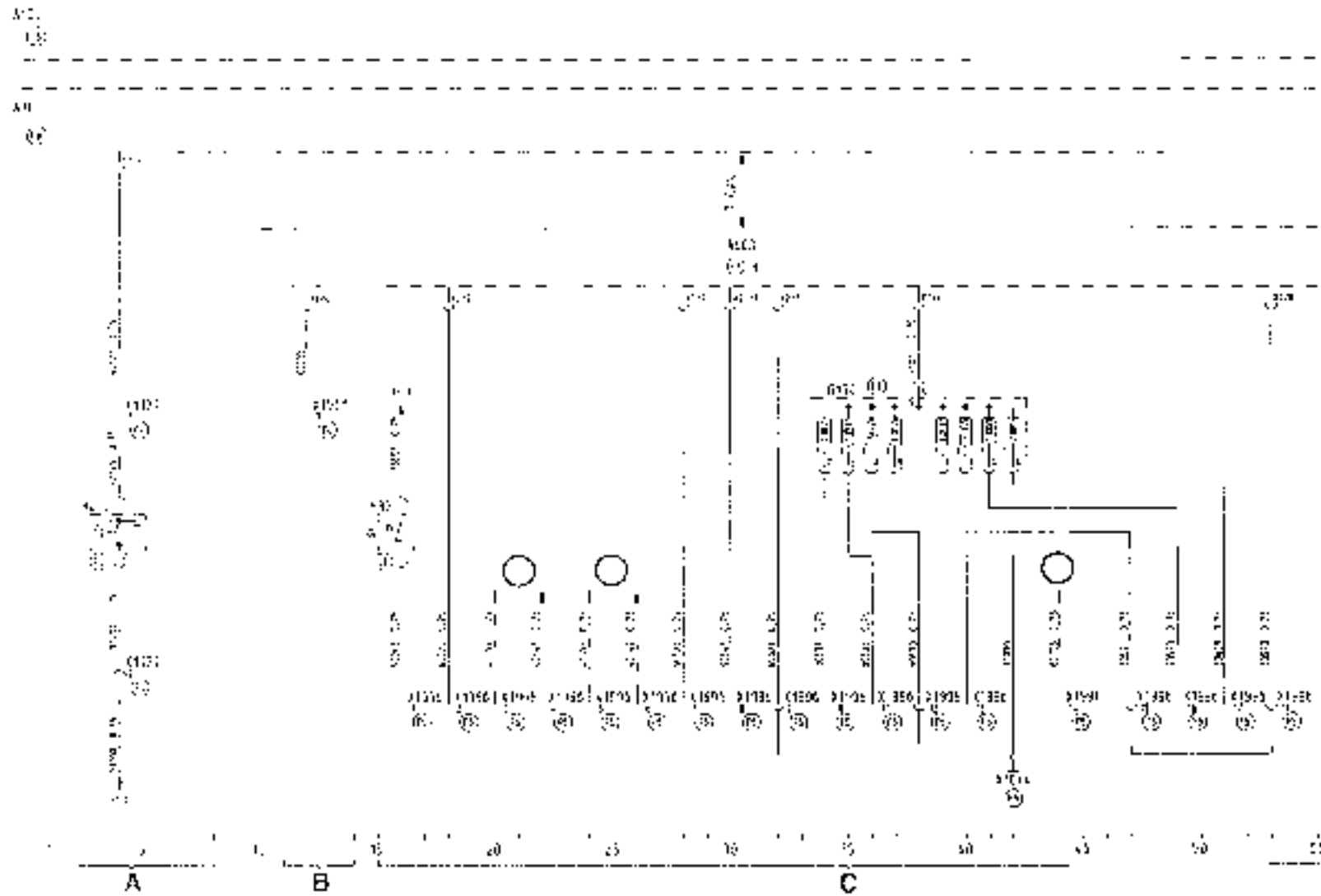
⑥ Front part of frame

⑦ Rear part of frame

⑧ Door left

⑨ Door right

Wiring diagram no. 81.99192.2981 Sheet 6 of 21



**Legend**

Wiring diagram no. 81.99192.2981 Sheet 7 of 21

Change status: 03.01

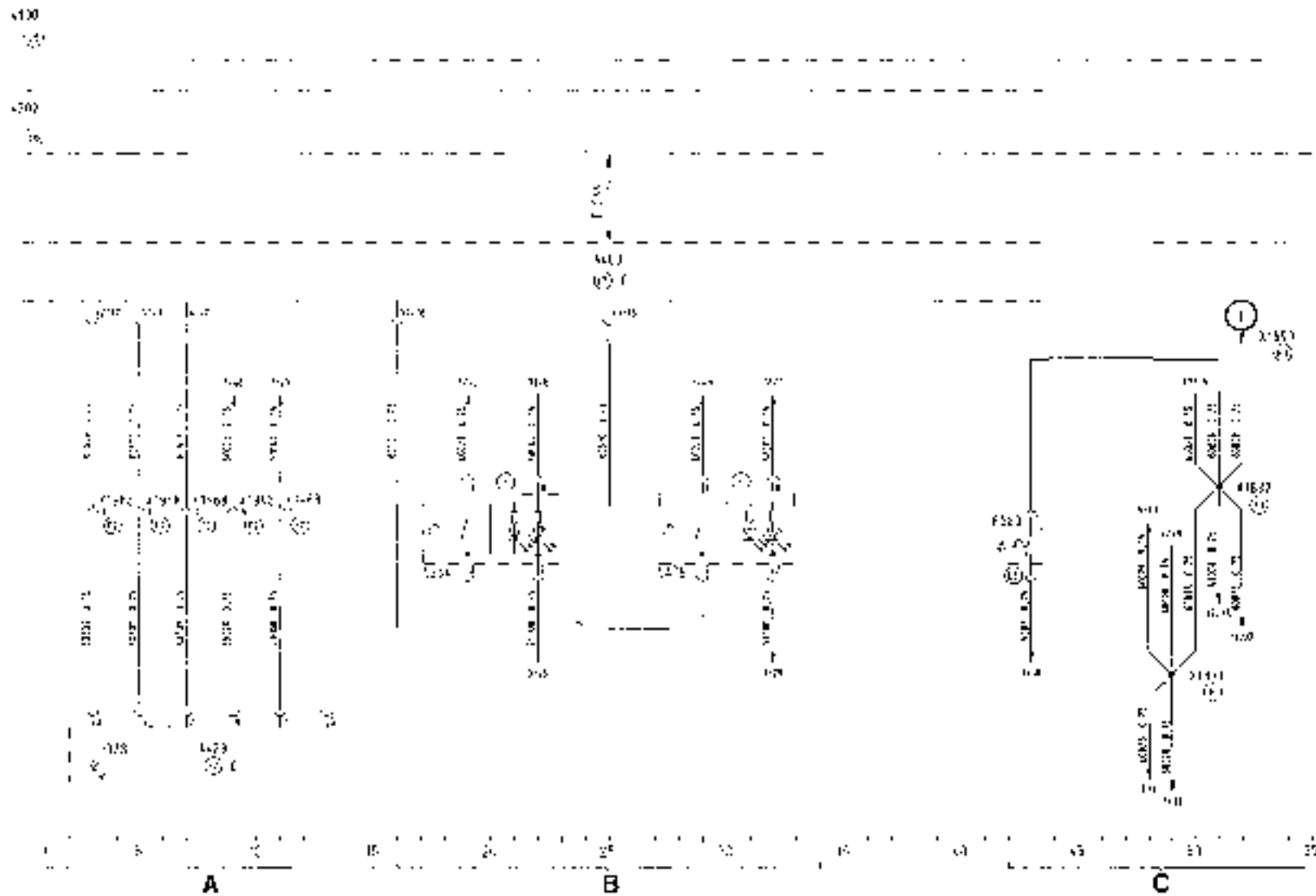
**A = Cruise control****B = Vehicle speed control/vehicle speed limiting, additional retarding brake****C = Distributor line 60028**

A100	(255)	Central fuse, relay and terminal block
A302	(352)	Central computer 2
A403	(330)	Vehicle management computer
A429	(405)	Steering column switch, cruise control/transmission
F583	(117)	Fuse FFR (term. 15) switch/sensors
H378	(A405)	Indicator light FGR/FGD (LED)
S284	(489)	Switch FGR/FGB
S479	(476)	Switch, additional retarding brake
X* 693		Crimped connector, line 60028
X1831	(221)	Crimped connector, line 60028
X1832	(221)	Crimped connector, line 60028
X1968		Std. cruise control switch

**Marking of mounting positions**

(6)	Tail	(6)	Driving seat
(E)	Engine	(7)	Passenger seat
(G)	Gearbox	(M)	Control panel
(F)	Front	(B)	Battery box
(B)	Bumper	(D)	B-pillar on driver's side
(E)	Entrance right	(A)	A-pillar on driver's side
(L)	Entrance left	(C)	D-pillar on passenger's side
(C)	Central electrics area	(A)	A-pillar on passenger's side
(R)	Control unit racks	(O)	Ceiling/roof
(Z)	Rear wall of cab	(V)	Front axle
(I)	Instrument panel	(H)	Rear axle
(P)	Central part	(F)	Front part of frame
(S)	Steering wheel/column	(R)	Rear part of frame
(T)	Foot pedals	(D)	Door left
(F)	Front wall, inside left	(D)	Door right
(F)	Front wall, inside right		
(O)	Vehicle management computer (terminal 15)		

Wiring diagram no. 81.98192.2981 Sheet 7 of 21



**Legend**Wiring diagram no. **81.98182.2981** Sheet 8 of 21

Change status: 03.01

**A = ECAM****B = Indicator light cab locking****C = Tank indicator****A100** (255) Central fuse, relay and terminal block**A302** (352) Central computer 2**A407** (342) Instrumentation**A409** (353) ECAV control unit**B103** (263) Tank sensor**F36B** (101) ECAV/ECAS fuse (terminal 15)**G101** (113) Battery 2**H106** Indicator light: reservoir pressure**H149** Indicator light: cab locking**P102** Indicator instrument, reservoir pressure brake circuit 1**P103** Indicator instrument, reservoir pressure brake circuit 2**P104** Indicator instrument fuel in reserve**S198** (538) Switch, cab locking right**S199** (538) Switch, cab locking left**X1544** Std. frame III**X1557** Std. frame left**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block**X1809** Std. ECAS (terminal 15)**Marking of mounting positions**

⊖ Tail

⊕ Engine

⊕ Gearbox

⊕ Front

⊕ Bumper

⊕ Entrance right

⊕ Entrance left

⊕ Central electric area

⊕ Control unit racks

⊕ Rear wall of cab

⊕ Instrument panel

⊕ Central part

⊕ Steering wheel/column

⊕ Foot pedals

⊕ Front wall, inside left

⊕ Front wall, inside right

○ Reserve

⊕ Driving seat

⊕ Passenger seat

⊕ Control panel

⊕ Battery box

⊕ B-pillar on driver's side

⊕ A-pillar on driver's side

⊕ B-pillar on passenger's side

⊕ A-pillar on passenger's side

⊕ Ceiling/roof

⊕ Front axle

⊕ Rear axle

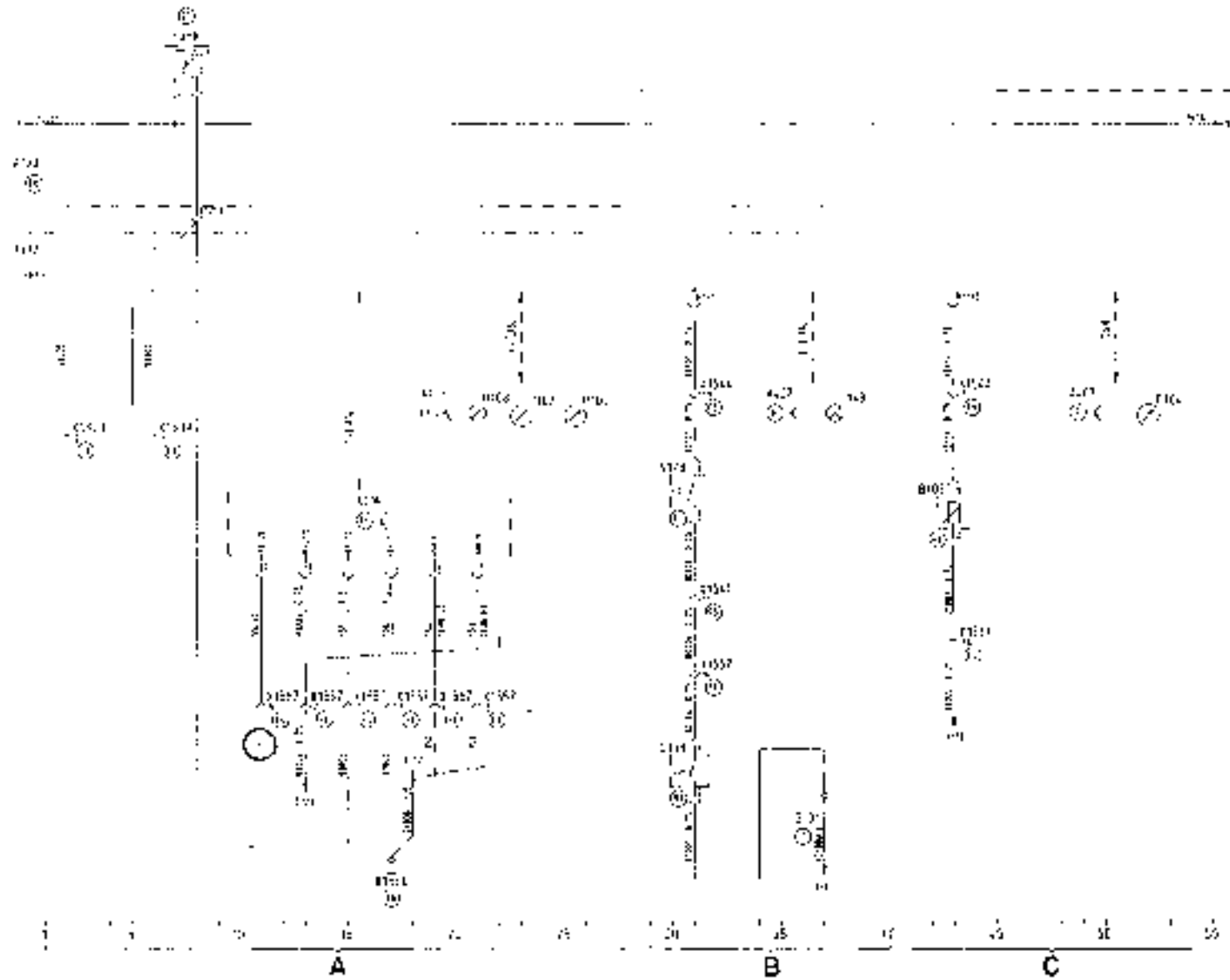
⊕ Front part of frame

⊕ Rear part of frame

⊕ Door left

⊕ Door right

Wiring diagram no. B1.99192.2981 Sheet B of 21



**Legend**

Wiring diagram no. 81.99192.2981 Sheet 9 of 21

Change status: 03.01

**A = Horn****B = Oil level sensor****C = Engine brake****D = Additional retarding brake pushbutton switch****E = External temperature**

**A**100 (255) Central fuse, relay and terminal block  
**A**302 (352) Central computer 2  
**A**403 (339) Vehicle management computer  
**A**407 (342) Instrumentation  
**A**427 (398) Additional retarding brake pushbutton switch  
**A**551 (533) Control unit, oil level sensor

**B**209 (275) Temperature sensor, external air  
**B**270 (338) Oil level sensor

**F**375 (101) Fuse, cab outside (terminal 15)

**G**101 (113) Battery 2






**H**102 (142) Horn  
**H**145 Indicator light, retarder  
**H**169 (143) Horn (dual-tone)
















**P**113 Indicator device, external temperature

**S**102 (472) Steering column switch (indicators, wipers and head lights)

**X**1545 Std. front region, left  
**X**1550 Std. front region, right  
**X**1551 Std. engine/EDC/transmission II  
**X**1557 Std. frame, left  
**X**1559 Std. engine/EDC/transmission IV

**Marking of mounting positions**

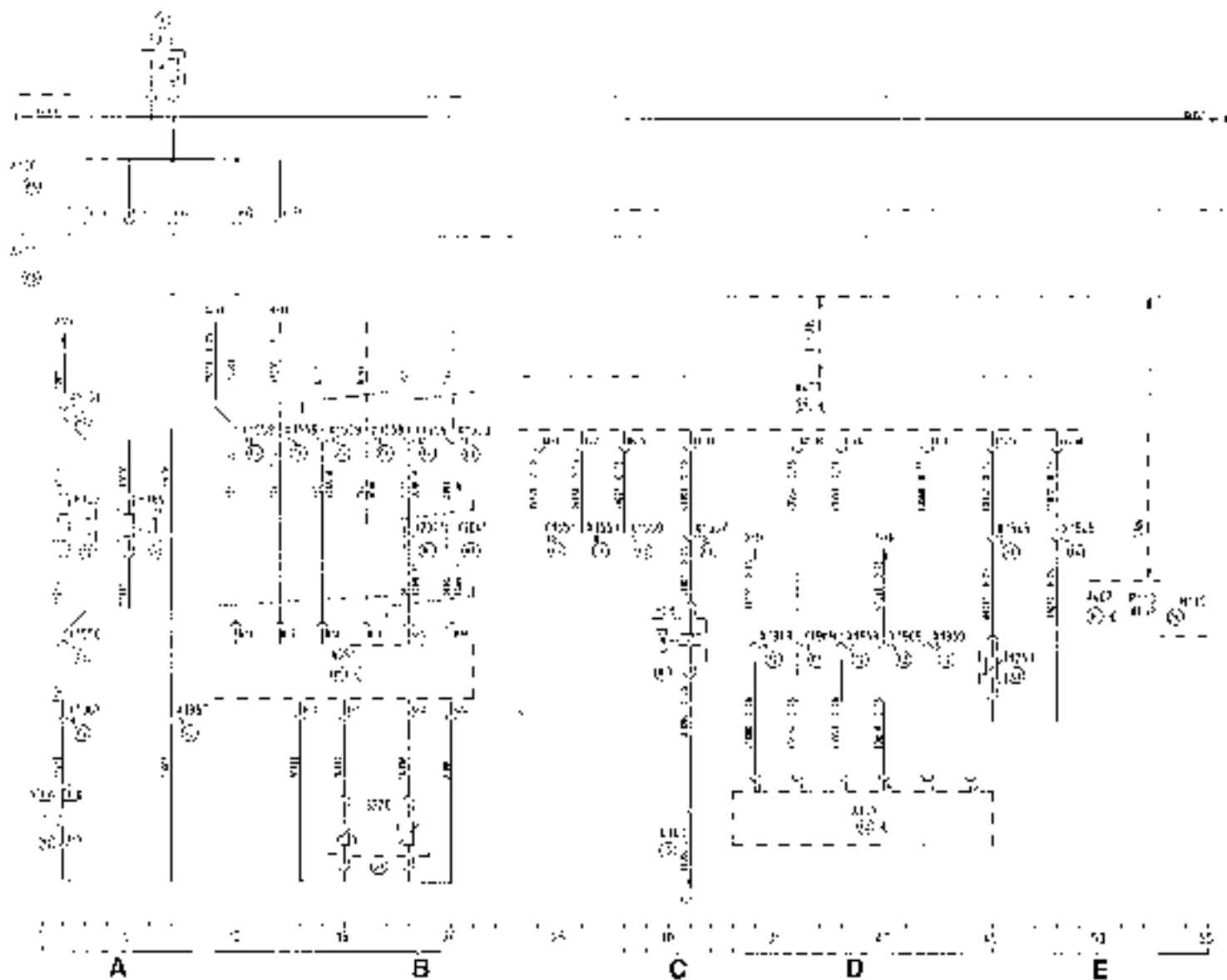
 Tail  
 Engine  
 Gearbox  
 Front  
 Bumper  
 Entrance right  
 Entrance left  
 Central electrics area  
 Control unit racks  
 Rear wall of cab  
 Instrument panel  
 Central part  
 Steering wheel/column  
 Foot pedals  
 Front wall inside left  
 Front wall inside right

 Driving seat  
 Passenger seat  
 Control panel  
 Battery box  
 B-pillar on driver's side  
 A-pillar on driver's side  
 B-pillar on passenger's side  
 A-pillar on passenger's side  
 Ceiling/roof  
 Front axle  
 Rear axle  
 Front part of frame  
 Rear part of frame  
 Door left  
 Door right

**X**1967 Std. 1 combination steering column switch  
**X**1969 Std. engine brake switch  
**X**2041 Std. adaptation AS-TRONIC

**Y**281 (188) Solenoid valve, engine brake

Wiring diagram no. 81.99192.2961 Sheet 9 of 21





**Legend**



































Wiring diagram no. **81.99192.2981** Sheet **10** of 21  
Change status: 03.01

**A = Wiper and washer system**

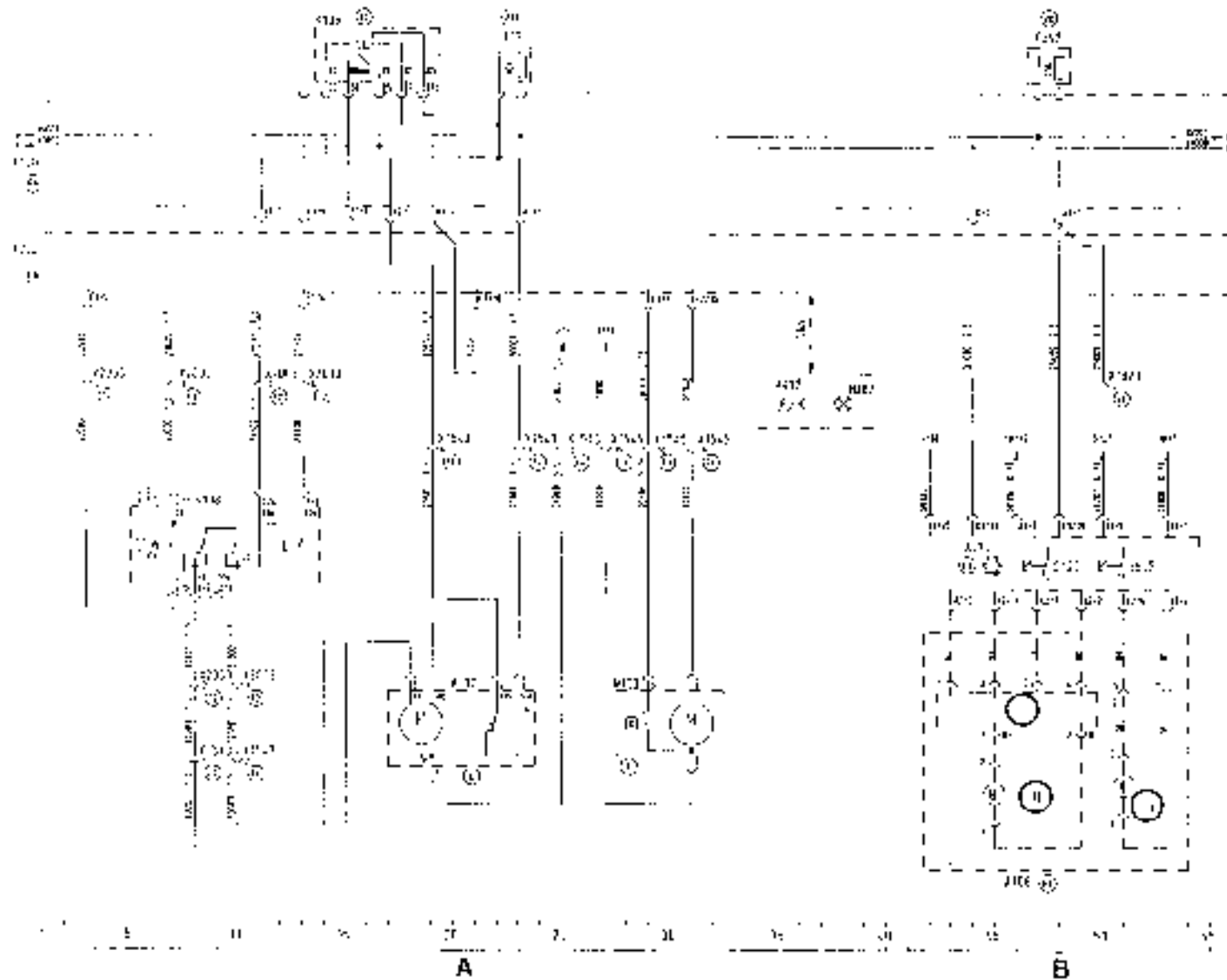
**B = Heater fan**

A100	(255)	Central fuse, relay and terminal block
A106	(383)	Front heater
A302	(352)	Central computer 2
A407	(342)	Instrumentation
A474	(375)	Control device, cab heating with/without air-conditioning
F112	(101)	Fuse, wiper and washer system
F397	(104)	Fuse, heater power/air-conditioning unit
H382		Indicator light, level of washing water
K106	(244)	Relay, wiper pulses
M102	(145)	Screen wiper motor
M103	(146)	Screen wash pump
S108	(472)	Steering column switch (indicators, wipers and headlights)
S123	(A375)	Switch, fresh air circulation vent
S517	(A375)	Rotary control, blower
X1543		Std. wiper motor
X1545		Std. front region left
X1823		Std. air-conditioning, terminal 15
X2903		Std. 2 combination steering column switch

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electrics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Near wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		
	Clock pulse regulator		
	Blower		
	Fresh/circulating air		

Wiring diagram no. 81.99192.2961 Sheet 10 of 21



**Legend**

Wiring diagram no. 81.99192.2981 Sheet 11 of 21  
Change status: C3.01

**A = Cigarette lighter**

**B = Illumination, ash tray**

**C = Gear lever**

**D = Diagnosis, vehicle management computer**

**E = Accelerator pedal unit**

**A130** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A403** (339) Vehicle management computer

**A410** (404) Accelerator pedal unit

**E177** (176) Illumination, ash tray left

**E170** (176) Illumination, ash tray right

**F158** (122) Fuse, cigarette lighter

**F236** (111) Generator engine control (terminal 15)

**R108** (151) Cigarette lighter

**S477** Switch, gear lever

**X15E9** Std. engine/EDC/transmission IV

**X1604** Std. switch in operating button

**X1642** Earthing point, cab, behind instrument panel

**X1972** Std. pedals, external

**Marking of mounting positions**

⊖ Tail

⊖ Engine

⊖ Gearbox

⊖ Front

⊖ Bumper

⊖ Entrance right

⊖ Entrance left

⊖ Central electrics area

⊖ Control unit racks

⊖ Near wall of cab

⊖ Instrument panel

⊖ Central part

⊖ Steering wheel/column

⊖ Foot pedals

⊖ Front wall, inside left

⊖ Front wall, inside right

⊖ HGS (hydraulic gearshift) heating

⊖ Driving seat

⊖ Passenger seat

⊖ Control panel

⊖ Battery box

⊖ B-pillar on driver's side

⊖ A-pillar on driver's side

⊖ B pillar on passenger's side

⊖ A-pillar on passenger's side

⊖ Ceiling/roof

⊖ Front axle

⊖ Rear axle

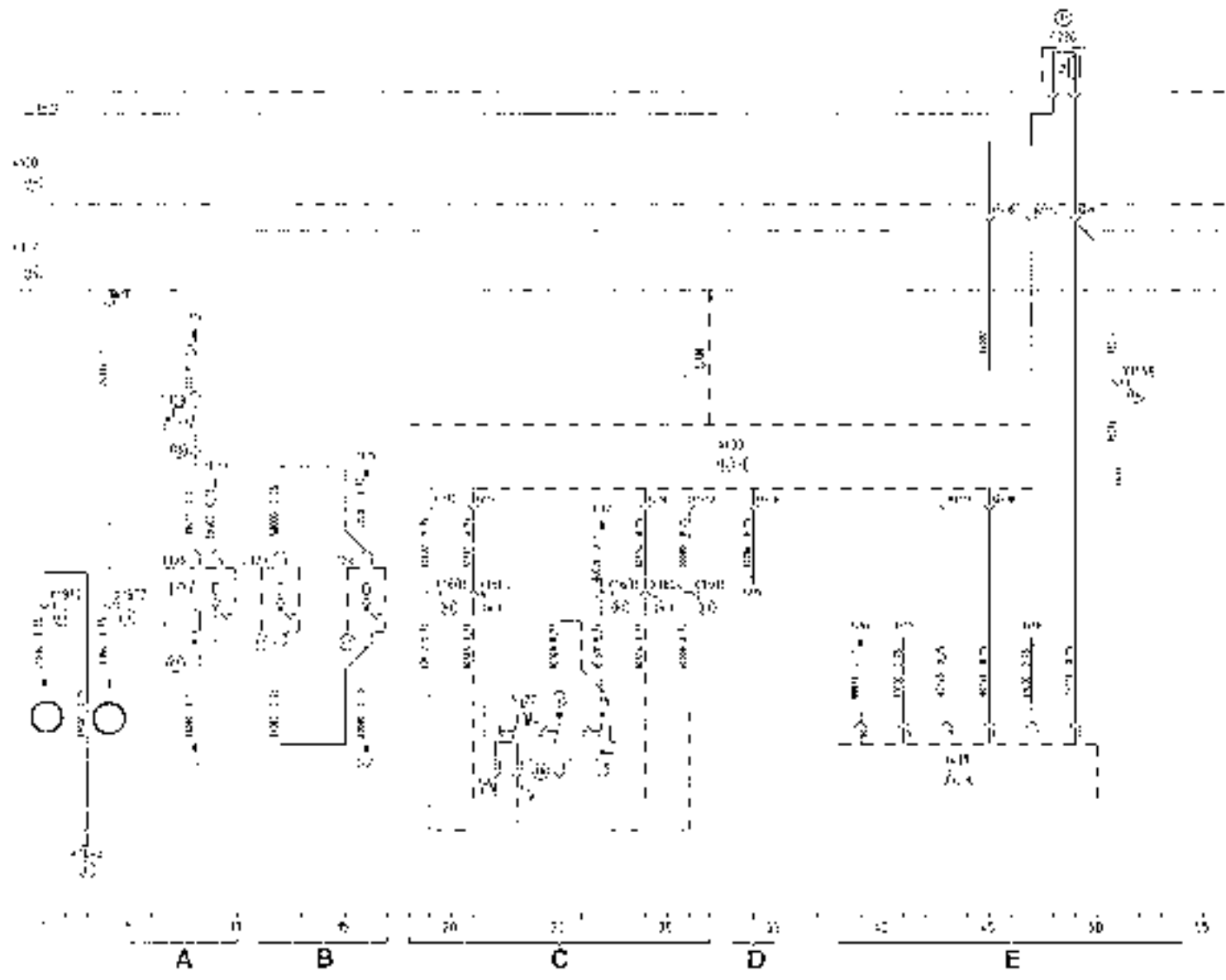
⊖ Front part of frame

⊖ Rear part of frame

⊖ Door left

⊖ Door right

Wiring diagram no. 81.99192.2981 Sheet 11 of 21



**Legend**

Wiring diagram no. **81.99192.2981** Sheet **12** of 21  
Change status: 03.01

**A = Supply voltage +15V**

**B = Instrumentation/tachograph**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A407** (342) Instrumentation

**A408** (403) Tachograph

**B110** (271) Pulse generator, tachograph

**F376** (101) Fuse, cab interior (terminal 15)

**F398** (101) Fuse, tachograph, instrumentation (terminal 15)

**F412** (101) Fuse, tachograph, instrumentation (terminal 30)

**H111** Central warning light

**H162** Warning beep

**P101** Tachometer

**P106** Indicator for cooling water temperature

**P107** Clock

**P116** Charge air indicator

**P118** Speed indicator

**P119** Mileage indicator

**P120** Trip indicator

**X1535** Std. tachograph

**X1536** Std. tachograph

**X1537** Std. tachometer pickup

**X1639** Soldered connector, line 16000

**X1642** Earthing point, cab, behind instrument panel

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1757** Soldered connector, line 16006

**X1833** (221) Crimped connector, line 16000

**Marking of mounting positions**

⊖ Tail

⊖ Engine

⊖ Gearbox

⊖ Front

⊖ Bumper

⊖ Entrance right

⊖ Entrance left

⊖ Central electricals area

⊖ Control unit racks

⊖ Rear wall of cab

⊖ Instrument panel

⊖ Central part

⊖ Steering wheel/column

⊖ Foot pedals

⊖ Front wall, inside left

⊖ Front wall, inside right

○ Differential lock

⊖ Supplementary heater

⊖ Door module

⊖ Terminal 15

⊖ Virus

⊖ Earth

⊖ See electronically controlled diesel injection

⊖ Driving seat

⊖ Passenger seat

⊖ Control panel

⊖ Battery box

⊖ B-pillar on driver's side

⊖ A-pillar on driver's side

⊖ B-pillar on passenger's side

⊖ A-pillar on passenger's side

⊖ Ceiling/roof

⊖ Front axle

⊖ Rear axle

⊖ Front part of frame

⊖ Rear part of frame

⊖ Door left

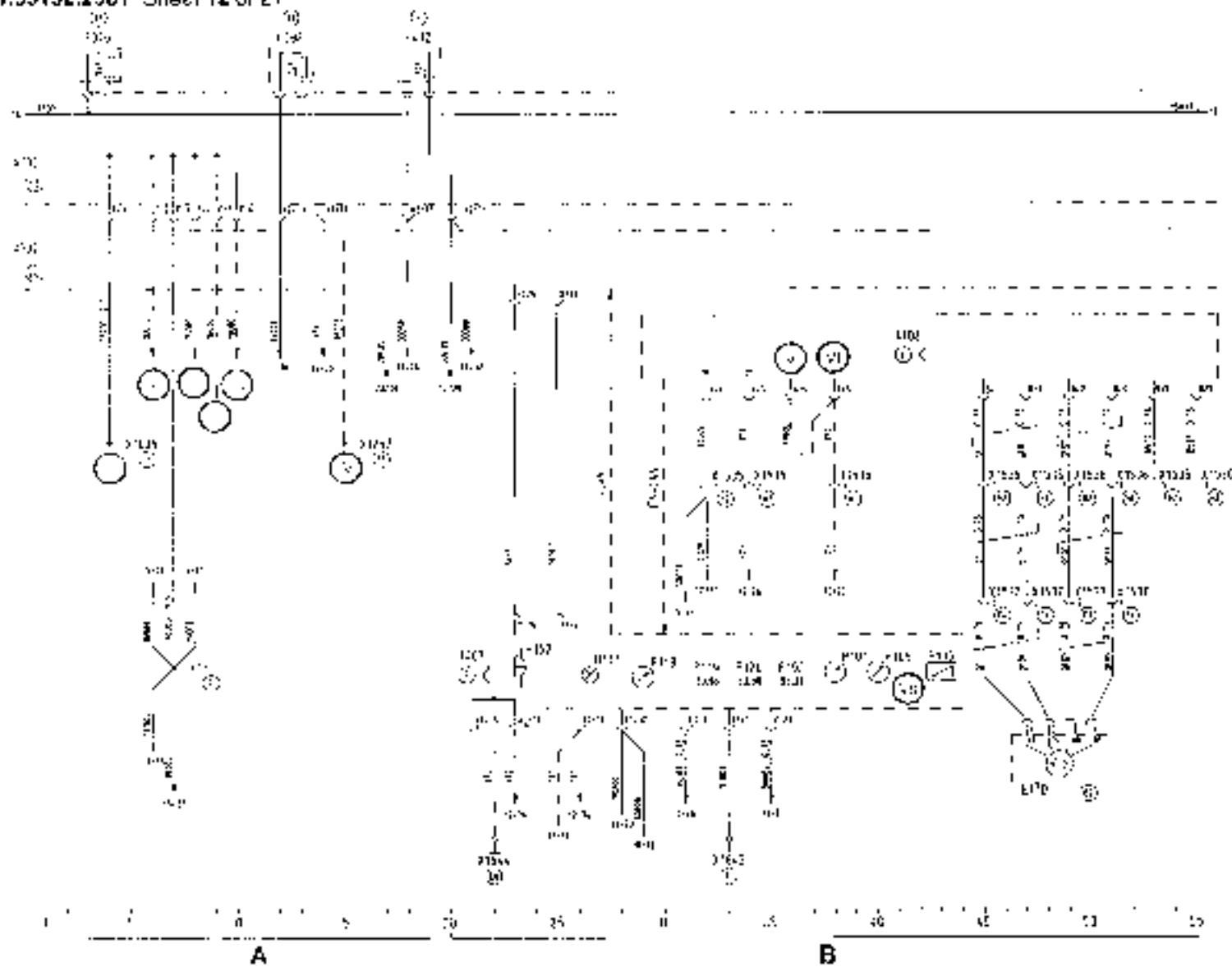
⊖ Door right

**Note:**

**X1536/8** regarding soldering

**X1536/6** regarding soldering

Wiring diagram no. 81.99192.2981 Sheet 12 of 21



**Legend**

Wiring diagram no. **81.99192.2981** Sheet **13** of 21  
Change status: 03.01

**A = Lighting learning run**

**B = Light circuits**

A100 (255) Central fuse, relay and terminal block  
A302 (352) Central computer 2  
A407 (347) Instrumentation

F634 (117) Fuse, light switch

S11\* (482) Light switch  
S329 (473) Control switch, lighting learning run

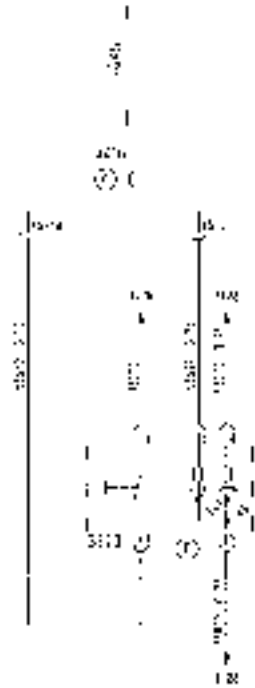
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓡ Battery box                  |
| Ⓔ Bumper                   | Ⓢ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓣ A-pillar on driver's side    |
| Ⓜ Entrance left            | Ⓤ B-pillar on passenger's side |
| Ⓝ Central electric area    | Ⓤ A-pillar on passenger's side |
| Ⓞ Control unit racks       | Ⓦ Ceiling/roof                 |
| Ⓟ Rear wall of cab         | Ⓧ Front axle                   |
| Ⓠ Instrument panel         | Ⓨ Rear axle                    |
| Ⓡ Central part             | Ⓩ Front part of frame          |
| Ⓢ Steering wheel/column    | ⓐ Rear part of frame           |
| Ⓣ Foot pedals              | ⓑ Door left                    |
| Ⓤ Front wall, inside left  | ⓓ Door right                   |
| Ⓦ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2981 Sheet 13 of 21

11  
03

11  
03



A



B



**Legend**


































Wiring diagram no. **61.99192.2981** Sheet **14** of 21  
Change status: 03/01

**A = Parking lights, left**

**B = Parking lights, right**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A107</b>	(411)	Headlights, left
<b>A188</b>	(412)	Headlights, right
<b>A189</b>	(195)	Tail light, left
<b>A190</b>	(195)	Tail light, right
<b>A302</b>	(352)	Central computer 2
<b>E108</b>		Parking light, right
<b>E109</b>		Parking light, left
<b>F114</b>	(181)	Outline marker light, front right
<b>E115</b>	(181)	Outline marker light, front left
<b>E116</b>		Outline marker light, rear right
<b>E117</b>		Outline marker light, rear left
<b>E118</b>		Tail light, right
<b>E119</b>		Tail light, left
<b>F117</b>	(101)	Fuse, parking tail light, left
<b>F118</b>	(101)	Fuse, parking tail light, right
<b>G101</b>	(113)	Battery 2
<b>K116</b>	(187)	Relay, parking tail light
<b>X395</b>		Std. outline marker and interior light, left and right
<b>X1540</b>		Std. frame I
<b>X1544</b>		Std. frame III
<b>X1545</b>		Std. front region, left
<b>X1550</b>		Std. front region, right
<b>X1557</b>		Std. frame left
<b>X1565</b>		Std. connection for trailer lighting socket 1
<b>X2507</b>		Std. adaptation parking light 1
<b>X2508</b>		Std. adaptation parking light 2

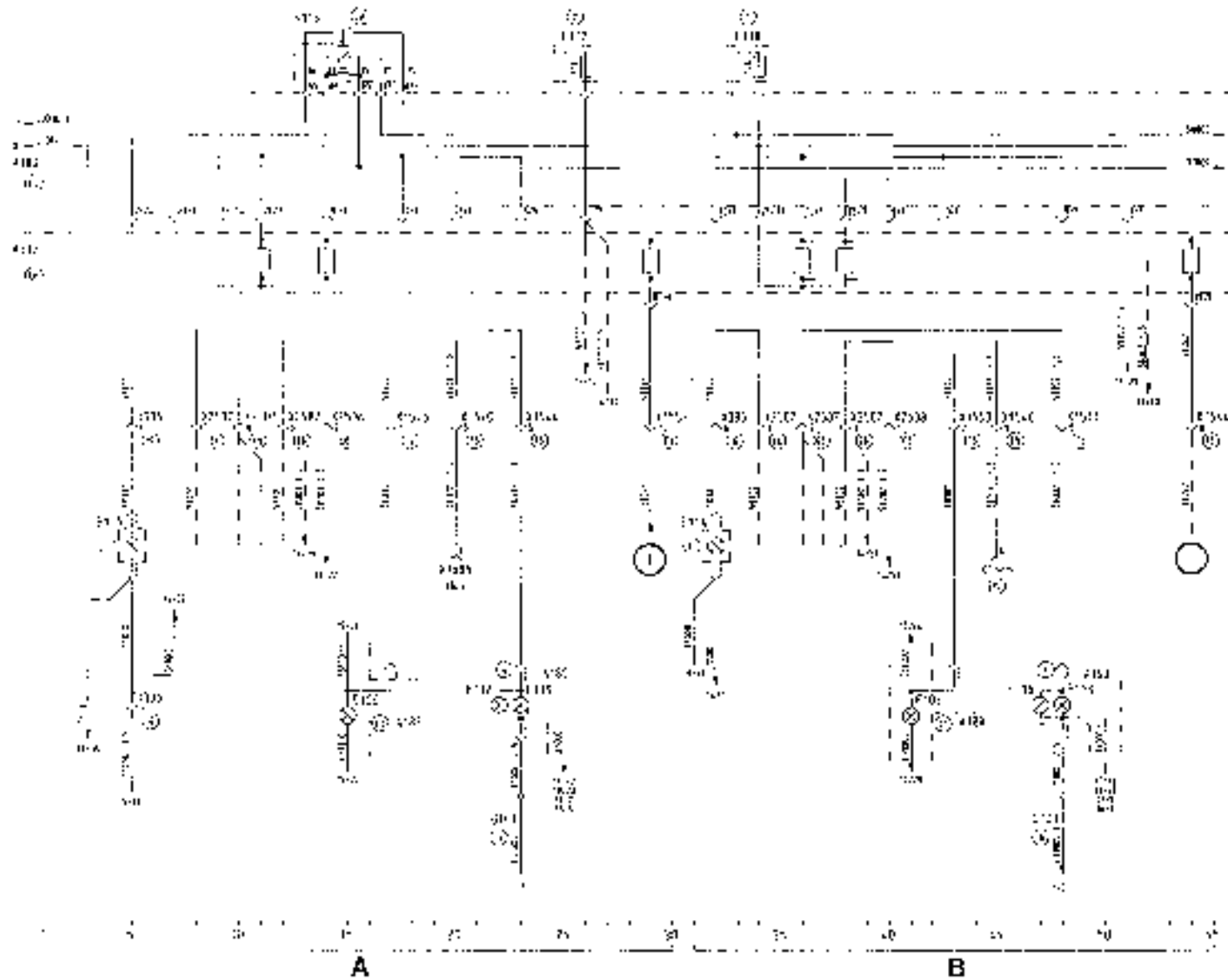
**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electrical area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		
	Side marking light, left		
	Side marker light, right		

**Note:**

Position for mounting **X1586** is E8 on semitrailers!

Wiring diagram no. 81.99192.2981 Sheet 14 of 21



**Legend**

Wiring diagram no. **81.98192.2981** Sheet **15** of 21  
Change status: 03.01

































**A = Headlamp flasher**

**B = Dipped beam, main beam**

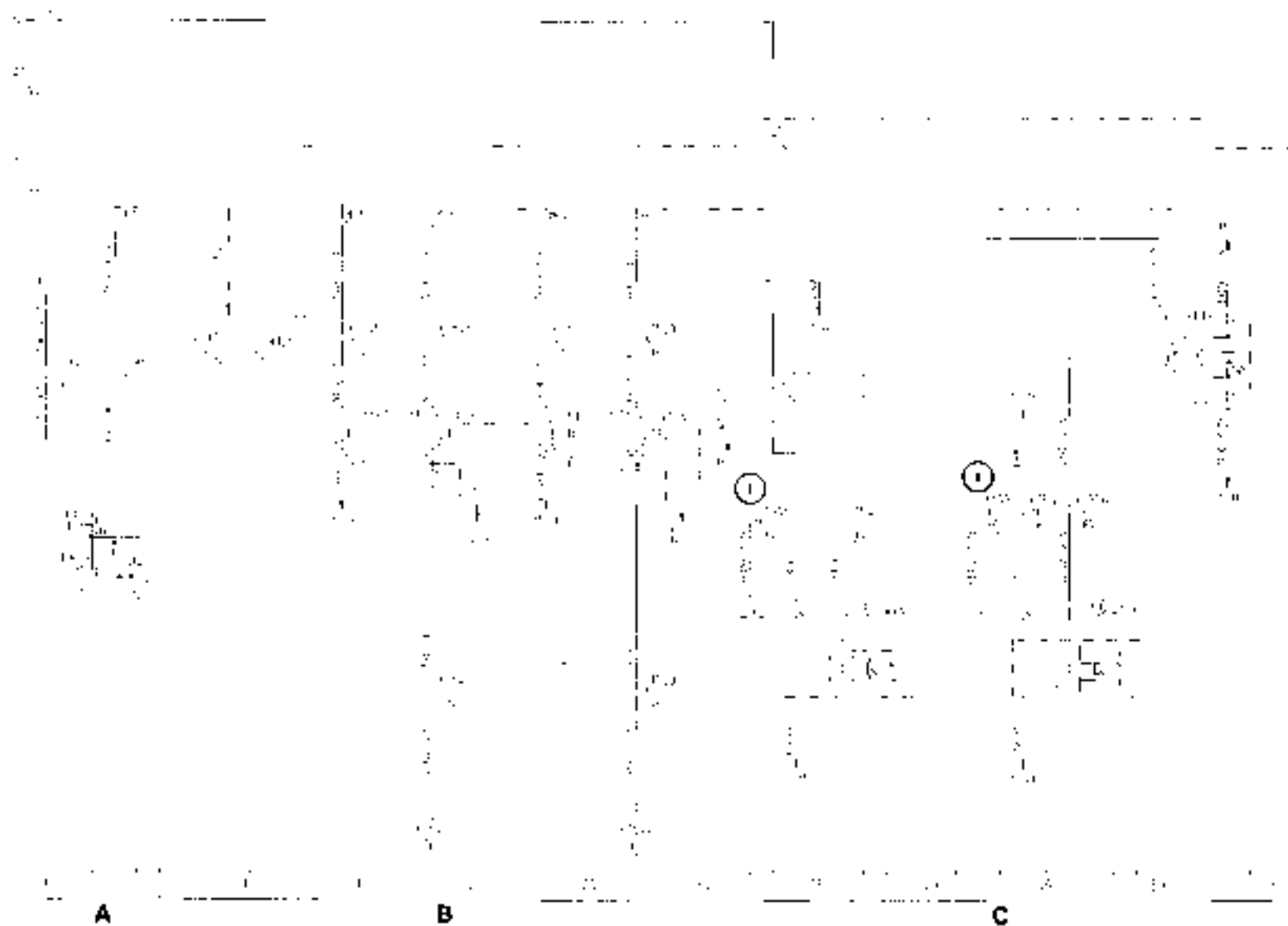
**C = Headlight levelling**

<b>A100</b>	(255) Control fuse, relay and terminal block
<b>A187</b>	(411) Headlights, left
<b>A188</b>	(412) Headlights, right
<b>A302</b>	(352) Central computer 2
<b>A407</b>	(342) Instrumentation
<b>E110</b>	Dipped beam, right
<b>F111</b>	Dipped beam, left
<b>F112</b>	Main beam, right
<b>E113</b>	Main beam, left
<b>H129</b>	Indicator light, main beam
<b>R109</b>	(136) Positioning potentiometer, headlight levelling
<b>S108</b>	(472) Steering column switch (indicators, wipers and headlights)
<b>X1545</b>	Std. front region, left
<b>X1550</b>	Std. front region, right
<b>X1842</b>	Earthing point, cab, behind instrument panel
<b>X1844</b>	Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X1967</b>	Std. 1 combination steering column switch

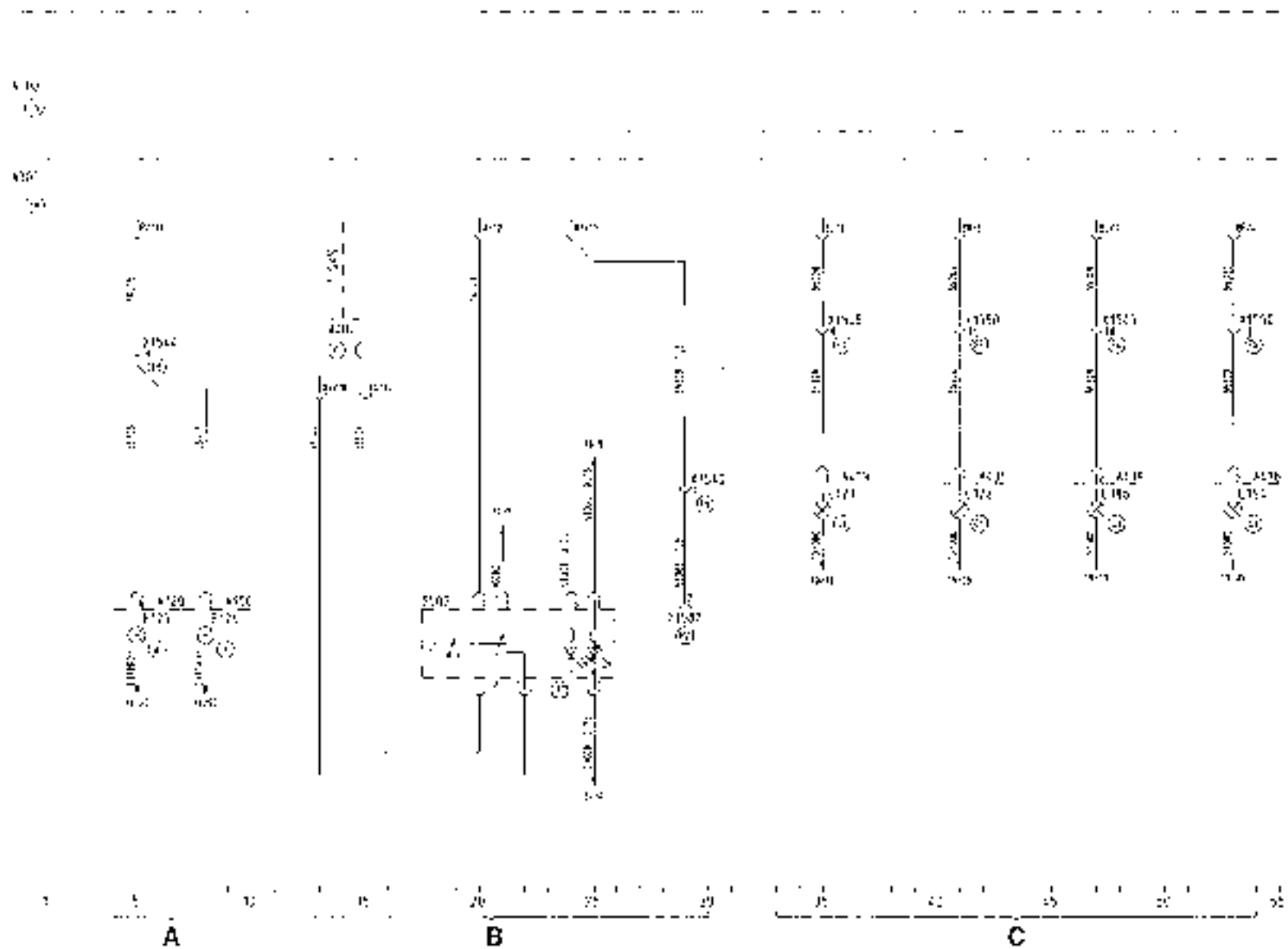
**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electronics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		
	for D2R headlights		

Wiring diagram no. 81.99192.2981 Sheet 15 of 21



Wiring diagram no. B1.99192.2981 Sheet 16 of 21



**Legend**

Wiring diagram no. **81.99192.2981** Sheet 17 of 21  
Change status: 03/01

**A = Brake light****B = Parking brake****C = Reversing light**

A100	(255)	Central fuse, relay and terminal block
A189	(195)	Tail light, left
A190	(195)	Tail light, right
A302	(352)	Central computer 2
A402	(399)	EBS control unit
A403	(339)	Vehicle management computer
A407	(342)	Instrumentation
B337	(244)	Brake sensor
B369	(276)	Pressure switch, control lamp for parking brake
E102		Reversing beam, right
E103		Reversing beam, left
F314	(104)	Fuse, reversing light
G101	(113)	Battery 2
H112		Brake light, right
H113		Brake light, left
H117		Indicator lights, parking brake
X1540		Std. frame I
X1541		Std. frame III
X1586		Std. connection for trailer lighting socket 1
X1587		Std. connection for trailer lighting socket 2
X1627		Std. reversing beam
X1634	(221)	Crimped connector, line 71300

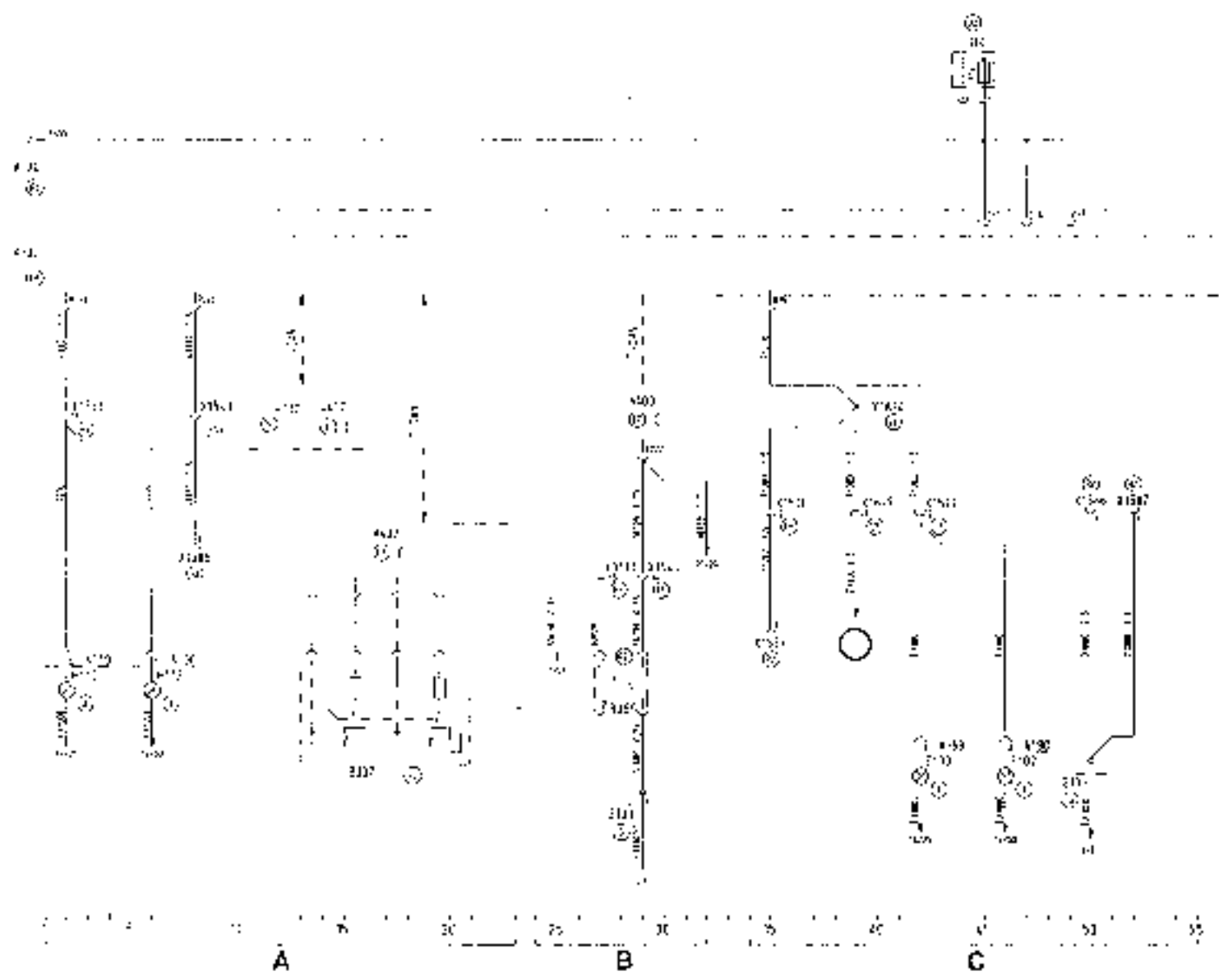
**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance, right		A-pillar on driver's side
	Entrance, left		B-pillar on passenger's side
	Central electric area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		
	Switch, reverse gear		

**Note:**

• Position for mounting **X1586** and **X1587** is E8 on semitrailers!

Wiring diagram no. 81.99192.2881 Sheet 17 of 21



**Legend**

Wiring diagram no. **81.99192.2981** Sheet 18 of 21  
 Change status: 03.01


































**A = Search illumination**

**B = Power supply, permanent consumers**

**C = Entrance step illumination/interior lighting**

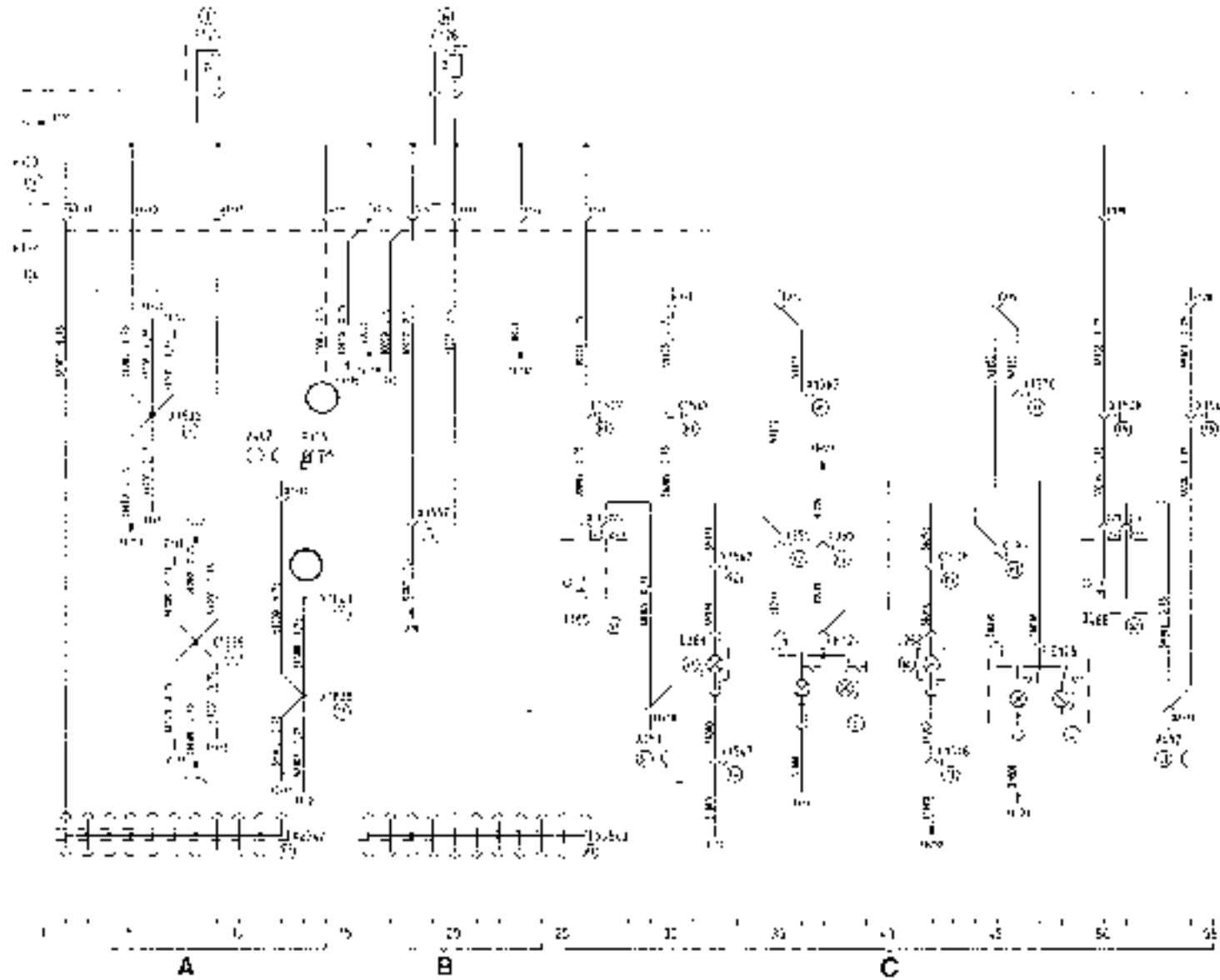
A100	(255)	Central fuse, relay and terminal block
A302	(352)	Central computer 2
A407	(342)	Instrumentation
A451	(441)	Door module (driver's side)
A452	(440)	Door module (passenger side)
A463	(453)	Door lock (driver's side)
A465	(454)	Door lock (passenger side)
E127	(174)	Interior light, left
E128	(174)	Interior light (right)
E268	(170)	Entrance illumination, passenger
E269	(170)	Entrance illumination, driver
F125	(111)	Fuse, search illumination
F126	(101)	Fuse, permanent consumer
R100		Potentiometer, instrument illumination
X395		Std. outline marker and interior light, left and right
X1546		Std. door, right
X1547		Std. door, left
X1557		Std. frame, left
X1569		Std. locker lighting, left
X1570		Std. locker lighting, right
X1643		Soldered connector, line 58000
X1835	(221)	Crimped connector, line 58000
X1836	(221)	Crimped connector, line 58000
X1838	(221)	Crimped connector, line 58200
X2542	(246)	Potential distributor, 21-pin line 58000
X2543	(246)	Potential distributor, 21-pin line 30000

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electronics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		
	Door module		
	Terminal 56, dimmed		



Wiring diagram no. 81.99192.2981 Sheet 18 of 21



**Legend**

Wiring diagram no. **81.99192.2981** Sheet 19 of 21  
 Change status: 03.0\*

**A = Light flashing unit**

A110	(255) Central fuse, relay and terminal block
A189	(195) Tail light, left
A190	(195) Tail light, right
A302	(352) Central computer 2
A407	(342) Instrumentation
A438	(410) Light strip, right
A439	(409) Light strip, left
F535	(117) Fuse, warning indicator light switch
H119	Indicator light, direction indicators, trailer
H120	Direction indicator, front right
H121	Direction indicator, front left
H122	Direction indicator, rear right
H123	Direction indicator, rear left
H124	(140) Direction indicator, side right
H125	(140) Direction indicator, side left
H390	Indicator light, direction indicators, tractor unit, right
H381	Indicator light, direction indicators, tractor unit, left
S108	(472) Steering column switch (indicators, wipers and headlights)
S109	(461) Switch, hazard warning flasher
X1540	Std. frame I
X1544	Std. frame III
X1545	Std. front region, left
X1550	Std. front region, right
X1586	Std. connection for trailer lighting socket 1
X1644	Earthing point, cab, adjacent to central fuse, relay and terminal block
X1967	Std. 1 combination steering column switch

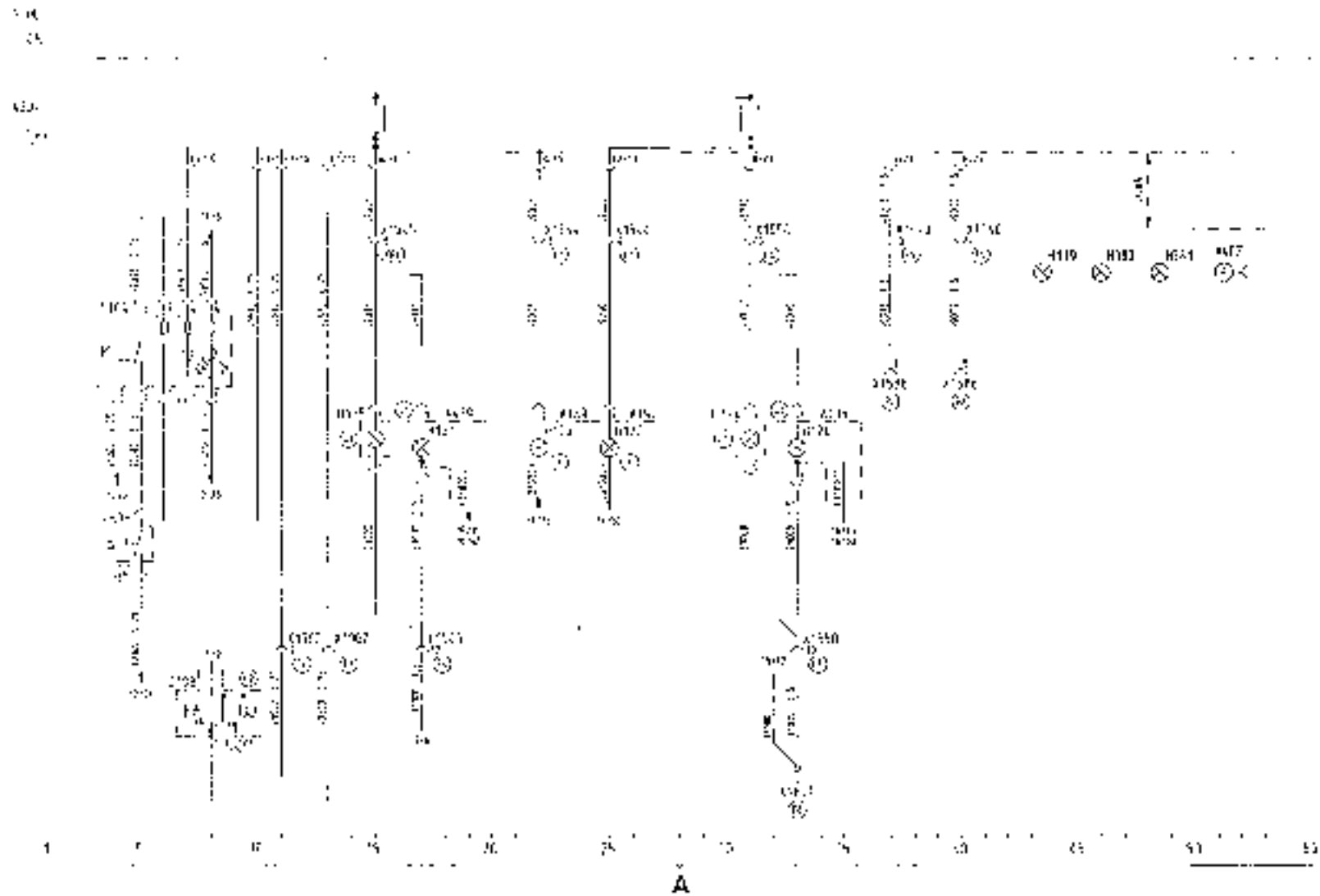
**Marking of mounting positions**

(T)	Tail	(D)	Driving seat
(E)	Engine	(P)	Passenger seat
(G)	Gearbox	(R)	Control panel
(F)	Front	(B)	Battery box
(B)	Bumper	(D1)	B-pillar on driver's side
(E1)	Entrance right	(D2)	A-pillar on driver's side
(E2)	Entrance left	(P1)	B-pillar on passenger's side
(C)	Central electrics area	(P2)	A-pillar on passenger's side
(K)	Control unit racks	(C)	Ceiling/roof
(R)	Rear wall of cab	(A)	Front axle
(I)	Instrument panel	(R)	Rear axle
(C1)	Central part	(F1)	Front part of frame
(S)	Steering wheel/column	(F2)	Rear part of frame
(P)	Foot pedals	(D)	Door left
(F1)	Front wall, inside left	(D)	Door right
(F2)	Front wall, inside right		

**Note:**

Position for mounting **X1586** is E8 on semitrailers!

Wiring diagram no. 81.99192.2961 Sheet 19 of 21



**Legend**

Wiring diagram no. **61.99192.2981** Sheet 20 of 21  
Change status: 03.01

**A = Reserve lines**

**B = Reserve lines for trailer lighting socket**

**C = Periphery of retarder**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**G101** (113) Battery 2

**X327** Std. solenoid valve, frame

**X637** Std. differential lock, rear axle

**X1540** Std. frame I

**X1544** Std. frame III

**X1551** Std. engine/EDC/transmission II

**X1557** Std. frame left

**X1586** Std. connection for trailer lighting socket 1

**X1587** Std. connection for trailer lighting socket 2

**X2168** Std. cable duct, hydraulic retarder

**X2497** Std. distributor line 16109

**X3118** Std. distributor line 30000

**X3119** Std. distributor line 30009

**Y114** Magnetic clutch compressor

**Marking of mounting positions**

Ⓐ Tail

Ⓑ Engine

Ⓒ Gearbox

Ⓓ Front

Ⓔ Rumper

Ⓕ Entrance right

Ⓖ Entrance left

Ⓖ Central electric area

Ⓖ Control unit racks

Ⓖ Rear wall of cab

Ⓖ Instrument panel

Ⓖ Central part

Ⓖ Steering wheel/column

Ⓖ Foot pedals

Ⓖ Front wall, inside left

Ⓖ Front wall, inside right

Ⓞ Solenoid valve, differential lock, rear axle, transverse

Ⓞ Switch for display, differential lock, transverse

Ⓞ Indicator light, differential lock, rear axle, transverse

Ⓞ Indicator light, differential lock, longitudinal

Ⓞ Solenoid valve, differential lock, longitudinal

Ⓞ Solenoid valve, power take-off 1

Ⓞ Data line

Ⓞ Driving seat

Ⓞ Passenger seat

Ⓞ Control panel

Ⓞ Battery box

Ⓞ B-pillar on driver's side

Ⓞ A-pillar on driver's side

Ⓞ B-pillar on passenger's side

Ⓞ A-pillar on passenger's side

Ⓞ Ceiling/roof

Ⓞ Front axle

Ⓞ Rear axle

Ⓞ Front part of frame

Ⓞ Rear part of frame

Ⓞ Door left

Ⓞ Door right

Ⓞ Supply to trailer (protection from emptying)

Ⓞ Control, trailing axle or leading axle, trailer

Ⓞ Pressure switch, monitoring, parking brake, trailer

Ⓞ Indicator light, brake pad wear indicator, trailer

**Note:**

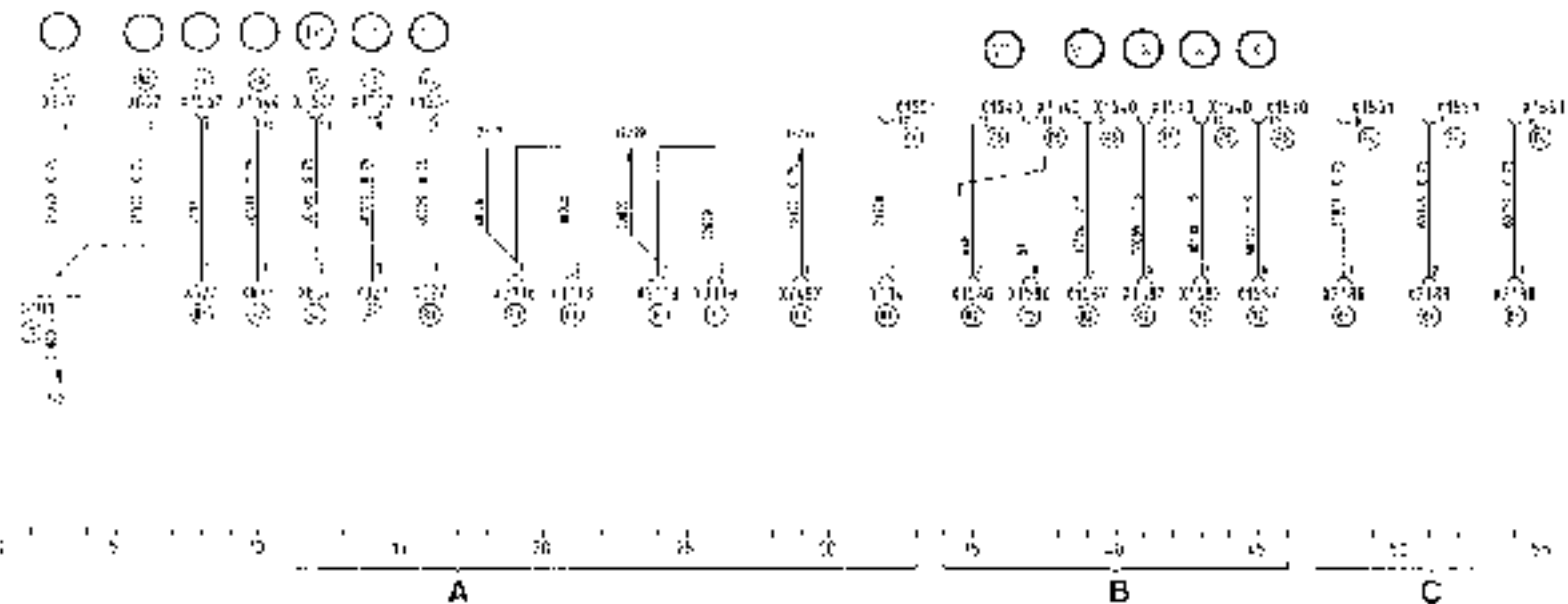
Position for mounting **X1586** and **X1587** is E8 on semitrailers!

A.C.

230

300

30



**Legend**

Wiring diagram no. 81.99192.2981 Sheet 21 of 21

Change status: 03/01

**A = Inlander, retarder****B = Transmission****C = Power take-off**

A100 {255} Central fuse, relay and terminal block

A302 {352} Central computer 2

A403 {330} Vehicle management computer

X1549 Std. engine/EDC/transmission I

X1553 Std. engine/EDC/transmission II

X1559 Std. engine/EDC/transmission IV

X1562 Std. gearbox

X1948 Std. engine/transmission (MP box)

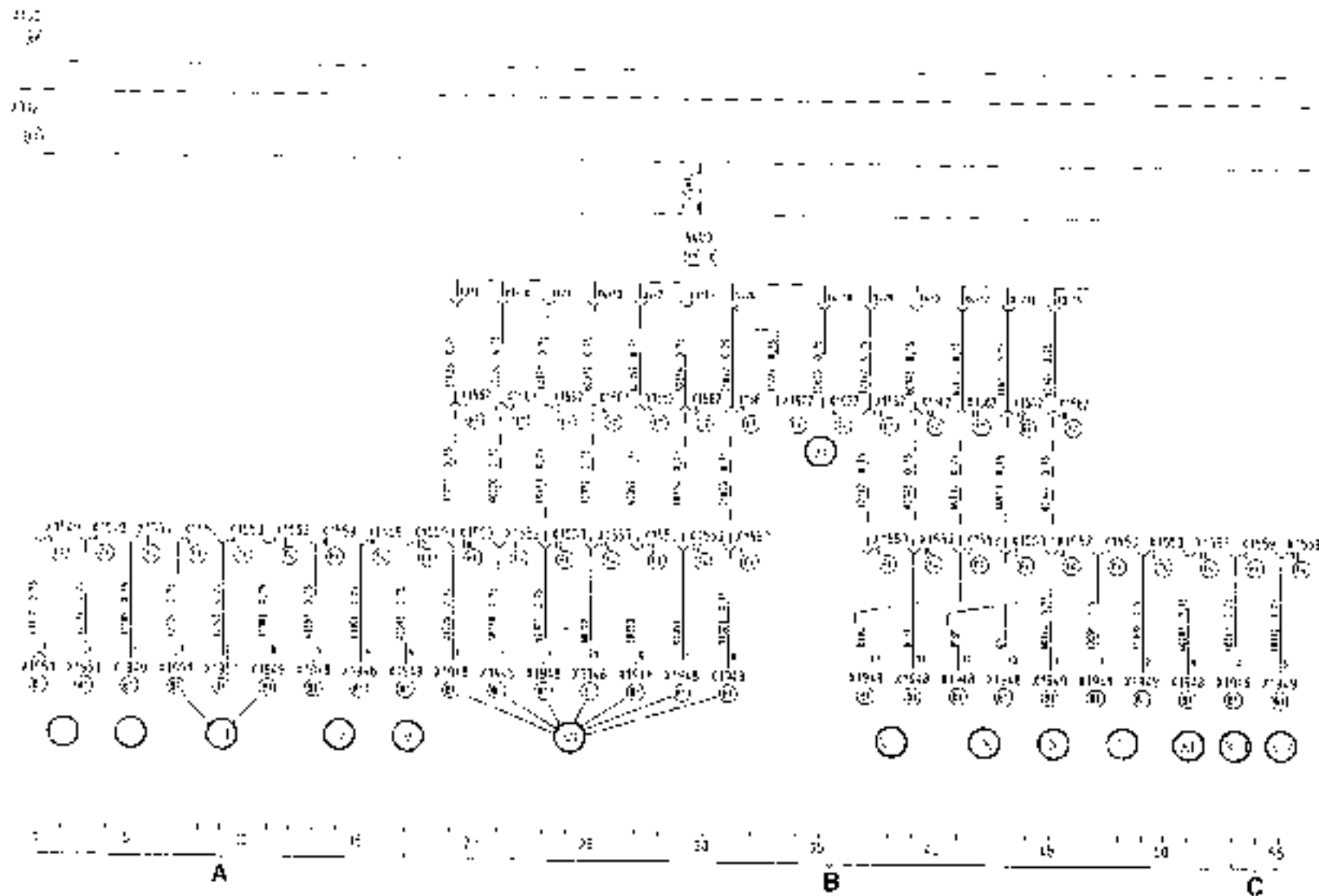
X1949 Std. engine/transmission (MP box)

X1951 Std. engine/transmission (MP box)

X1972 Std. foot pedals, exterior

**Marking of mounting positions**

- |      |   |      |                                   |
|------|---|------|-----------------------------------|
| (S)  | Tail  | (11) | Driving seat                      |
| (m)  | Engine  | (12) | Passenger seat                    |
| (g)  | Gearbox   | (13) | Control panel                     |
| (f)  | Front   | (14) | Battery box                       |
| (b)  | Bumper  | (15) | B-pillar on driver's side         |
| (e)  | Entrance right  | (16) | A-pillar on driver's side         |
| (d)  | Entrance left   | (17) | B-pillar on passenger's side      |
| (c)  | Central electrics area                                | (18) | A-pillar on passenger's side      |
| (k)  | Control unit racks                                    | (19) | Ceiling/roof                      |
| (p)  | Rear wall of cab                                      | (20) | Front axle                        |
| (i)  | Instrument pane                                       | (21) | Rear axle                         |
| (j)  | Central part  | (22) | Front part of frame               |
| (F)  | Steering wheel/column                                 | (23) | Rear part of frame                |
| (F)  | Foot pedals   | (24) | Door left                         |
| (1)  | Front wall, inside left                               | (25) | Door right                        |
| (2)  | Front wall, inside right                              |      |                                   |
| (3)  | Pressure pickup, positioning pressure                 | (26) | Transmission, input speed         |
| (4)  | Solenoid valve, reservoir                             | (27) | Transmission, neutral             |
| (5)  | Temperature sensor, inlander, retarder                | (28) | Switch, reverse gear              |
| (6)  | Proportional valve, inlander, retarder                | (29) | Diagnostics, AS-Tronic            |
| (7)  | Solen. valve, reservoir/press. pickup, actual. press. | (30) | Indicator light, power take-off 1 |
| (8)  | Transmission control module                           | (31) | Indicator light, power take off 2 |
| (9)  | Clutch servo  |      |                                   |
| (10) | Clutch displacement sensor                            |      |                                   |



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Headlight gas discharge with headlight levelling (LL)	81.99192.2651	4.19 - 2
Headlight gas discharge with headlight levelling (RL)	81.99192.2653	4.19 - 4
Headlight gas discharge without headlight levelling	81.93192.2652	4.19 - 6
Headlight levelling (LL)	81.99192.2477	4.12 - 6
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Heating for hydraulic gearshift (HGS) (LL)	81.99192.2684	4.08 - 4
Heating for hydraulic gearshift (HGS) (RL)	81.93192.2690	4.08 - 6
Horn switchover (LL)	81.99192.1375	4.08 - 8
Horn switchover (RL)	81.99192.1376	4.08 - 10
Intarder ZF-EST 48	81.93192.1378	4.08 - 4
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Nokia phone with radio 24V and CD changer MAN-Sound (RL)	81.99192.2876	4.20 - 30
Nokia phone with radio 24V MAN-Sound (LL)	81.99192.2873	4.20 - 18
Nokia phone with radio 24V MAN-Sound (RL)	81.99192.2874	4.20 - 22
<b>Power take-off 1</b>	81.99192.1388	4.14 - 2
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Radio navigation system 12V with Culmann phone and CD changer (RL)	81.99192.1441	4.18 - 52
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**Airbag**
































**Legend**

Wiring diagram no. **81.99192.2572** Sheet 1 of 1  
 Change status: 00.00

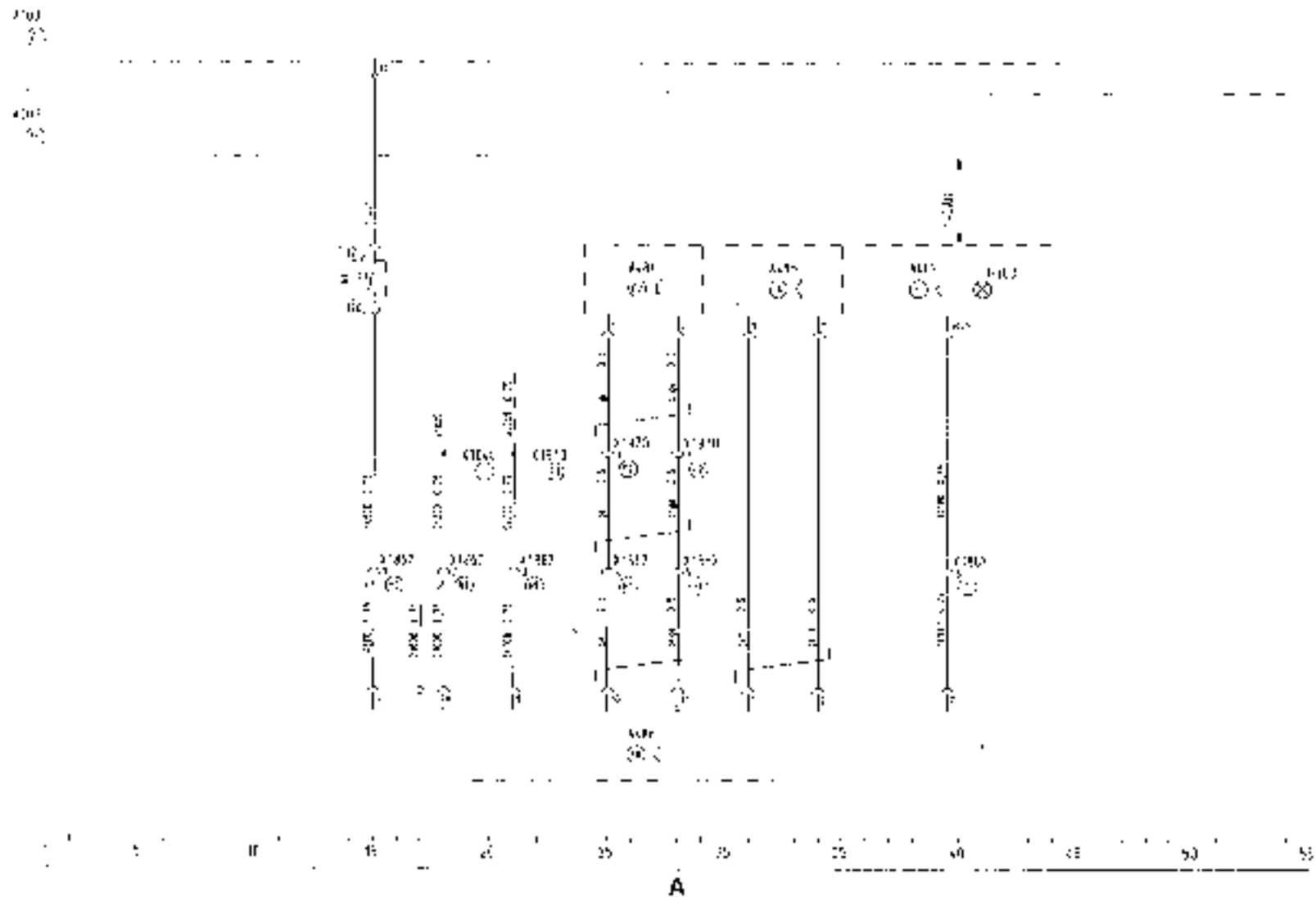
**A = Airbag with seat belt tensioner**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A302</b>	(352)	Central computer 2
<b>A407</b>	(342)	Instrumentation
<b>A484</b>	(185)	Steering wheel with airbag
<b>A485</b>	(184)	Seat belt tensioner
<b>A486</b>	(183)	Control unit airbag
<b>F373</b>	(117)	Fuse, airbag
<b>H303</b>		Indicator light, airbag
<b>X1640</b>		Soldered connector, line 31000
<b>X1867</b>		Stvc. control unit airbag
<b>X1910</b>		Crimped connector K-KWP2 (SA)
<b>X1970</b>		Stvc. airbag

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electric's area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Front petals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		

Wiring Diagram no. 81.99192.2572 Sheet 1 of 1



**Trailer lighting socket 24V 7-pin**

**Legend**

Wiring diagram no. **81.99192.2496** Sheet 1 of 1

Change status: 07.99

**A = Trailer lighting socket 24V 7-pin N**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**G101** (113) Battery 2

**X330** (191) Socket connector N 24V

**X1540** Stvd. frame 1

**X1586** Stvd. connection for trailer lighting socket 1

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓓ Driving seat                 |
| Ⓑ Engine                   | Ⓔ Passenger seat               |
| Ⓒ Gearbox                  | Ⓕ Control panel                |
| Ⓓ Front                    | Ⓖ Battery box                  |
| Ⓔ Rumper                   | Ⓜ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓨ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓩ B-pillar on passenger's side |
| Ⓜ Central electrics area   | Ⓛ A-pillar on passenger's side |
| Ⓨ Control unit racks       | Ⓚ Ceiling/roof                 |
| Ⓩ Rear wall of cab         | Ⓛ Front axle                   |
| Ⓚ Instrument panel         | Ⓛ Rear axle                    |
| Ⓛ Central part             | Ⓜ Front part of frame          |
| Ⓛ Steering wheel/column    | Ⓨ Rear part of frame           |
| Ⓛ Fuel pedals              | Ⓛ Door left                    |
| Ⓛ Front wall, inside left  | Ⓛ Door right                   |
| Ⓛ Front wall, inside right |                                |

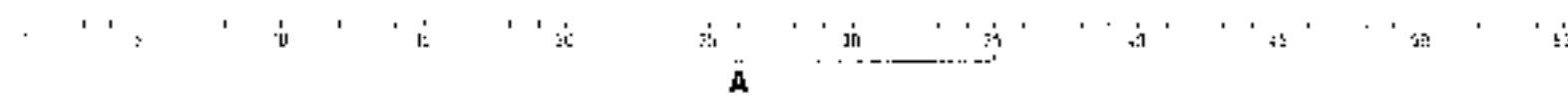
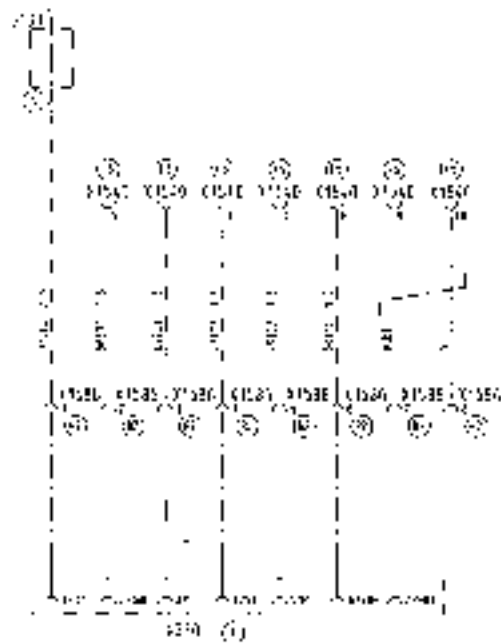
**Note:**

Position for mounting **X1586** is E8 on semitrailers!

Wiring diagram no. 81.99192.2496 Sheet 1 of 1

7.4  
8.0

7.5  
8.0



**Trailer lighting socket 24V 7-pin/4-pin**

**Legend**

Wiring diagram no. **81.99192.2487** Sheet 1 of 1  
 Change status: 07.99

**A = Trailer lighting socket 24V 7-pin N**

**B = Trailer lighting socket 24V 4-pin**

**A100** (255) Control fuse, relay and terminal block

**A302** (352) Central computer 2

**G131** (113) Battery 2

**X330** (191) Socket connector N 24V

**X741** (193) Trailer lighting socket

**X1540** Stvd. frame 1

**X1586** Stvd. connection for trailer lighting socket 1

**X1587** Stvd. connection for trailer lighting socket 2

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓔ Bumper                   | Ⓘ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓚ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓛ B-pillar on passenger's side |
| Ⓗ Central electrical area  | Ⓜ A-pillar on passenger's side |
| Ⓘ Control unit racks       | Ⓨ Ceiling/roof                 |
| Ⓚ Rear wall of cab         | Ⓛ Front axle                   |
| Ⓛ Instrument panel         | Ⓜ Rear axle                    |
| Ⓜ Central part             | Ⓨ Front part of frame          |
| Ⓨ Steering wheel/column    | Ⓛ Rear part of frame           |
| Ⓛ Foot pedals              | Ⓜ Door left                    |
| Ⓜ Front wall, inside left  | Ⓨ Door right                   |
| Ⓛ Front wall, inside right |                                |

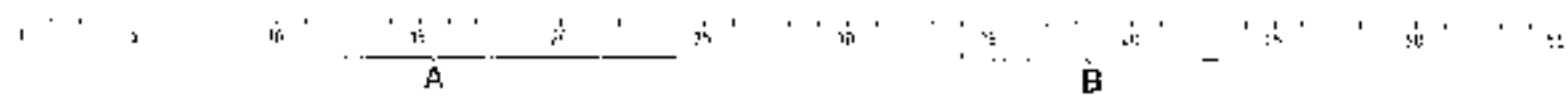
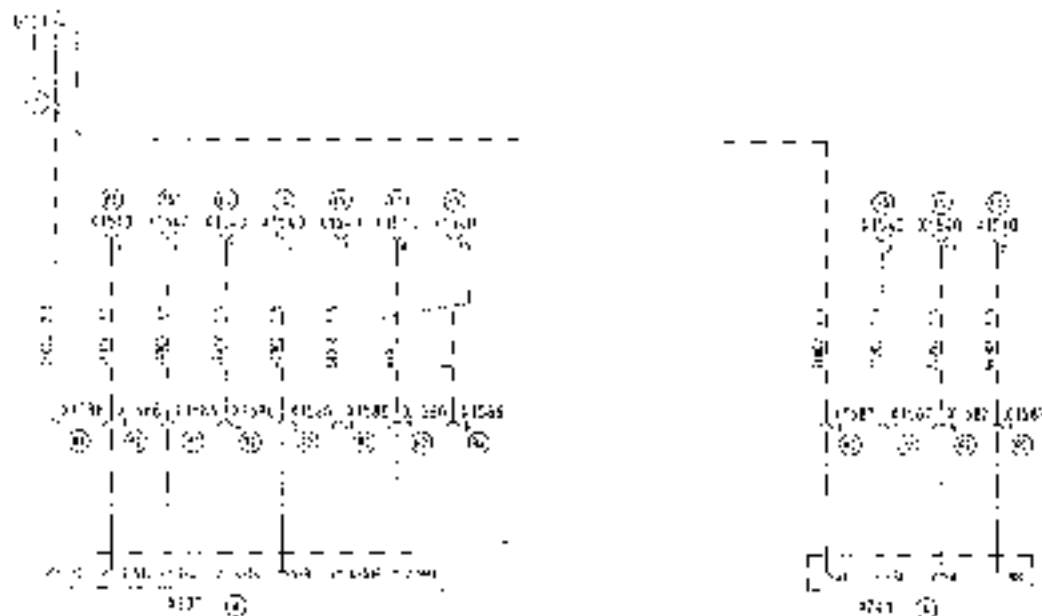
**Note:**

Position for mounting **X1586** and **X1587** is EB on semitrailers!

Wiring diagram no. B1.99192.2497 Sheet 1 of 1

200

200  
89



**Trailer lighting socket 24V 7-pin/7-pin**

**Legend**

Wiring diagram no. 81.99192 2498 Sheet 1 of 1  
 Change status: 07/09

**A = Trailer lighting socket 24V 7-pin N**

**B = Trailer lighting socket 24V 7-pin S**

A100 (255) Central fuse, relay and terminal block

A302 (332) Central computer 2

G101 (113) Battery 2

X329 (192) Socket connector S 24V

X330 (191) Socket connector N 24V

X1540 Std. frame 1

X1586 Std. connection for trailer lighting socket 1

X1587 Std. connection for trailer lighting socket 2

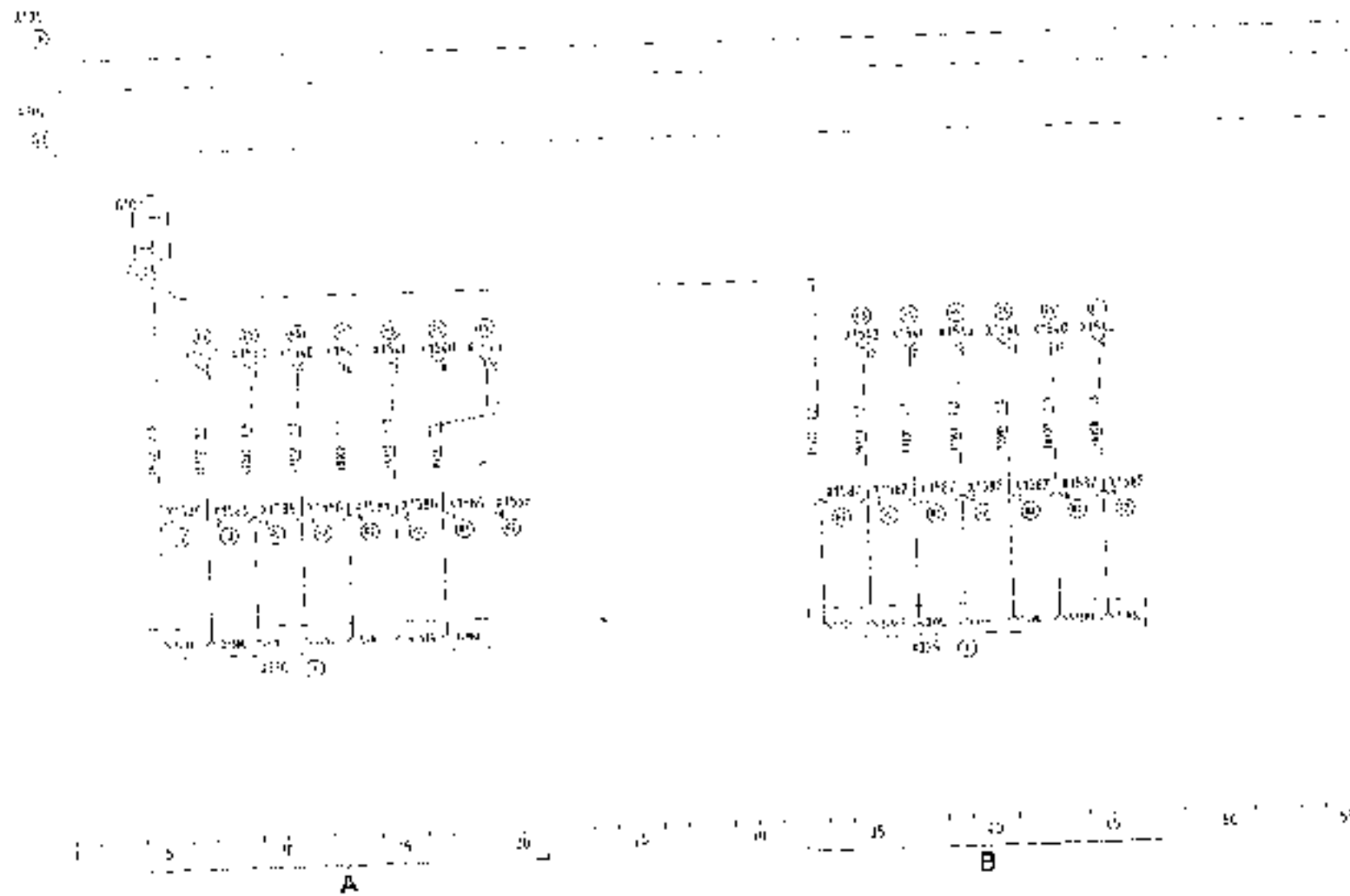
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊖ Tail                     | ⊕ Driving seat                 |
| ⊕ Engine                   | ⊖ Passenger seat               |
| ⊕ Gearbox                  | ⊕ Control panel                |
| ⊖ Front                    | ⊖ Battery box                  |
| ⊕ Bumper                   | ⊕ B-pillar on driver's side    |
| ⊕ Entrance right           | ⊕ A-pillar on driver's side    |
| ⊖ Entrance left            | ⊖ B-pillar on passenger's side |
| ⊕ Central electrics area   | ⊕ A-pillar on passenger's side |
| ⊖ Control unit racks       | ⊖ Ceiling/roof                 |
| ⊕ Rear wall of cab         | ⊖ Front axle                   |
| ⊖ Instrument panel         | ⊖ Rear axle                    |
| ⊖ Central part             | ⊕ Front part of frame          |
| ⊖ Steering wheel/column    | ⊖ Rear part of frame           |
| ⊖ Foot pedals              | ⊖ Door left                    |
| ⊖ Front wall, inside left  | ⊖ Door right                   |
| ⊖ Front wall, inside right |                                |

**Note:**

Position for mounting X1586 and X1587 is E8 on semitrailers!

Wiring diagram no. 81.99192.2498 Sheet 1 of 1





## Trailer lighting socket 24V 15-pin

## Legend

Wiring diagram no. 01.99192.2499 Sheet 1 of 1

Change status: 07.99

## A = Trailer lighting socket 24V 15-pin

A100 (255) Control fuse, relay and terminal block

A302 (352) Central computer 2

G101 (113) Battery 2

X3U\* (194) Socket 24V

X1540 Stnd. frame 1

X1586 Stnd. connection for trailer lighting socket 1

X1587 Stnd. connection for trailer lighting socket 2

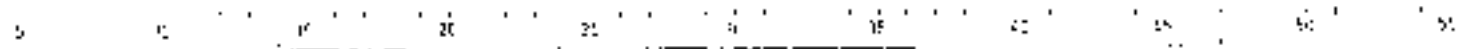
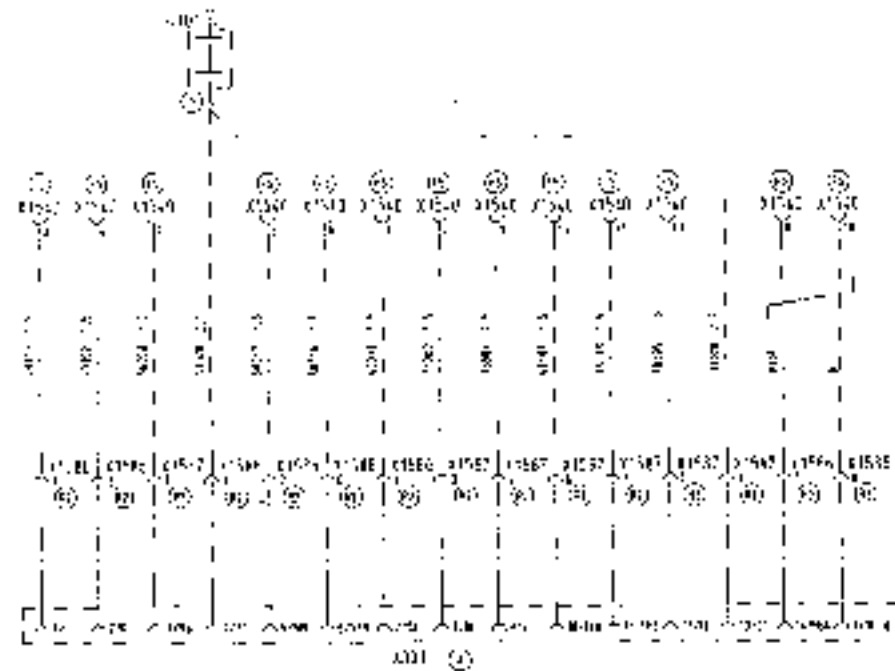
## Marking of mounting positions

⊖	Tail	⊖	Driving seat
⊕	Engine	⊖	Passenger seat
⊕	Gearbox	⊖	Control panel
⊖	Front	⊖	Battery box
⊕	Bumper	⊖	B pillar on driver's side
⊕	Entrance right	⊖	A-pillar on driver's side
⊕	Entrance left	⊖	B-pillar on passenger's side
⊖	Central electric area	⊖	A-pillar on passenger's side
⊖	Control unit racks	⊖	Ceiling/roof
⊖	Rear wall of cab	⊖	Front axle
⊖	Instrument panel	⊖	Rear axle
⊖	Central part	⊖	Front part of frame
⊖	Steering wheel/column	⊖	Rear part of frame
⊖	Foot pedals	⊖	Door left
⊖	Front wall, inside left	⊖	Door right
⊖	Front wall, inside right		

## Note:

Position for mounting X1586 and X1587 is E9 on semitrailers!

Wiring diagram no. 61.98192.2499 Sheet 1 of 1



A

**Trailer lighting socket 24V 7-pin + 12V 13-pin**

**Legend**

Wiring diagram no. **81.99192.2447** Sheet 1 of 1  
 Change status: 02.99

**A = Trailer lighting socket 24V 7-pin N**

**B = Trailer lighting socket 12V 13-pin**

**A103** (255) Central fuse, relay and terminal block

**A236** (543) DC-converter 24/12V

**A312** (352) Central computer ?

**G101** (113) Battery 2

**X330** (191) Socket connector V 24V

**X740** (206) Trailer lighting socket 12V

**X1540** Std. frame 1

**X1586** Std. connection for trailer lighting socket 1

**X1587** Std. connection for trailer lighting socket 2

**Marking of mounting positions**

Ⓐ Tail

Ⓑ Engine

Ⓒ Gearbox

Ⓓ Front

Ⓔ Bumper

Ⓕ Entrance right

Ⓖ Entrance left

Ⓖ Central electronics area

Ⓗ Control unit racks

Ⓙ Rear wall of cab

Ⓛ Instrument panel

Ⓜ Central part

Ⓝ Steering wheel/column

Ⓟ Foot pedals

Ⓠ Front wall, inside left

Ⓡ Front wall, inside right

Ⓢ Driving seat

Ⓣ Passenger seat

Ⓤ Control panel

Ⓡ Battery box

Ⓢ B-pillar on driver's side

Ⓣ A-pillar on driver's side

Ⓤ B-pillar on passenger's side

Ⓡ A-pillar on passenger's side

Ⓢ Ceiling/roof

Ⓣ Front axle

Ⓤ Rear axle

Ⓡ Front part of frame

Ⓣ Rear part of frame

Ⓤ Door left

Ⓡ Door right

Trailer lighting socket 24V 7-pin/4-pin + 12V 13-pin

Legend

Wiring diagram no. 81.99192.2448 Sheet 1 of 2  
 Change status: 03.30

A = Trailer lighting socket 24V 7-pin N

B = Trailer lighting socket 24V 4-pin

A109 (255) Central fuse, relay and terminal block

A236 (503) DC-converter 24/12V

A332 (352) Central computer 2

G131 (113) Battery 2

X330 (191) Socket connector N 24V

X741 (103) Trailer lighting socket

X1540 Std. frame 1

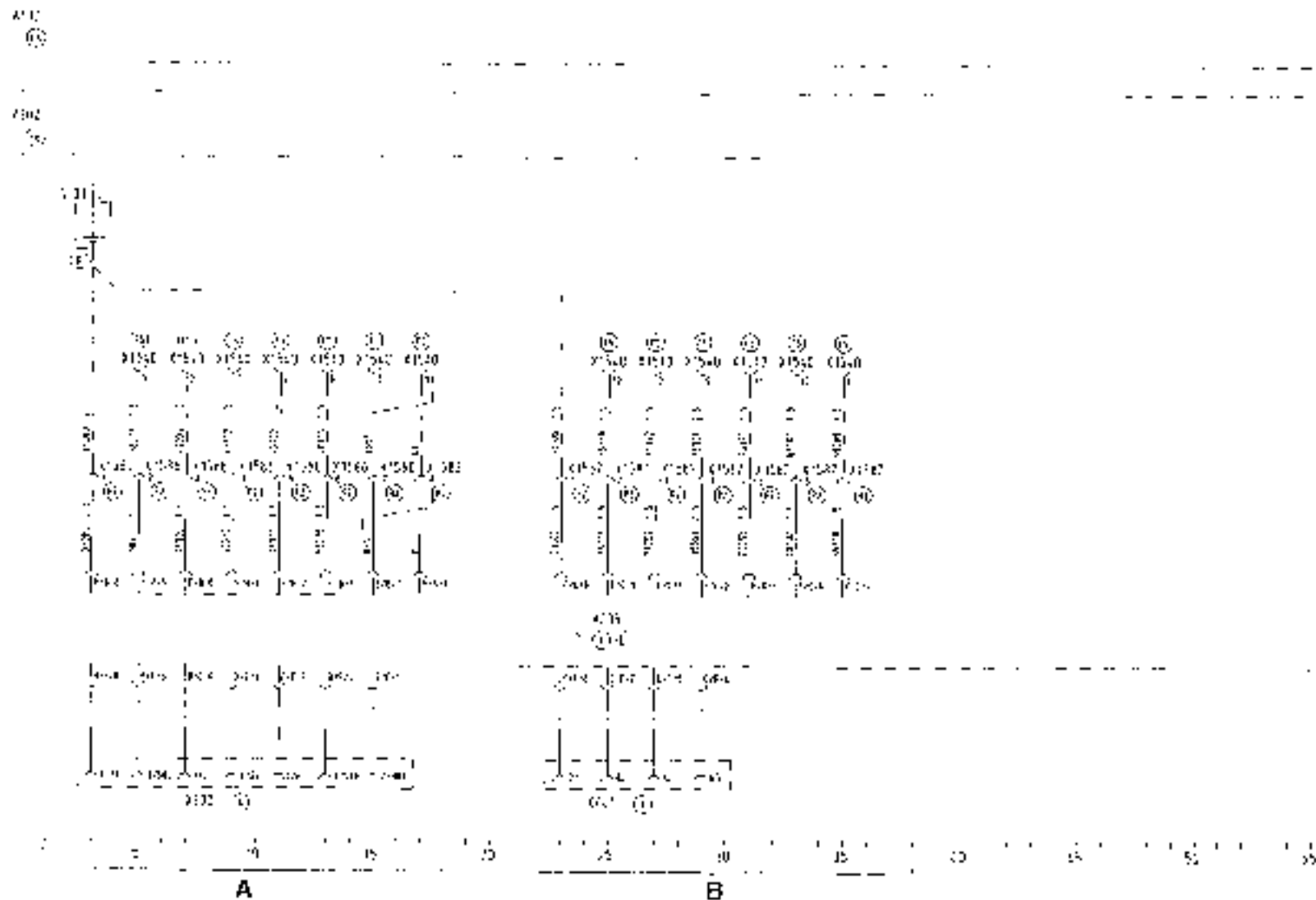
X1586 Std. connection for trailer lighting socket 1

X1587 Std. connection for trailer lighting socket 2

Marking of mounting positions

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electric area    | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192 2448 Sheet 1 of 2



**Trailer lighting socket 24V 7-pin/4-pin + 12V 13-pin**

**Legend**

Wiring diagram no. 81.99192.2448 Sheet 2 of 2  
 Change status: 07.09

**A = Trailer lighting socket 12V 13-pin**

- A130 (255) Central fuse, relay and terminal block
- A236 (503) DC-converter 24/12V
- A307 (352) Central computer 2
  
- X740 (206) Trailer lighting socket 12V

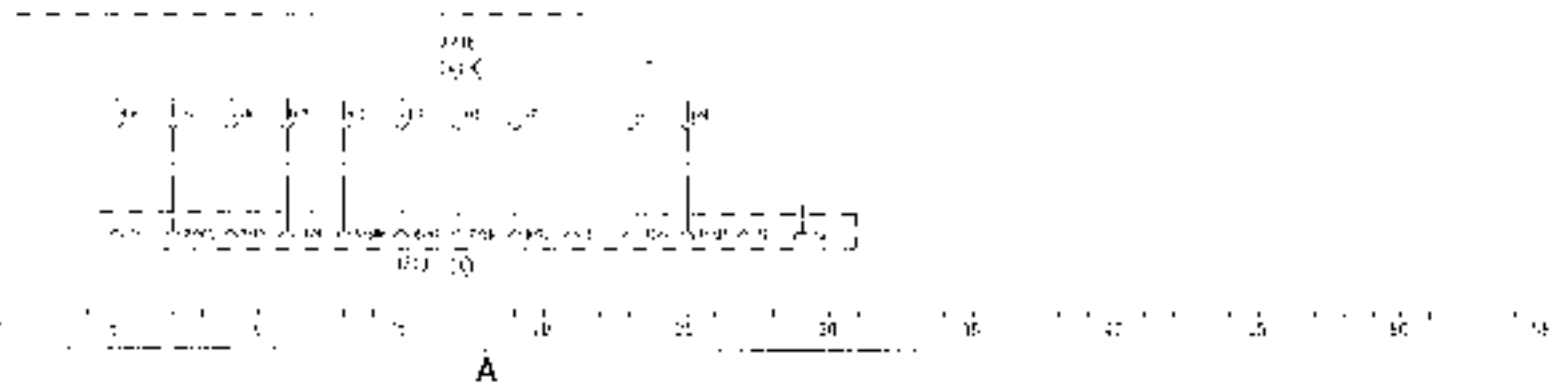
**Marking of mounting positions**

- (S) Tail
- (E) Engine
- (G) Gearbox
- (F) Front
- (B) Bumper
- (R) Entrance right
- (L) Entrance left
- (C) Central electric area
- (K) Control unit racks
- (P) Floor wall of cab
- (I) Instrument panel
- (O) Central part
- (U) Steering wheel/column
- (D) Foot pedals
- (R) Front wall, inside left
- (D) Front wall, inside right
  
- (S) Driving seat
- (P) Passenger seat
- (C) Control panel
- (B) Battery box
- (R) B-pillar on driver's side
- (L) A-pillar on driver's side
- (P) B-pillar on passenger's side
- (L) A-pillar on passenger's side
- (U) Ceiling/front
- (F) Front axle
- (R) Rear axle
- (R) Front part of frame
- (L) Rear part of frame
- (D) Door left
- (D) Door right

Wiring diagram no. 81.99192.2448 Sheet 2 of 2

2143  
20

2201  
20



Trailer lighting socket 24V 7-pin/7-pin + 12V 13-pin

**Legend**

Wiring diagram no. **81.99192.2449** Sheet 1 of 2

Change status: 03.99

**A = Trailer lighting socket 24V 7-pin N**

**B = Trailer lighting socket 24V 7-pin S**

A100 (255) Central fuse, relay and terminal block

A236 (E03) DC-converter 24/12V

A302 (352) Central computer 2

G101 (113) Battery 2

X329 (192) Socket connector S 24V

X330 (191) Socket connector N 24V

X1540 Std. frame 1

X1586 Std. connection for trailer lighting socket 1

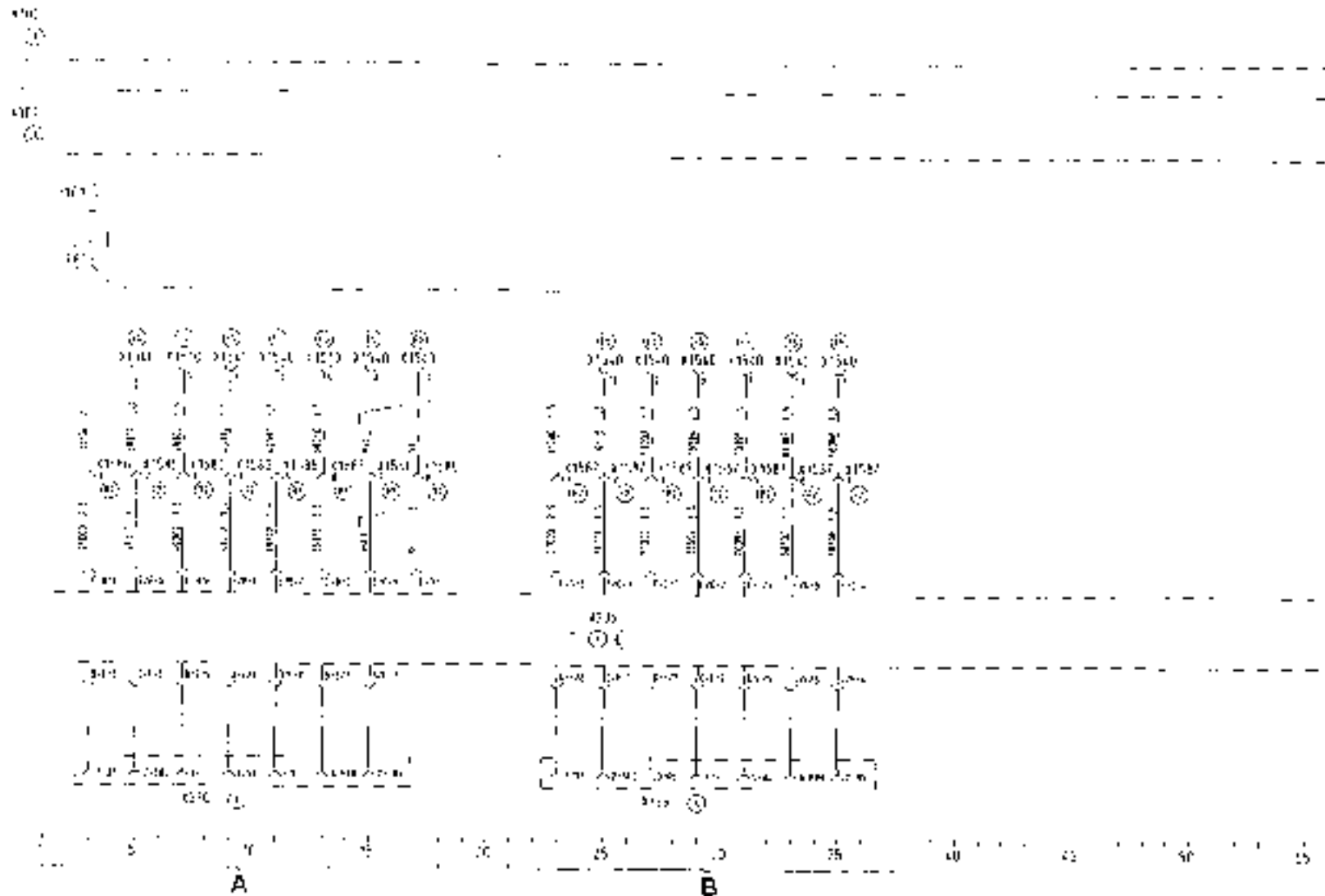
X1587 Std. connection for trailer lighting socket 2

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electronics area | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |



Wiring diagram no. 81.99192.2449 Sheet 1 of 2



**Trailer lighting socket 24V 7-pin/7-pin • 12V 13-pin**

**Legend**

Wiring diagram no. **81.99192.2448** Sheet 2 of 2  
 Change status: 07.99

**A = Trailer lighting socket 12V 13-pin**

- A100 (255) Central fuse, relay and terminal block
- A296 (509) DC-converter 24/12V
- A309 (152) Central computer 2
  
- X740 (206) Trailer lighting socket 12V

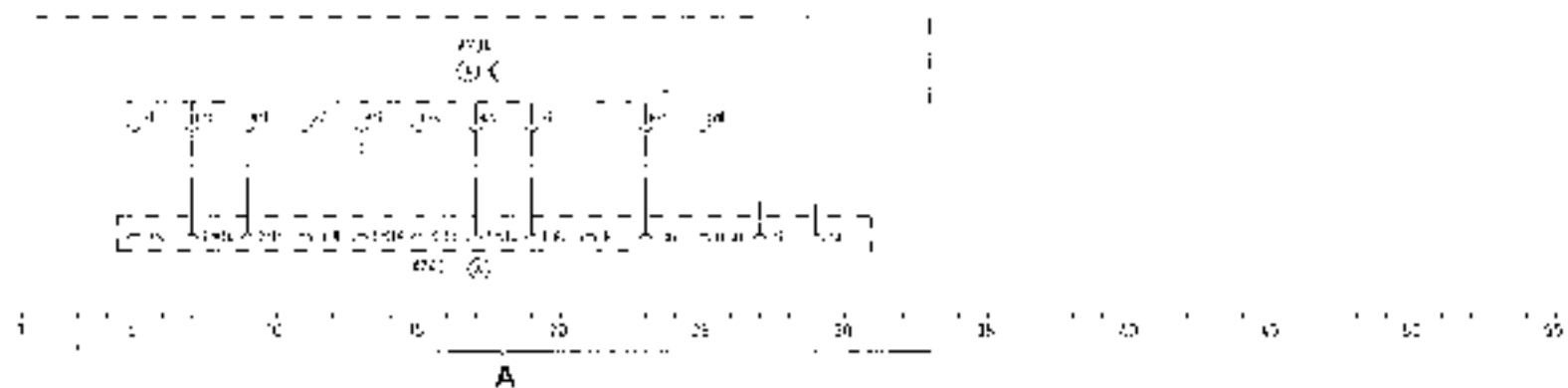
**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊕ | Passenger seat               |
| ⊕ | Gearbox                  | ⊕ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊕ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊕ | Central electric area    | ⊕ | A-pillar on passenger's side |
| ⊕ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊕ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊕ | Instrument panel         | ⊕ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊕ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊕ | Foot pedals              | ⊕ | Door left                    |
| ⊕ | Front wall, inside left  | ⊖ | Door right                   |
| ⊕ | Front wall, inside right |   |                              |

Wiring diagram no. **81.99192.2449** Sheet 2 of 2

M10  
30

M17  
30



**Trailer lighting socket 24V 15-pin + 12V 13-pin**

**Legend**

Wiring diagram no. **81.99192.2650** Sheet 1 of 2  
 Change status: 03.99

**A = Trailer lighting socket 24V 15-pin**

**A100** (255) Central fuse, relay and terminal block  
**A236** (503) DC-converter 24/12V  
**A302** (352) Central computer 2

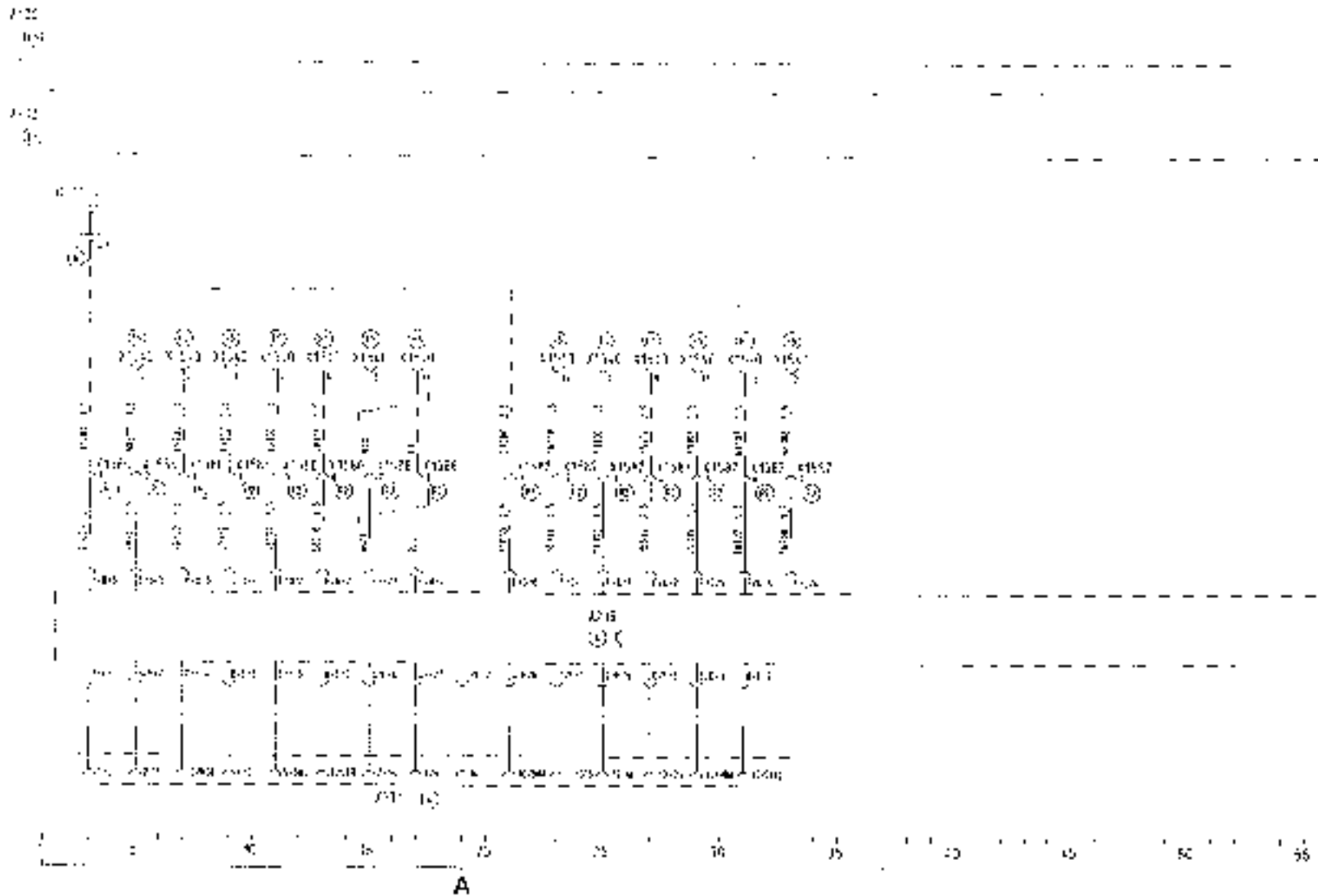
**G101** (113) Battery 2

**X331** (191) Socket 24V  
**X1540** Stvd. frame 1  
**X1586** Stvd. connection for trailer lighting socket 1  
**X1587** Stvd. connection for trailer lighting socket 2

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electric area    | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2650 Sheet 1 of 2



**Trailer lighting socket 24V 15-pin + 12V 13-pin**

**Legend**

Wiring diagram no. **81.99192.2650** Sheet 2 of 2  
 Change status 08/99

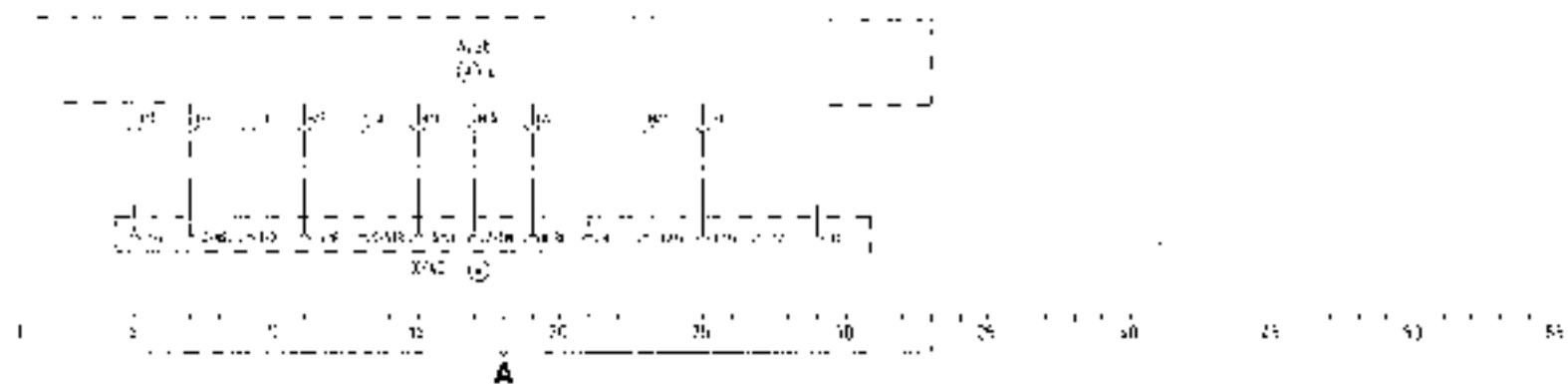
**A = Trailer lighting socket 12V 13-pin**

- A100 (255) Central fuse, relay and terminal block
- A236 (503) DC-converter 24/12V
- A302 (152) Central computer 2
  
- X740 (206) Trailer lighting socket 12V

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊕ | Passenger seat               |
| ⊗ | Gear box                 | ⊕ | Control panel                |
| ⊙ | Front                    | ⊖ | Battery box                  |
| ⊕ | Bumper                   | ⊕ | B-pillar on driver's side    |
| ⊕ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊕ | B-pillar on passenger's side |
| ⊖ | Central electrics area   | ⊖ | A-pillar on passenger's side |
| ⊕ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊗ | Rear wall of cab         | ⊕ | Front axle                   |
| ⊕ | Instrument panel         | ⊖ | Rear axle                    |
| ⊕ | Central part             | ⊕ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊕ | Front wall, inside left  | ⊕ | Door right                   |
| ⊕ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2650 Sheet 2 of 2



**ASR traction control indicator light**

**Legend**

Wiring diagram no. **81.89192.1358** Sheet 1 of 1  
 Change status: 04/01

**A = ASR indicator light**

A1(X) (255) Central fuse, relay and terminal block  
 A302 (352) Central computer 2  
 A407 (342) Instrumentation

H140 Indicator light, ASR/ESP information

**Marking of mounting positions**

- ⊙ Tail
- ⊙ Engine
- ⊙ Gearbox
- ⊙ Front
- ⊙ Bumper
- ⊙ Entrance right
- ⊙ Entrance left
- ⊙ Central electrics area
- ⊙ Control unit racks
- ⊙ Rear wall of cab
- ⊙ Instrument panel
- ⊙ Central part
- ⊙ Steering wheel/column
- ⊙ Foot pedals
- ⊙ Front wall, inside left
- ⊙ Front wall, inside right
- ⊙ Driving seat
- ⊙ Passenger seat
- ⊙ Control panel
- ⊙ Battery box
- ⊙ B-pillar on driver's side
- ⊙ A-pillar on driver's side
- ⊙ R-pillar on passenger's side
- ⊙ A-pillar on passenger's side
- ⊙ Ceiling/roof
- ⊙ Front axle
- ⊙ Rear axle
- ⊙ Front part of frame
- ⊙ Rear part of frame
- ⊙ Door left
- ⊙ Door right

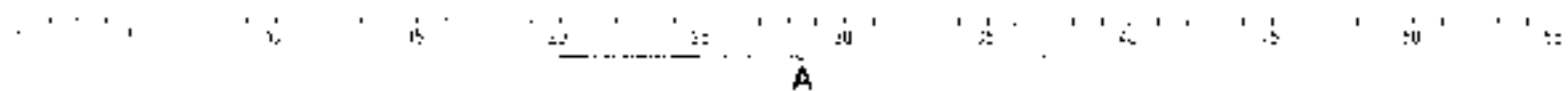
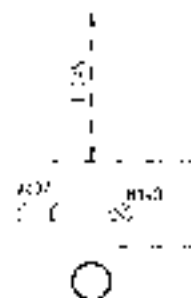
① For basic equipment please refer to EBS wiring diagram



Wiring Diagram no. **B1.99192.1358** Sheet 1 of 1

M10  
10

M10  
10



**ASR traction control slip threshold control switch**

**Legend**

Wiring diagram no. 81.99192.1359 Sheet 1 of 1

Change status: 07.01

**A = ASR slip threshold control switch**

A100 (255) Central fuse, relay and terminal block

A302 (352) Central computer >

A402 (398) EBS control unit

S250 (455) Control switch ASR or increase in ASH/ESP slip threshold

X2541 (246) Potential distributor, 21-pin, cable 31300

X2542 (246) Potential distributor, 21-pin, cable 58100

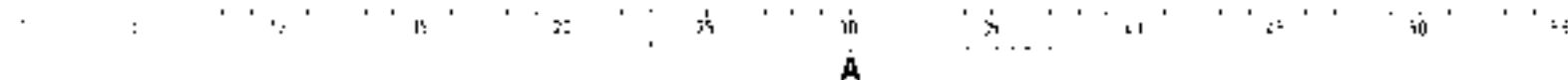
**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electric area    | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/corumn    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. **81.99192.1359** Sheet 1 of 1

100  
63

100  
63



**ASR traction control system/electronic stability program  
ASR/ESP indicator light**

**Legend**

Wiring diagram no. **B1.99192.2662** Sheet 1 of 1  
Change status: 03.01

**A = ASR/ESP indicator light**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A107** (342) Instrumentation

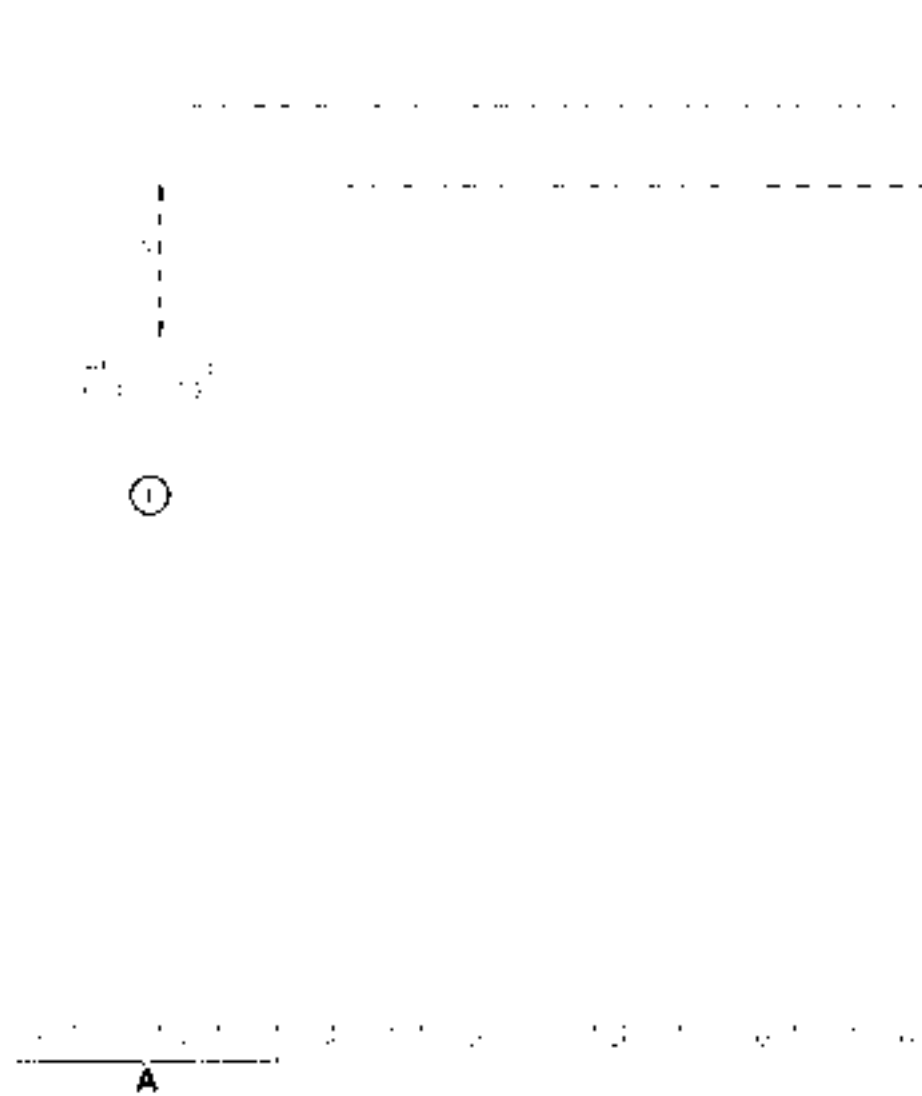
**H415** Indicator light, driving stability

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊕ Tail                     | ⊕ Driving seat                 |
| ⊕ Engine                   | ⊕ Passenger seat               |
| ⊕ Gearbox                  | ⊕ Control panel                |
| ⊕ Front                    | ⊕ Battery box                  |
| ⊕ Bumper                   | ⊕ B-pillar on driver's side    |
| ⊕ Entrance right           | ⊕ A-pillar on driver's side    |
| ⊕ Entrance left            | ⊕ B-pillar on passenger's side |
| ⊕ Central electronics area | ⊕ A-pillar on passenger's side |
| ⊕ Control unit racks       | ⊕ Ceiling/roof                 |
| ⊕ Rear wall of cab         | ⊕ Front axle                   |
| ⊕ Instrument panel         | ⊕ Rear axle                    |
| ⊕ Central part             | ⊕ Front part of frame          |
| ⊕ Steering wheel/column    | ⊕ Rear part of frame           |
| ⊕ Foot pedals              | ⊕ Door left                    |
| ⊕ Front wall, inside left  | ⊕ Door right                   |
| ⊕ Front wall, inside right |                                |

○ For basic equipment please refer to EBS wiring diagram

Wiring diagram no. 81.99192.2682 Sheet 1 of 1



**ASR traction control system/electronic stability program  
ASR/ESP slip threshold control switch**

**Legend**

Wiring diagram no. 81.99192.1360 Sheet 1 of 1  
Change status: 07/01

**A = ASR/ESP slip threshold control switch**

A100 (255) Central fuse, relay and terminal block  
A302 (352) Central computer 2  
A402 (399) EBS control unit

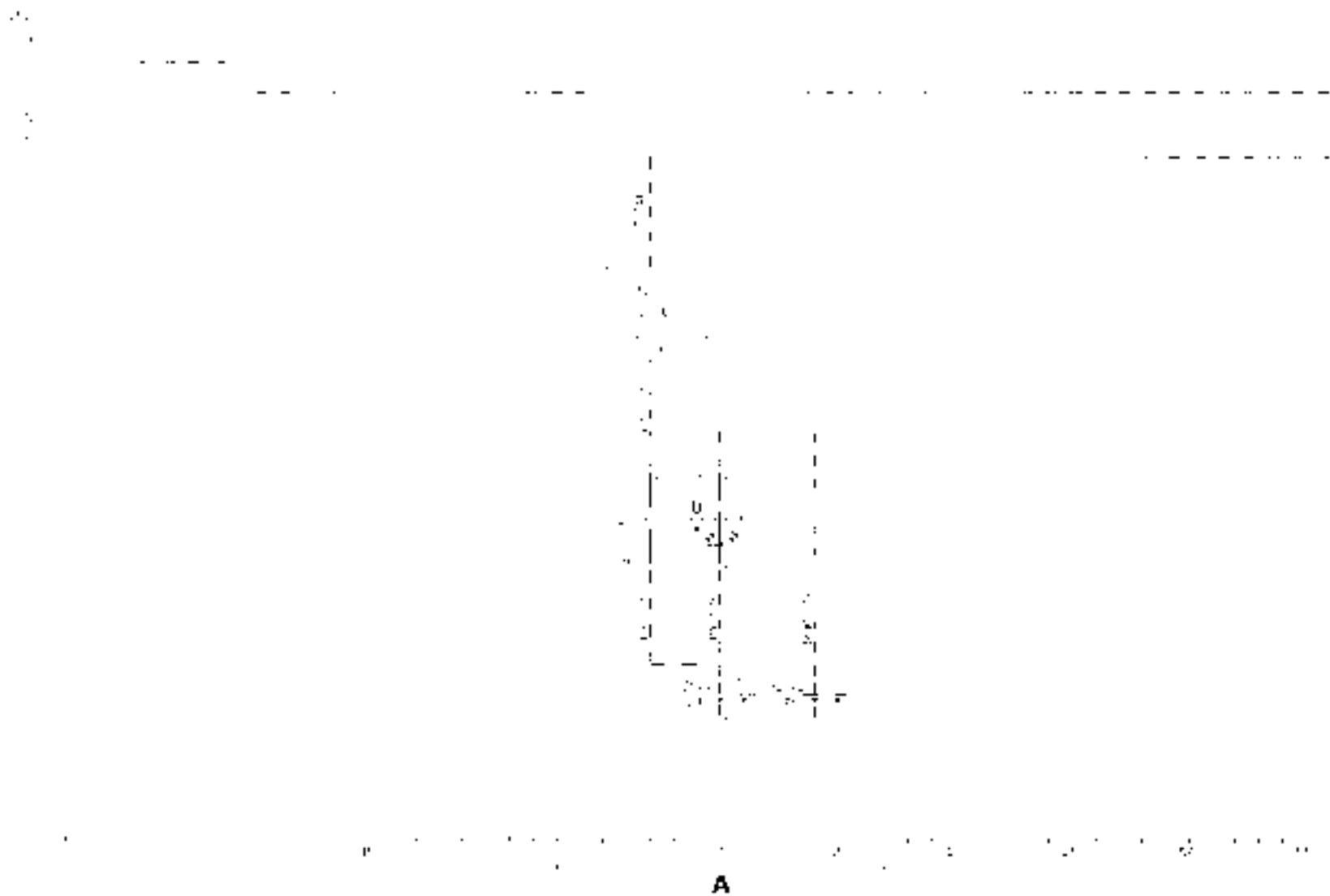
S256 (675) Control switch ASR or increase in ASR/ESP slip threshold

X2541 (246) Potential distributor, 21-pin, cable 31000  
X2542 (246) Potential distributor, 21-pin, cable 38000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓜ Driving seat                 |
| Ⓑ Engine                   | Ⓝ Passenger seat               |
| Ⓒ Gearbox                  | Ⓞ Control panel                |
| Ⓓ Front                    | Ⓟ Battery box                  |
| Ⓛ Bumper                   | Ⓠ B-pillar on driver's side    |
| Ⓜ Entrance right           | Ⓡ A-pillar on driver's side    |
| Ⓨ Entrance left            | Ⓢ B-pillar on passenger's side |
| Ⓩ Central electrics area   | Ⓣ A-pillar on passenger's side |
| ⓐ Control unit racks       | Ⓤ Ceiling/mof                  |
| ⓑ Rear wall of cab         | ⓖ Front axle                   |
| Ⓙ Instrument panel         | ⓗ Rear axle                    |
| Ⓚ Control panel            | Ⓤ Front part of frame          |
| Ⓛ Steering wheel/column    | ⓗ Rear part of frame           |
| Ⓜ Foot pedals              | Ⓢ Door left                    |
| Ⓨ Front wall, inside left  | Ⓣ Door right                   |
| Ⓩ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1360 Sheet 1 of 1



**Work spotlight on top of cab**

**Legend**

Wiring diagram no. **81.99192.1356** Sheet 1 of 1  
Change status 04.01

**A = Work spotlight**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer ?

**E208** (171) Work spotlight, right  
**E209** (171) Work spotlight, left

**F215** (119) Fuse, work spotlight

**S225** (481) Switch, work spotlight

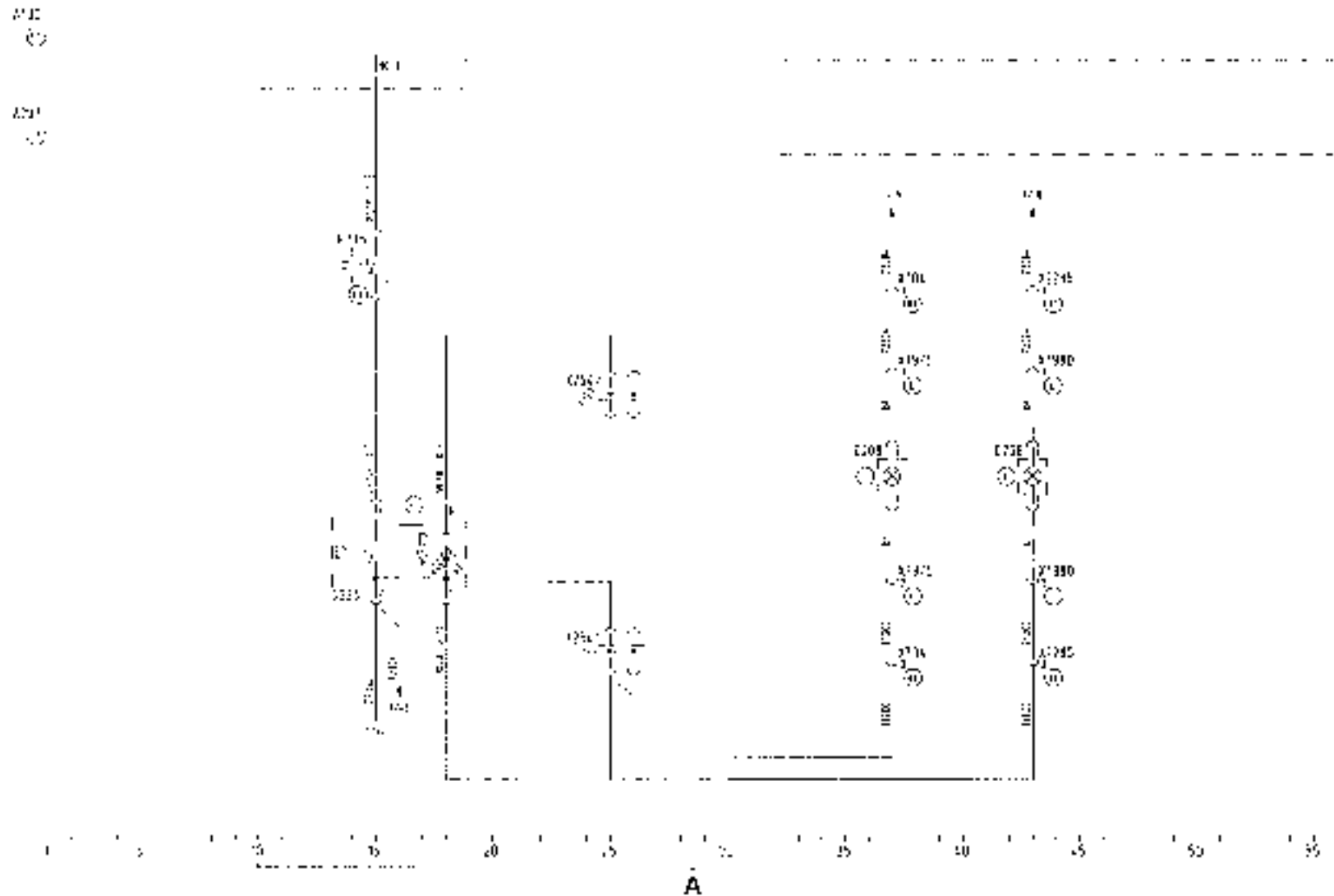
**X704** Std. work spotlight, left  
**X1975** Std. work spotlight in roof, left  
**X1980** Std. work spotlight in roof, right  
**X2285** Std. work spotlight  
**X2541** (246) Potential distributor, 21-pin, cable 31000  
**X2542** (246) Potential distributor, 21-pin, cable 68000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊙ Tail                     | ⊙ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊙ Gearbox                  | ⊙ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Bumper                   | ⊙ B-pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B-pillar on passenger's side |
| ⊙ Central electrics area   | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/roof                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊙ Central part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Foot pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |



Wiring diagram no. 81.99192.1356 Sheet 1 of 1



**Work spotlight, cab closure (left/right)**

**Legend**

Wiring diagram no. 81.99192.1355 Sheet 1 of 1

Change status: 04.01

**A = Work spotlight**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**E208** (171) Work spotlight, right

**E209** (171) Work spotlight, left

**F215** (118) Fuse, work spotlight

**S225** (491) Switch, work spotlight

**X1862** Steel work spotlight

**X2541** (246) Potential distributor, 21-pin, cable 31010

**X2542** (246) Potential distributor, 21-pin, cable 58000

**Marking of mounting positions**

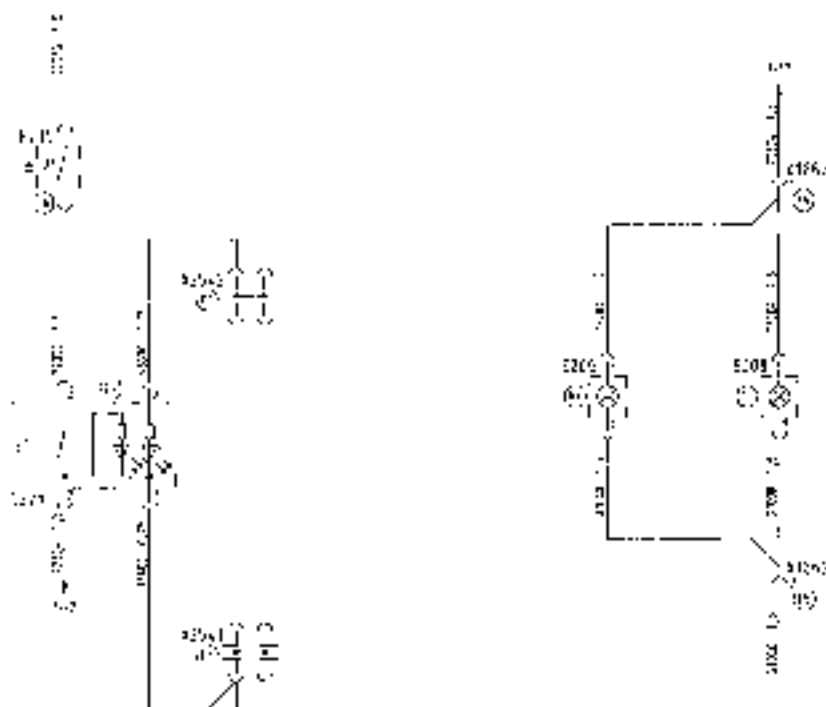
- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓔ Rumper                   | Ⓜ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓝ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓟ B-pillar on passenger's side |
| Ⓗ Central electric area    | Ⓠ A-pillar on passenger's side |
| Ⓜ Control unit racks       | Ⓡ Ceiling/roof                 |
| Ⓝ Rear wall of cab         | Ⓢ Front axle                   |
| Ⓟ Instrument panel         | Ⓣ Rear axle                    |
| Ⓠ Control part             | Ⓤ Front part of frame          |
| Ⓡ Steering wheel/column    | Ⓝ Rear part of frame           |
| Ⓢ Foot pedals              | Ⓟ Door left                    |
| Ⓣ Front wall, inside left  | Ⓠ Door right                   |
| Ⓤ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1355 Sheet 1 of 1

F06



F07



0 5 10 15 20 25 30 35 40 45 50 55

A

**Work spotlight, cab closure (right)**

**Legend**

Wiring diagram no. **81.99192.1357** Sheet 1 of 1

Change status: 04.01

**A = Work spotlight**

A100 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

EX19 (171) Work spotlight, left

F215 (119) Fuse, work spotlight

S225 (481) Switch, work spotlight

X1862 Std. work spotlight

X2541 (248) Potential distributor, 21-pin, cable 31000

X2542 (249) Potential distributor, 21-pin, cable 56000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓜ Driving seat                 |
| Ⓑ Engine                   | Ⓝ Passenger seat               |
| Ⓒ Gearbox                  | Ⓞ Control panel                |
| Ⓓ Front                    | Ⓟ Battery box                  |
| Ⓔ Bumper                   | Ⓠ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓡ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓢ B-pillar on passenger's side |
| Ⓗ Central electronics area | Ⓣ A-pillar on passenger's side |
| Ⓘ Control unit racks       | Ⓤ Ceiling/roof                 |
| Ⓚ Rear wall of cab         | Ⓡ Front axle                   |
| Ⓛ Instrument panel         | Ⓢ Rear axle                    |
| Ⓜ Central part             | Ⓣ Front part of frame          |
| Ⓝ Steering wheel/column    | Ⓤ Rear part of frame           |
| Ⓞ Foot pedals              | Ⓡ Door left                    |
| Ⓟ Front wall, inside left  | Ⓢ Door right                   |
| Ⓠ Front wall, inside right |                                |

Wiring diagram no. 81.99192-1357 Sheet 1 of 1

4.1  
4.2

4.3  
4.4



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

A



**Emergency battery shutdown**

**Legend**

































Wiring diagram no. **81.99192.1362** Sheet 1 of 2

Change status: 04.01

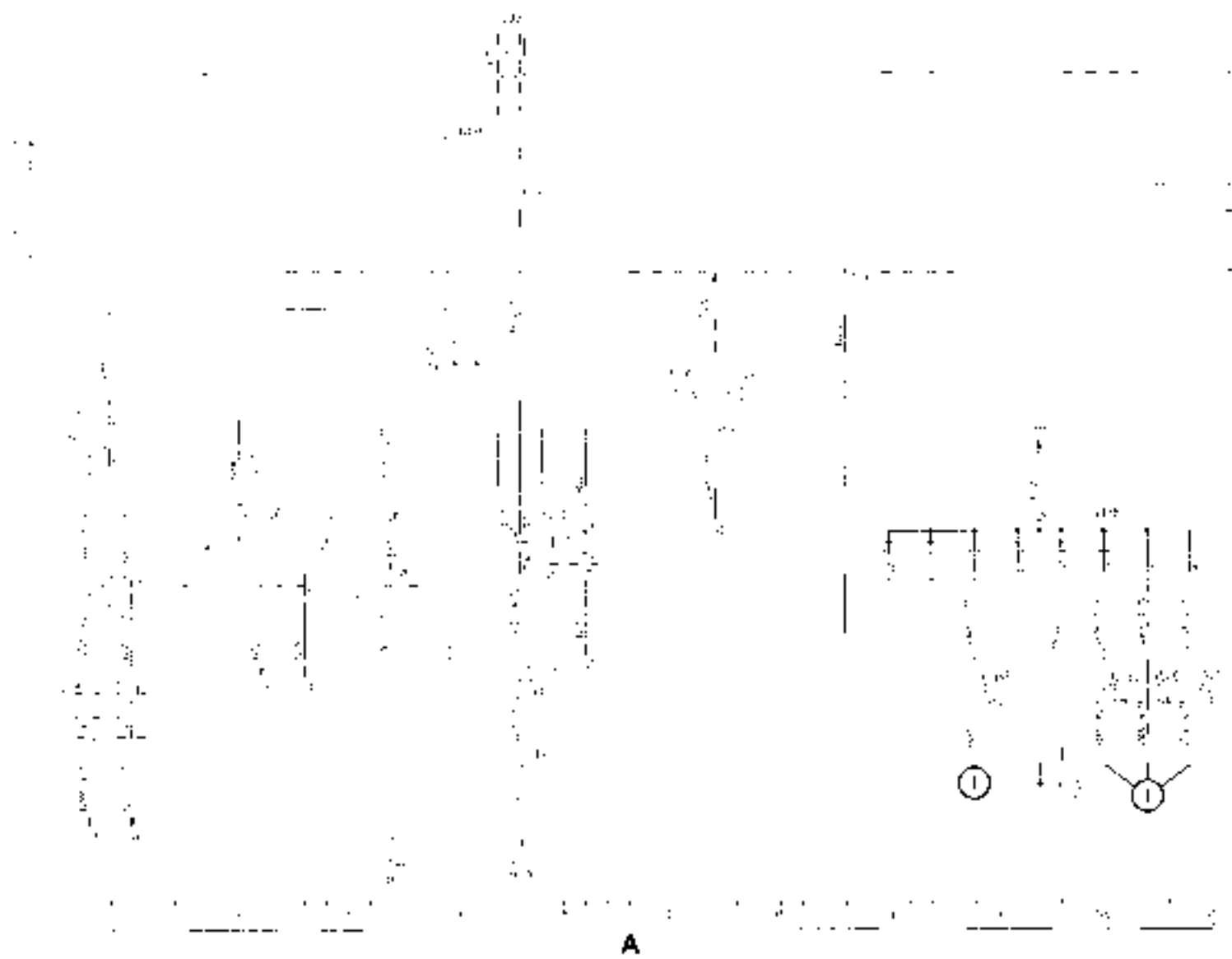
**A = Emergency battery shutdown**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A302</b>	(352)	Central computer 2
<b>A407</b>	(342)	Instrumentation
<b>F399</b>	(111)	Generator fuse (terminal 15)
<b>H304</b>		Indicator light, emergency shutdown malfunction
<b>K216</b>	(281)	Relay, emergency shutdown generator
<b>S289</b>	(587)	Switch emergency shutdown, cab. external
<b>S621</b>	(589)	Switch, isolator switch, battery
<b>S622</b>	(588)	Switch emergency shutdown, cab
<b>V198</b>	(120)	Diode group, 81 mos. for battery emergency shutdown switch
<b>X546</b>		Std. additional heating - battery main switch, electrical
<b>X1551</b>		Std. engine/EDC/transmission II
<b>X1644</b>		Earthing point, cab. adjacent to central fuse, relay and terminal block
<b>X1754</b>		Crimped connector, line 59104
<b>X2054</b>		Std. emergency shutdown generator, terminal 15
<b>X2177</b>		Std. emergency shutdown switch, external
<b>X2185</b>		Std. extra water heating - battery isolator switch
<b>X2542</b>	(248)	Potential distributor, 21-pin line 58000

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Rumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electric area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		
	Supplementary heater		

Wiring diagram no. 81.99192.1362 Sheet 1 of 2



A



**Emergency battery shutdown**

**Legend**

Wiring diagram no. 81.99192.1362 Sheet 2 of 2  
Change status 04.01

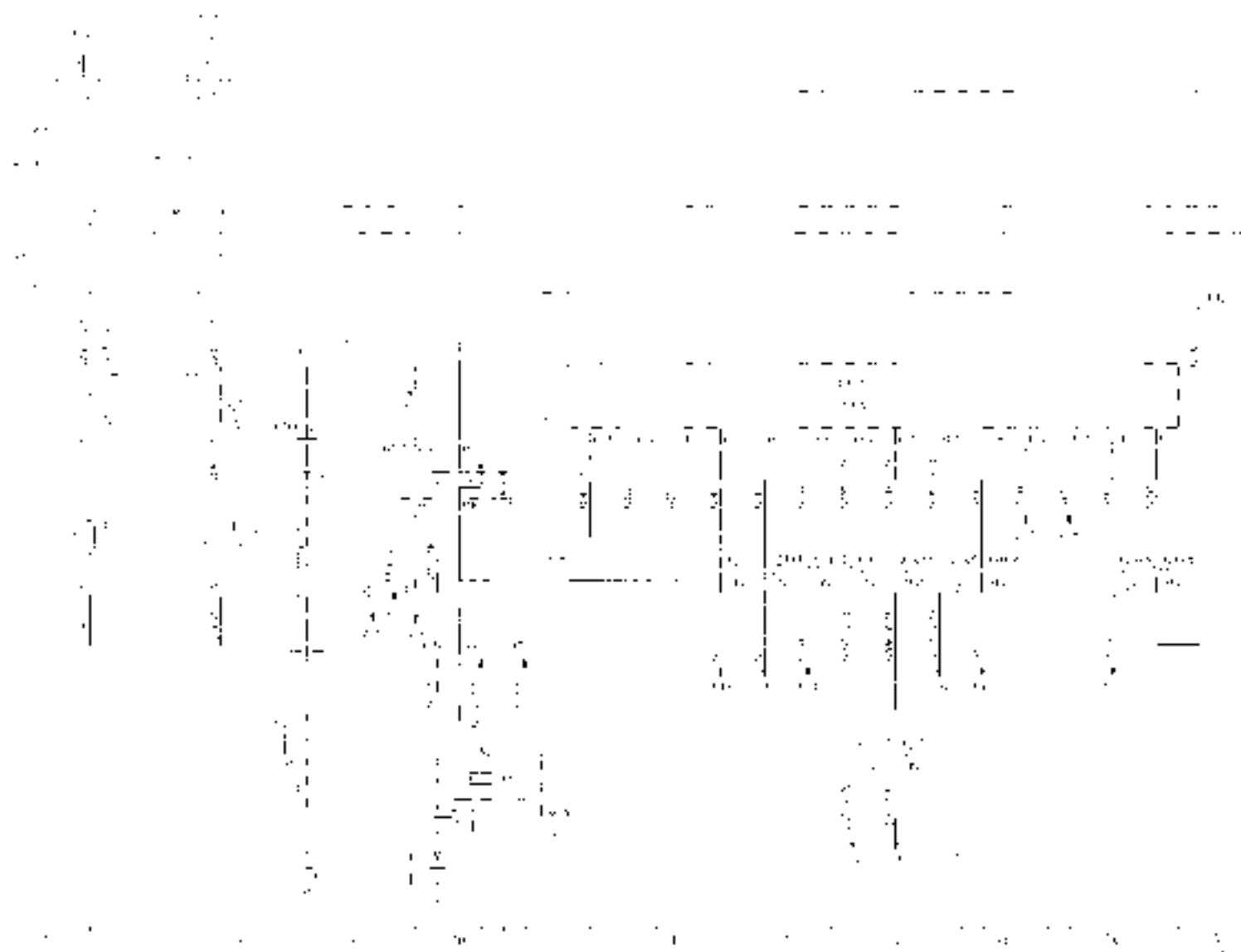
**A = Emergency battery shutdown**

<b>A100</b>	(255)	Control fuse, relay and terminal block
<b>A332</b>	(352)	Control computer 2
<b>A317</b>	(497)	Control unit, battery isolator switch, emergency battery shutdown
<b>F128</b>	(101)	Fuse, permanent consumer
<b>F243</b>	(105)	Fuse central vehicle computer, permanent positive
<b>F522</b>	(105)	Fuse, load 30000
<b>F523</b>	(105)	Fuse, load 30000
<b>G100</b>	(113)	Battery 1
<b>G101</b>	(113)	Battery 2
<b>M100</b>	(144)	Starting motor
<b>Q105</b>	(112)	Isolator switch, battery +
<b>X100</b>		Earthing point engine
<b>X1557</b>		Stvd frame, left
<b>X2033</b>		Stvd emergency battery shutdown
<b>X2048</b>		Stvd emergency shutdown
<b>X2177</b>		Stvd emergency shutdown switch, external

**Marking of mounting positions**

⊗	Tail	⊗	Driving seat
⊙	Engine	⊙	Passenger seat
⊗	Gearbox	⊙	Control panel
⊙	Front	⊙	Battery box
⊙	Bumper	⊙	B-pillar on driver's side
⊙	Entrance right	⊙	A-pillar on driver's side
⊙	Entrance left	⊙	B-pillar on passenger's side
⊙	Central electric's area	⊙	A-pillar on passenger's side
⊙	Control unit racks	⊙	Ceiling/roof
⊙	Rear wall of cab	⊙	Front axle
⊙	Instrument panel	⊙	Rear axle
⊙	Central part	⊙	Front part of frame
⊙	Steering wheel/column	⊙	Rear part of frame
⊙	Foot pedals	⊙	Door left
⊙	Front wal , inside left	⊙	Door right
⊙	Front wal , inside right		

Wiring diagram no. **81.99192.1352** Sheet **2** of **2**



**A**

**Main battery switch (electric)**

**Legend**

Wiring diagram no. **81.99192.1351** Sheet 1 of 1  
 Change status 04.01

**A = Main battery switch (electric)**

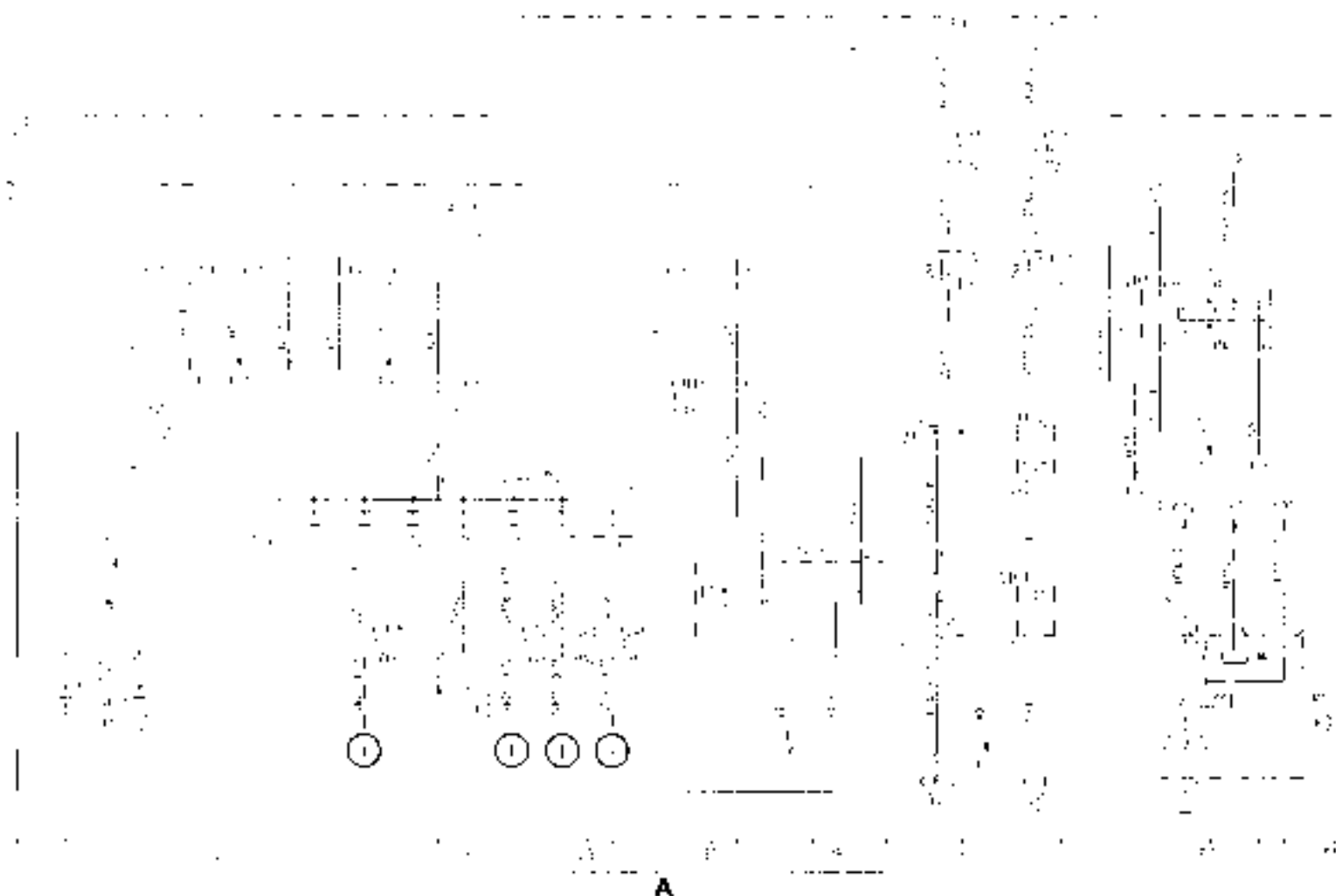
A100	(255) Central fuse, relay and terminal block
A302	(352) Central computer 2
A373	(507) Control unit, battery isolator switch Electrical main battery switch
F522	(105) Fuse, lead 30000
F622	(105) Fuse, lead 30000
G100	(113) Battery 1
G101	(113) Battery 2
M100	(144) Starting motor
Q105	(112) Isolator switch, battery 1
S621	(589) Switch, isolator switch, battery
V188	(120) Diode group, 8 times, battery isolator switch.
V634	(117) Diode group, 2 times, V635, V636
V635	Diode central vehicle computer - control unit, battery isolator switch
V636	Diode terminal 15 - control unit battery isolator switch
X100	Earthing point, engine
X546	Std. extra water heating - battery isolator switch
X1557	Std. frame left
X1644	Earthing point, cab, adjacent to central fuse, relay and terminal block
X1754	Crimped connector, line 58104

**Marking of mounting positions**

(A) Tail	(13) Driving seat
(B) Engine	(14) Passenger seat
(C) Gearbox	(15) Control panel
(D) Front	(16) Battery box
(E) Bumper	(17) R-pillar on driver's side
(F) Entrance right	(18) A-pillar on driver's side
(G) Entrance left	(19) B-pillar on passenger's side
(H) Central electronics area	(20) A-pillar on passenger's side
(I) Control unit racks	(21) Ceiling/roof
(J) Rear wall of cab	(22) Front axle
(K) Instrument panel	(23) Rear axle
(L) Central part	(24) Front part of frame
(M) Steering wheel/column	(25) Rear part of frame
(N) Foot pedals	(26) Door left
(O) Front wall, inside left	(27) Door right
(P) Front wall, inside right	
(Q) Supplementary heater	

X2003	Std. battery isolator switch
X2048	Std. battery isolator switch
X2185	Std. extra water heating - battery isolator switch
X2542 (246)	Potential distributor, 21-pin line 58100

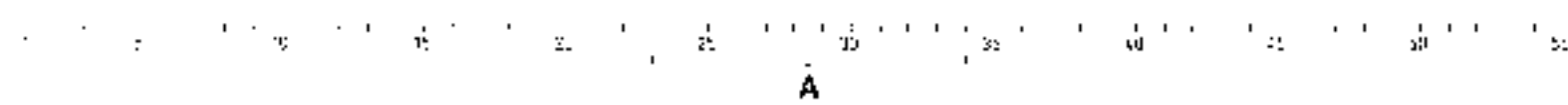
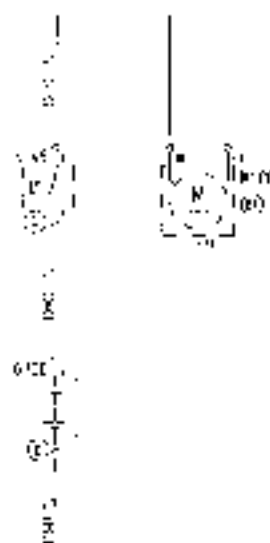
Wiring diagram no. **81.99192-1351** Sheet 1 of 1



Wiring diagram no. 81.99192.2495 Sheet 1 of 1

A 00  
(1)

A 00  
(2)





**CAN databus instrumentation (I-CAN)/tachograph (FS-CAN)**

**Legend**

Wiring diagram no. 81.99192.2377 Sheet 1 of 1

Change status: 03.00

**A = I-CAN/FS-CAN**

A100 (255) Central fuse, relay and terminal block

A302 (352) Control computer ?

A407 (342) Instrumentation

A408 (403) Tachograph

F398 Fuse, tachograph, instrumentation (terminal 15)

X1535 Styl. cab tachograph

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block

X1757 Soldered connector, line 16006

**Marking of mounting positions**

① Tail

② Engine

③ Gearbox

④ Front

⑤ Bumper

⑥ Entrance right

⑦ Entrance left

⑧ Central electrics area

⑨ Control unit racks

⑩ Rear wall of cab

⑪ Instrument panel

⑫ Central part

⑬ Steering wheel/column

⑭ Foot pedals

⑮ Front wall, inside left

⑯ Front wall, inside right

⑰ Driving seat

⑱ Passenger seat

⑲ Control panel

⑳ Battery box

㉑ B-pillar on driver's side

㉒ A-pillar on driver's side

㉓ B-pillar on passenger's side

㉔ A-pillar on passenger's side

㉕ Ceiling/roof

㉖ Front axle

㉗ Rear axle

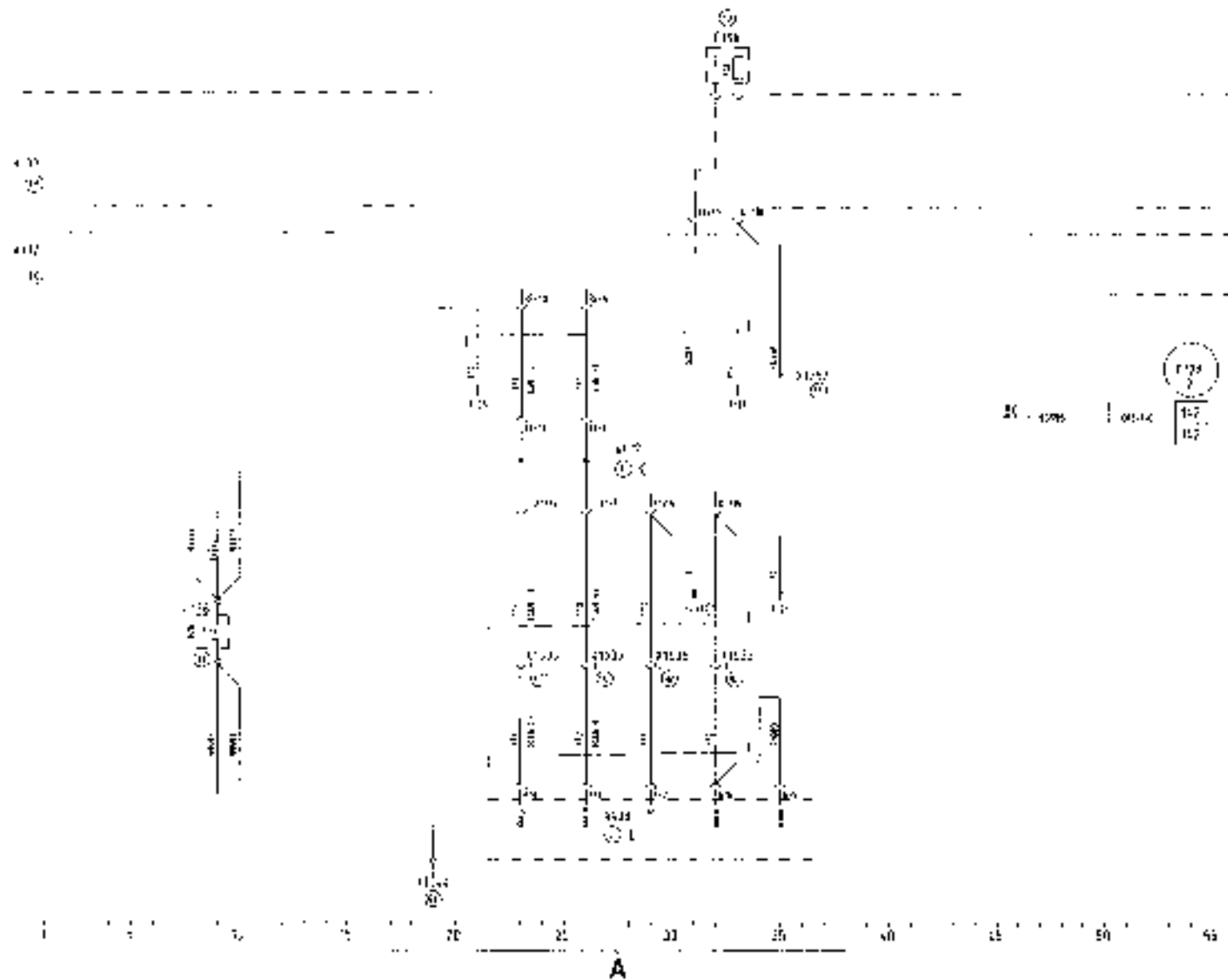
㉘ Front part of frame

㉙ Rear part of frame

㉚ Floor left

㉛ Door right

Wiring diagram no. 81.99192.2377 Sheet 1 of 1





**CAN databus driveline (T-CAN)**

**Legend**

Wiring diagram no. **B1.99192.2359** Sheet 1 of 1  
 Change status: 03.00

**A = Vehicle management computer**

**B = Electronic braking system**

**C = Central vehicle computer**

**D = Oil level sensor**

**E = Electronically controlled air management unit**

A100 (245) Central fuse, relay and terminal block  
 A302 (352) Central computer 2  
 A402 (399) EBS control unit  
 A403 (339) Vehicle management computer  
 A409 (353) ECAM control unit  
 A551 (533) Control unit, oil level sensor

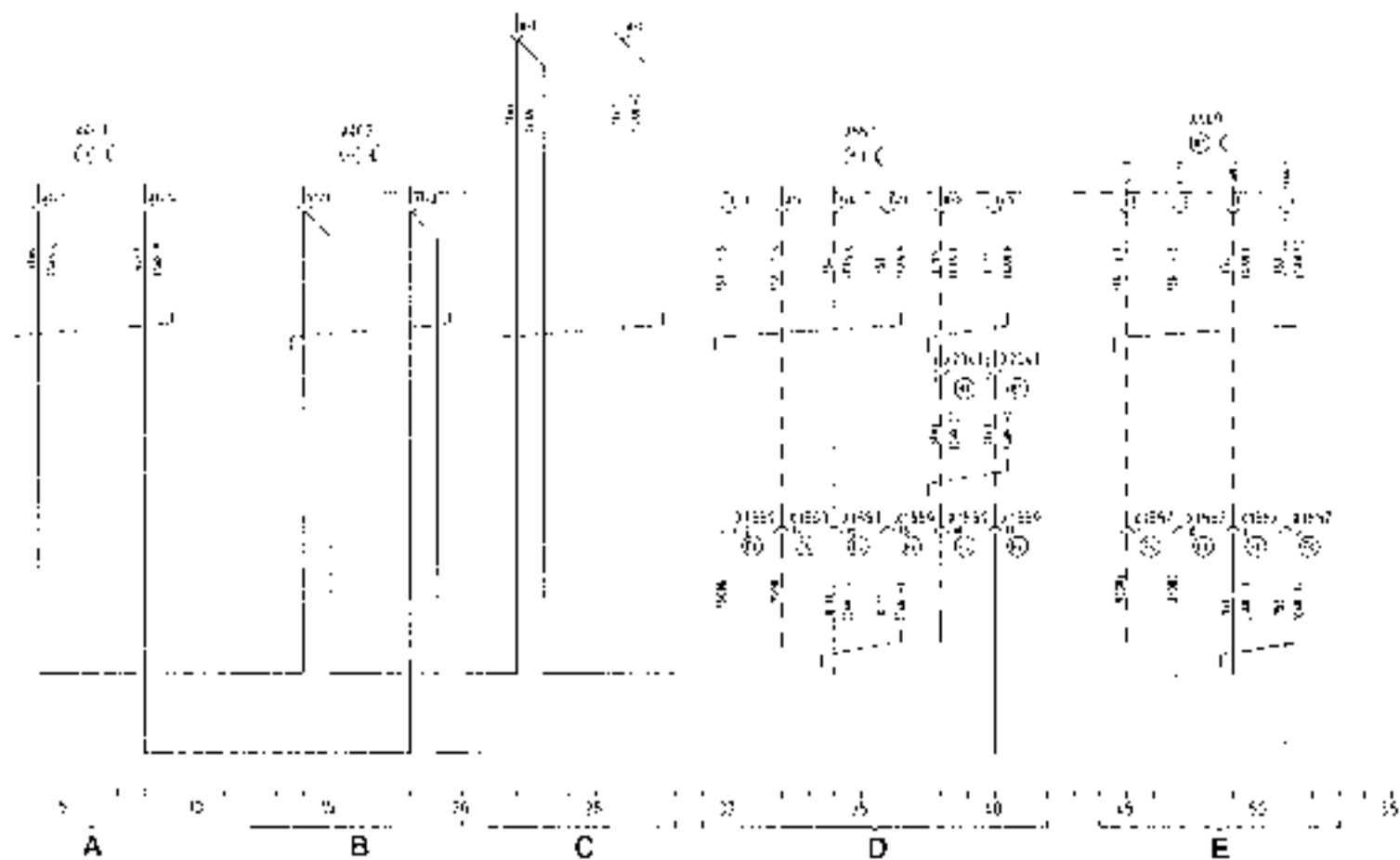
X1557 Std. frame, left  
 X1558 Std. engine/EUC/transmission IV  
 X2041 Std. adaptor AS-1HONIC

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electrics area   | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

A 10  
100

B 10  
100



**CAN databus driveline (T-CAN) with AS-TRONIC**

**Legend**

Wiring diagram no. **81.99192.2522** Sheet 1 of 1

Change status: 03.01

**A = Vehicle management computer**

**B = Electronic braking system**

**C = Central vehicle computer**

**D = Oil level sensor**
































**E = AS-TRONIC**

**F = Electronically controlled air management unit**

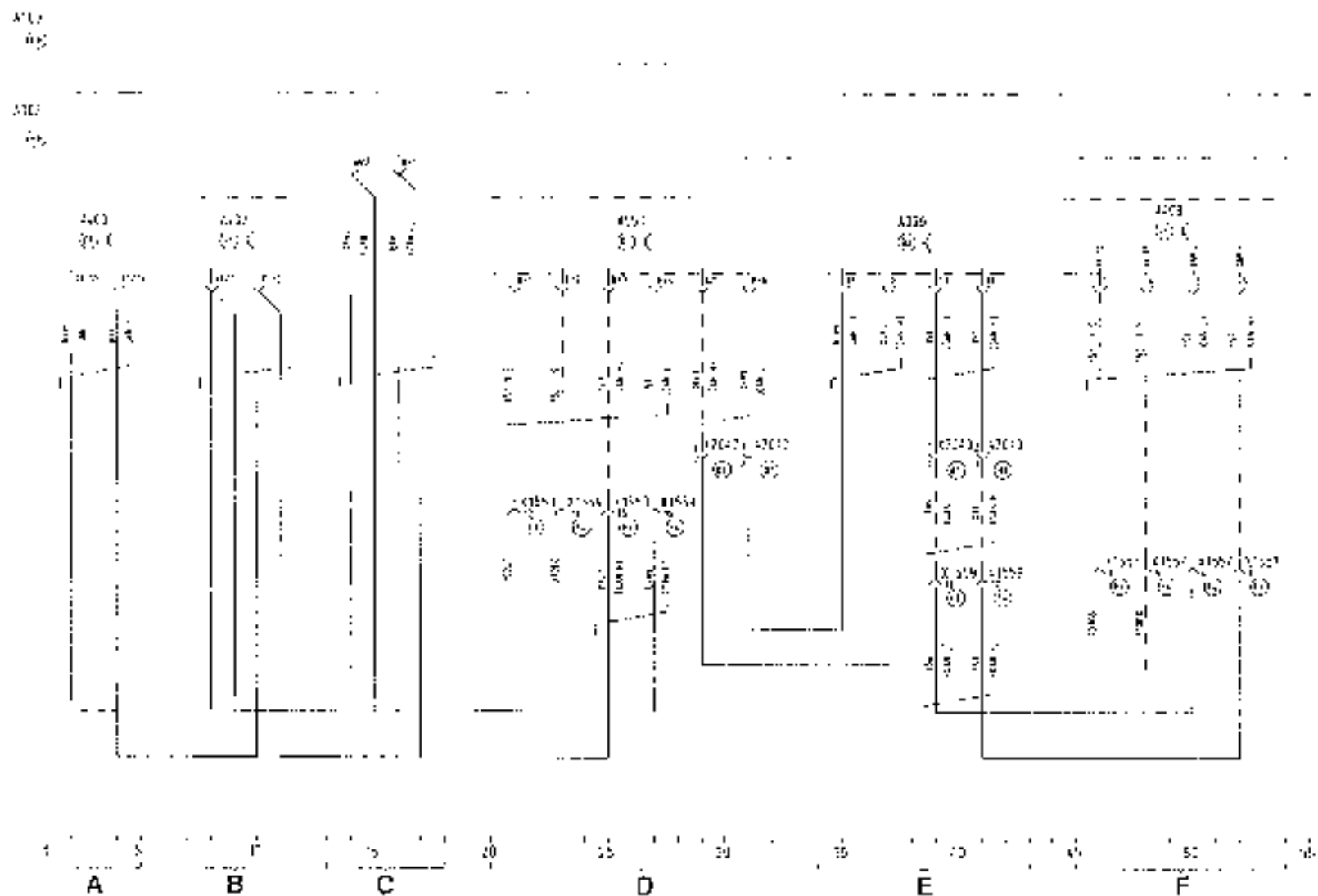
<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A302</b>	(352)	Central computer 2
<b>A330</b>	(442)	Control unit, AS-TRONIC (at gearbox)
<b>A402</b>	(399)	EBS control unit
<b>A403</b>	(339)	Vehicle management computer
<b>A409</b>	(353)	ECAM control unit
<b>A551</b>	(533)	Control unit, oil level sensor

<b>X1557</b>	Std.	frame left
<b>X1559</b>	Std.	engine/EOC/transmission IV
<b>X2042</b>	Std.	adaptation AS-TRONIC
<b>X2043</b>	Std.	adaptation AS-TRONIC

**Marking of mounting positions**

 Tail	 Driving seat
 Engine	 Passenger seat
 Gearbox	 Control panel
 Front	 Battery box
 Dumper	 B-pillar on driver's side
 Entrance right	 A-pillar on driver's side
 Entrance left	 B-pillar on passenger's side
 Central electronics area	 A-pillar on passenger's side
 Control unit racks	 Ceiling/roof
 Rear wall of cab	 Front axle
 Instrument panel	 Rear axle
 Central part	 Front part of frame
 Steering wheel/column	 Rear part of frame
 Foot pedals	 Door left
 Front wall, inside left	 Door right
 Front wall, inside right	

Wiring diagram no. 81.99192.2522 Sheet 1 of 1



**CAN databus driveline (T-CAN) with special customer module**

**Legend**

Wiring diagram no. **81.99192.2428** Sheet 1 of 1  
Change status 03.00

**A = Vehicle management computer**

**B = Electronic braking system**

**C = Special customer module**

**D = Central vehicle computer**

**E = Oil level sensor**

**F = Electronically controlled air management unit**

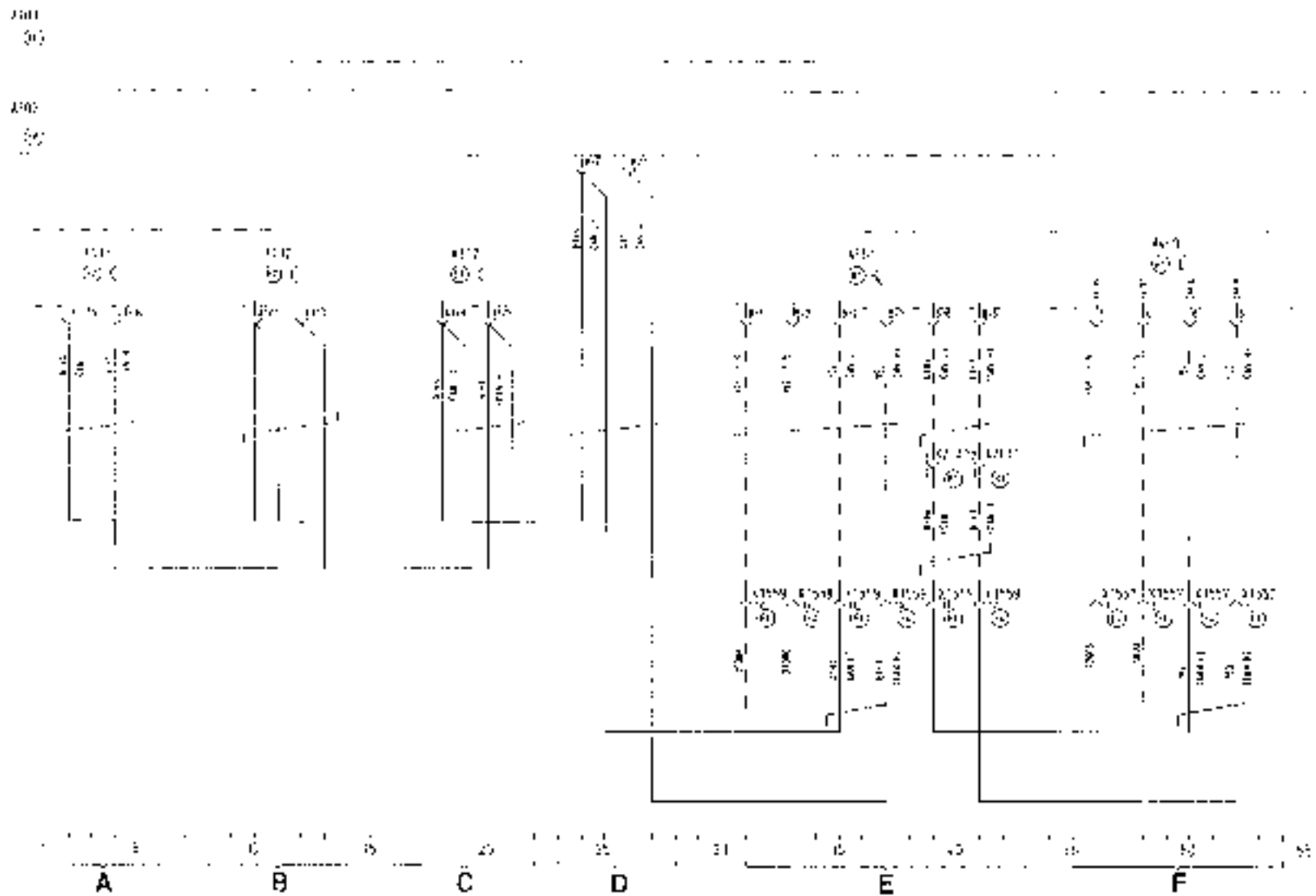
A100	{255}	Central fuse, relay and terminal block
A302	{352}	Central computer 2
A312	{397}	Customer-specific control module
A402	{399}	EBS control unit
A403	{338}	Vehicle management computer
A409	{353}	ECAM control unit
A55*	{533}	Control unit, oil level sensor

X1557	Std. frame left
X1558	Std. engine/EDC/transmission IV
X2041	Std. adaptation AS-TRONIC

**Marking of mounting positions**

①	Tail	⑮	Driving seat
②	Engine	⑰	Passenger seat
③	Gearbox	⑱	Control panel
④	Front	⑳	Battery box
⑤	Bumper	㉑	B-pillar on driver's side
⑥	Entrance right	㉒	A-pillar on driver's side
⑦	Entrance left	㉓	B-pillar on passenger's side
⑧	Central electronics area	㉔	A-pillar on passenger's side
⑨	Control unit racks	㉕	Ceiling/roof
⑩	Rear wall of cab	㉖	Front axle
⑪	Instrument panel	㉗	Rear axle
⑫	Central part	㉘	Front part of frame
⑬	Steering wheel/column	㉙	Rear part of frame
⑭	Foot pedals	㉚	Door left
⑰	Front wall, inside left	㉛	Door right
⑱	Front wall, inside right		

Wiring diagram no. **81.99192.2428** Sheet 1 of 1



**AN databus driveline (T-CAN) with retarder or retarder**

**Legend**

Wiring diagram no. **61.99192.2521** Sheet 1 of 1

Change status: 03.09

**A = Vehicle management computer**

**B = Electronic braking system**

**C = Retarder**

**D = Central vehicle computer**
































**E = Oil level sensor**

**F = Electronically controlled air management unit**

<b>A109</b>	(255)	Central fuse, relay and terminal block
<b>A144</b>	(451)	Control unit, retarder
<b>A302</b>	(352)	Central computer 2
<b>A402</b>	(389)	EBS control unit
<b>A403</b>	(309)	Vehicle management computer
<b>A409</b>	(353)	ECAM control unit
<b>A551</b>	(533)	Control unit, oil level sensor

<b>X1557</b>	Std. frame left
<b>X1559</b>	Std. engine/EDC/transmission IV
<b>X2041</b>	Std. adaptation AS-TRON C

**Marking of mounting positions**

	Tad		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electronics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall inside left		Door right
	Front wall inside right		

**Note:**

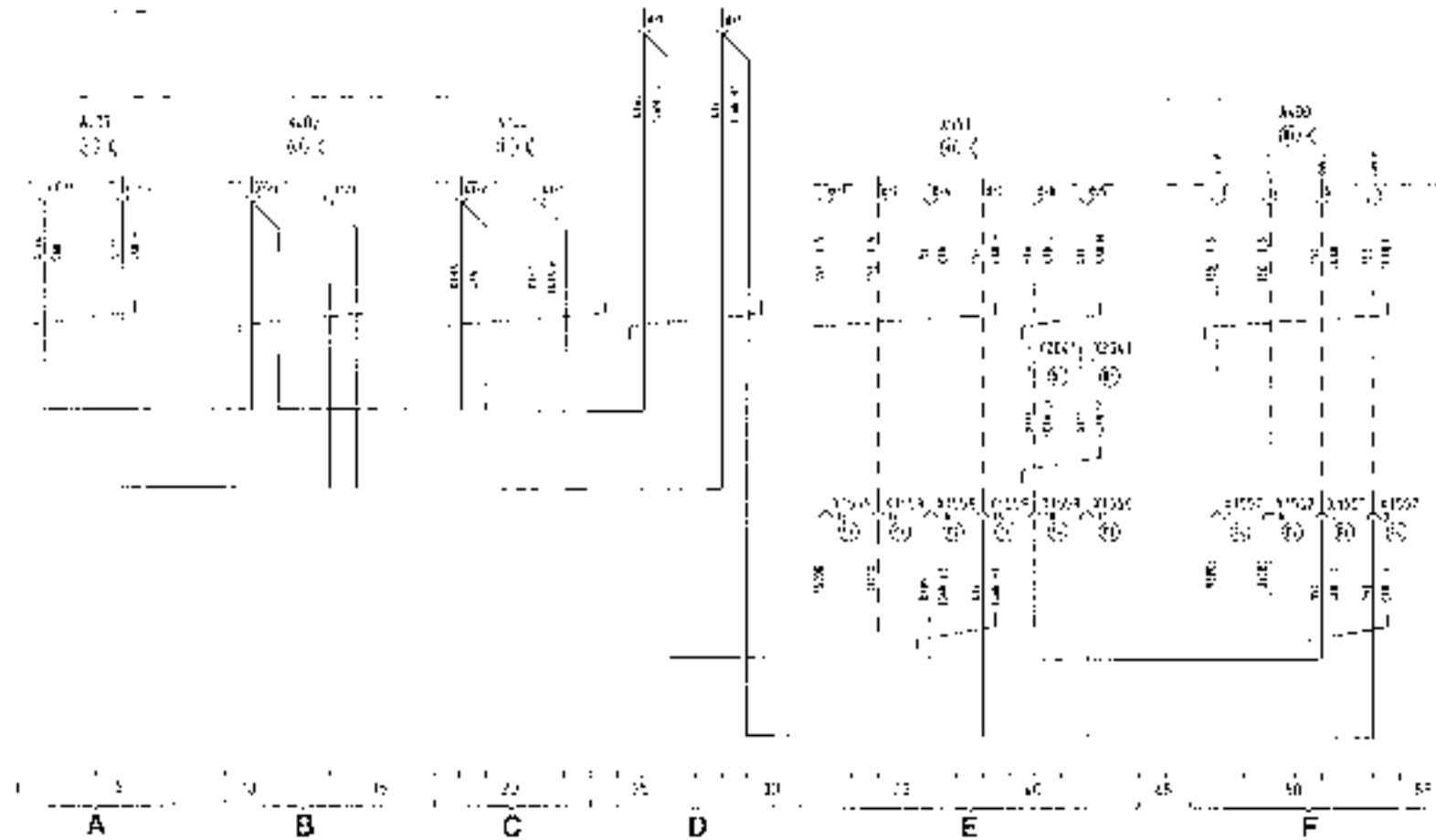
The pin assignment for the **A144** control unit shown in the wiring diagram only corresponds to EST 4E for retarders!

The pin assignment for Voith retarders is: CAN High: X1/3  
CAN Low: X1/1

Wiring diagram no. 81.99182.2521 Sheet 1 of 1

A.1  
60

A.2  
65





**CAN databus driveline (T-CAN) with interarder or retarder/AS-TRONIC**

**Legend**

Wiring diagram no. 81.99192.2524 Sheet 1 of 1  
Change status: 03.00

**A = Vehicle management computer**

**B = Electronic braking system**

**C = Interarder**

**D = Central vehicle computer**

**E = Oil level sensor**

**F = AS-TRONIC**

**G = Electronically controlled air management unit**

A100 {255} Central fuse, relay and terminal block  
A144 {451} Control unit, retarder  
A302 {352} Central computer 2  
A330 {412} Control unit, AS-TRONIC (at gearbox)  
A402 {399} EBS control unit  
A403 {339} Vehicle management computer  
A409 {353} ECAV control unit  
A551 {533} Control unit, oil level sensor

X1557 Std. frame left  
X1559 Std. engine/EDC/transmission IV  
X2042 Std. adaptation AS-TRONIC  
X2043 Std. adaptation AS-TRONIC

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊖ Tail                     | ⊕ Driving seat                 |
| ⊕ Engine                   | ⊕ Passenger seat               |
| ⊕ Gearbox                  | ⊕ Control panel                |
| ⊖ Front                    | ⊕ Battery box                  |
| ⊕ Bumper                   | ⊕ B-pillar on driver's side    |
| ⊕ Entrance right           | ⊕ A-pillar on driver's side    |
| ⊕ Entrance left            | ⊕ B-pillar on passenger's side |
| ⊕ Central electrical area  | ⊕ A-pillar on passenger's side |
| ⊕ Control unit racks       | ⊕ Ceiling/roof                 |
| ⊕ Rear wall of cab         | ⊕ Front axle                   |
| ⊕ Instrument panel         | ⊕ Rear axle                    |
| ⊕ Central part             | ⊕ Front part of frame          |
| ⊕ Steering wheel/column    | ⊕ Rear part of frame           |
| ⊕ Foot pedals              | ⊕ Door left                    |
| ⊕ Front wall, inside left  | ⊕ Door right                   |
| ⊕ Front wall, inside right |                                |

**Note:**

The pin assignment for the **A144** control unit shown in the wiring diagram only corresponds to EST 48 for interarders!

The pin assignment for Voith retarders is: CAN High: X1/3  
CAN Low: X1/4

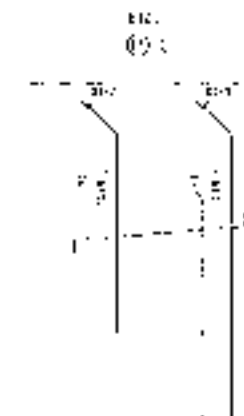
Wiring diagram no. **81.99192.2432** Sheet: 1 of 2



**A**



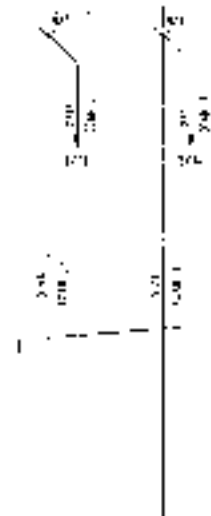
**B**



**C**



**D**



**E**

**CAN databus driveline (T-CAN) with interarder or retarder/  
special customer module**

**Legend**

Wiring diagram no. 81.99192.2432 Sheet 2 of 2  
Change status: 03.00

**A** = Oil level sensor

**B** = Electronically controlled air management unit

A130 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

A409 (353) ECAM control unit

A551 (533) Control unit, oil level sensor

X1557 Stvd. frame left

X1559 Stvd. engine/EDC/transmission IV

X2041 Stvd. adaptation AS-TRONIC

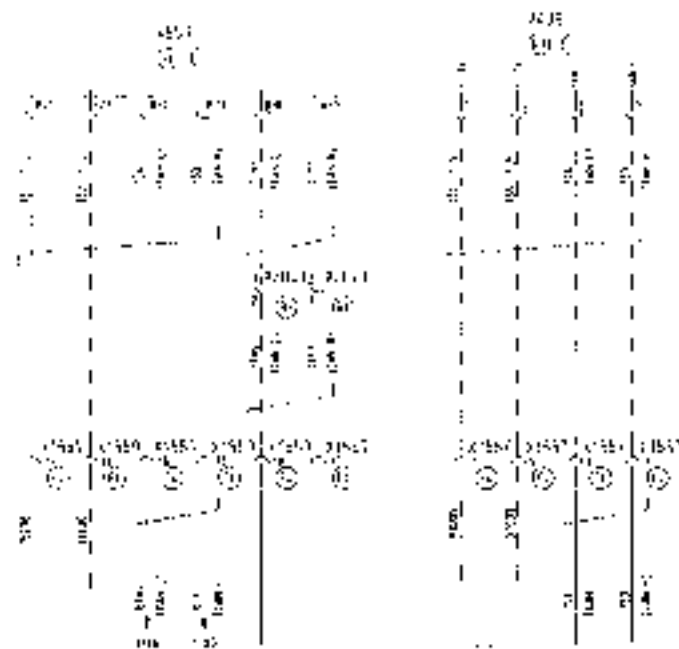
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊖ Tail                     | ⊖ Driving seat                 |
| ⊖ Engine                   | ⊖ Passenger seat               |
| ⊖ Gearbox                  | ⊖ Control panel                |
| ⊖ Front                    | ⊖ Battery box                  |
| ⊖ Bumper                   | ⊖ B-pillar on driver's side    |
| ⊖ Entrance right           | ⊖ A-pillar on driver's side    |
| ⊖ Entrance left            | ⊖ B-pillar on passenger's side |
| ⊖ Central electric area    | ⊖ A-pillar on passenger's side |
| ⊖ Control unit racks       | ⊖ Ceiling/roof                 |
| ⊖ Rear wall of cab         | ⊖ Front axle                   |
| ⊖ Instrument panel         | ⊖ Rear axle                    |
| ⊖ Central part             | ⊖ Front part of frame          |
| ⊖ Steering wheel/column    | ⊖ Rear part of frame           |
| ⊖ Foot pedals              | ⊖ Door left                    |
| ⊖ Front wall, inside left  | ⊖ Door right                   |
| ⊖ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2492 Sheet 2 of 2

210  
211

212  
213



A

B

**CAN databus driveline (T-CAN) with AS-TRONIC/  
special customer module**
**Legend**

Wiring diagram no. **81.99192.2433** Sheet **1** of **2**  
Change status: (03.01)

**A = Vehicle management computer**

**B = Electronic braking system**

**C = Special customer module**

**D = Central vehicle computer**

**E = Oil level sensor**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer ?

**A312** (397) Customer-specific control module

**A402** (399) EBS control unit

**A403** (333) Vehicle management computer

**A551** (533) Control unit, oil level sensor

**X1658** Std. engine/EDC/transmission IV

**X2042** Std. adaptation AS-TRONIC

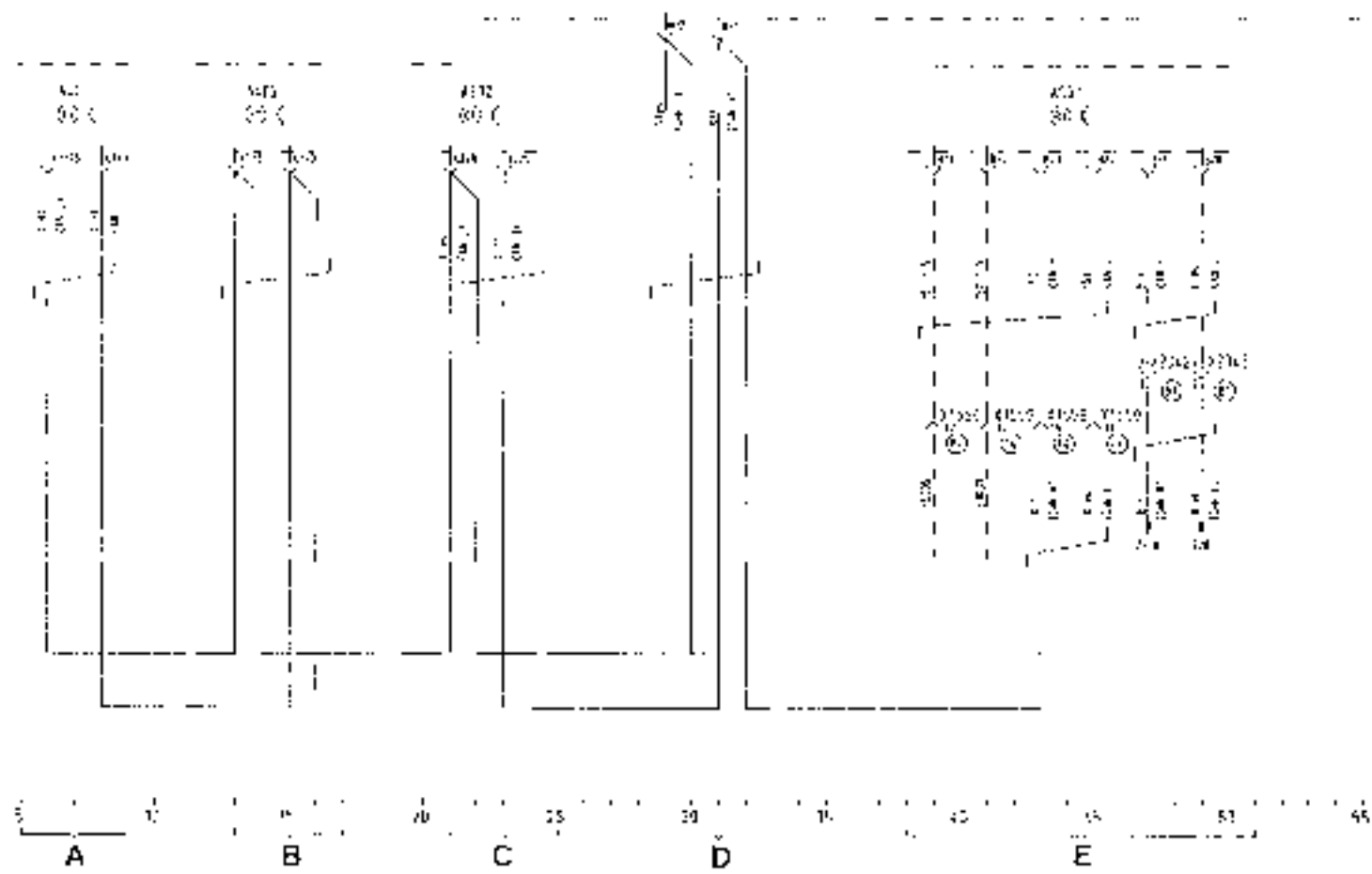
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓜ Driving seat                 |
| Ⓑ Engine                   | Ⓝ Passenger seat               |
| Ⓒ Gearbox                  | Ⓞ Control panel                |
| Ⓓ Front                    | Ⓟ Battery box                  |
| Ⓔ Bumper                   | Ⓠ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓡ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓢ B-pillar on passenger's side |
| Ⓜ Central electronics area | Ⓣ A-pillar on passenger's side |
| Ⓝ Control unit racks       | Ⓤ Ceiling/roof                 |
| Ⓞ Rear wall of cab         | Ⓡ Front axle                   |
| Ⓟ Instrument panel         | Ⓢ Rear axle                    |
| Ⓠ Central part             | Ⓣ Front part of frame          |
| Ⓡ Steering wheel/column    | Ⓤ Rear part of frame           |
| Ⓢ Foot pedals              | Ⓡ Door left                    |
| Ⓣ Front wall, inside left  | Ⓢ Door right                   |
| Ⓤ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2433 Sheet 1 of 2

11  
19

14  
19



**CAN databus driveline (T-CAN) with AS-TRONIC/  
special customer module**

**Legend**

Wiring diagram no. **81.99192.2433** Sheet 2 of 2  
Change status: 06.99

**A = AS-TRONIC**

**B = Electronically controlled air management unit**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A330** (442) Control unit, AS-TRONIC (at gearbox)  
**A309** (353) ECAM control unit

**X1557** Stvd. frame left  
**X1559** Stvd. engine/EDC/transmission IV  
**X2043** Stvd. adaptation AS-TRONIC

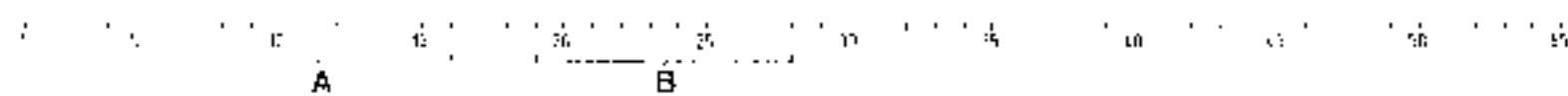
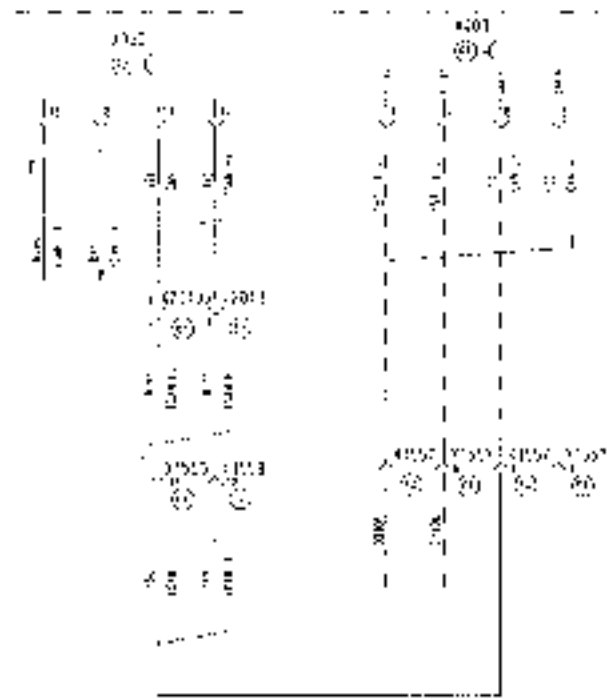
**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electrics area   | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2433 Sheet 2 of 2

400  
30

400  
30





**CAN databus driveline (T-CAN) with interarder or retarder/  
AS-TRONIC/special customer module**

**Legend**
































Wiring diagram no. **B1.99192.2435** Sheet 1 of 2  
Change status: 03.06

- A = Vehicle management computer**
- B = Electronic braking system**
- C = Interarder**
- D = Special customer module**
- E = Central vehicle computer**
- F = Oil level sensor**

- A\*00 (253) Central fuse, relay and terminal block
- A144 (451) Control unit, retarder
- A302 (352) Central computer 2
- A3\*2 (397) Customer-specific control module
- A402 (399) EBS control unit
- A403 (399) Vehicle management computer
- A551 (533) Control unit, oil level sensor

- X1559 Std. engine/EJC/transmission IV
- X2042 Std. adaptation AS-TRONIC

**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electrics area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

**Note:**

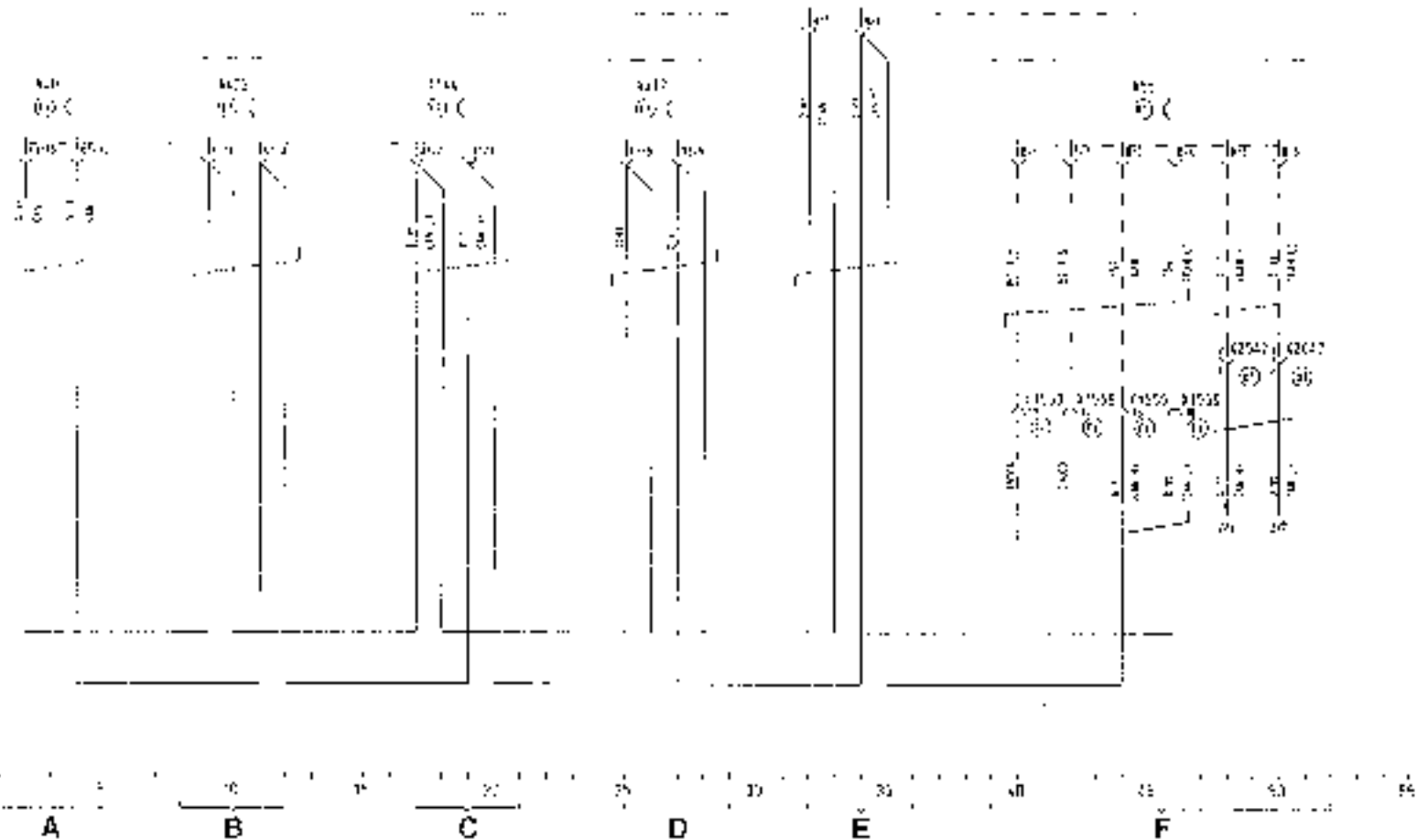
The pin assignment for the **A144** control unit shown in the wiring diagram only corresponds to **ES 148** for interarders!

The pin assignment for Voith retarders is: CAN High: X1/3  
CAN Low: X1/1

Wiring diagram no. 81.99192.2435 Sheet 1 of 2

700  


400  

**CAN databus driveline (T-CAN) with interarder or retarder/  
AS-TRONIC/special customer module**

**Legend**

Wiring diagram no. **B1 99192.2435** Sheet 2 of 2  
Change status: 06/99

**A = AS-TRONIC**

**B = Electronically controlled air management unit**

A100 (255) Central fuse, relay and terminal block  
A302 (352) Central computer 2  
A330 (442) Control unit, AS-TRONIC (at gearbox)  
A409 (353) ECAM control unit

X1557 Std. frame left  
X1558 Std. engine/EDC/transmission IV  
X2043 Std. adaptation AS-TRONIC

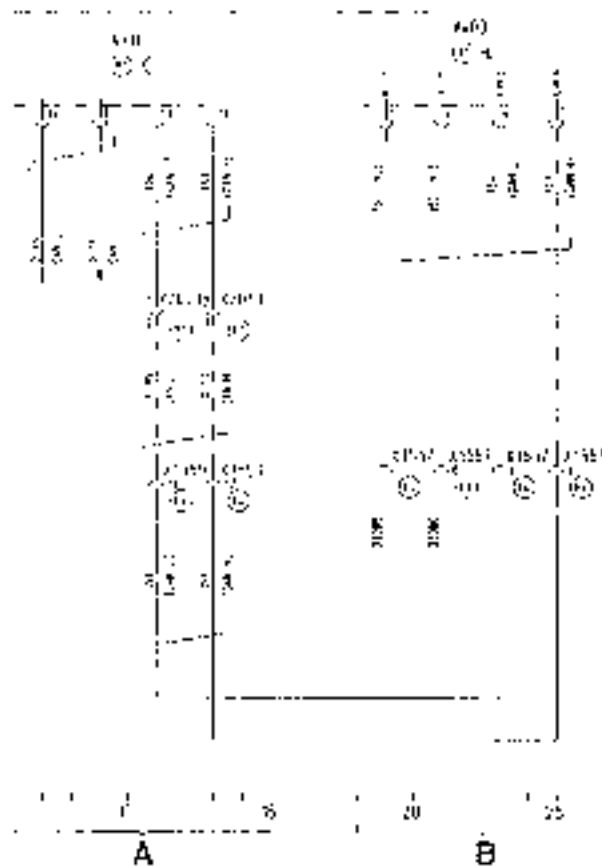
**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊕ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electrics area   | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

Wiring diagram no. **81.99182.2435** Sheet 2 of 2

400

400



**CAN databus driveline (T-CAN) with ECAS/AS-TRONIC/RAS-EC**

**Legend**

Wiring diagram no. **81.99192.2783** Sheet 1 of 2

Change status: 05.00

**A = Vehicle management computer**

**B = Electronic braking system**

**C = Electronically controlled air suspension**

**D = Electronically controlled steered rear axle (RAS-EC)**

**E = Central vehicle computer**

A100 (255) Central fuse, relay and terminal block

A143 (343) ECAS control unit

A302 (352) Central computer 2

A384 (548) Control unit ZF – RAS-EC

A402 (399) EBS control unit

A403 (339) Vehicle management computer

X2395 Std. cab rump RAS-EC 2

X2400 Crimped connector, line blue/red

X2401 Crimped connector, line blue/white

**Marking of mounting positions**

⊙ Tail

⊙ Engine

⊙ Gearbox

⊙ Front

⊙ Bumper

⊙ Entrance right

⊙ Entrance left

⊙ Central electric area

⊙ Control unit racks

⊙ Rear wall of cab

⊙ Instrument panel

⊙ Central part

⊙ Steering wheel/column

⊙ Foot pedals

⊙ Front wall, inside left

⊙ Front wall, inside right

⊙ Driving seat

⊙ Passenger seat

⊙ Control panel

⊙ Battery box

⊙ B-pillar on driver's side

⊙ A-pillar on driver's side

⊙ B-pillar on passenger's side

⊙ A-pillar on passenger's side

⊙ Ceiling/roof

⊙ Front axle

⊙ Rear axle

⊙ Front part of frame

⊙ Rear part of frame

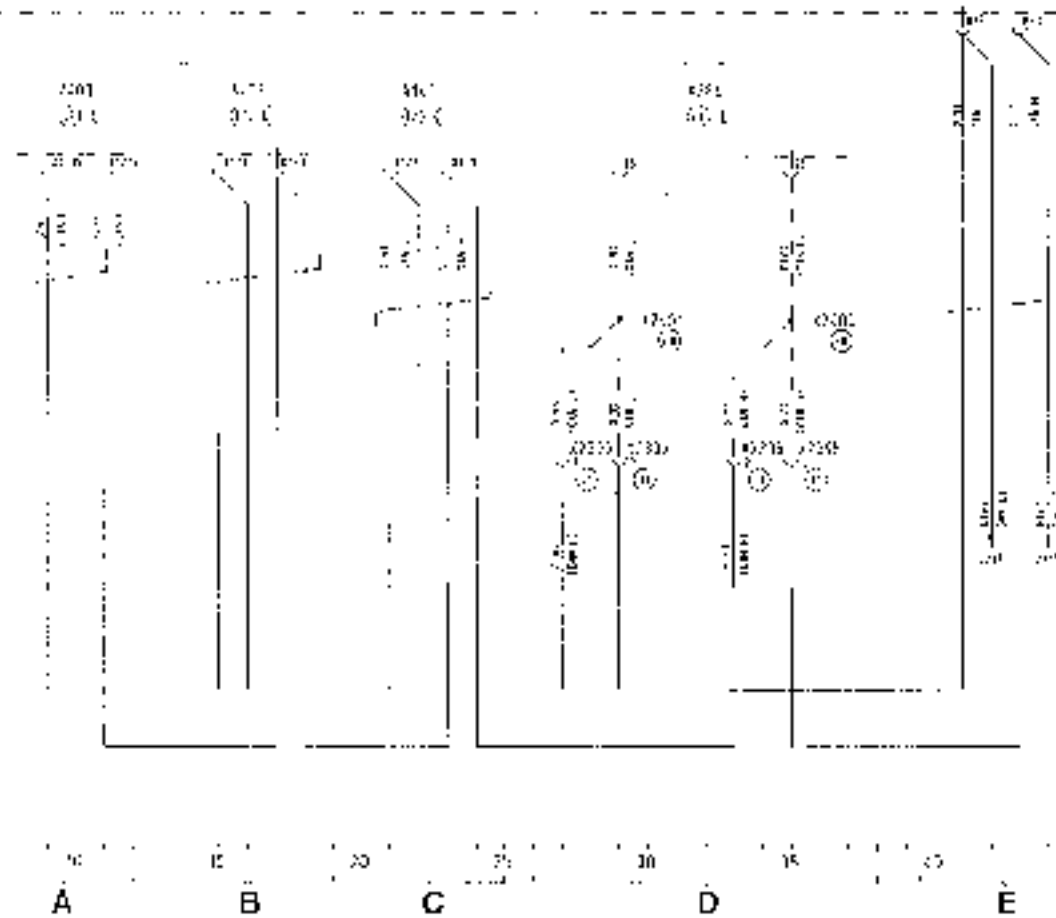
⊙ Door left

⊙ Door right

Wiring Diagram no. B1.99192.2783 Shee: 1 of 2

101  
102

103  
104



A

B

C

D

E

**CAN databus driveline (T-CAN) with ECAS/AS-TRONIC/RAS-EC**

**Legend**

Wiring diagram no. **81.99192.2783** Sheet 2 of 2

Change status: 05.00

**A = Oil level sensor**

**B = AS-TRONIC**

**C = Electronically controlled air management unit**

A100 (255) Central fuse, relay and terminal block  
 A302 (352) Central computer 2  
 A330 (442) Control unit, AS-TRONIC (at gearbox)  
 A409 (353) ECAM control unit  
 A551 (533) Control unit, oil level sensor

X1557 Std. frame left  
 X1558 Std. engine/EDC/transmission IV  
 X2042 Std. adaptation AS-TRONIC  
 X2043 Std. adaptation AS-TRONIC

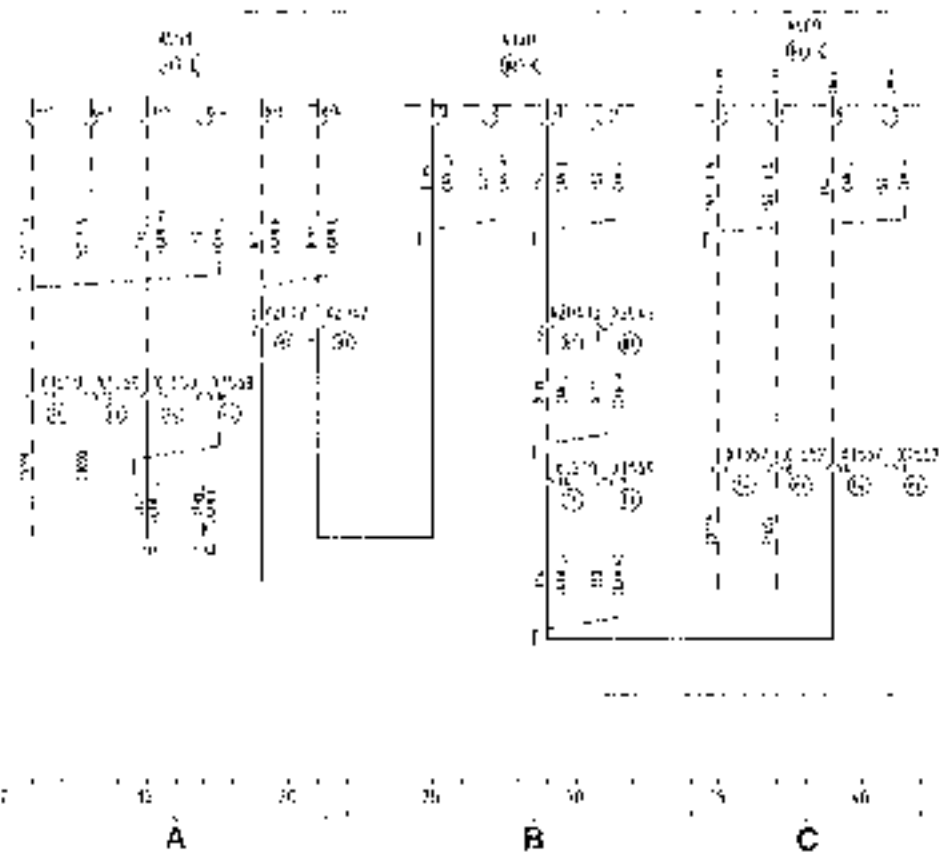
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓒ Engine                   | Ⓛ Passenger seat               |
| Ⓓ Gearbox                  | Ⓜ Control panel                |
| Ⓔ Front                    | Ⓨ Battery box                  |
| Ⓛ Bumper                   | Ⓜ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓜ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓛ B-pillar on passenger's side |
| Ⓛ Central electronics area | Ⓛ A-pillar on passenger's side |
| Ⓛ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | Ⓛ Front axle                   |
| Ⓛ Instrument panel         | Ⓛ Rear axle                    |
| Ⓛ Central part             | Ⓛ Front part of frame          |
| Ⓛ Steering wheel/column    | Ⓛ Rear part of frame           |
| Ⓛ Foot pedals              | Ⓛ Door left                    |
| Ⓛ Front wall, inside left  | Ⓛ Door right                   |
| Ⓛ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2783 Sheet 2 of 2

etc.  
39

etc.  
39





## CAN databus driveline (T-CAN) without ECAM

## Legend

Wiring diagram no. **81.99192.2811** Sheet 1 of 1

Change status: 06/00

**A = Vehicle management computer****B = Electronic braking system****C = Central vehicle computer****D = Oil level sensor****E = Terminator**

A100 (253) Control fuse, relay and terminal block

A302 (352) Control computer 2

A402 (309) ABS control unit

A403 (339) Vehicle management computer
































A551 (533) Control unit, oil level sensor

R155 (122) Terminator CAN databus

X1559 Stvd. engine/EDC/transmission IV

X2041 Stvd. adaptor AS-TRONIC

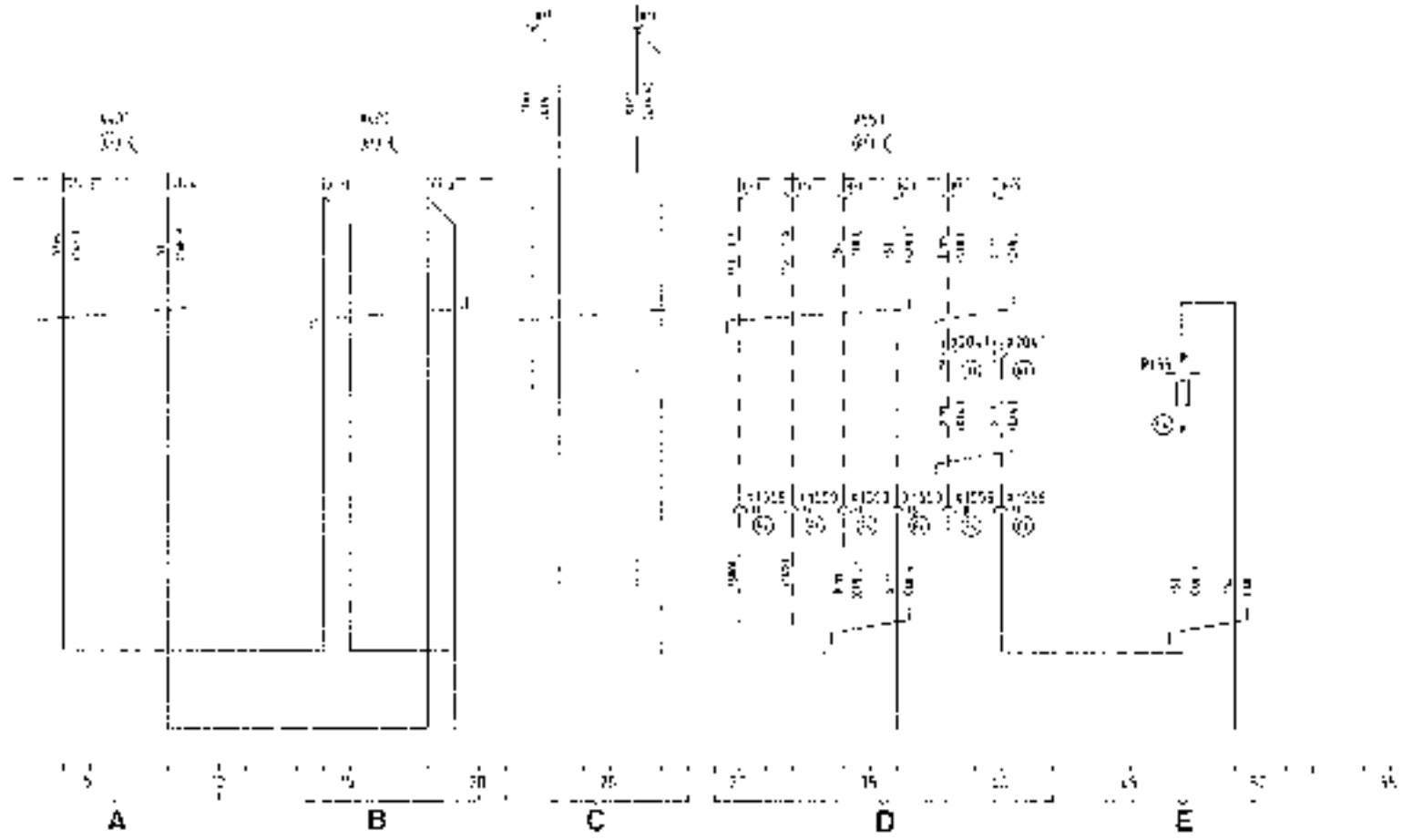
## Marking of mounting positions

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electronics area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

Wiring diagram no. 81.99192.2811 Sheet 1 of 1

210  
60

217  
60



**CAN databus driveline (T-CAN) without ECAM but with AS-TRONIC**

**Legend**

Wiring diagram no. 81.99192.2624 Sheet 1 of 1  
Change status 06.00

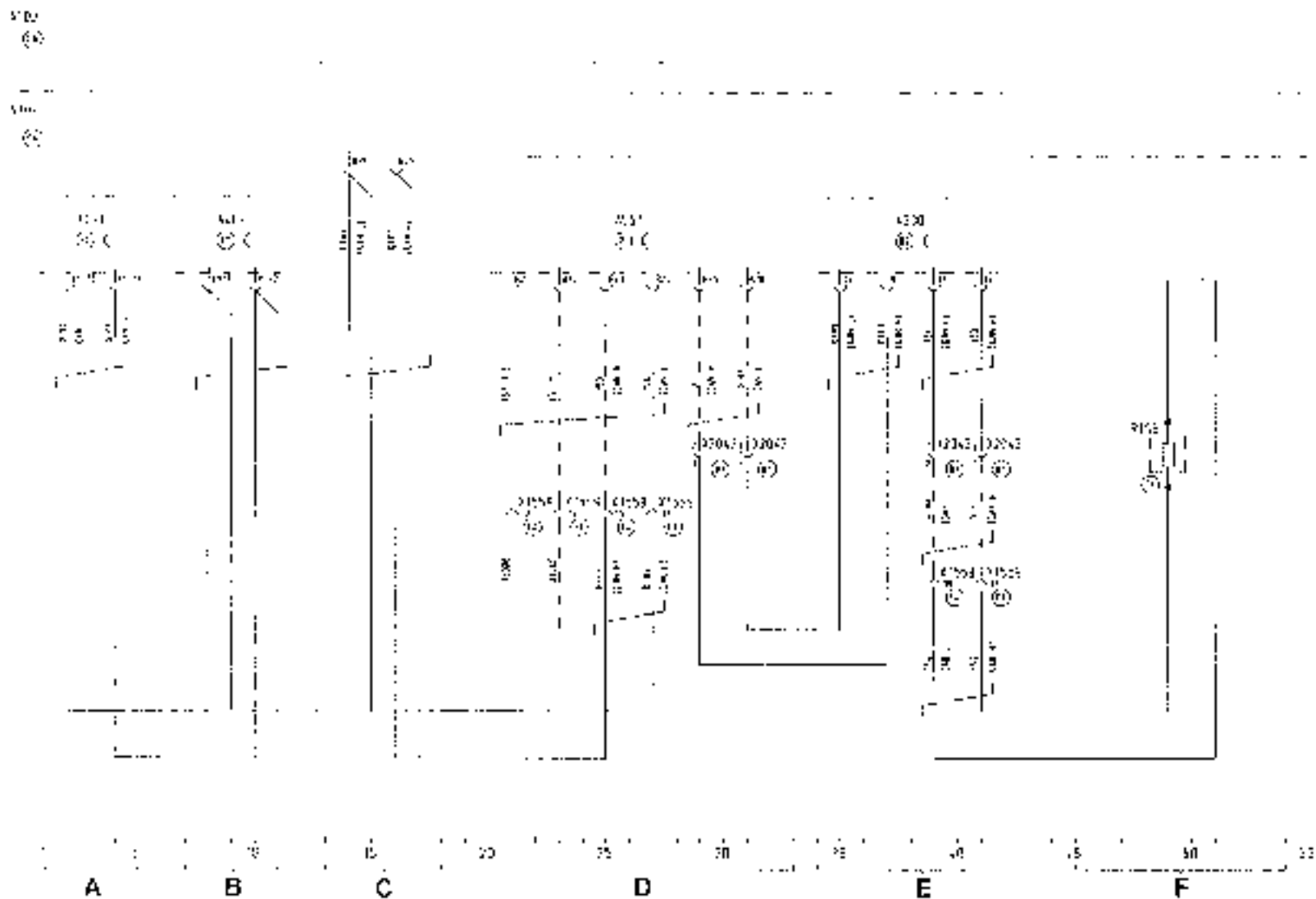
- A = Vehicle management computer**
- B = Electronic braking system**
- C = Central vehicle computer**
- D = Oil level sensor**
- E = AS-TRONIC**
- F = Terminator**

- A100 (255) Central fuse, relay and terminal block
- A302 (352) Central computer 2
- A350 (442) Control unit, AS-TRONIC (at gearbox)
- A402 (399) ERS control unit
- A403 (239) Vehicle management computer
- A55 (153) Control unit, oil level sensor
  
- R155 (122) Terminator CAN databus
  
- X1559 Std. engine/EDC/transmission IV
- X2042 Std. adaptation AS-TRONIC
- X2043 Std. adaptation AS-TRONIC

**Marking of mounting positions**

- (X) Tail
- (E) Engine
- (G) Gearbox
- (F) Front
- (B) Bumper
- (R) Entrance right
- (L) Entrance left
- (C) Central electrics area
- (T) Control unit Tracks
- (S) Rear wall of cab
- (I) Instrument panel
- (P) Central part
- (W) Steering wheel/column
- (F) Foot pedals
- (U) Front wall, inside left
- (V) Front wall, inside right
  
- (D) Driving seat
- (P) Passenger seat
- (C) Control panel
- (B) Battery box
- (R) R-pillar on driver's side
- (A) A-pillar on driver's side
- (R) R-pillar on passenger's side
- (A) A-pillar on passenger's side
- (C) Ceiling/front
- (V) Front axle
- (R) Rear axle
- (F) Front part of frame
- (R) Rear part of frame
- (L) Door left
- (R) Door right

Wiring diagram no. 81.99192.2824 Sheet 1 of 1



**CAN databus driveline (T-CAN) without ECAM but with interarder or retarder**

**Legend**

Wiring diagram no. **81.99192.2623** Sheet 1 of 1  
Change status: 06.00
































- A = Vehicle management computer**
- B = Electronic braking system**
- C = Interarder**
- D = Central vehicle computer**
- E = Oil level sensor**
- F = Terminator**

- A100** (255) Central fuse, relay and terminal block
- A144** (451) Control unit, retarder
- A302** (352) Central computer 2
- A402** (399) EBS control unit
- A403** (339) Vehicle management computer
- A551** (533) Control unit, oil level sensor

- R155** (122) Terminator CAN databus

- X1569** Std. engine/EOC/transmission IV
- X2041** Std. adaptation AS-TRONIC

**Marking of mounting positions**

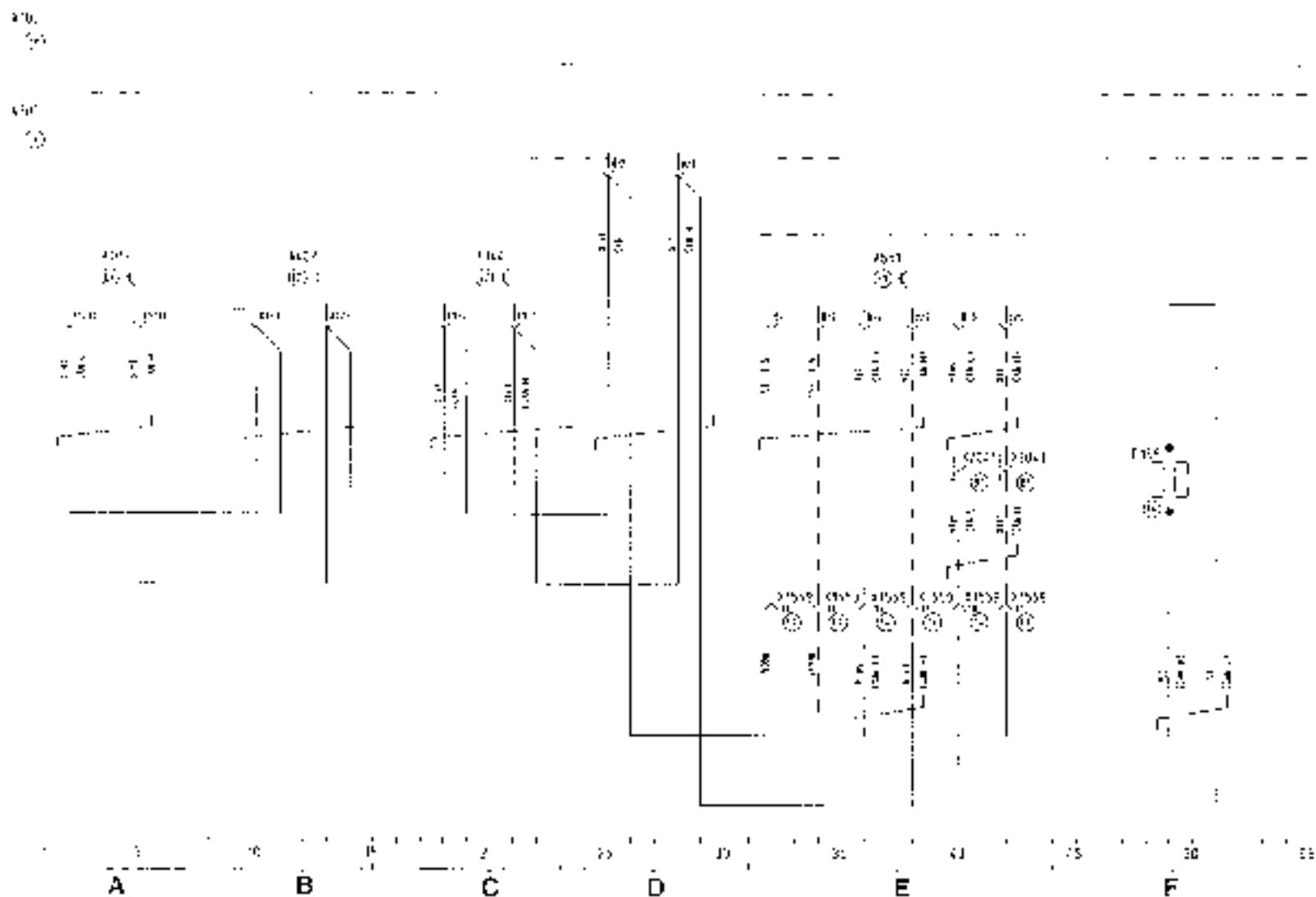
-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electronics area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

**Note:**

The pin assignment for the **A144** control unit shown in the wiring diagram only corresponds to EST 48 for interarders!

The pin assignment for Voith retarders is: CAN High: X1/3  
CAN Low: X1/1

Wiring diagram no. 81.99192.2823 Sheet 1 of 3



**CAN databus driveline (T-CAN) without ECAM  
with special customer module**

**Legend**

Wiring diagram no. **81.99192.2814** Sheet 1 of 1  
Change status: 06.01

- A = Vehicle management computer**
- B = Electronic braking system**
- C = Special customer module**
- D = Central vehicle computer**
- E = Oil level sensor**
- F = Terminator**

- A100** (255) Central fuse, relay and terminal block
- A302** (352) Central computer 2
- A312** (397) Customer-specific control module
- A402** (399) EBS control unit
- A403** (339) Vehicle management computer
- A551** (533) Control unit, oil level sensor

- R155** (122) Terminator CAN databus

- X1559** Std. engine/EJC/transmission IV
- X2041** Std. adaptation AS-THONIC

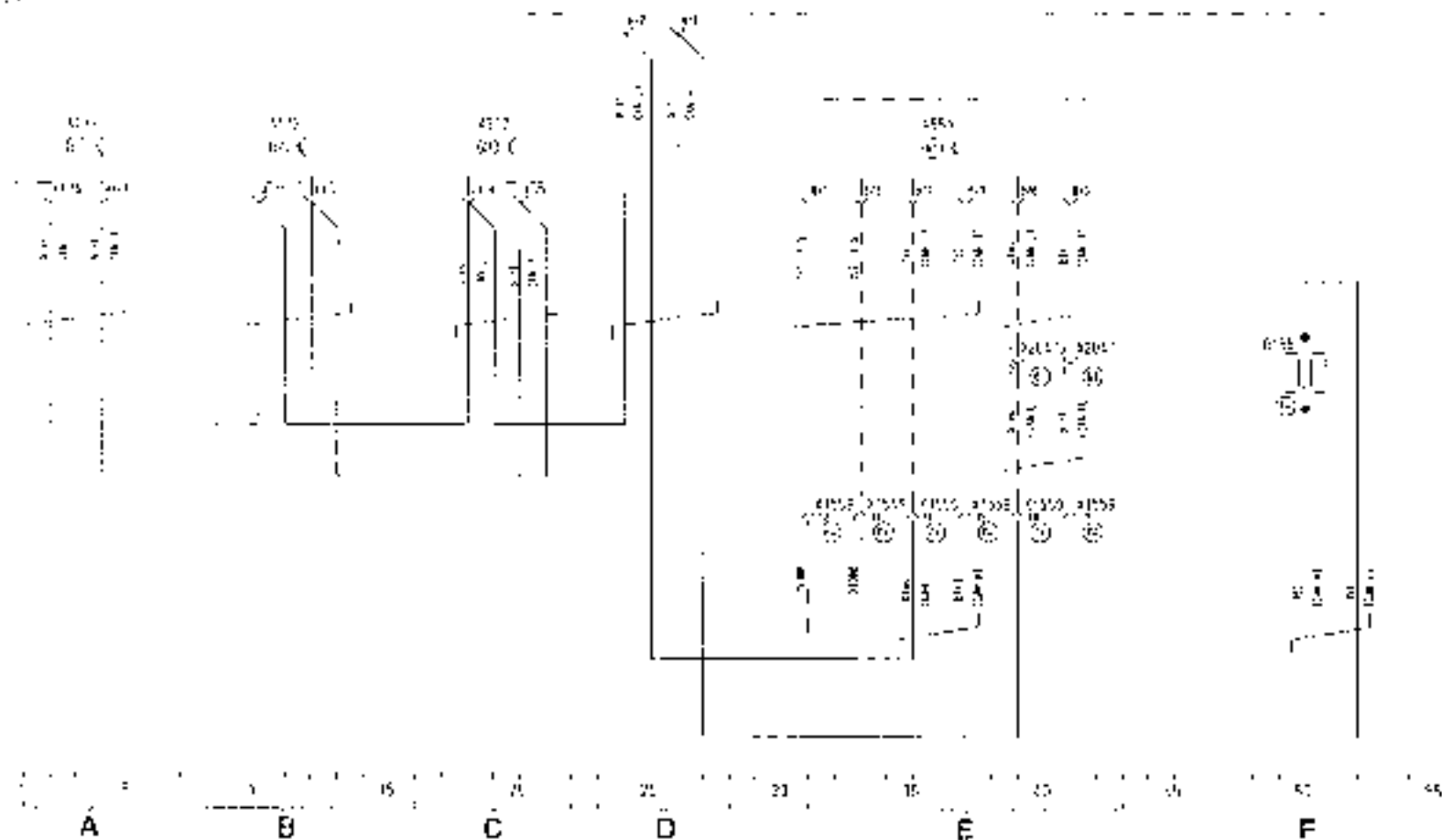
**Marking of mounting positions**

- ⊖ Tail
- ⊕ Engine
- ⊗ Gearbox
- ⊖ Front
- ⊕ Bumper
- ⊕ Entrance right
- ⊖ Entrance left
- ⊗ Central electric area
- ⊕ Control unit racks
- ⊗ Rear wall of cab
- ⊖ Instrument panel
- ⊕ Central part
- ⊗ Steering wheel/column
- ⊖ Foot pedals
- ⊕ Front wall, inside left
- ⊗ Front wall, inside right
- ⊕ Driving seat
- ⊖ Passenger seat
- ⊗ Control panel
- ⊕ Battery box
- ⊗ B pillar on driver's side
- ⊕ A-pillar on driver's side
- ⊖ B pillar on passenger's side
- ⊗ A pillar on passenger's side
- ⊕ Ceiling/roof
- ⊖ Front axle
- ⊗ Rear axle
- ⊕ Front part of frame
- ⊖ Rear part of frame
- ⊗ Door left
- ⊕ Door right

Wiring diagram no. 81.99192-2814 Sheet 1 of 1

A1  
93

A0  
92





**CAN databus driveline (T-CAN) without ECAM but with AS-TRONIC/  
special customised module**

**Legend**

Wiring diagram no. **81.99192.2819** Sheet 1 of 2  
Change status: 06 (X)

**A = Vehicle management computer**

**B = Electronic braking system**

**C = Special customer module**

**D = Central vehicle computer**

**E = Oil level sensor**

A100 (255) Central fuse, relay and terminal block

AJ02 (352) Central computer 2

AJ12 (397) Customer-specific control module

A402 (399) EBS control unit

A403 (339) Vehicle management computer

A551 (533) Control unit oil level sensor

X1559 Std. engine/EDC/transmission IV

X2042 Std. adaptation AS-TRONIC

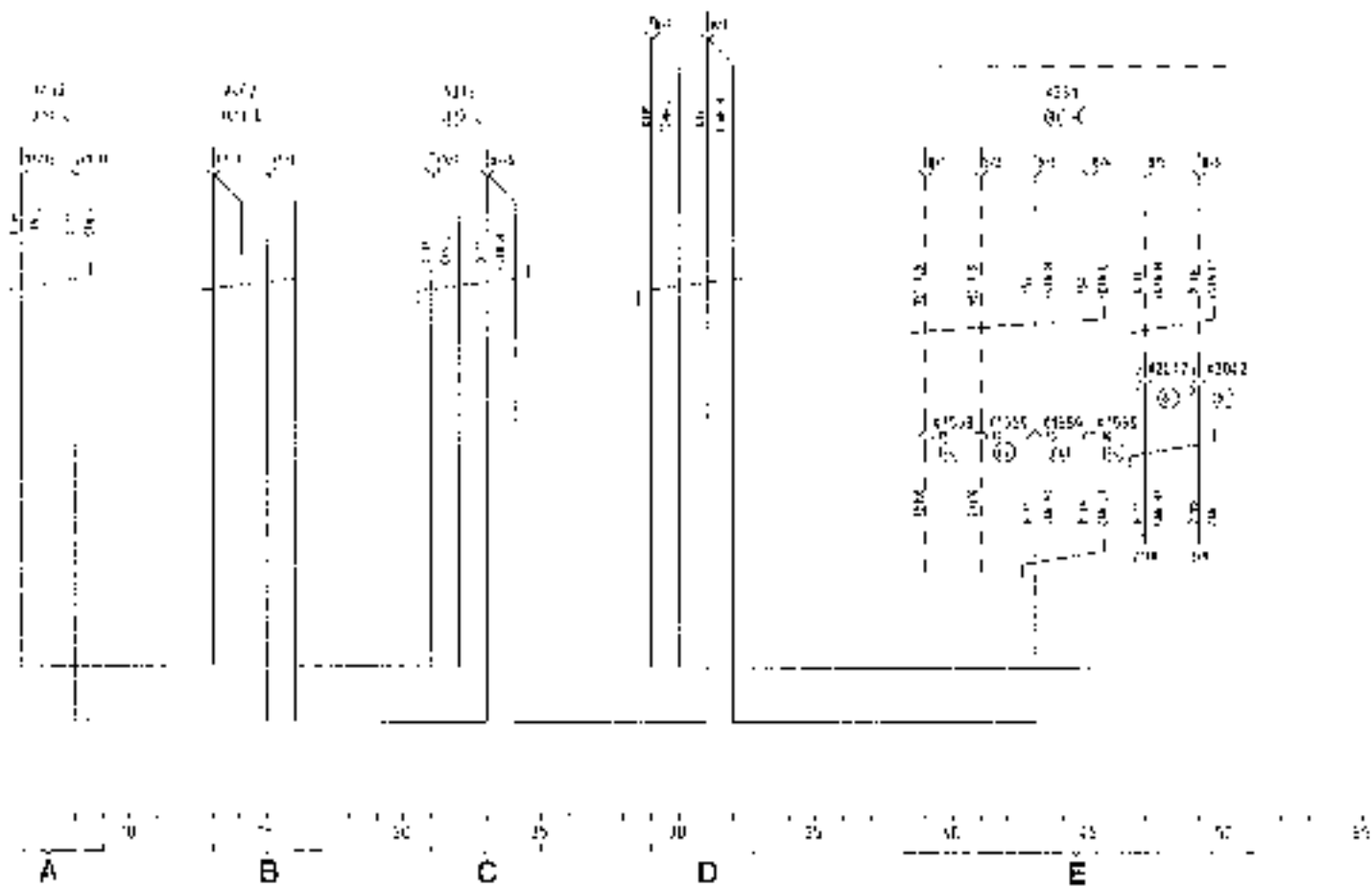
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓜ Passenger seat               |
| Ⓒ Gear box                 | Ⓝ Control panel                |
| Ⓓ Front                    | Ⓞ Battery box                  |
| Ⓚ Bumper                   | Ⓟ B pillar on driver's side    |
| Ⓛ Entrance right           | Ⓠ A-pillar on driver's side    |
| Ⓜ Entrance left            | Ⓡ B pillar on passenger's side |
| Ⓝ Central electrics area   | Ⓢ A-pillar on passenger's side |
| Ⓞ Control unit racks       | Ⓣ Ceiling/roof                 |
| Ⓟ Rear wall of cab         | Ⓤ Front axle                   |
| Ⓠ Instrument panel         | Ⓥ Rear axle                    |
| Ⓡ Central part             | Ⓦ Front part of frame          |
| Ⓢ Steering wheel/column    | Ⓧ Rear part of frame           |
| Ⓣ Foot pedals              | Ⓨ Door left                    |
| Ⓤ Front wall, inside left  | Ⓩ Door right                   |
| Ⓧ Front wall, inside right |                                |

Wiring diagram no. **81.99192.2819** Sheet 1 of 2

409  


407  

**CAN databus driveline (T-CAN) without ECAM but with AS-TRONIC/  
special customised module**

**Legend**

Wiring diagram no. **81.99192.2819** Sheet 2 of 2

Change status: 06.00

**A = AS-TRONIC**

**B = Terminator**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A330** (442) Control unit, AS-TRONIC (at gearbox)

**R155** (112) Terminator CAN databus

**X1559** Stvd. engine/EDC/transmission IV

**X2043** Stvd. adaptation AS-TRONIC

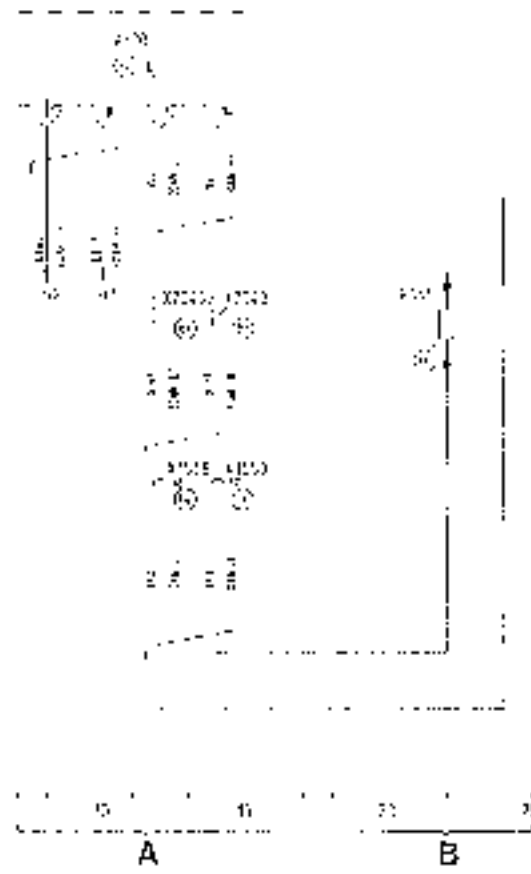
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓘ Driving seat                 |
| Ⓑ Engine                   | Ⓚ Passenger seat               |
| Ⓒ Gearbox                  | Ⓛ Control panel                |
| Ⓓ Front                    | Ⓜ Battery box                  |
| Ⓔ Bumper                   | Ⓝ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓞ A-pillar on driver's side    |
| Ⓚ Entrance left            | Ⓟ B-pillar on passenger's side |
| Ⓛ Centre electrics area    | Ⓠ A-pillar on passenger's side |
| Ⓛ Control unit racks       | Ⓡ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | Ⓢ Front axle                   |
| Ⓛ Instrument panel         | Ⓣ Rear axle                    |
| Ⓛ Centre part              | Ⓤ Front part of frame          |
| Ⓛ Steering wheel/column    | Ⓥ Rear part of frame           |
| Ⓛ Foot pedals              | Ⓦ Door left                    |
| Ⓛ Front wall, inside left  | Ⓧ Door right                   |
| Ⓛ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2819 Sheet 2 of 2

V<sub>12</sub>  
94

V<sub>12</sub>  
92



**CAN databus driveline (T-CAN) without ECAM but with ECAS/  
AS-TRONIC/RAS-EC**

**Legend**

Wiring diagram no. **81.99192.2827** Sheet 1 of 2  
Change status: 06.03

**A = Vehicle management computer**

**B = Electronic braking system**

**C = Electronically controlled air suspension**

**D = Electronically controlled steered rear axle (RAS-EC)**

**E = Central vehicle computer**

A100 (255) Central fuse, relay and terminal block

A143 (343) ECAS control unit

A302 (352) Central computer 2

A384 (546) Control unit ZF - RAS-EC

A402 (309) EBS control unit

A403 (339) Vehicle management computer

X2395 Svd. sab.ruma RAS-EC 2

X2400 Crimped connector, line blue/red

X2401 Crimped connector, line blue/white

**Marking of mounting positions**

⊙ Tail

⊙ Engine

⊙ Gearbox

⊙ Front

⊙ Bumper

⊙ Entrance right

⊙ Entrance left

⊙ Central electric area

⊙ Control unit racks

⊙ Rear wall of cab

⊙ Instrument panel

⊙ Central part

⊙ Steering wheel/column

⊙ Foot pedals

⊙ Front wall, inside left

⊙ Front wall, inside right

⊙ Driving seat

⊙ Passenger seat

⊙ Control panel

⊙ Battery box

⊙ B-pillar on driver's side

⊙ A-pillar on driver's side

⊙ B-pillar on passenger's side

⊙ A-pillar on passenger's side

⊙ Ceiling/roof

⊙ Front axle

⊙ Rear axle

⊙ Front part of frame

⊙ Rear part of frame

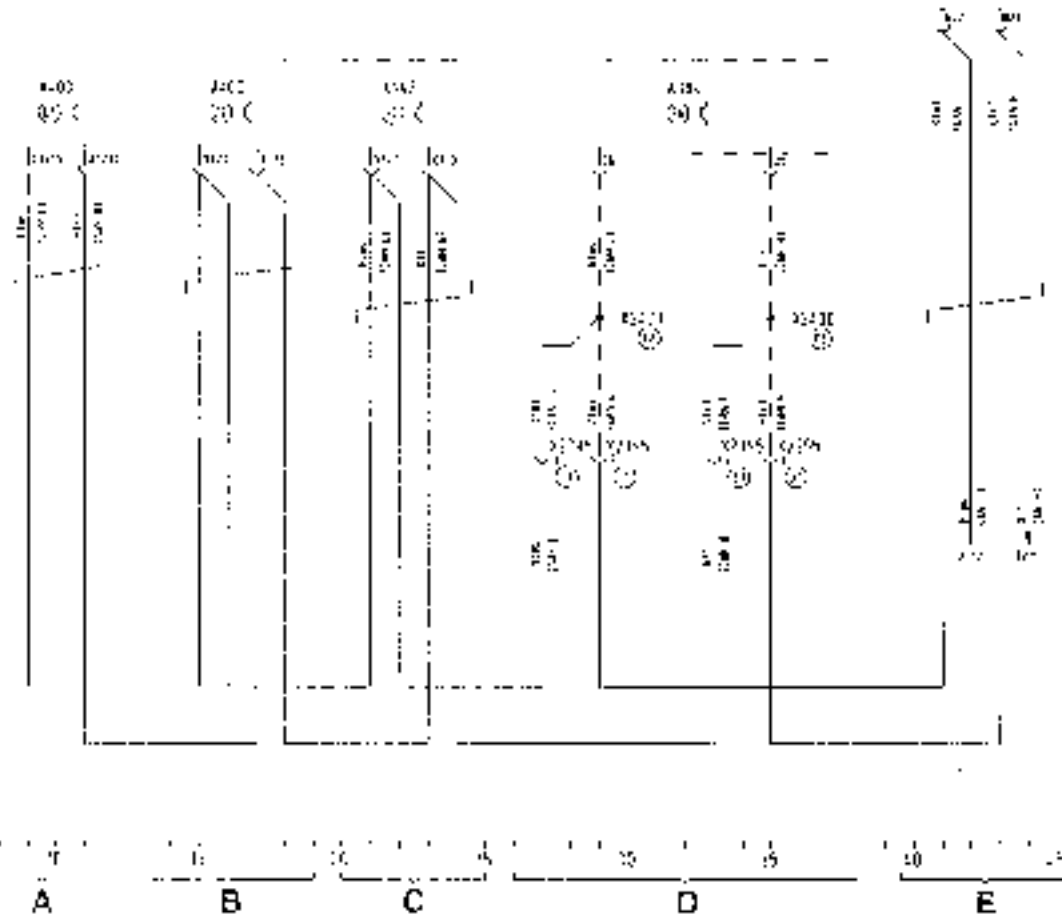
⊙ Door left

⊙ Door right

Wiring diagram no. 81.99192.2827 Sheet 1 of 2

ATD  


MS  

**CAN databus driveline (T-CAN) without ECAM but with ECAS/  
AS-TRONIC/RAS-EC**

**Legend**

Wiring diagram no. **61.98192.2827** Sheet 2 of 2  
Change status 06.00

**A = Oil level sensor**

**B = AS-TRONIC**

**C = Terminator**

**A100** (255): Central fuse, relay and terminal block

**A302** (352): Central computer 2

**A330** (442): Control unit, AS-TRONIC (at gearbox)

**A55** (533): Control unit, oil level sensor

**B155** (112): Terminator CAN databus

**X1559** Std. engine/EDC/transmission IV

**X2042** Std. adaptation AS-TRONIC

**X2043** Std. adaptation AS-TRONIC

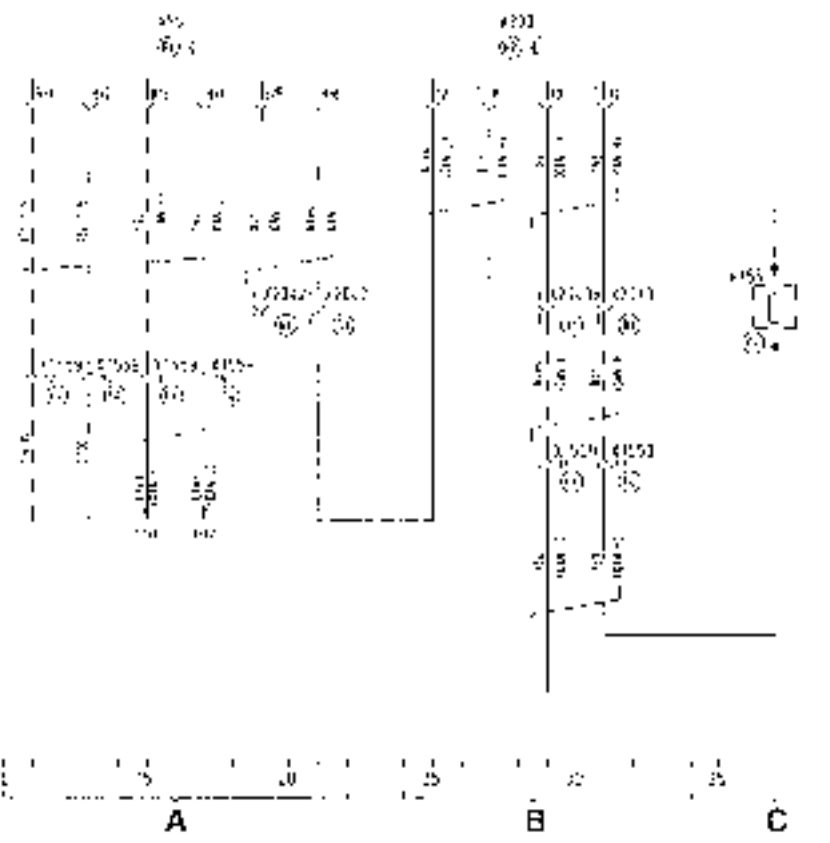
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓜ Engine                   | Ⓛ Passenger seat               |
| Ⓜ Gearbox                  | Ⓜ Control panel                |
| Ⓜ Front                    | Ⓜ Battery box                  |
| Ⓜ Bumper                   | Ⓜ R-pillar on driver's side    |
| Ⓜ Entrance right           | Ⓜ A-pillar on driver's side    |
| Ⓜ Entrance left            | Ⓜ B-pillar on passenger's side |
| Ⓜ Central electrics area   | Ⓜ A-pillar on passenger's side |
| Ⓜ Control unit racks       | Ⓜ Ceiling/rout                 |
| Ⓜ Rear wall of cab         | Ⓜ Front axle                   |
| Ⓜ Instrument panel         | Ⓜ Rear axle                    |
| Ⓜ Central part             | Ⓜ Front part of frame          |
| Ⓜ Steering wheel/column    | Ⓜ Rear part of frame           |
| Ⓜ Foot pedals              | Ⓜ Door left                    |
| Ⓜ Front wall, inside left  | Ⓜ Door right                   |
| Ⓜ Front wall, inside right |                                |

Wiring diagram no. **81.99192.2827** Sheet 2 of 2

40.  
40

41.  
41





**CAN databus driveline (T-CAN) without ECAM but with Intarder or retarder/special customer module**

**Legend**

Wiring diagram no. **81.99192.2816** Sheet 1 of 2  
Change status: 00.00

**A** = Vehicle management computer

**B** = Electronic braking system

**C** = Intarder

**D** = Special customer module

**E** = Central vehicle computer

A11X) (255) Central fuse, relay and terminal block

A144 (451) Control unit, retarder

A302 (352) Central computer 2

A312 (397) Customer-specific control module

A402 (389) EBS control unit

A403 (309) Vehicle management computer

**Marking of mounting positions**

- |                            |                                 |
|----------------------------|---------------------------------|
| ① Tail                     | ①② Driving seat                 |
| ② Engine                   | ①③ Passenger seat               |
| ③ Gearbox                  | ①④ Control panel                |
| ④ Front                    | ①⑤ Battery box                  |
| ⑤ Bumper                   | ①⑥ B-pillar on driver's side    |
| ⑥ Entrance right           | ①⑦ A-pillar on driver's side    |
| ⑦ Entrance left            | ①⑧ B-pillar on passenger's side |
| ⑧ Central electrics area   | ①⑨ A-pillar on passenger's side |
| ⑨ Control unit racks       | ①⑩ Ceiling/roof                 |
| ⑩ Rear wall of cab         | ①⑪ Front axle                   |
| ⑪ Instrument panel         | ①⑫ Rear axle                    |
| ⑫ Central part             | ①⑬ Front part of frame          |
| ⑬ Steering wheel/column    | ①⑭ Rear part of frame           |
| ⑭ Foot pedals              | ①⑮ Door left                    |
| ⑮ Front wall, inside left  | ①⑯ Door right                   |
| ⑯ Front wall, inside right |                                 |

**Note:**

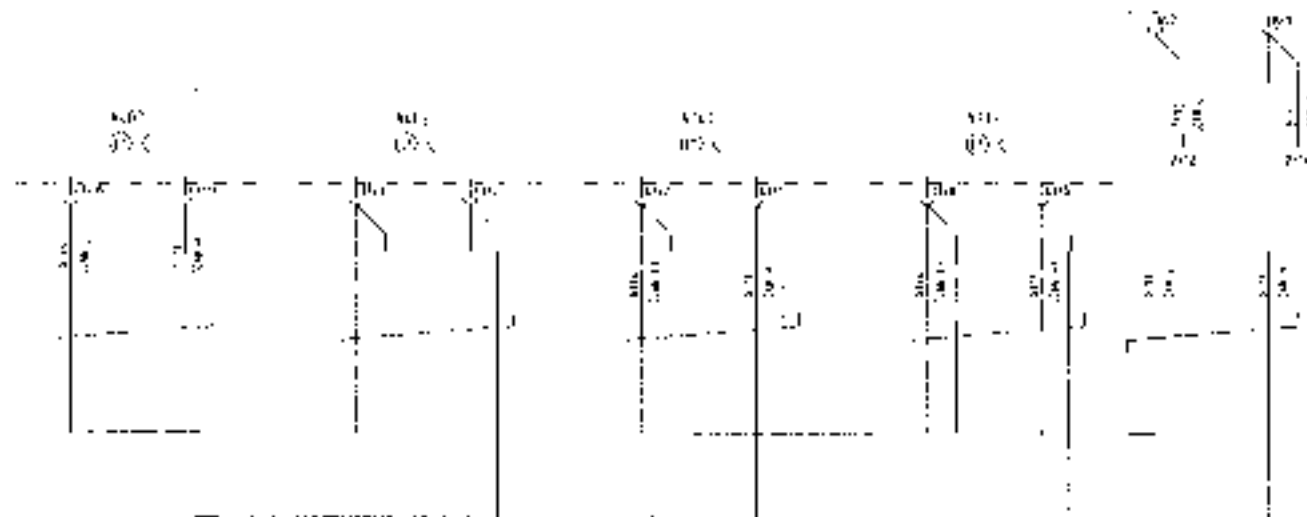
The pin assignment for the **A144** control unit shown in the wiring diagram only corresponds to **FST 4B** for intarders!

The pin assignment for Voith retarders is: CAN High: X1/3  
CAN Low: X1/1

Wiring diagram no. 81.99192.2818 Sheet 1 of 2

V3

ME



A

B

C

D

E

**CAN databus driveline (T-CAN) without ECAM but with interarder or retarder/special customer module**

**Legend**

Wiring diagram no. **81.99192.2816** Sheet 2 of 2  
 Change status: 05/00

**A = Oil level sensor**

**B = Terminator**

**A160** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A551** (533) Control unit, oil level sensor

**B155** (1+2) Terminator CAN databus

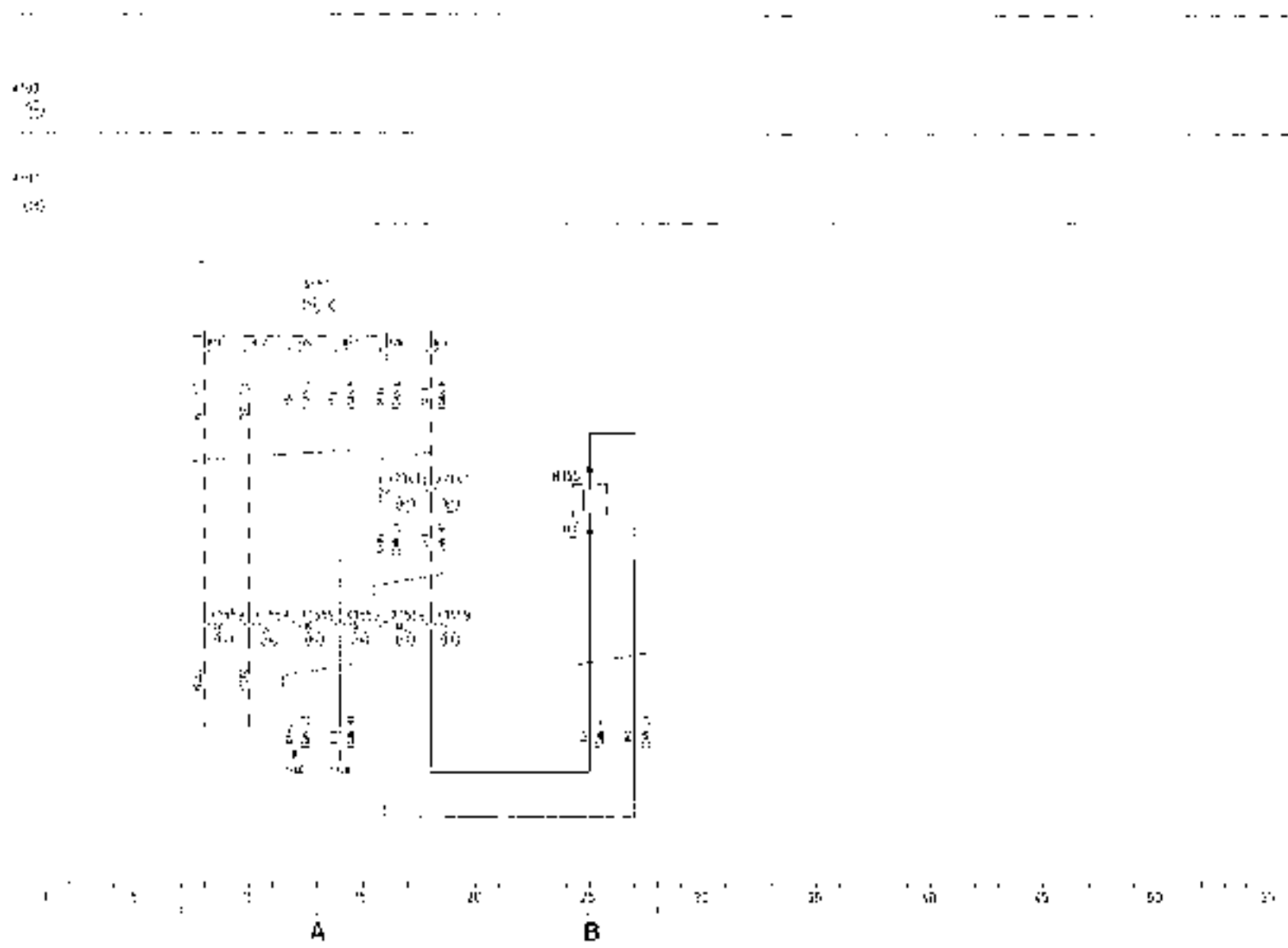
**X1559** S/val. engine/EDC/transmission IV

**X2041** S/val. adaptation AS-TIKONIC

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tar                      | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electrics area   | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2818 Sheet 2 of 2



**CAN databus driveline (T-CAN) without ECAM but with Intarder or retarder/AS-TRONIC**

**Legend**

Wiring diagram no. **61.99192.2826** Sheet 1 of 1  
Change status: 0E.00

- A** = Vehicle management computer
- B** = Electronic braking system
- C** = Intarder
- D** = Central vehicle computer
- E** = Oil level sensor
- F** = AS-TRONIC
- G** = Terminator

- A100** (255) Central fuse, relay and terminal block
- A144** (451) Control unit, retarder
- A302** (352) Central computer 2
- A330** (442) Control unit, AS-TRONIC (at gearbox)
- A402** (399) EBS control unit
- A403** (339) Vehicle management computer
- A551** (533) Control unit, oil level sensor

- Rt55** (122) Terminator CAN databus

- X1569** Std. engine/EDC/transmission IV
- X2042** Std. adaptation AS-TRONIC
- X2043** Std. adaptation AS-TRONIC

**Marking of mounting positions**

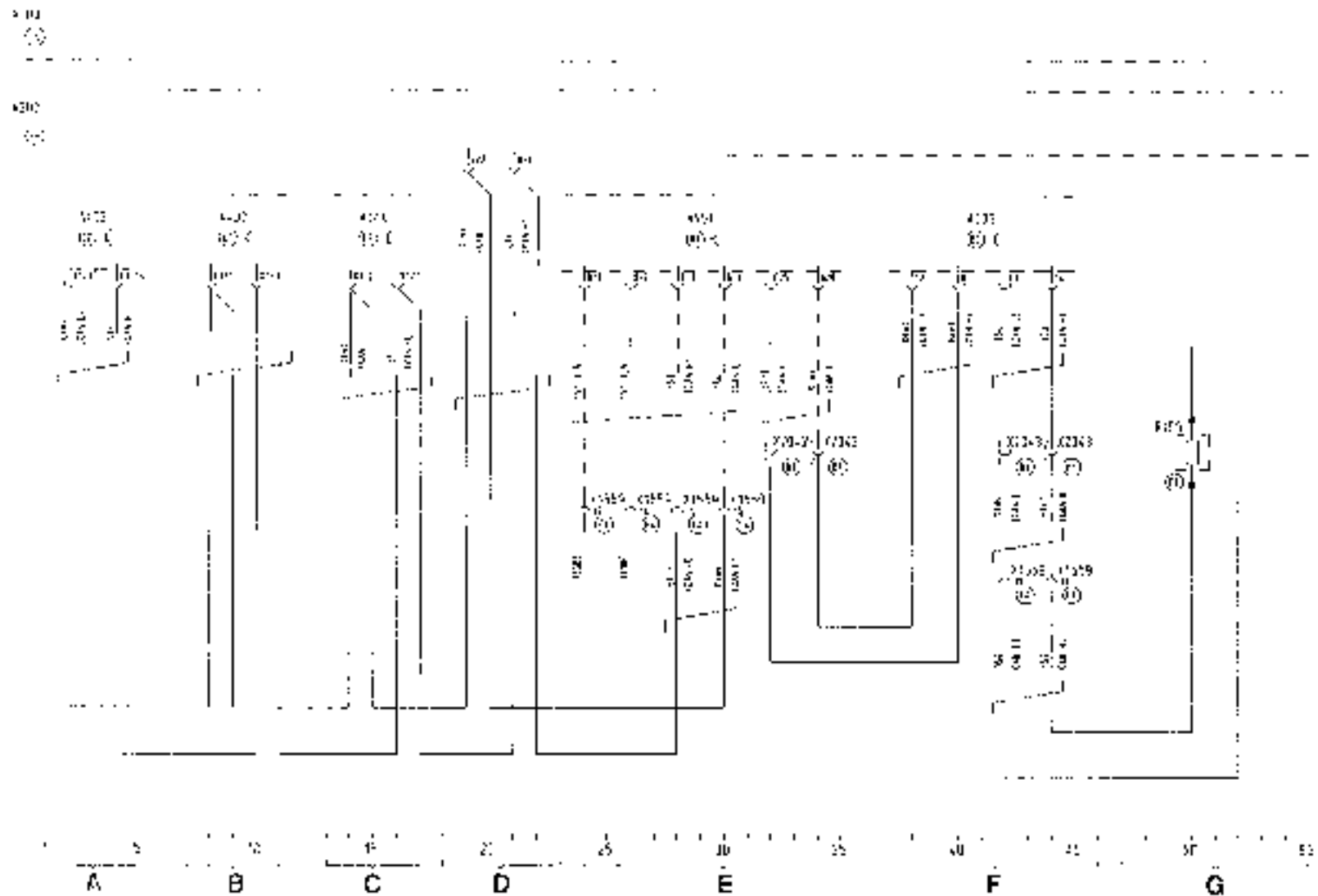
- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electrics area   | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Floor left                   |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

**Note:**

The pin assignment for the **A144** control unit shown in the wiring diagram only corresponds to EST 48 for intarders!

The pin assignment for Voith retarders is: CAN High: X1/3  
CAN Low: X1/1

Wiring diagram no. 81.99192.2826 Sheet 1 of 1



**CAN databus driveline (T-CAN) without ECAM but with retarder or retarder/AS-TRONIC/special customer module**

**Legend**

Wiring diagram no. 81.99192.2821 Sheet: 1 of 2  
Change status: 06/10

**A = Vehicle management computer**

**B = Electronic braking system**

**C = Retarder**

**D = Special customer module**
































**E = Central vehicle computer**

**F = Oil level sensor**

A100	{255;}	Central fuse, relay and terminal block
A144	{451;}	Control unit, retarder
A302	{352;}	Central computer 2
A312	{397;}	Customer-specific control module
A402	{399;}	EBS control unit
A403	{339;}	Vehicle management computer
A551	{533;}	Control unit, oil level sensor

X1656		Std. engine/EDC/transmission IV
X2042		Std. adaptation AS-TRONIC

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electronics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		

**Note:**

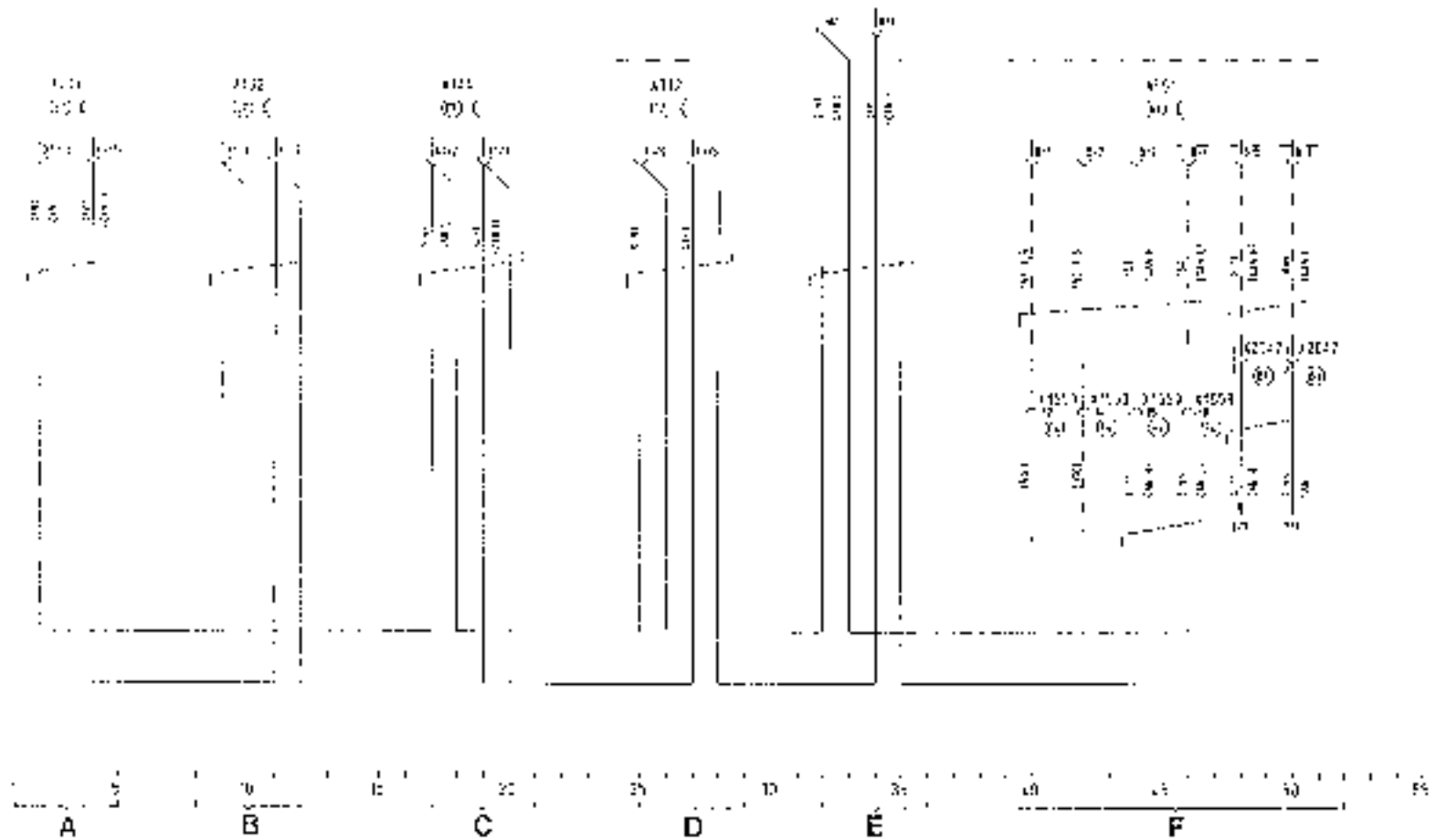
The pin assignment for the **A144** control unit shown in the wiring diagram only corresponds to EST 48 for retarders!

The pin assignment for Voith retarders is: CAN High: X1/3  
CAN Low: X1/1

Wiring diagram no. 81.89192.2821 Sheet 1 of 2

M10  
10

M10  
10





**CAN databus driveline (T-CAN) without ECAM but with interarder or retarder/AS-TRONIC/special customer module**

**Legend**

Wiring diagram no. **81.89192.2821** Sheet 2 of 2

Change status: 06/00

**A = AS-TRONIC**

**B = Terminator**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A333** (442) Control unit, AS-TRONIC (at gearbox)

**R155** (112) Terminator CAN databus

**X1559** Std. engine/EDC/transmission IV

**X2043** Std. adaptation AS-TRONIC

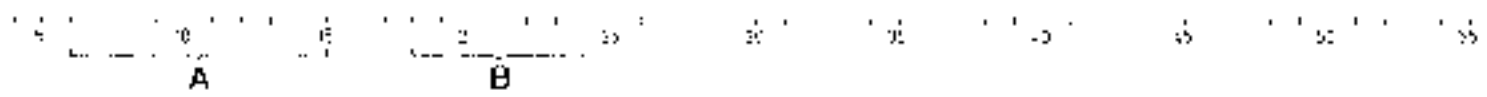
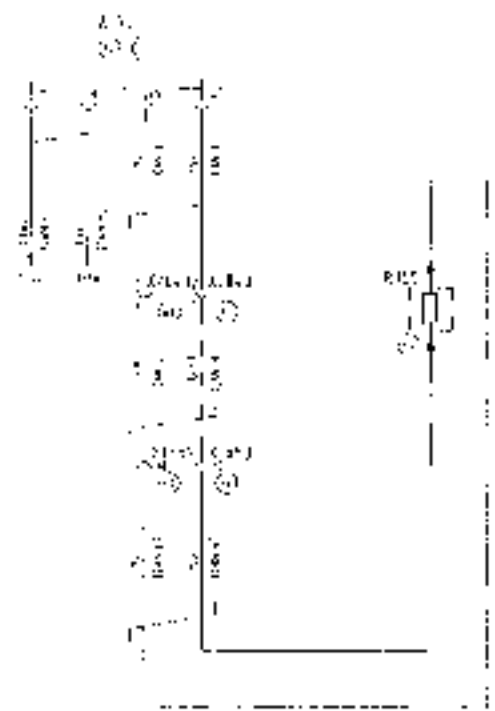
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓚ Bumper                   | Ⓛ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓜ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓨ B-pillar on passenger's side |
| Ⓛ Central electrics area   | Ⓩ A-pillar on passenger's side |
| Ⓛ Control unit racks       | ⓐ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | ⓑ Front axle                   |
| Ⓛ Instrument panel         | ⓓ Rear axle                    |
| Ⓛ Central part             | ⓕ Front part of frame          |
| Ⓛ Steering wheel/column    | ⓖ Rear part of frame           |
| Ⓛ Foot pedals              | ⓗ Door left                    |
| Ⓛ Front wall, inside left  | ⓙ Door right                   |
| Ⓛ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2621 Sheet 2 of 2

45.  


46.  



Differential lock longitudinal and transverse 3-axle

Legend
































Wiring diagram no. **81.99192.1366** Sheet 1 of 1

Change status: 04 01

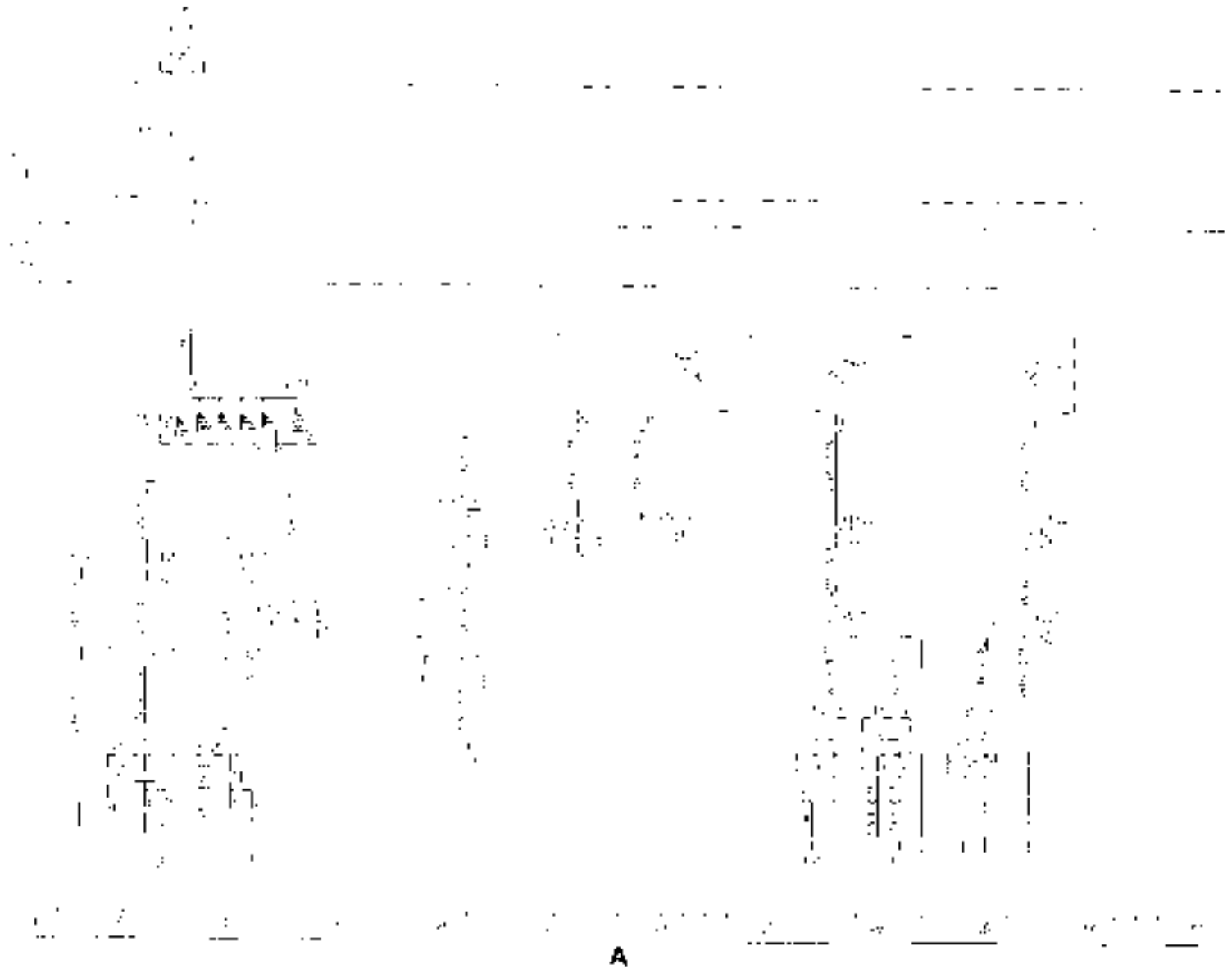
**A = Differential lock**

<b>A100</b>	(255) Central fuse, relay and terminal block
<b>A302</b>	(352) Central computer 2
<b>A447</b>	(439) Multi-functional display, differential locks
<b>F376</b>	(101) Fuse, cab interior (terminal 15)
<b>G101</b>	(113) Battery 2
<b>H396</b>	Indicator light, differential lock, rear axle, transverse
<b>H407</b>	Indicator light, differential lock, rear axle, longitudinal
<b>S185</b>	(328) Switch, indicator, differential lock, rear axle, transverse
<b>S186</b>	(328) Indicator light, differential lock, 2nd rear axle, transverse
<b>S254</b>	(326) Indicator light, differential lock, rear axle, transverse
<b>S571</b>	(492) Switch for differential locks
<b>X327</b>	Stvd. solenoid valve, frame
<b>X637</b>	Stvd. differential lock, rear axle
<b>X1544</b>	Stvd. frame III
<b>X1557</b>	Stvd. frame, left
<b>X1639</b>	Soldered connector, line 16000
<b>X2541</b>	(246) Potential distributor, 21-pin line 31000
<b>X2542</b>	(246) Potential distributor, 21-pin line 58000
<b>Y145</b>	(126) Solenoid valve, differential lock, rear axle, transverse
<b>Y150</b>	(126) Solenoid valve, differential lock, longitudinal

Marking of mounting positions

 Tail	 Driving seat
 Engine	 Passenger seat
 Gearbox	 Control panel
 Front	 Battery box
 Bumper	 B-pillar on driver's side
 Entrance right	 A-pillar on driver's side
 Entrance left	 B-pillar on passenger's side
 Central electric area	 A-pillar on passenger's side
 Control unit racks	 Ceiling/roof
 Rear wall of cab	 Front axle
 Instrument panel	 Rear axle
 Central part	 Front part of frame
 Steering wheel/column	 Rear part of frame
 Foot pedals	 Door left
 Front wall, inside left	 Door right
 Front wall, inside right	

Wiring diagram no. 81.99192.1366 Sheet 1 of 1



A

Differential lock transverse, rear axle

Legend

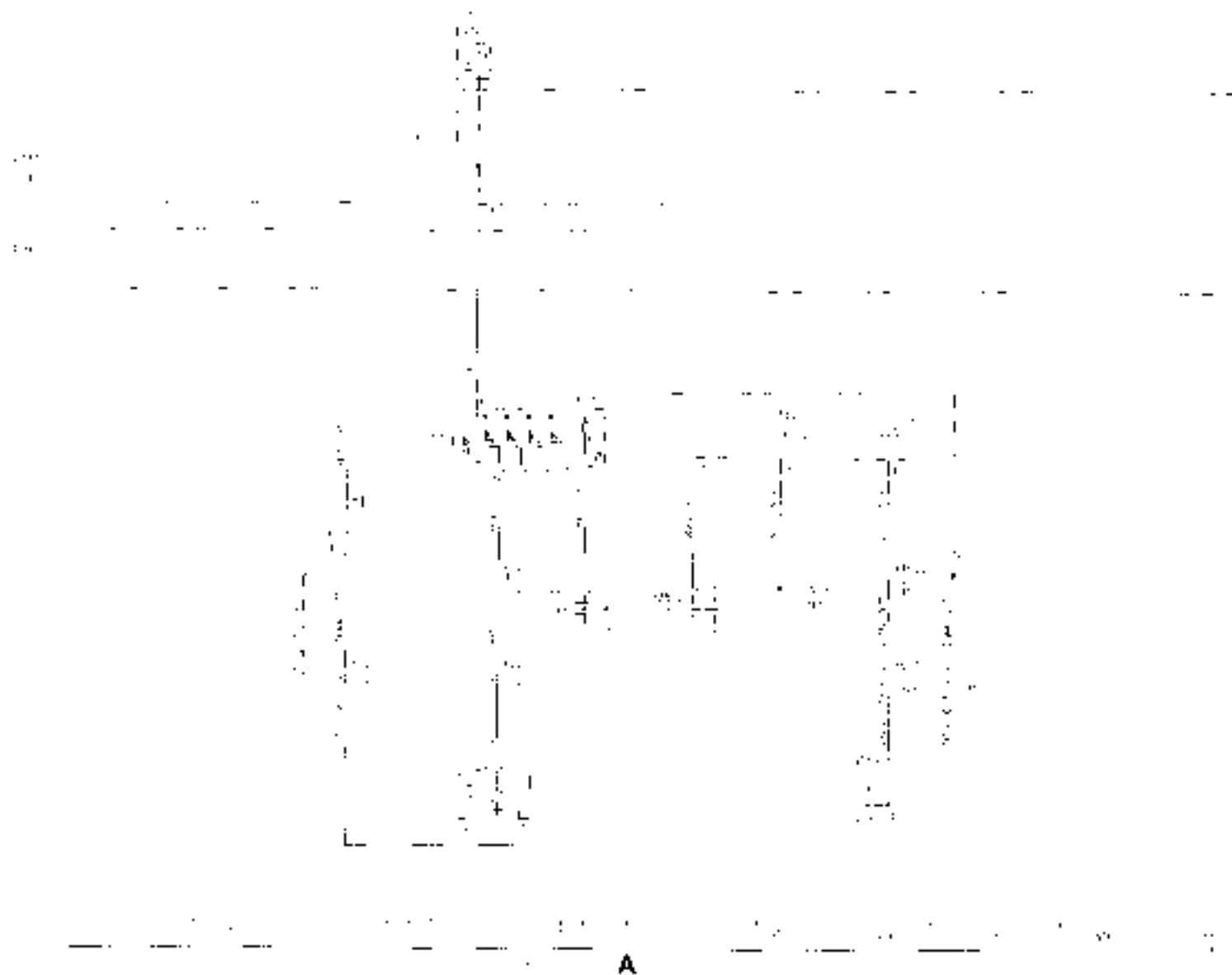
Wiring diagram no. 61.99192.1365 Sheet 1 of 1  
Change status 04.01

**A = Differential lock**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A302</b>	(352)	Central computer 2
<b>A447</b>	(439)	Multi-functional display, differential locks
<b>F376</b>	(101)	Fuse, cab interior (terminal 15)
<b>G101</b>	(113)	Battery 2
<b>H398</b>		Indicator light, differential lock, rear axle, transverse
<b>S185</b>	(328)	Switch, indicator, differential lock, rear axle, transverse
<b>S571</b>	(492)	Switch for differential locks
<b>X327</b>		Styd solenoid valve, frame
<b>X637</b>		Styd differential lock rear axle
<b>X1544</b>		Styd frame III
<b>X1567</b>		Styd frame, left
<b>X1639</b>		Soldered connector, line 16f0t
<b>X2541</b>	(246)	Potential distributor, 21-pin line 3f000
<b>X2542</b>	(246)	Potential distributor, 21-pin line 580f0
<b>Y145</b>	(126)	Solenoid valve, differential lock, rear axle, transverse

Marking of mounting positions

(A) Tail	(76) Driving seat
(B) Engine	(77) Passenger seat
(C) Gearbox	(78) Control panel
(D) Front	(79) Battery box
(E) Bumper	(80) B-pillar on driver's side
(F) Entrance right	(81) A-pillar on driver's side
(G) Entrance left	(82) B-pillar on passenger's side
(H) Central electrics area	(83) A-pillar on passenger's side
(I) Control unit racks	(84) Ceiling/roof
(J) Rear wall of cab	(85) Front axle
(K) Instrument panel	(86) Rear axle
(L) Central part	(87) Front part of frame
(M) Steering wheel/column	(88) Rear part of frame
(N) Foot pedals	(89) Door left
(O) Front wall, ins de left	(90) Door right
(P) Front wall, ins de right	







**EBS electronic braking system**

**Legend**

Wiring diagram no. **81.99192.2987** Sheet 1 of 3  
Change status: 03.01

**A = Pressure control module, front axle, left**  
**B = Pressure control module, front axle, right**  
**C = Pressure control module, rear axle**

**A100** (255) Central fuse, relay and terminal block  
**A502** (352) Central computer 2  
**A402** (399) EBS control unit

**B110** (245) Engine speed sensor, front axle, left  
**B120** (246) Engine speed sensor, front axle, right  
**B121** (247) Engine speed sensor, driving shaft, left  
**B122** (248) Engine speed sensor, driving shaft, right  
**B322** (243) Sensor, brake pad, front axle, right  
**B333** (253) Sensor, brake pad, front axle, left  
**R334** (254) Sensor, brake pad, drive shaft, right  
**B335** (255) Sensor, brake pad, drive shaft, left  
**B336** (256) ALB (load) sensor, drive shaft  
**B337** (244) Brake sensor

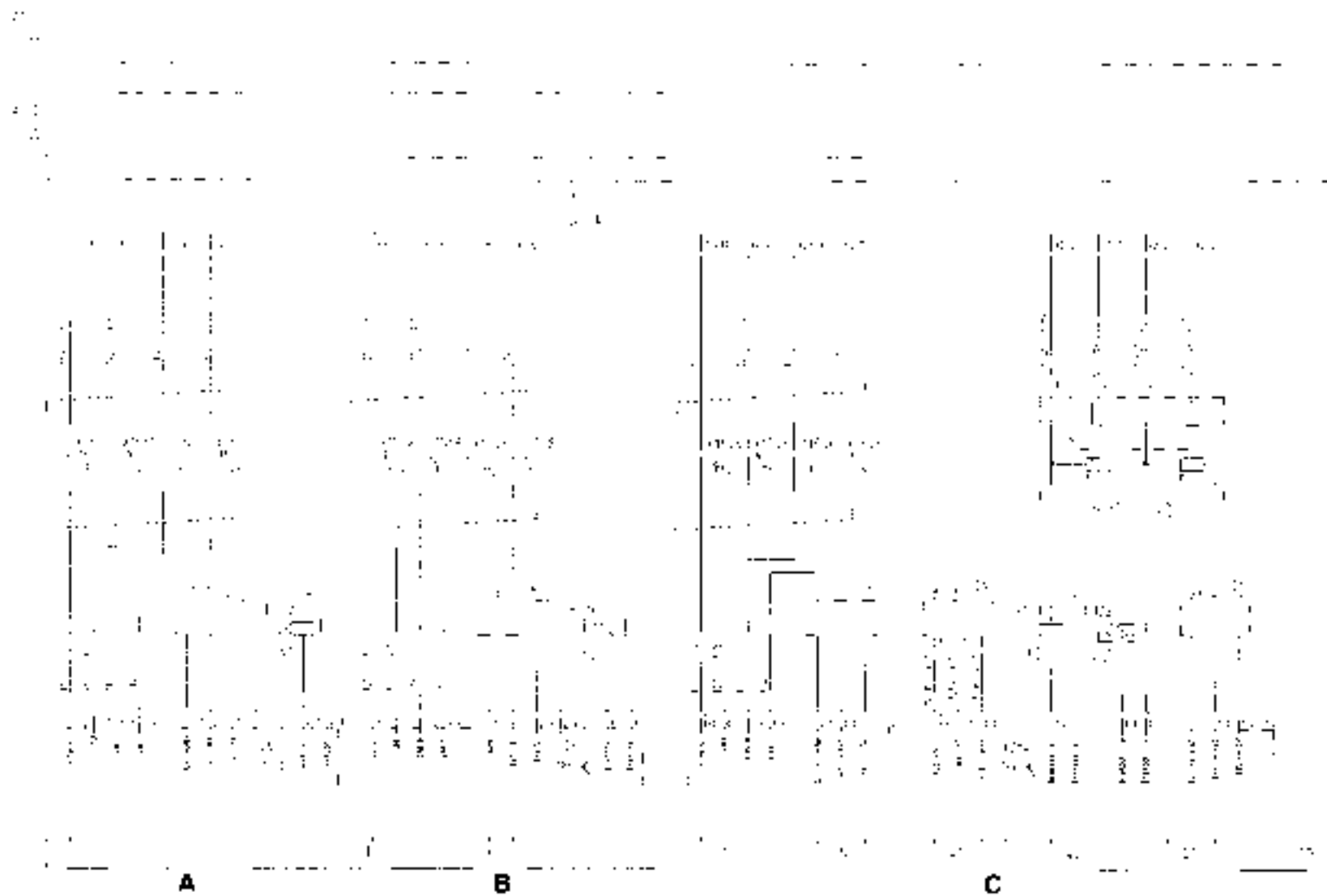
**X1548** Svd. frame IV  
**X1557** Svd. frame left

**Y262** (170) Pressure control module, front axle, right  
**Y263** (170) Pressure control module, front axle, left  
**Y264** (171) Pressure control module, rear axle

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓜ Driving seat                 |
| Ⓑ Engine                   | Ⓝ Passenger seat               |
| Ⓒ Gearbox                  | Ⓞ Control panel                |
| Ⓓ Front                    | Ⓟ Battery box                  |
| Ⓔ Bumper                   | Ⓠ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓡ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓢ B-pillar on passenger's side |
| Ⓖ Central electric area    | Ⓣ A-pillar on passenger's side |
| Ⓖ Control unit racks       | Ⓤ Ceiling/mof                  |
| Ⓢ Rear wall of cab         | Ⓥ Front axle                   |
| Ⓢ Instrument panel         | Ⓦ Rear axle                    |
| Ⓢ Central part             | Ⓧ Front part of frame          |
| Ⓢ Steering wheel/column    | Ⓨ Rear part of frame           |
| Ⓢ Foot pedals              | Ⓩ Door left                    |
| Ⓢ Front wall, inside left  | ⓐ Door right                   |
| Ⓢ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2967 Sheet 1 of 3



**EBS electronic braking system**

**Legend**

Wiring diagram no. **81.99192.2987** Sheet 2 of 3  
 Change status: 03.01

**A = Trailer lighting socket**

**B = Indicator lights**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A402** (399) EBS control unit  
**A407** (342) Instrumentation

**F160** (105) Fuse EBS/ABS power supply, trailer

**G101** (113) Battery 2

**H107** Indicator light, ABS tractor veh clo/trailer  
**H140** Indicator light, ASR/ESP information  
**H151** Indicator light, ABS information, trailer  
**H415** Indicator light, driving stability

**X317** (202) Trailer lighting socket, ABS  
**X1542** Std. frame II  
**X1548** Std. frame IV

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊕ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electric area    | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall, of cab        | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2987 Sheet 2 of 3



**EBS electronic braking system**

**Legend**

Wiring diagram no. 81.99192.2987 Sheet 3 of 3  
Change status: 03.01

**A = Supply voltage**

**B = Trailer control module**

**C = ASR traction control – slip thresholds**

**D = Diagnosis**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A402** (390) EBS control unit

**F161** (103) Fuse, EBS/ABS power supply  
pressure control valve

**F162** (111) Fuse EBS/ABS control

**S256** (455) Control switch, ASR slip threshold increase

**X154B** Std. frame IV

**X1516** Std. trailer control module

**X1644** Earthing point, cab, adjacent to central fuse,  
relay and terminal block

**X2541** (246) Potential distributor, 21-pin line 31000

**X2542** (246) Potential distributor, 21-pin line 58000

**X2544** (246) Potential distributor 21-pin K-line

**Y279** (175) Trailer control module

**Marking of mounting positions**

Ⓐ Tail

Ⓒ Engine

Ⓓ Gearbox

Ⓔ Front

Ⓜ Bumper

Ⓝ Entrance right

Ⓞ Entrance left

Ⓟ Central electric area

Ⓠ Control unit racks

Ⓡ Rear wall of cab

Ⓢ Instrument panel

Ⓣ Central part

Ⓤ Steering wheel/column

Ⓥ Foot pedals

Ⓦ Front wall, inside left

Ⓧ Front wall, inside right

Ⓨ Driving seat

Ⓩ Passenger seat

ⓐ Control panel

ⓑ Battery box

ⓓ B-pillar on driver's side

ⓔ A-pillar on driver's side

ⓕ B-pillar on passenger's side

ⓖ A-pillar on passenger's side

ⓗ Ceiling/front

Ⓢ Front axle

Ⓣ Rear axle

Ⓤ Front part of frame

Ⓥ Rear part of frame

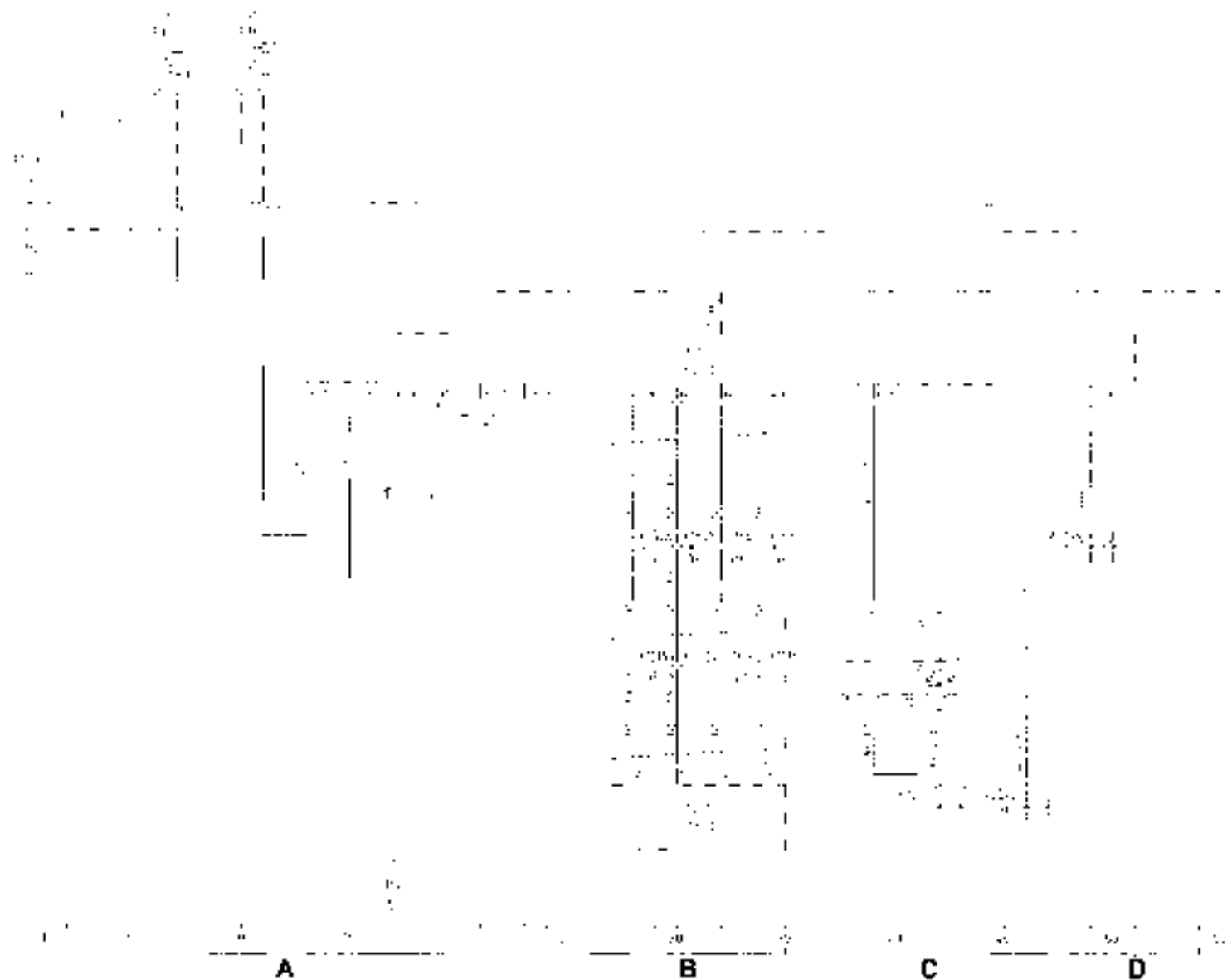
Ⓦ Door left

Ⓧ Door right

**Note:**

In the case of ASR with ESP, **S256** is replaced by **S788**!

Wiring diagram no. 81.99192.2987 Sheet 3 of 3



**ECAM electronically controlled air management unit  
fallback level**

**Legend**

Wiring diagram no. **81.99192.2810** Sheet 1 of 1

Change status 06.00

**A = ECAM fallback level**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**B101** (351) Transmitter reservoir pressure brake circuit 1

**B102** (351) Transmitter reservoir pressure brake circuit 2

**B460** (351) Transmitter reservoir pressure brake circuit 4

**B502** (351) Transmitter reservoir pressure brake circuit 3

**F375** (101) Fuse, cab outside (terminal 15)

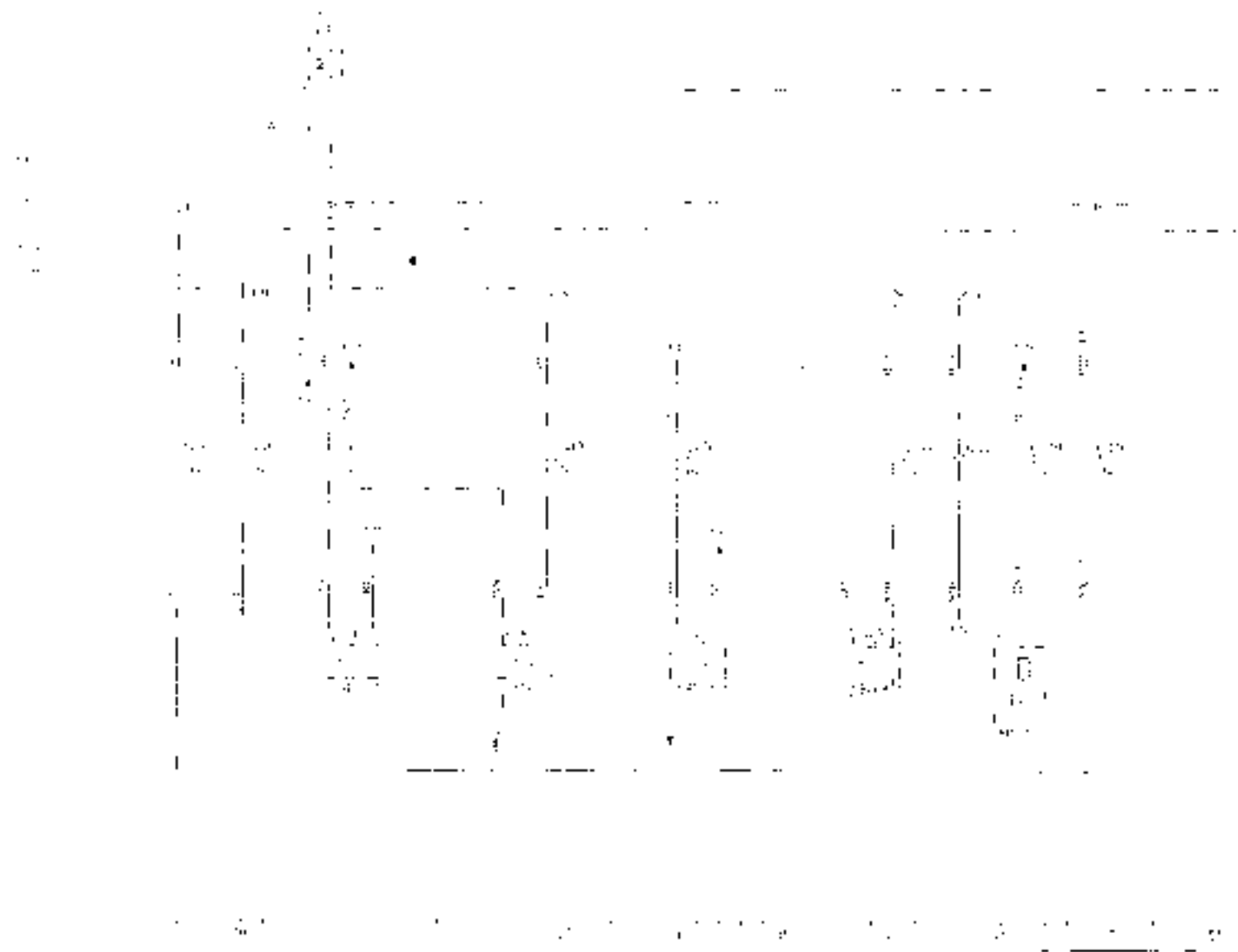
**R167** (161) Air dryer

**X2409** Stvd ECAM fallback level I

**X2410** Stvd ECAM fallback level II

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊖ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electric's area  | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/front                |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |





**ECAS electronically controlled air suspension 4x2 FL (truck)**

**Legend**

Wiring diagram no. **81.99192.1337** Sheet 1 of 2

Change status: 04.01

**A = Supply voltage**

**B = Remote control**

**C = Diagnosis**

**A100** (255) Central fuse, relay and terminal block

**A143** (342) ECAS control unit

**A221** (349) ECAS remote control

**A302** (352) Central computer 2

**F154** (101) Fuse ECAS (terminal 30)

**F356** (101) FCAM/ECAS fuse (terminal 15)

**X1044** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1809** Slvd. ECAS (terminal 15)

**X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

⊖ Tail

⊕ Engine

⊕ Gearbox

⊕ Front

⊕ Bumper

⊕ Entrance right

⊕ Entrance left

⊕ Central electric area

⊕ Control unit racks

⊕ Rear wall of cab

⊕ Instrument panel

⊕ Central part

⊕ Steering wheel/column

⊕ Foot pedals

⊕ Front wall. ns de left

⊕ Front wall. ins de right

⊕ Driving seat

⊕ Passenger seat

⊕ Control panel

⊕ Battery box

⊕ B-pillar on driver's side

⊕ A-pillar on driver's side

⊕ B-pillar on passenger's side

⊕ A-pillar on passenger's side

⊕ Ceiling/roof

⊕ Front axle

⊕ Rear axle

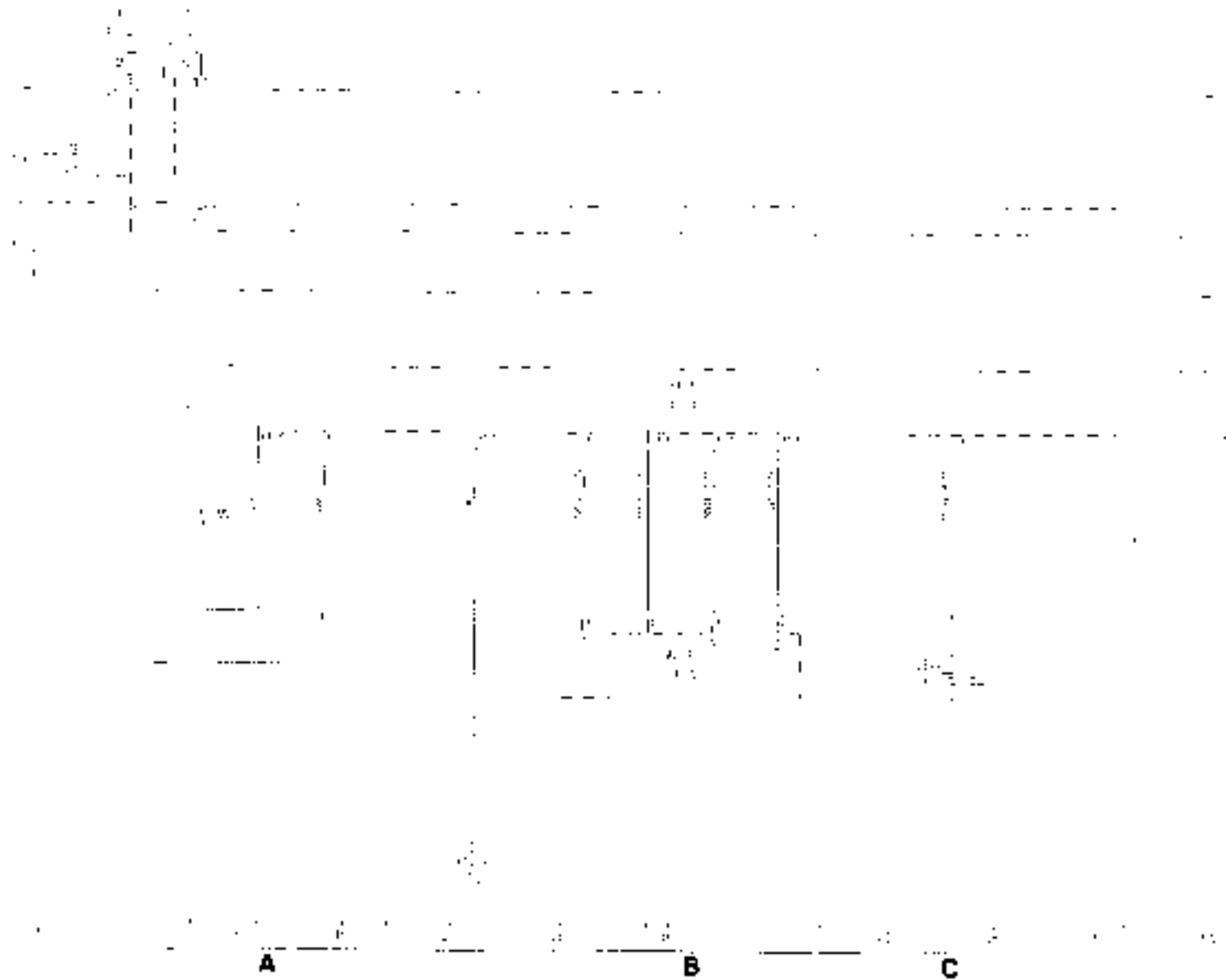
⊕ Front part of frame

⊕ Rear part of frame

⊕ Door left

⊕ Door right

Wiring diagram no. **B1.99192.1337** Sheet 1 of 2



**ECAS electronically controlled air suspension 4x2 FL (truck)**

**Legend**

Wiring diagram no. **81.99192.1337** Sheet 2 of 2

Change status: 04.01

**A = Height sensors**

**B = Solenoid valves**

**C = Indicator light**

**A100** (255) Central fuse, relay and terminal block

**A143** (343) ECAS control unit

**A302** (352) Central computer 2

**A407** (342) Instrumentation

**B129** (311) Height sensor, rear axle left

**B130** (311) Height sensor, rear axle right

**H394** Indicator light, ECAS malfunction/warning

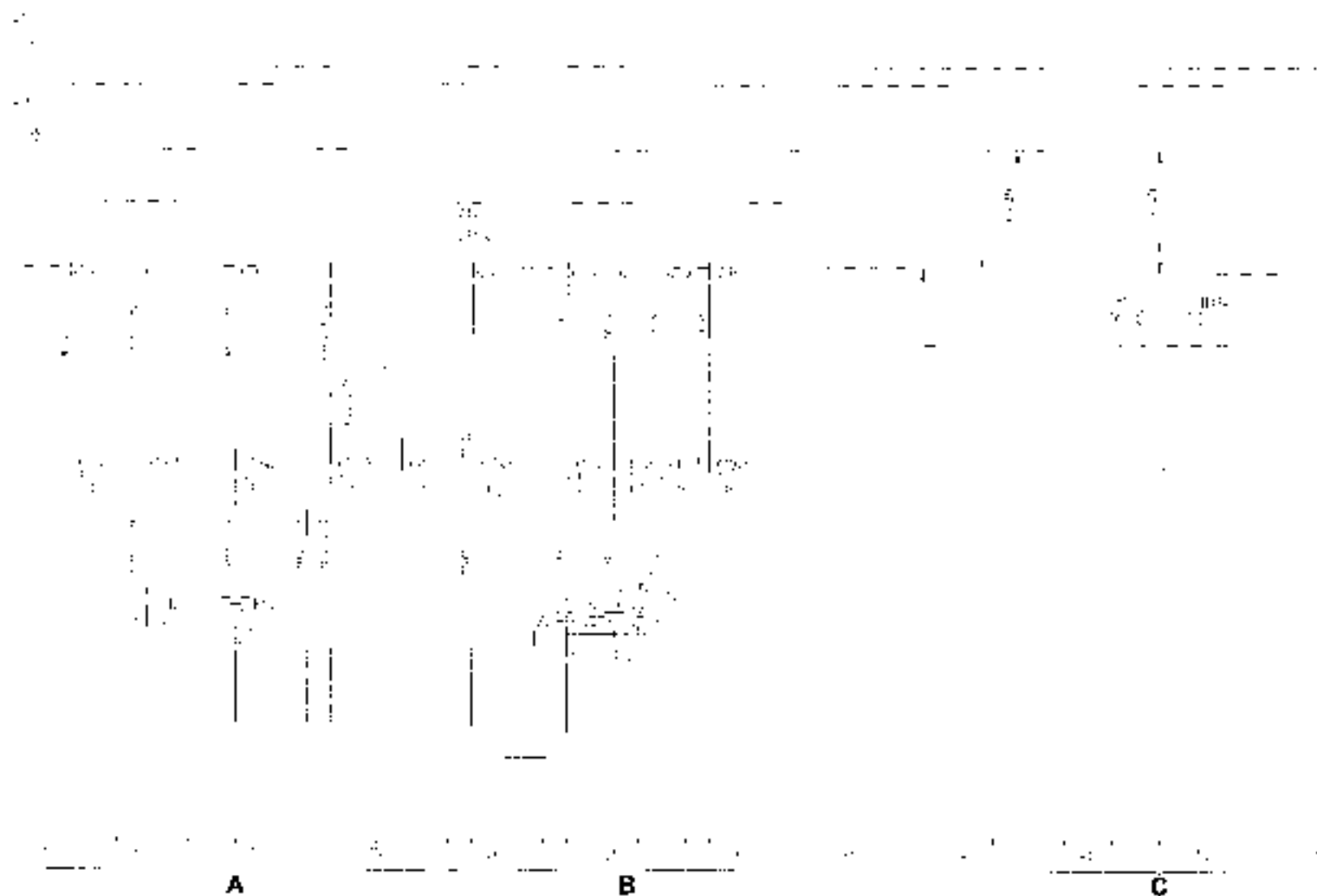
**X1945** Spvd. ECAS/EFR

**Y132** (168) ECAS valve block

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊙ Tail                     | ⊙ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊙ Gearbox                  | ⊙ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Bumper                   | ⊙ D pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B pillar on passenger's side |
| ⊙ Central electrics area   | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/roof                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊙ Central part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Foot pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1337 Sheet 2 of 2



**ECAS electronically controlled air suspension 4x2 FL (semitrailer)**

**Legend**

Wiring diagram no. 81.99192.1336 Sheet 1 of 2

Change status: 01.01

**A = Supply voltage**

**B = Remote control**

**C = Diagnosis**

**A100** (255) Central fuse, relay and terminal block  
**A143** (342) ECAS control unit  
**A221** (349) ECAS remote control  
**A302** (352) Central computer 2

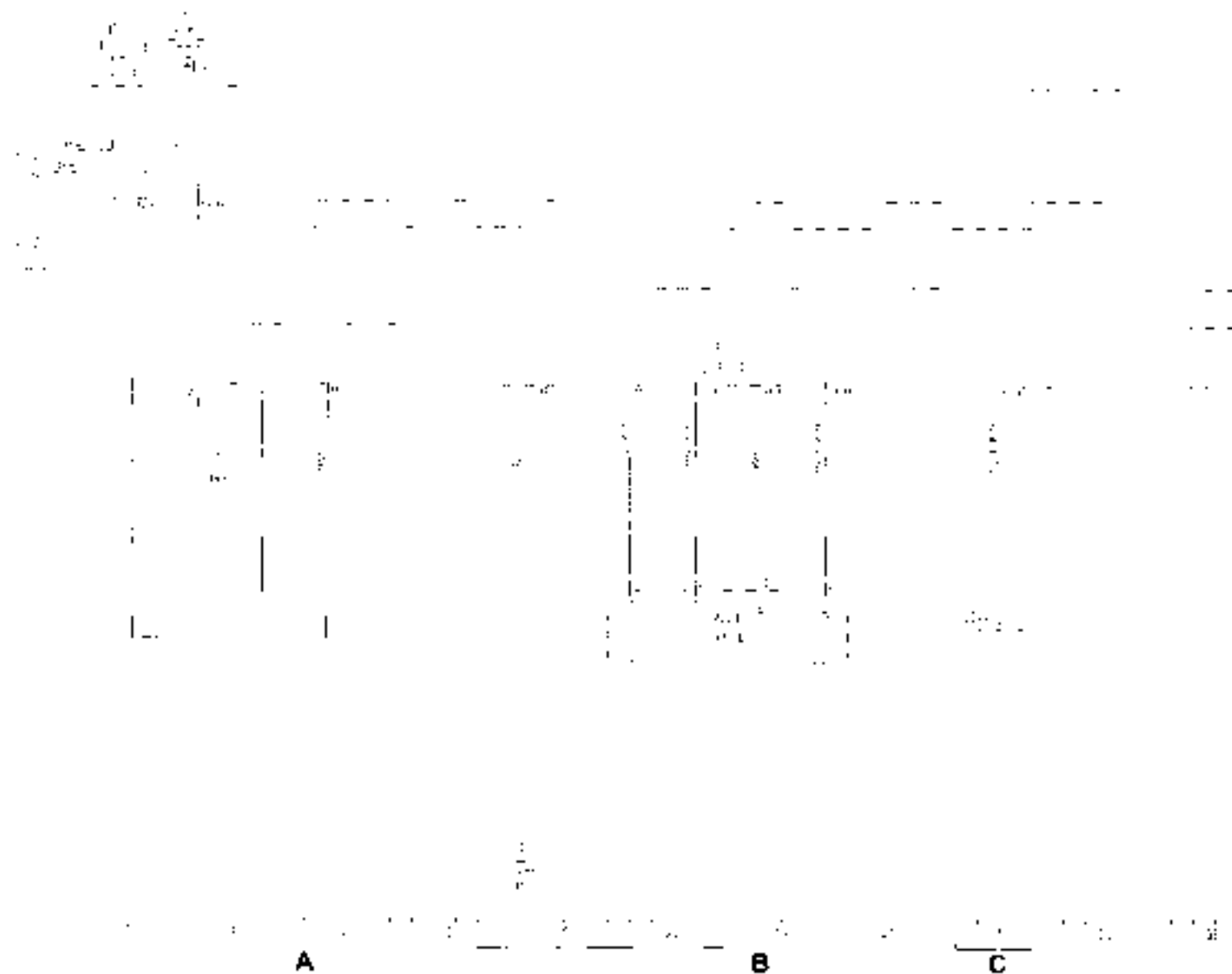
**F164** (101) Fuse ECAS (terminal 30)  
**F366** (101) ECAM/ECAS fuse (terminal 15)

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1809** Svvd. ECAS (terminal 15)  
**X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊖ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electric area    | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Coiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/co. unit  | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |
































Wiring diagram no. 81.99192.1336 Sheet 1 of 2

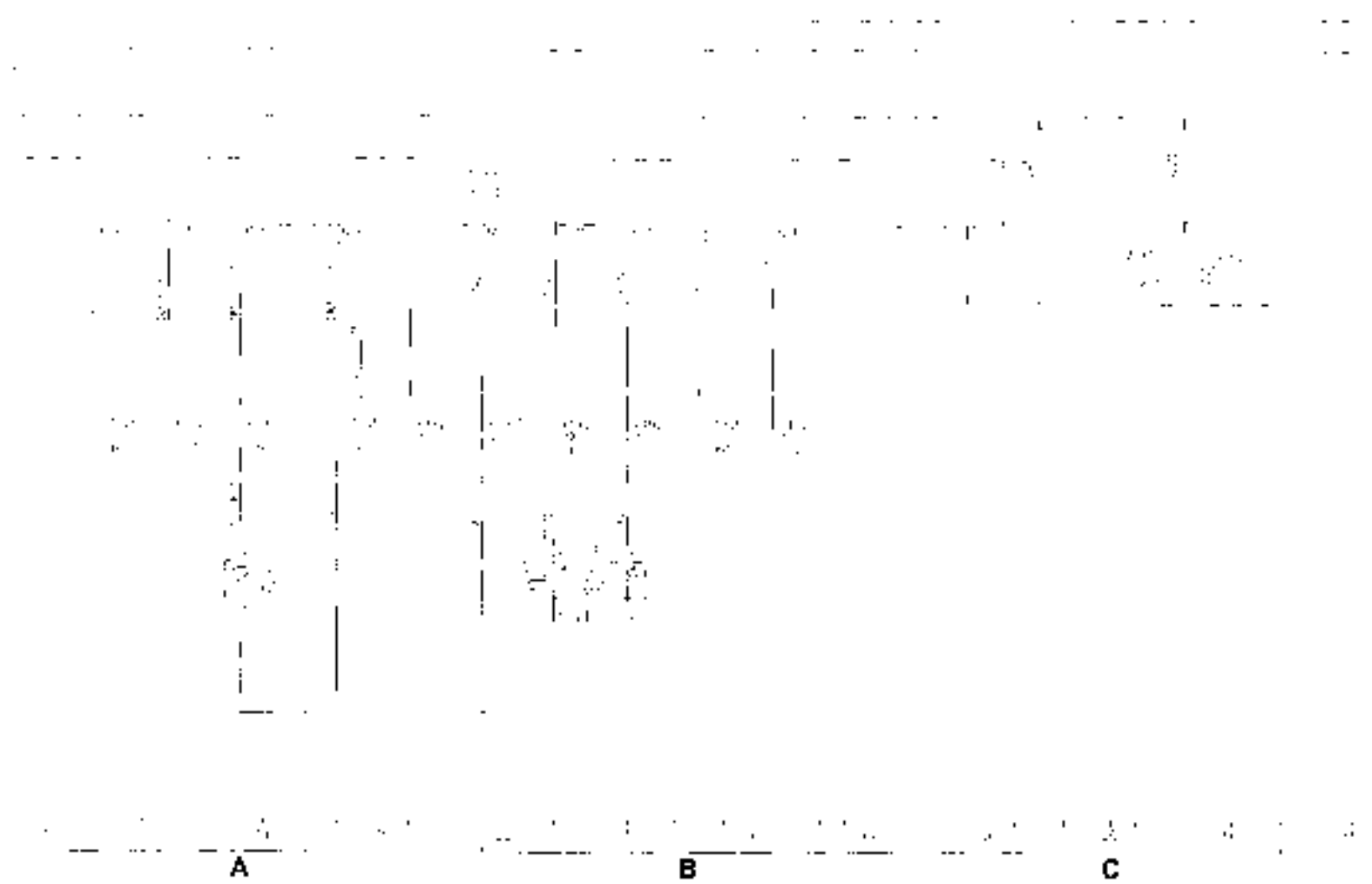


**ECAS electronically controlled air suspension 4x2 FL (semitrailer)****Legend**Wiring diagram no. **81.99192.1336** Sheet 2 of 2

Change status: 04/01

**A = Height sensors****B = Solenoid valves****C = Indicator light****A100** (255) Central fuse, relay and terminal block**A143** (343) ECAS control unit**A302** (352) Central computer 2**A407** (542) Instrumentation**B1311** (311) Height sensor rear axle right**H394** Indicator light, ECAS malfunction/warning**X1945** Std. ECAS/EFD**Y132** (167) ECAS valve block**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electric area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right





**ECAS electronically controlled air suspension 4x2 FLL**

**Legend**

Wiring diagram no. **81.99192.1338** Sheet 1 of 2

Change status: 04/01

**A = Supply voltage**

**B = Remote control**

**C = Diagnosis**

**A100** (255) Central fuse, relay and terminal block

**A142** (343) ECAS control unit

**A221** (350) ECAS remote control

**A302** (352) Central computer 2

**F164** (101) Fuse ECAS (terminal 30)

**F366** (101) ECAM/ECAS fuse (terminal 15)

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1809** Stvd. ECAS (terminal 15)


**X2544** (246) Potential distributor: 21-pin K-line

**Marking of mounting positions**

 Tail

 Engine


 Gearbox


 Front


 Bumper


 Entrance right


 Entrance left


 Central electrics area

 Control unit racks

 Rear wall of cab


 Instrument panel

 Central part


 Steering wheel/column

 Foot pedals

 Front wall inside left

 Front wall inside right

 Driving seat

 Passenger seat

 Control panel


 Battery box


 B pillar on driver's side

 A pillar on driver's side


 B pillar on passenger's side


 A pillar on passenger's side


 Ceiling/roof


 Front axle

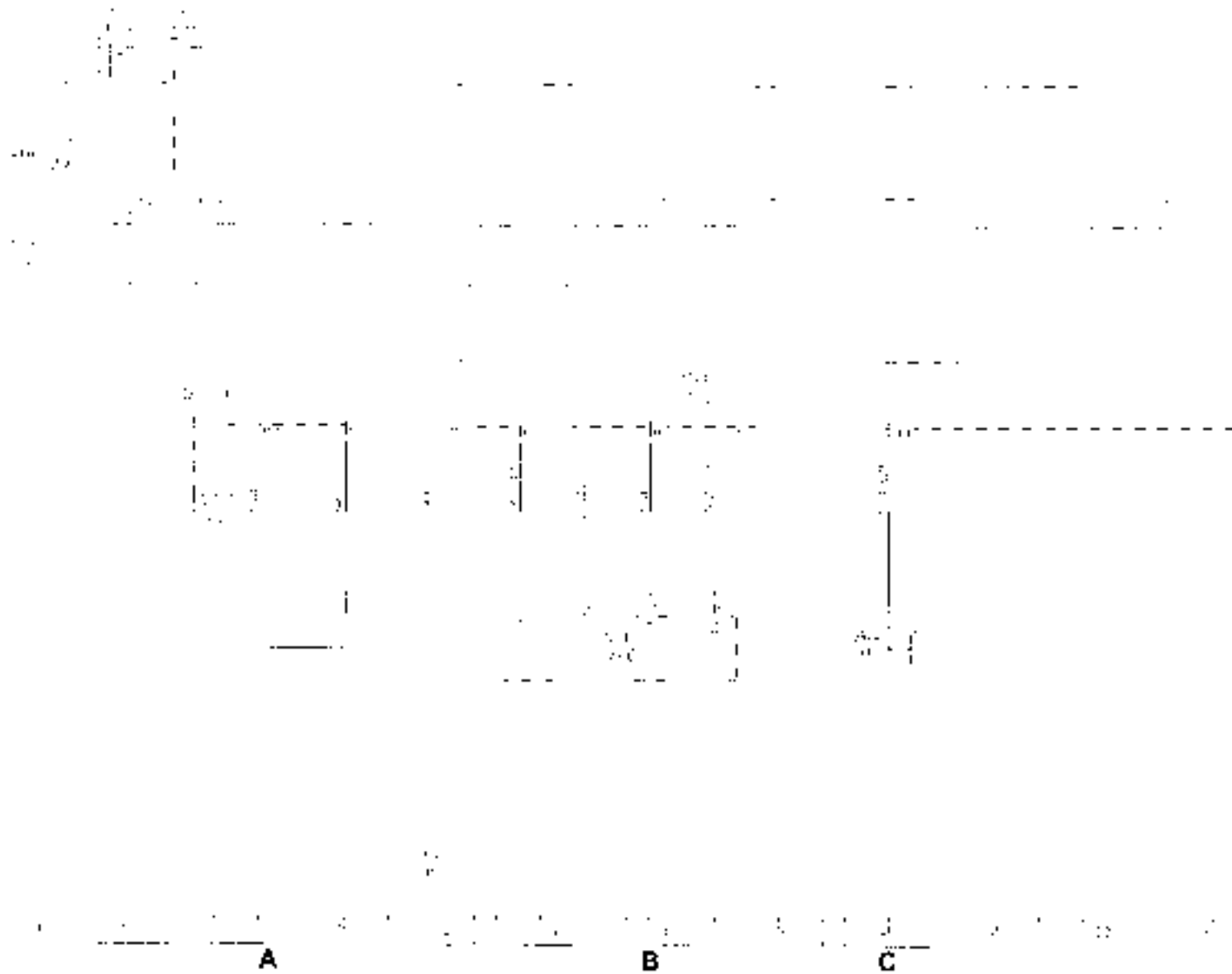
 Rear axle

 Front part of frame

 Rear part of frame

 Door left

 Door right



**ECAS electronically controlled air suspension 4x2 FLL**

**Legend**

Wiring diagram no. **81.99192.1336** Sheet **2** of **2**

Change status: 04.01

**A = Height sensors**

**B = Solenoid valves**

**C = Indicator light**

**A100** (255) Central fuse, relay and terminal block

**A143** (343) ECAS control unit

**A332** (352) Central computer 2

**A407** (342) Instrumentation

**B128** (311) Height sensor, front axle

**B129** (311) Height sensor, rear axle left

**B130** (311) Height sensor, rear axle right

**H394** Indicator light, ECAS malfunction/warning

**X1946** Std. ECAS/EPH

**Y132** (124) ECAS valve block

**Marking of mounting positions**

Ⓐ Tail

Ⓒ Engine

Ⓓ Gearbox

Ⓔ Front

Ⓕ Bumper

Ⓖ Entrance right

Ⓗ Entrance left

Ⓚ Central electrics area

Ⓛ Control Unit racks

Ⓜ Rear wall of cab

Ⓝ Instrument panel

Ⓞ Central part

Ⓟ Steering wheel/column

Ⓠ Foot pedals

Ⓡ Front wall, inside left

Ⓢ Front wall, inside right

Ⓣ Driving seat

Ⓤ Passenger seat

Ⓡ Control panel

Ⓚ Battery box

Ⓛ B-pillar on driver's side

Ⓜ A-pillar on driver's side

Ⓝ B-pillar on passenger's side

Ⓞ A-pillar on passenger's side

Ⓟ Ceiling/front

Ⓠ Front axle

Ⓡ Rear axle

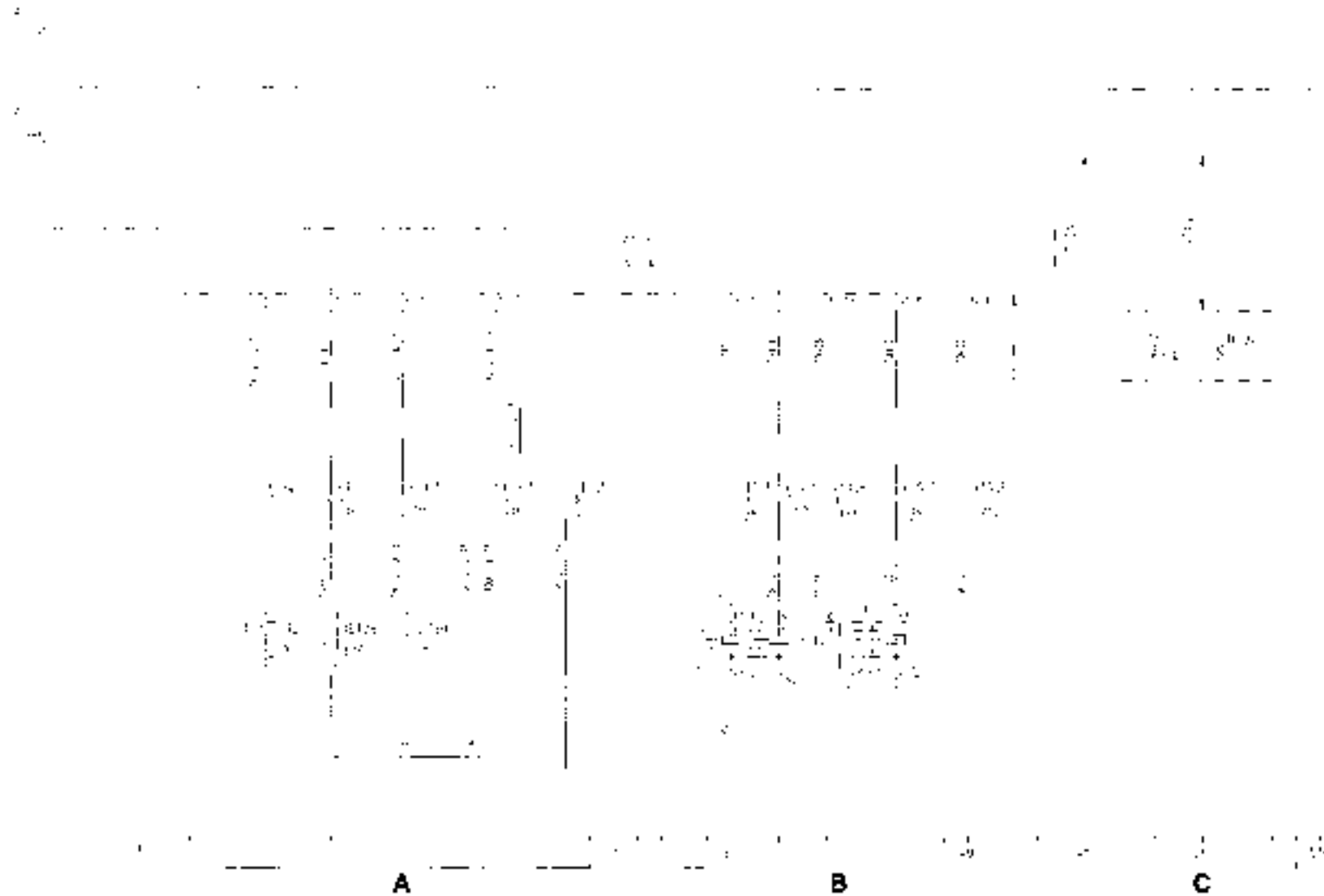
Ⓢ Front part of frame

Ⓣ Rear part of frame

Ⓤ Door left

Ⓡ Door right

Wiring diagram no. 61.99192.1338 Sheet 2 of 2



**ECAS electronically controlled air suspension 6x2 FNL**

**Legend**

Wiring diagram no. **81.99192.1339** Sheet 1 of 2  
 Change status 04 01

**A = Switch**

**B = Remote control**

**C = Diagnosis**

**A100** (255) Central fuse, relay and terminal block  
**A143** (314) ECAS control unit  
**A221** (349) ECAS remote control  
**A302** (352) Central computer 2  
**A407** (342) Instrumentation

**F164** (101) Fuse ECAS (terminal 30)  
**F266** (101) ECAM/ECAS fuse (terminal 15)

**H394** Indicator light, ECAS malfunction/warning

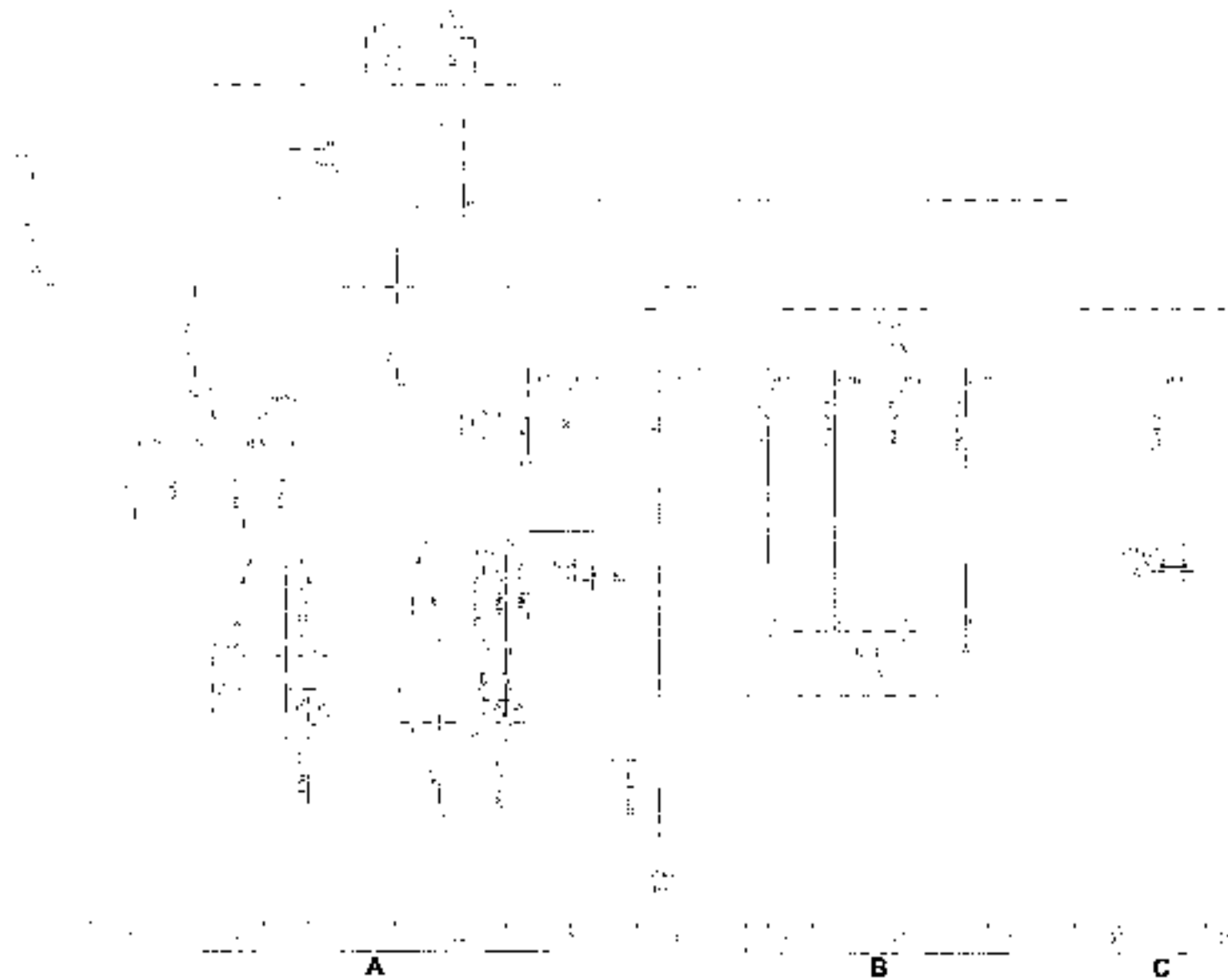
**S266** (514) Switch ECAS NLA/VLA raise/release  
**S267** (515) Control switch ECAS traction help

**X1641** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1809** Std. ECAS (terminal 15)  
**X2542** (246) Potential distributor, 21-pin line 58000  
**X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓜ Driving seat                 |
| Ⓛ Engine                   | Ⓝ Passenger seat               |
| Ⓜ Gearbox                  | Ⓞ Control panel                |
| Ⓛ Front                    | Ⓟ Battery box                  |
| Ⓛ Bumper                   | Ⓠ R-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓡ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓢ B-pillar on passenger's side |
| Ⓛ Central electric area    | Ⓣ A-pillar on passenger's side |
| Ⓛ Control unit racks       | Ⓤ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | Ⓡ Front axle                   |
| Ⓛ Instrument panel         | Ⓢ Rear axle                    |
| Ⓛ Central part             | Ⓣ Front part of frame          |
| Ⓛ Steering wheel/column    | Ⓤ Rear part of frame           |
| Ⓛ Foot pedals              | Ⓡ Door left                    |
| Ⓛ Front wall, inside left  | Ⓢ Door right                   |
| Ⓛ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1339 Sheet 1 of 2



**ECAS electronically controlled air suspension 6x2 FNL**

**Legend**

Wiring diagram no. **81.99192.1339** Sheet 2 of 2

Change status: 04,01

**A = Height sensors**

**B = Solenoid valves**

A100 (255) Control fuse, relay and terminal block

A143 (344) ECAS control unit

A302 (352) Central computer 2

B129 (311) Height sensor, rear axle left

B130 (311) Height sensor, rear axle right

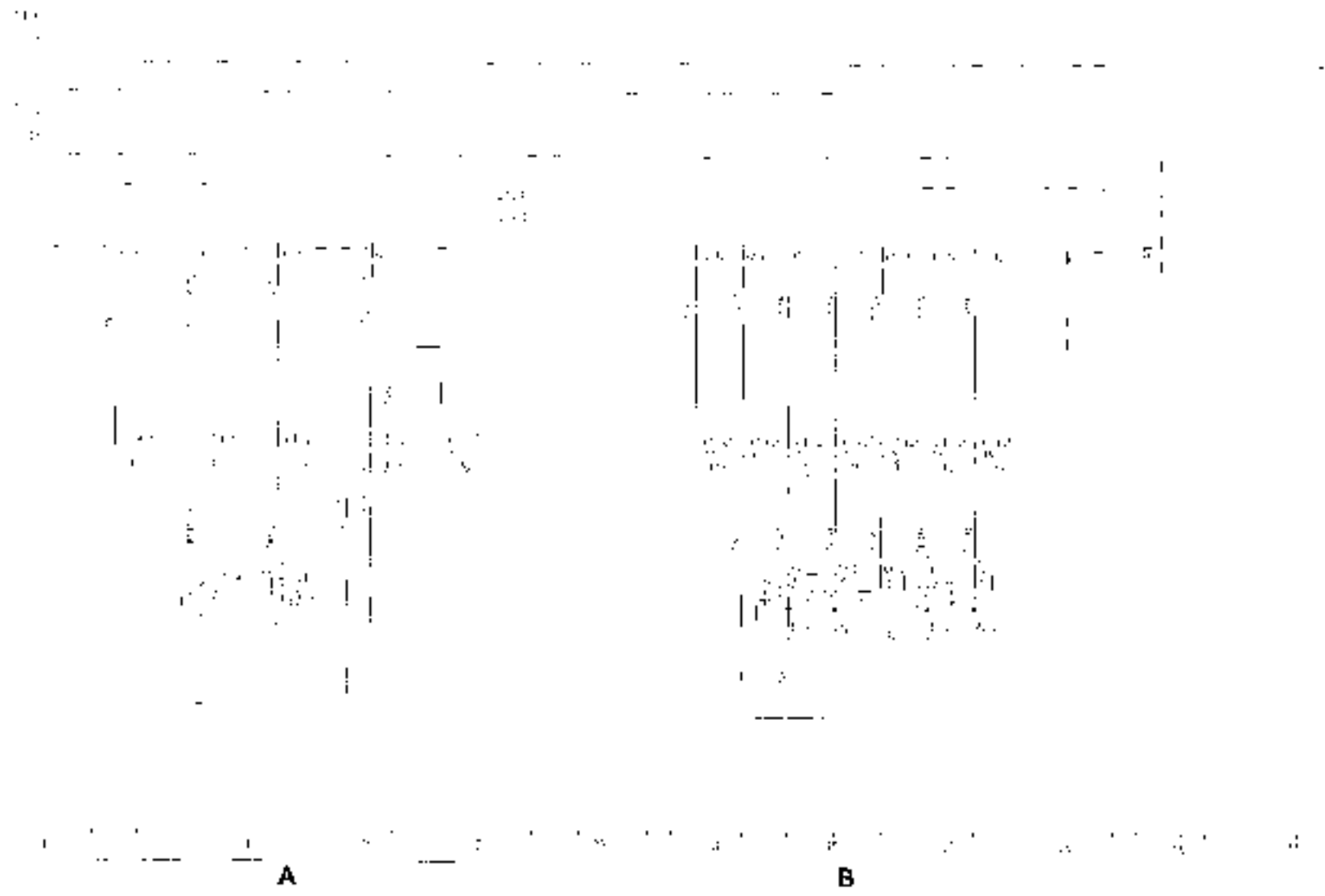
X1945 Stvt. ECAS/EFR

Y1G1 (169) Solenoid valve block ECAS I · HA II · NLA/VLA

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊙ | Driving seat                 |
| ⊕ | Engine                   | ⊙ | Passenger seat               |
| ⊕ | Gearbox                  | ⊙ | Control panel                |
| ⊖ | Front                    | ⊕ | Battery box                  |
| ⊖ | Rumper                   | ⊕ | B-pillar on driver's side    |
| ⊕ | Entrance right           | ⊕ | A-pillar on driver's side    |
| ⊕ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊕ | Central electric area    | ⊖ | A-pillar on passenger's side |
| ⊕ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊕ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊕ | Central part             | ⊖ | Front part of frame          |
| ⊕ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊕ | Foot pedals              | ⊕ | Door left                    |
| ⊕ | Front wall, inside left  | ⊕ | Door right                   |
| ⊕ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.1339 Sheet 2 of 2





**ECAS electronically controlled air suspension 6x2 FNL (Nordland)**

**Legend**

Wiring diagram no. **81.99192.1348** Sheet **1** of **2**  
 Change status: 04.01

**A = Supply voltage, switch**

**B = Remote control**

**C = Diagnosis**

A101 (255) Central fuse, relay and terminal block  
 A143 (344) ECAS control unit  
 A221 (350) ECAS remote control  
 A302 (352) Central computer 2  
 A407 (342) Instrumentation

F164 (101) Fuse ECAS (terminal 30)  
 F360 (101) ECAM/ECAS fuse (terminal 15)

H394 Indicator light, ECAS malfunction/warning

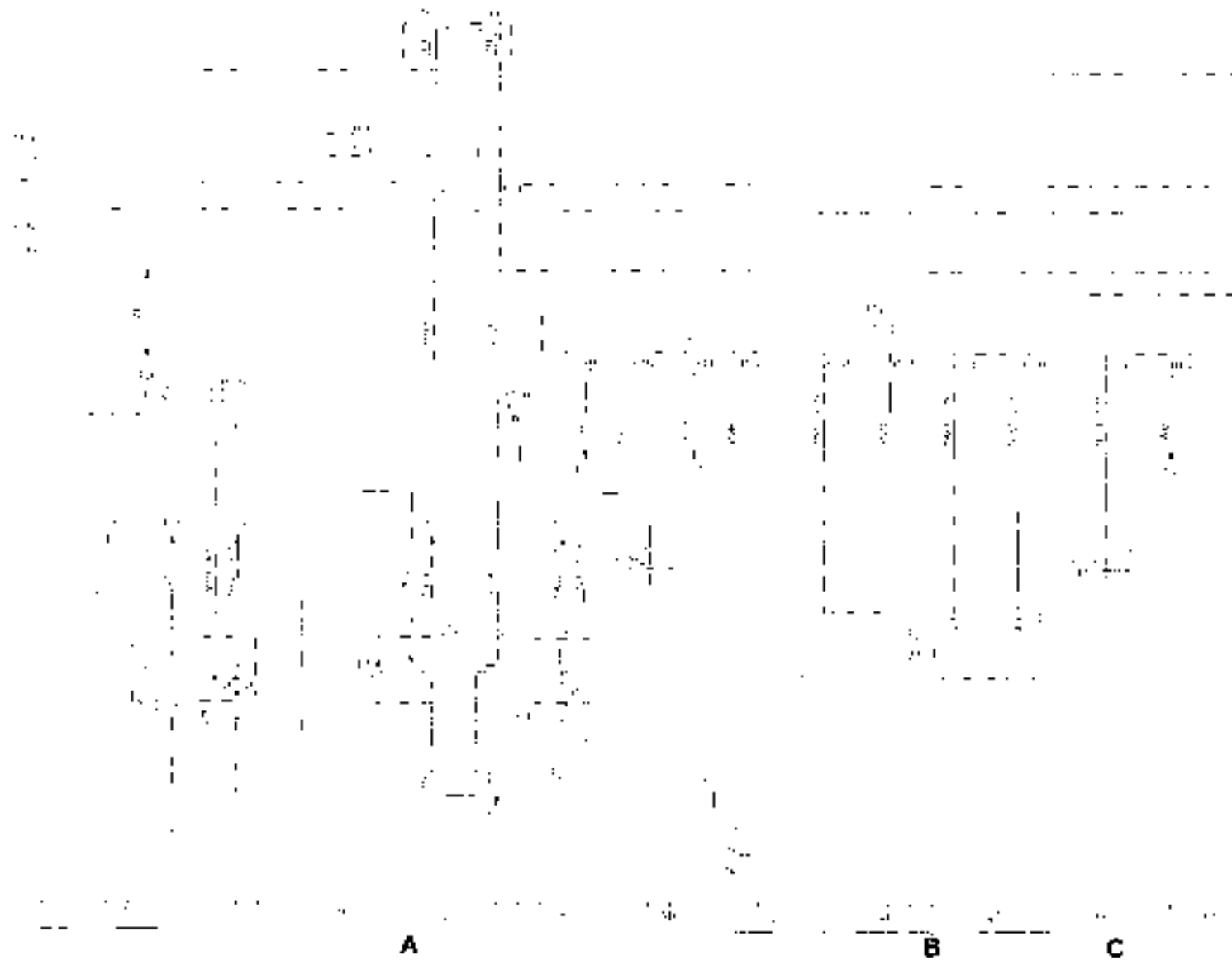
S747 (680) Switch ECAS (traction help Nordland)  
 S790 (699) Control switch ECAS lift/relieve trailing/leading axle Nordland

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block

X1809 Std. ECAS (terminal 15)  
 X2542 (24R) Potential distributor, 21-pin line 56000  
 X2544 (24R) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electricals area | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |



**ECAS electronically controlled air suspension 6x2 FNL (Nordland)**

**Legend**

Wiring diagram no. **81.99192.1348** Sheet 2 of 2

Change status: 04/01

**A = Height sensors**

**B = Solenoid valves**

**A100** (255) Central fuse, relay and terminal block

**A141** (344) ECAS control unit

**A302** (352) Central computer 2

**B129** (311) Height sensor, rear axle left

**B130** (311) Height sensor, rear axle right

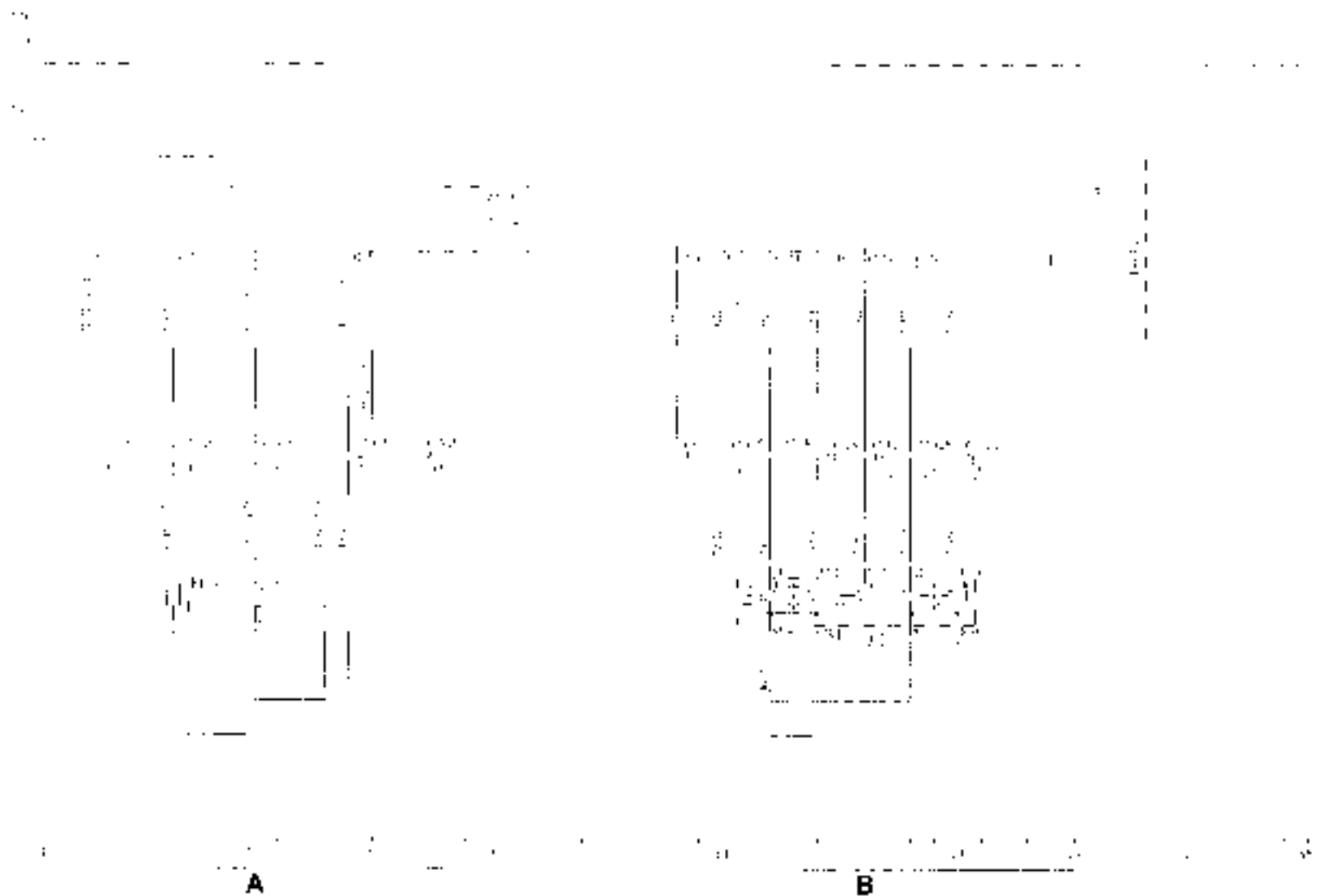
**X1945** Stvd. ECAS/EFB

**Y161** (169) Solenoid valve block ECAS I - HA II - NLA/VLA

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊕ | Rumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electric area    | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.1348 Sheet 2 of 2



**ECAS electronically controlled air suspension 6x2 FNLL**

**Legend**

Wiring diagram no. 81.99192.1340 Sheet 1 of 2

Change status: 04 01

**A = Switch**

**B = Remote control**

**C = Diagnosis**

A110 (255) Central fuse, relay and terminal block  
 A143 (344) ECAS control unit  
 A221 (350) ECAS remote control  
 A302 (352) Central computer 2  
 A407 (342) Instrumentation

F164 (101) Fuse ECAS (terminal 30)  
 F366 (101) ECAM/ECAS fuse (terminal 15)

H394 Indicator light, ECAS malfunction/warning

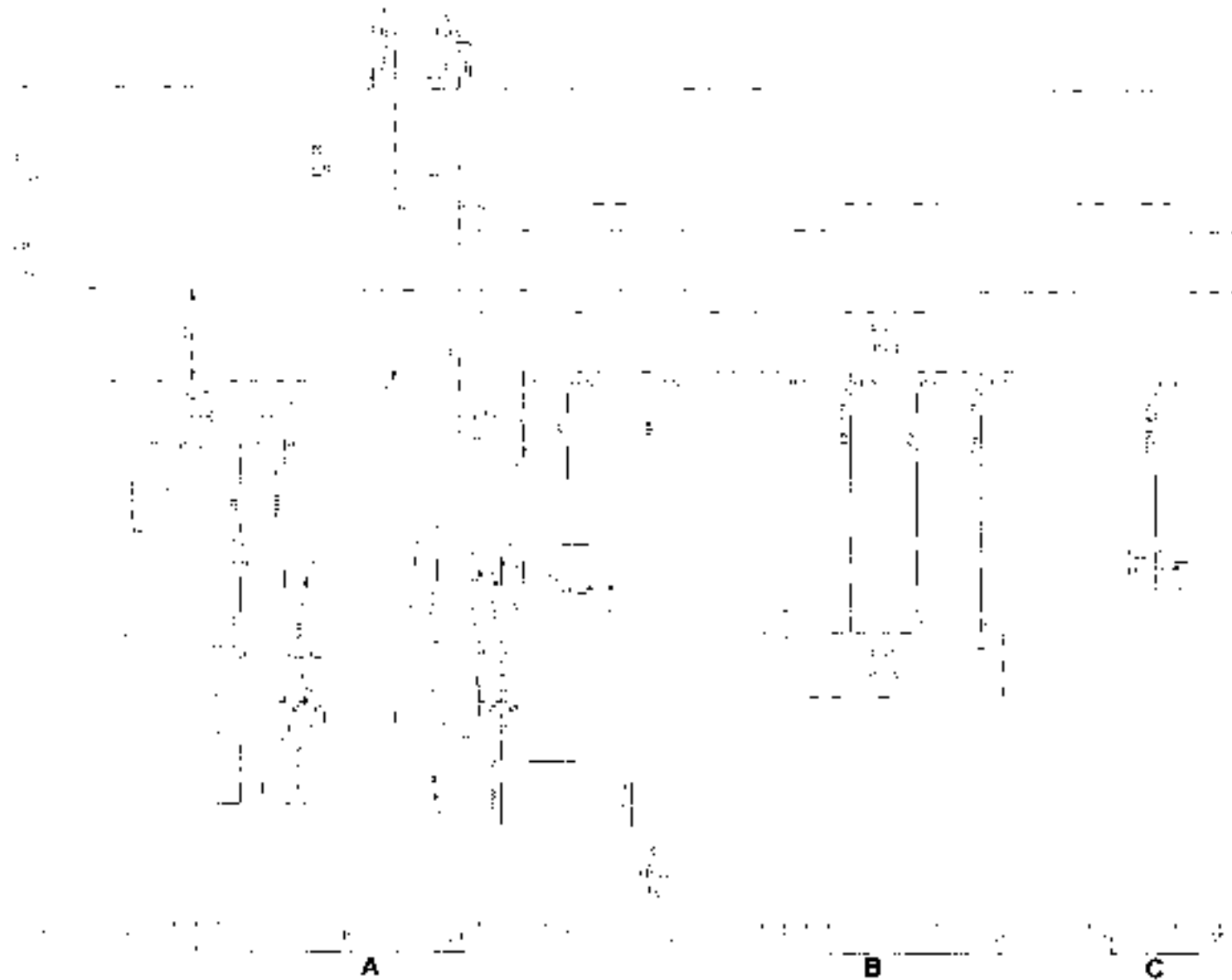
S266 (S14) Switch ECAS NLA/VLA raise/release  
 S267 (S15) Control switch ECAS traction help

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block  
 X1809 Std. ECAS (terminal 15)  
 X2542 (246) Potential distributor, 21-pin line 58000  
 X2544 (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊕ | Driving seat                 |
| ⊕ | Engine                   | ⊕ | Passenger seat               |
| ⊕ | Gearbox                  | ⊕ | Control panel                |
| ⊕ | Front                    | ⊕ | Battery box                  |
| ⊕ | Bumper                   | ⊕ | B pillar on driver's side    |
| ⊕ | Entrance right           | ⊕ | A pillar on driver's side    |
| ⊕ | Entrance left            | ⊕ | D pillar on passenger's side |
| ⊕ | Central electric's area  | ⊕ | A pillar on passenger's side |
| ⊕ | Control unit racks       | ⊕ | Ceiling/roof                 |
| ⊕ | Rear wall of cab         | ⊕ | Front axle                   |
| ⊕ | Instrument panel         | ⊕ | Rear axle                    |
| ⊕ | Central part             | ⊕ | Front part of frame          |
| ⊕ | Steering wheel/column    | ⊕ | Rear part of frame           |
| ⊕ | Foot pedals              | ⊕ | Door left                    |
| ⊕ | Front wall, inside left  | ⊕ | Door right                   |
| ⊕ | Front wall, inside right |   |                              |

Wiring diagram no. **61.99192-1340** Sheet 1 of 2



**ECAS electronically controlled air suspension 6x2 FNLL**

**Legend**

Wiring diagram no. **81.99192.1340** Sheet 2 of 2

Change status: 04/01

**A = Height sensors**

**B = Solenoid valves**

A100 (255) Central fuse, relay and terminal block

A143 (344) ECAS control unit

A302 (352) Control computer 2

B128 (311) Height sensor, front axle

B129 (311) Height sensor, rear axle left

B130 (311) Height sensor, rear axle right

X1945 Shd. ECAS/EFR

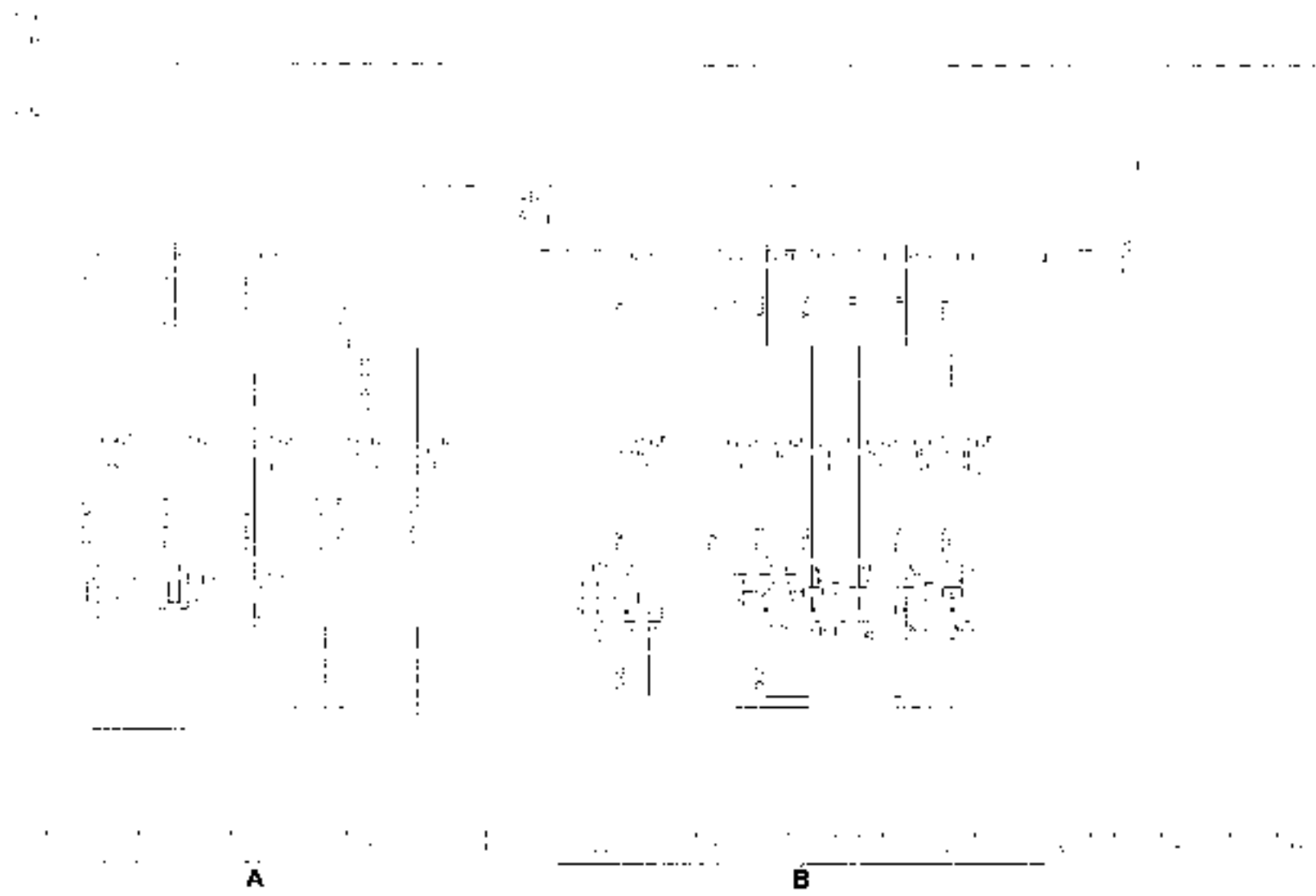
Y161 (109) Solenoid valve block ECAS I = HA II = NLA/VLA

Y162 (128) Solenoid valve block ECAS front axle

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊕ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊕ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊕ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊕ | Entrance right           | ⊕ | A-pillar on driver's side    |
| ⊕ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊕ | Central electrics area   | ⊕ | A-pillar on passenger's side |
| ⊕ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊕ | Near wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊕ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊕ | Steering wheel/column    | ⊕ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊕ | Front wall, inside left  | ⊕ | Door right                   |
| ⊕ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.1340 Sheet 2 of 2





**ECAS electronically controlled air suspension 6x2 FNLL (Nordland)**

**Legend**

Wiring diagram no. 81.99192.1349 Sheet 1 of 2

Change status: 01.01

**A = Supply voltage, switch**

**B = Remote control**

**C = Diagnosis**

**A100** (255) Central fuse, relay and terminal block  
**A143** (314) ECAS control unit  
**A221** (350) ECAS remote control  
**A302** (352) Central computer 2  
**A407** (312) Instrumentation

**F164** (101) Fuse ECAS (terminal 30)  
**F366** (101) ECAV/ECAS fuse (terminal 15)

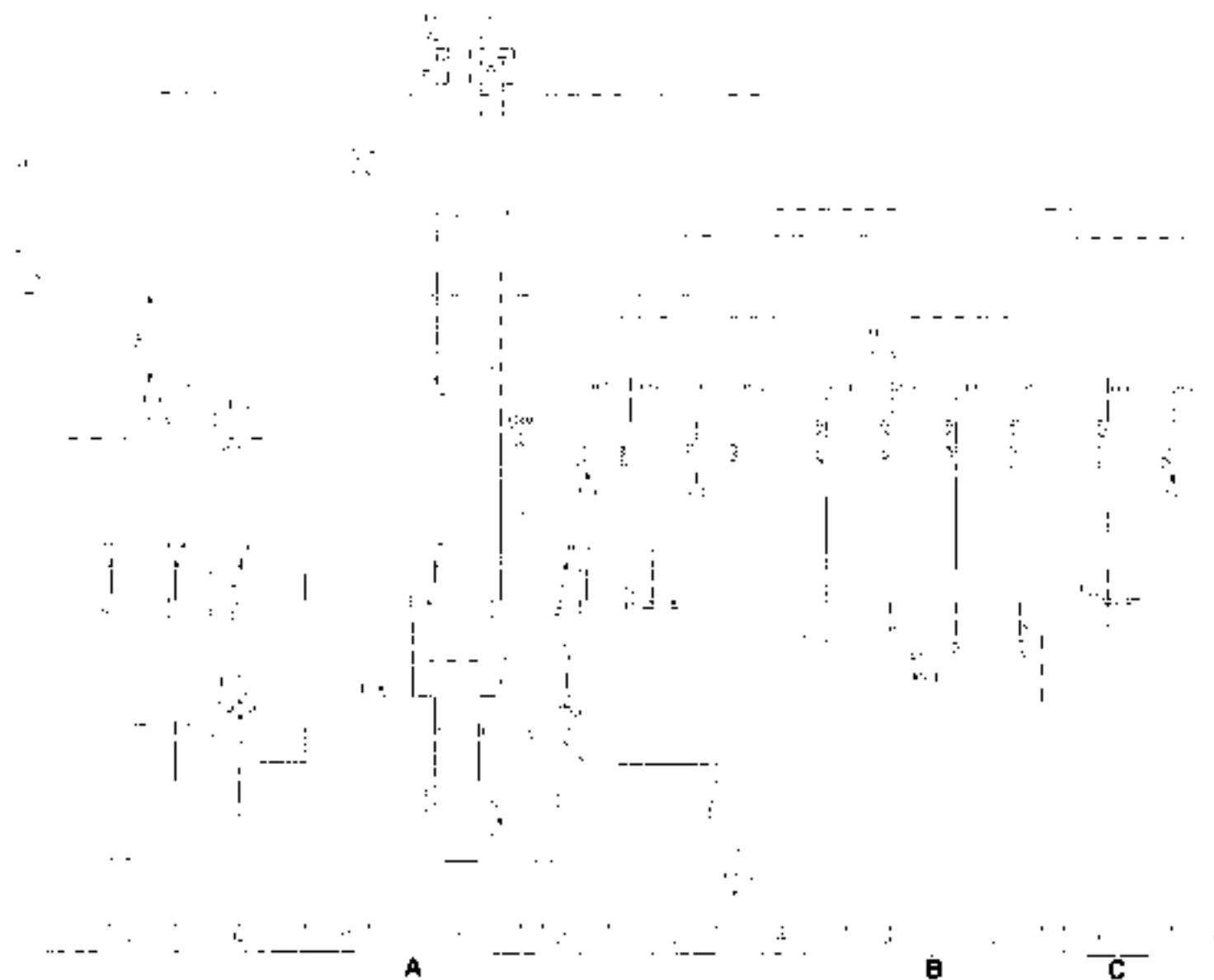
**H394** Indicator light, ECAS malfunction/warning

**S747** (680) Switch ECAS traction help Nordland  
**S790** (699) Control switch ECAS lift/relieve trailing/leading axle Nordland

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1809** Std. ECAS (terminal 15)  
**X2542** (246) Potential distributor, 21-pin line 58000  
**X2544** (246) Potential distributor 21 pin K-line

**Marking of mounting positions**

- |                              |                                  |
|------------------------------|----------------------------------|
| (A) Tail                     | (L) Driving seat                 |
| (E) Engine                   | (P) Passenger seat               |
| (G) Gearbox                  | (C) Control panel                |
| (F) Front                    | (B) Battery box                  |
| (B) Bumper                   | (D) B-pillar on driver's side    |
| (R) Entrance right           | (H) A-pillar on driver's side    |
| (L) Entrance left            | (I) B-pillar on passenger's side |
| (S) Central electrics area   | (A) A-pillar on passenger's side |
| (C) Control unit racks       | (O) Ceiling/roof                 |
| (R) Rear wall of cab         | (H) Front axle                   |
| (I) Instrument panel         | (R) Rear axle                    |
| (C) Central part             | (F) Front part of frame          |
| (S) Steering wheel/column    | (R) Rear part of frame           |
| (P) Foot pedals              | (D) Door left                    |
| (F) Front wall, inside left  | (D) Door right                   |
| (R) Front wall, inside right |                                  |



**ECAS electronically controlled air suspension 6x2 FNLL (Nordland)**

**Legend**

Wiring diagram no. 81.99192.1349 Sheet 2 of 2

Change status: 04.01

**A = Height sensors**

**B = Solenoid valves**

**A100** (255) Central fuse, relay and terminal block

**A143** (344) ECAS control unit

**A302** (352) Central computer 2

**B128** (3\*1) Height sensor, front axle

**B129** (3\*1) Height sensor, rear axle left

**B130** (3\*1) Height sensor, rear axle right

**X1945** Slvd. ECAS/EFH

**Y161** (169) Solenoid valve ECAS I = HA (rear axle) II = NLA/VLA (trailing/leading axle)

**Y162** (128) Solenoid valve ECAS front axle

**Marking of mounting positions**

Ⓢ Tail

Ⓜ Engine

Ⓜ Gearbox

Ⓢ Front

Ⓢ Bumper

Ⓢ Entrance right

Ⓢ Entrance left

Ⓢ Central electrics area

Ⓢ Control unit racks

Ⓢ Rear wall of cab

Ⓢ Instrument panel

Ⓢ Central part

Ⓢ Steering wheel/column

Ⓢ Foot pedals

Ⓢ Front wall, inside left

Ⓢ Front wall, inside right

Ⓢ Driving seat

Ⓢ Passenger seat

Ⓢ Control panel

Ⓢ Battery box

Ⓢ B-pillar on driver's side

Ⓢ A-pillar on driver's side

Ⓢ B-pillar on passenger's side

Ⓢ A-pillar on passenger's side

Ⓢ Ceiling/roof

Ⓢ Front axle

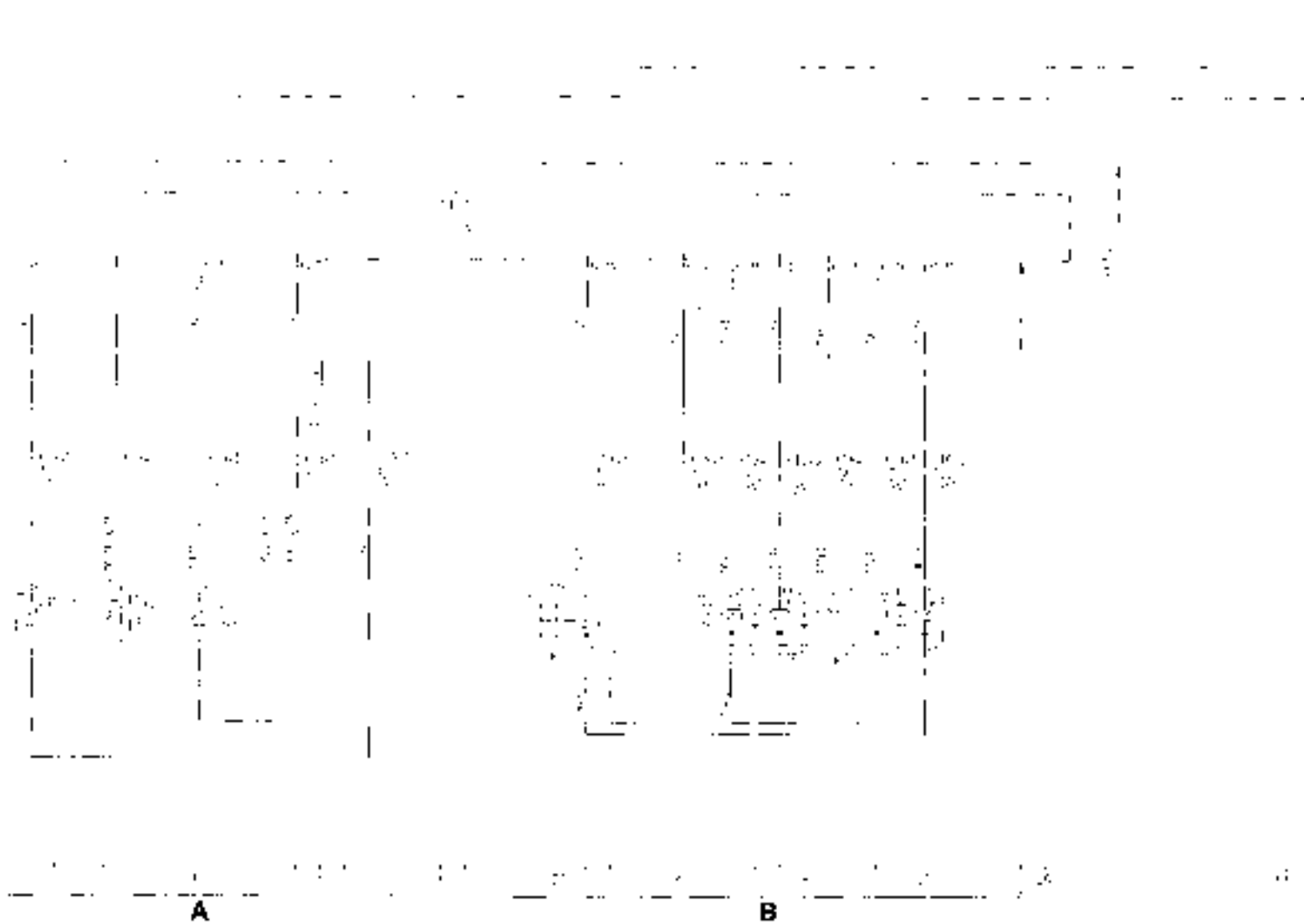
Ⓢ Rear axle

Ⓢ Front part of frame

Ⓢ Rear part of frame

Ⓢ Door left

Ⓢ Door right



**ECAS electronically controlled air suspension 6x2 FVL**

**Legend**

Wiring diagram no. **81.99192.1341** Sheet 1 of 2

Change status: 01.01

**A = Switch**

**B = Remote control**

**C = Diagnosis**

A100 (255) Central fuse, relay and terminal block  
 A143 (344) ECAS control unit  
 A221 (349) ECAS remote control  
 A302 (352) Central computer 2  
 A407 (342) Instrumentation

F164 (101) Fuse ECAS (terminal 30)  
 F366 (101) ECAM/ECAS fuse (terminal 15)

H394 Indicator light, ECAS malfunction/warning

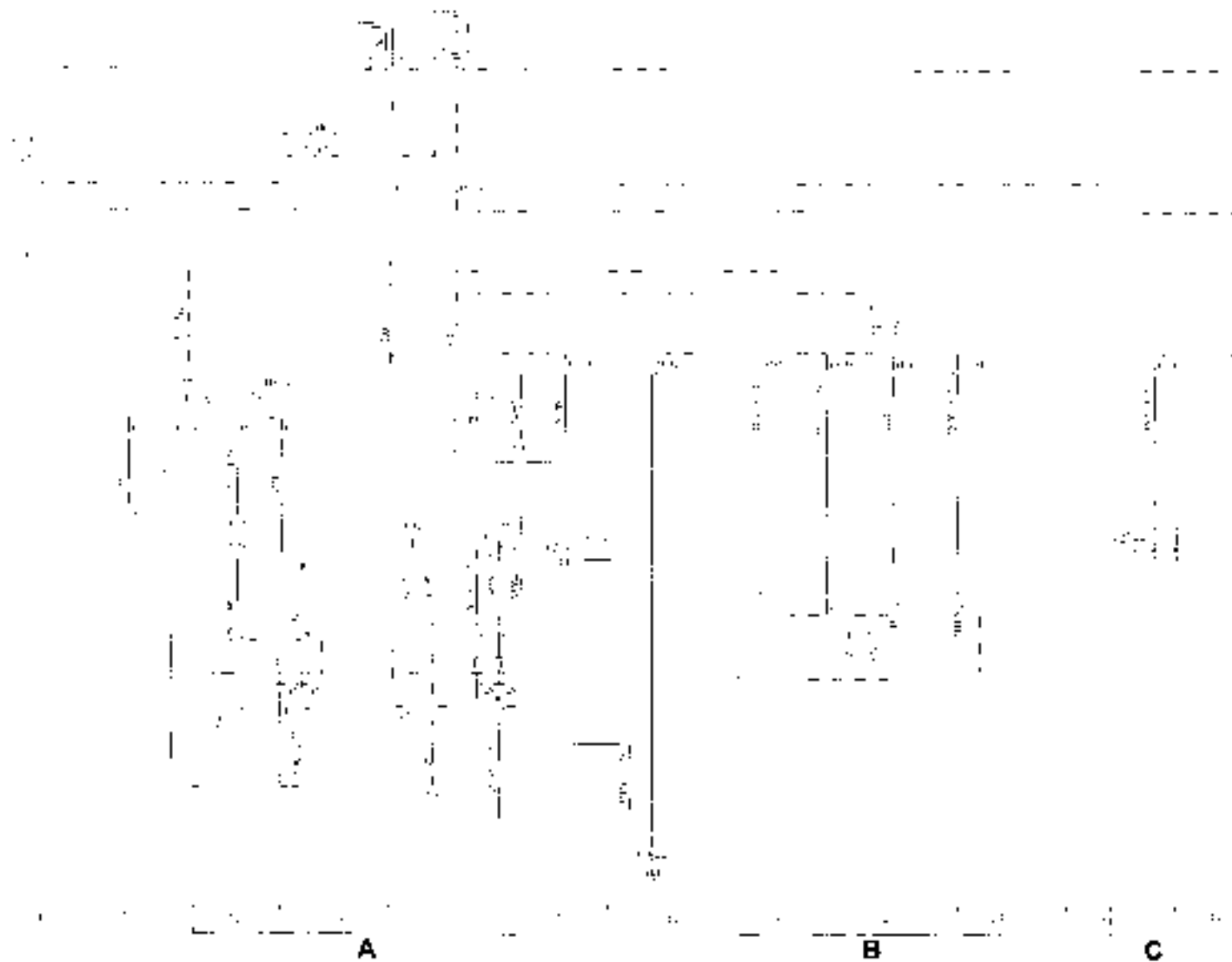
S266 (510) Switch ECAS NLA/VLA raise/release  
 S267 (563) Control switch ECAS traction help

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block  
 X1809 Swd. ECAS (terminal 15)  
 X2542 (246) Potentia- distributor, 21-pin line 58000  
 X2544 (246) Potentia- distributor 21-pin K- line

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊖ Tail                     | ⊖ Driving seat                 |
| ⊖ Engine                   | ⊖ Passenger seat               |
| ⊖ Gearbox                  | ⊖ Control panel                |
| ⊖ Front                    | ⊖ Battery box                  |
| ⊖ Bumper                   | ⊖ B-pillar on driver's side    |
| ⊖ Entrance right           | ⊖ A-pillar on driver's side    |
| ⊖ Entrance left            | ⊖ B-pillar on passenger's side |
| ⊖ Central electric area    | ⊖ A-pillar on passenger's side |
| ⊖ Control unit racks       | ⊖ Ceiling/front                |
| ⊖ Rear wall of cab         | ⊖ Front axle                   |
| ⊖ Instrument panel         | ⊖ Rear axle                    |
| ⊖ Central part             | ⊖ Front part of frame          |
| ⊖ Steering wheel/column    | ⊖ Rear part of frame           |
| ⊖ Foot pedals              | ⊖ Door left                    |
| ⊖ Front wall, inside left  | ⊖ Door right                   |
| ⊖ Front wall, inside right |                                |

Wiring diagram no. **81.99192.1341** Sheet 1 of 2



**ECAS electronically controlled air suspension 6x2 FVL**

**Legend**

Wiring diagram no. 81.99192.1341 Sheet 2 of 2

Change status: 04.01

**A = Height sensors**

**B = Solenoid valves**

**A100** (255) Central fuse, relay and terminal block

**A143** (344) ECAS control unit

**A302** (352) Control computer 2

**B129** (31\*) Height sensor, rear axle left

**B130** (31\*) Height sensor, rear axle right

**X1945** Svc. ECAS/EFR

**Y1E1** (169) Solenoid valve block ECAS I = HA II = NLA/VLA

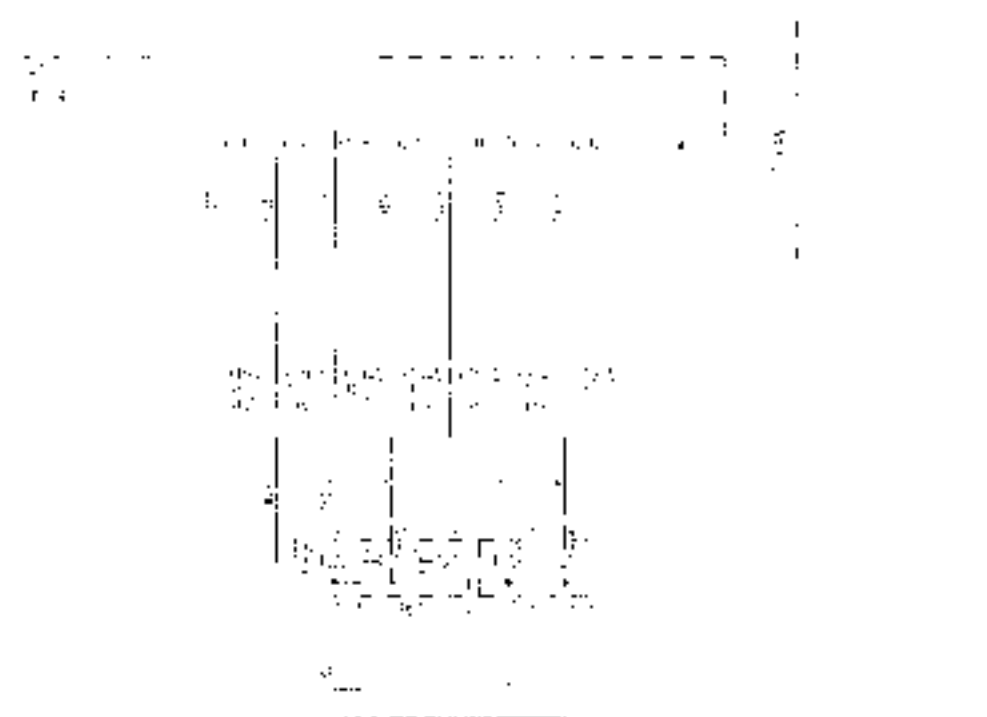
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊙ Tail                     | ⊙ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊙ Gearbox                  | ⊙ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Lumper                   | ⊙ B-pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B-pillar on passenger's side |
| ⊙ Central electrics area   | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/roof                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊙ Central part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Foot pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |

Wiring diagrams no. 81.99192.1341 Sheet 2 of 2



**A**



**B**



**ECAS electronically controlled air suspension**  
**Switch level 1/2**

**Legend**

Wiring diagram no. **81.99192.1368** Sheet 1 of 1  
 Change status: 04.01

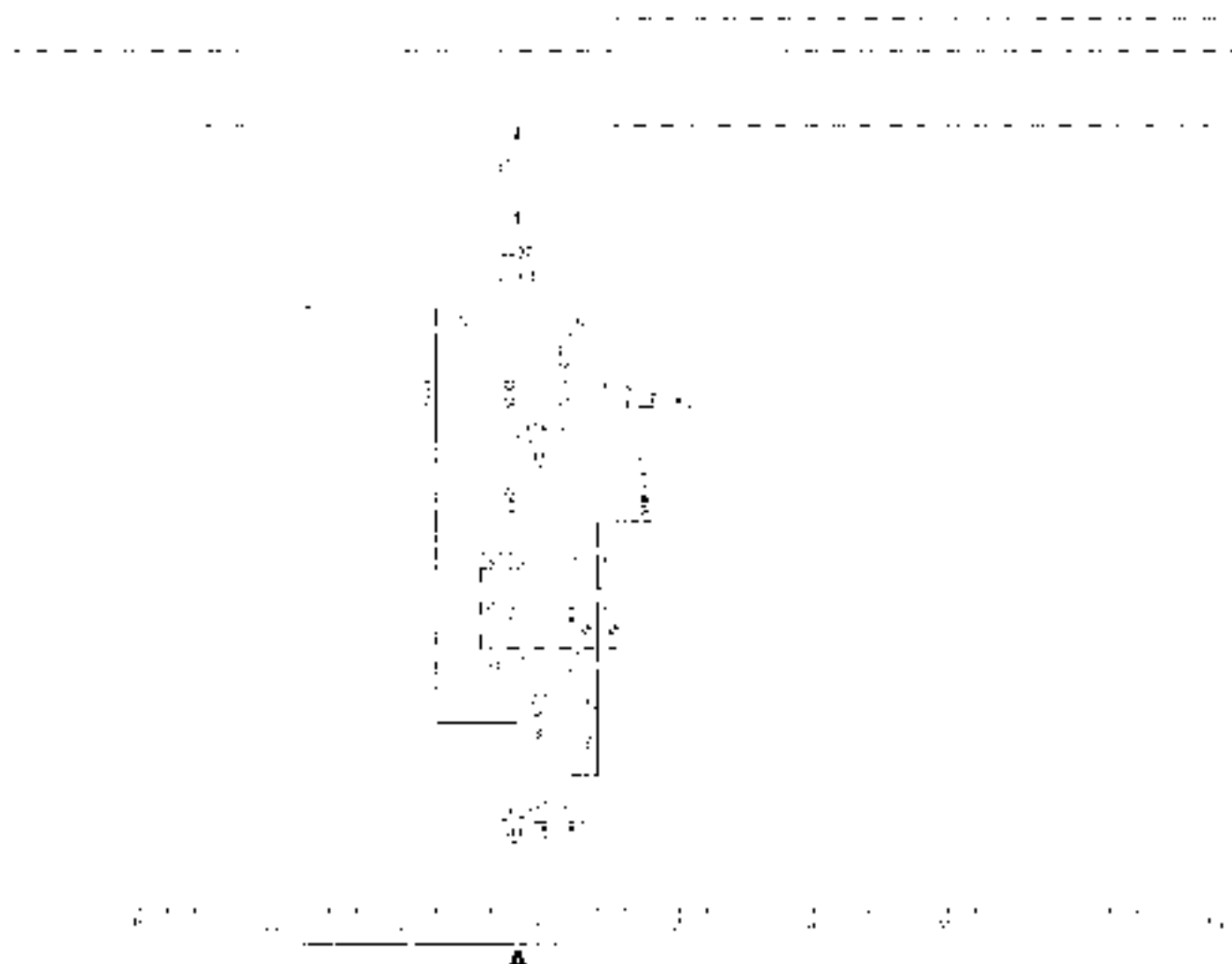
**A = Switch ECAS level 1/2**

- A1X1** (255) Central fuse, relay and terminal block
- A302** (352) Central computer 2
- A407** (342) Instrumentation
  
- S472** (516) Switch ECAS level 1/2
  
- X1809** Std. ECAS (terminal 15)
- X2541** (246) Potential distributor, 21-pin line 51000
- X2542** (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- (A) Tail
- (B) Engine
- (C) Gearbox
- (D) Front
- (E) Bumper
- (F) Entrance right
- (G) Entrance left
- (H) Central electric area
- (I) Control unit racks
- (J) Rear wall of cab
- (K) Instrument panel
- (L) Central part
- (M) Steering wheel/column
- (N) Foot pedals
- (O) Front wall, inside left
- (P) Front wall, inside right
- (Q) Driving seat
- (R) Passenger seat
- (S) Control panel
- (T) Battery box
- (U) B-pillar on driver's side
- (V) A-pillar on driver's side
- (W) B-pillar on passenger's side
- (X) A-pillar on passenger's side
- (Y) Ceiling/roof
- (Z) Front axle
- (AA) Rear axle
- (AB) Front part of frame
- (AC) Rear part of frame
- (AD) Door left
- (AE) Door right

Wiring diagram no. **81.99192.1368** Sheet 1 of 1



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 4x2 FL (semitrailer)**

**Legend**

Wiring diagram no. **81.99192.1342** Sheet 1 of 2  
Change status: 04.01

**A = Supply voltage**

**B = Remote control**

**C = Diagnosis**

**A100** (255) Central fuse, relay and terminal block  
**A143** (345) ECAS control unit  
**A221** (343) ECAS remote control  
**A302** (352) Central computer ?

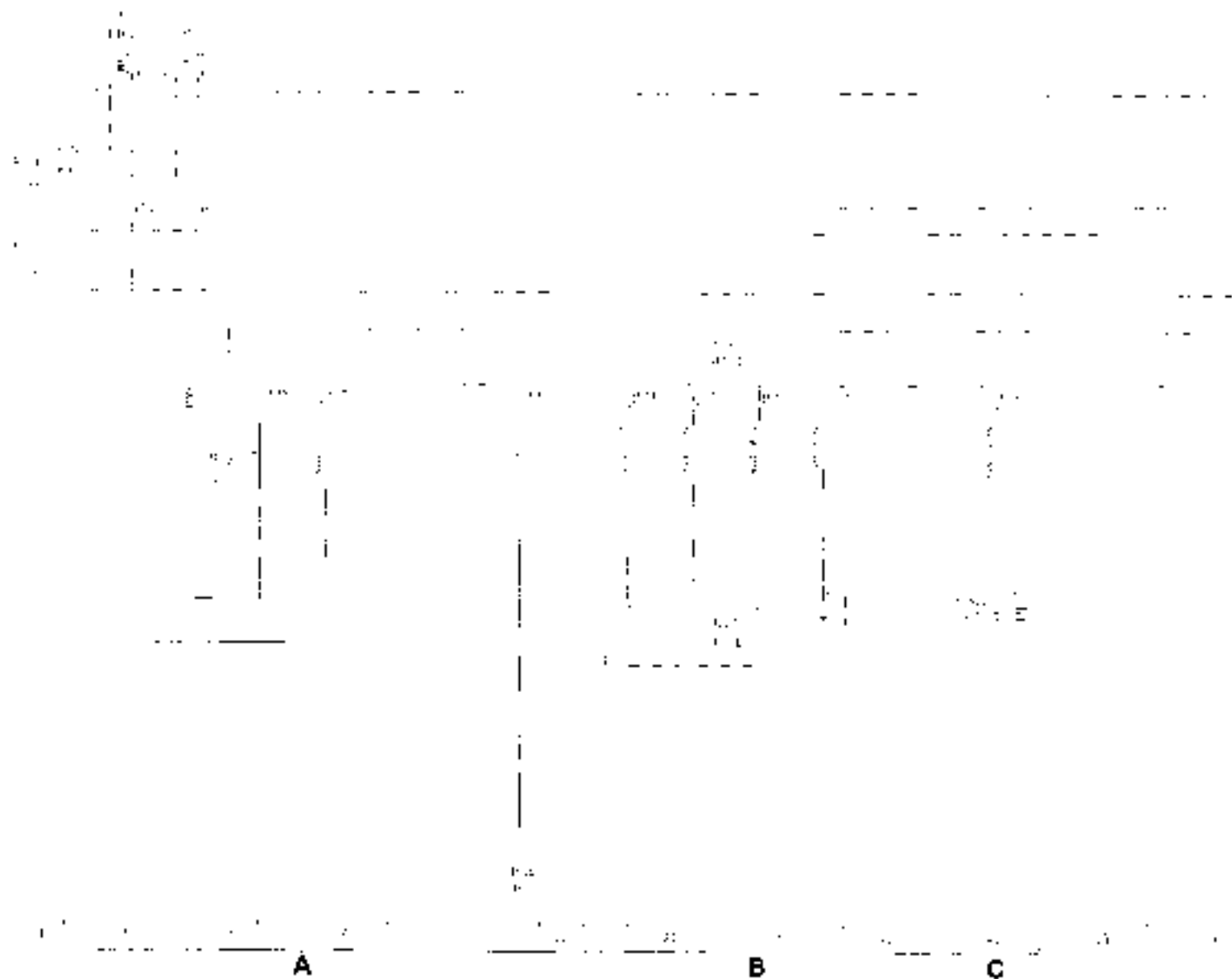
**F164** (101) Fuse ECAS (terminal 30)  
**F366** (101) ECAM/ECAS fuse (terminal 15)

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1809** Std. ECAS (terminal 15)  
**X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓔ Bumper                   | Ⓜ B-pillar on driver's side    |
| Ⓚ Entrance right           | Ⓝ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓞ B-pillar on passenger's side |
| Ⓜ Central electrics area   | Ⓟ A-pillar on passenger's side |
| Ⓝ Control unit racks       | Ⓠ Ceiling/roof                 |
| Ⓞ Rear wall of cab         | Ⓡ Front axle                   |
| Ⓟ Instrument panel         | Ⓢ Rear axle                    |
| Ⓠ Central part             | Ⓣ Front part of frame          |
| Ⓡ Steering wheel/column    | Ⓤ Rear part of frame           |
| Ⓢ Front pedals             | Ⓟ Door left                    |
| Ⓣ Front wall, inside left  | Ⓠ Door right                   |
| Ⓤ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1342 Sheet 1 of 2



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 4x2 FL (semitrailer)**

**Legend**

Wiring diagram no. 81.99192.1342 Sheet 2 of 2  
Change status: 09.01

**A = Height sensors**  
**B = Solenoid valves**  
**C = Adjustable shock absorbers**  
**D = Control lamp**

A100 (255) Central fuse, relay and terminal block  
A143 (345) ECAS control unit  
A302 (352) Central computer 2  
A407 (342) Instrumentation

B128 (211) Height sensor, front axle  
B130 (311) Height sensor, rear axle right

H394 Indicator light, ECAS malfunction/warning

X1945 Std. ECAS/EFR  
X2004 Std. cab frame EFR

Y132 (137) Solenoid valve block ECAS  
Y172 (203) Adjustable shock absorber on rear axle right  
Y173 (203) Adjustable shock absorber on rear axle left

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓒ Driving seat                 |
| Ⓑ Engine                   | Ⓓ Passenger seat               |
| Ⓒ Gearbox                  | Ⓔ Control panel                |
| Ⓓ Front                    | Ⓕ Battery box                  |
| Ⓔ Bumper                   | Ⓖ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓗ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓙ B-pillar on passenger's side |
| Ⓙ Central electric area    | Ⓚ A-pillar on passenger's side |
| Ⓚ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | Ⓜ Front axle                   |
| Ⓜ Instrument panel         | Ⓨ Rear axle                    |
| Ⓨ Central part             | Ⓩ Front part of frame          |
| Ⓩ Steering wheel/column    | ⓐ Rear part of frame           |
| ⓐ Foot pedals              | ⓑ Door left                    |
| ⓑ Front wall, inside left  | ⓓ Door right                   |
| ⓓ Front wall, inside right |                                |

**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 4x2 FL (truck)**

**Legend**

Wiring diagram no. 81.99192-1343 Sheet 1 of 2

Change status: 04.01

**A = Supply voltage**

**B = Remote control**

**C = Diagnosis**

A100 (256) Central fuse, relay and terminal block

A143 (346) ECAS control unit

A221 (349) ECAS remote control

A202 (352) Central computer 2

F164 (101) Fuse ECAS (terminal 30)

F366 (101) ECAM/ECAS fuse (terminal 15)

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block

X1803 Svd. ECAS (terminal 15)

X2544 (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

Ⓐ Tail

Ⓒ Engine

Ⓓ Gearbox

Ⓔ Front

Ⓕ Bumper

Ⓖ Entrance right

Ⓗ Entrance left

Ⓙ Central electrics area

Ⓚ Control unit racks

Ⓛ Rear wall of cab

Ⓜ Instrument panel

Ⓝ Central part

Ⓟ Steering wheel/column

Ⓠ Foot pedals

Ⓡ Front wall, inside left

Ⓢ Front wall, inside right

Ⓡ Driving seat

Ⓢ Passenger seat

Ⓣ Control panel

Ⓤ Battery box

Ⓡ B-pillar on driver's side

Ⓢ A-pillar on driver's side

Ⓣ B-pillar on passenger's side

Ⓤ A-pillar on passenger's side

Ⓡ Ceiling/roof

Ⓢ Front axle

Ⓣ Rear axle

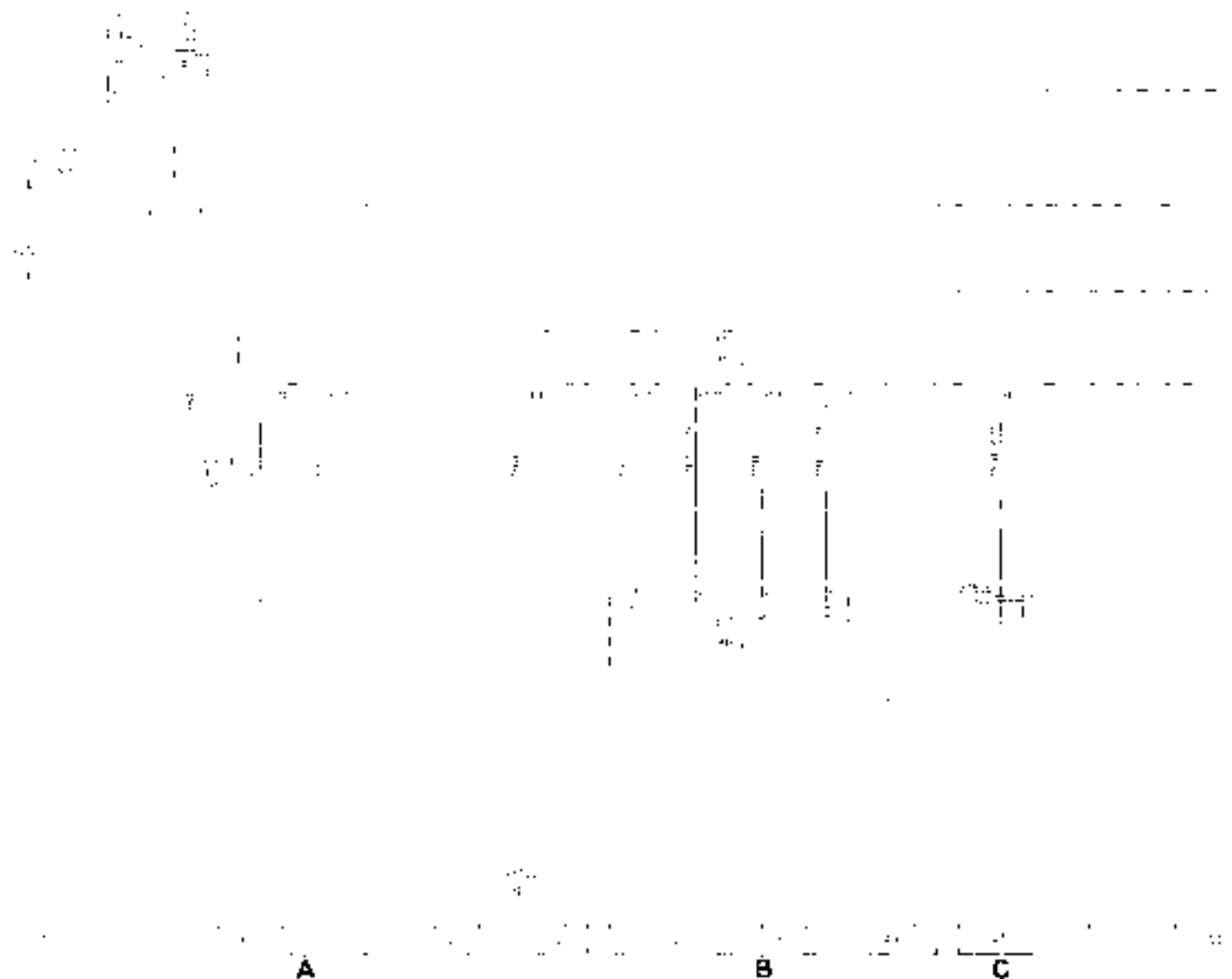
Ⓡ Front part of frame

Ⓢ Rear part of frame

Ⓣ Door left

Ⓤ Door right

Wiring diagram no. B1.99192.1343 Shee: 1 of 2



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 4x2 FL (truck)**

**Legend**

Wiring diagram no. **B1.99192.1343** Sheet 2 of 2  
Change status: 09.0\*

**A = Height sensors**

**B = Solenoid valves**

**C = Adjustable shock absorbers**

**D = Control lamp**

**A100** (255) Central fuse, relay and terminal block  
**A143** (345) ECAS control unit  
**A302** (352) Central computer 2  
**A407** (342) Instrumentation

**B129** (311) Height sensor, front axle  
**B129** (311) Height sensor, rear axle left  
**B130** (311) Height sensor, rear axle right

**H394** Indicator light, ECAS malfunction/warning

**X1345** Stvd. ECAS/EFR  
**X2304** Stvd. cab frame EFR

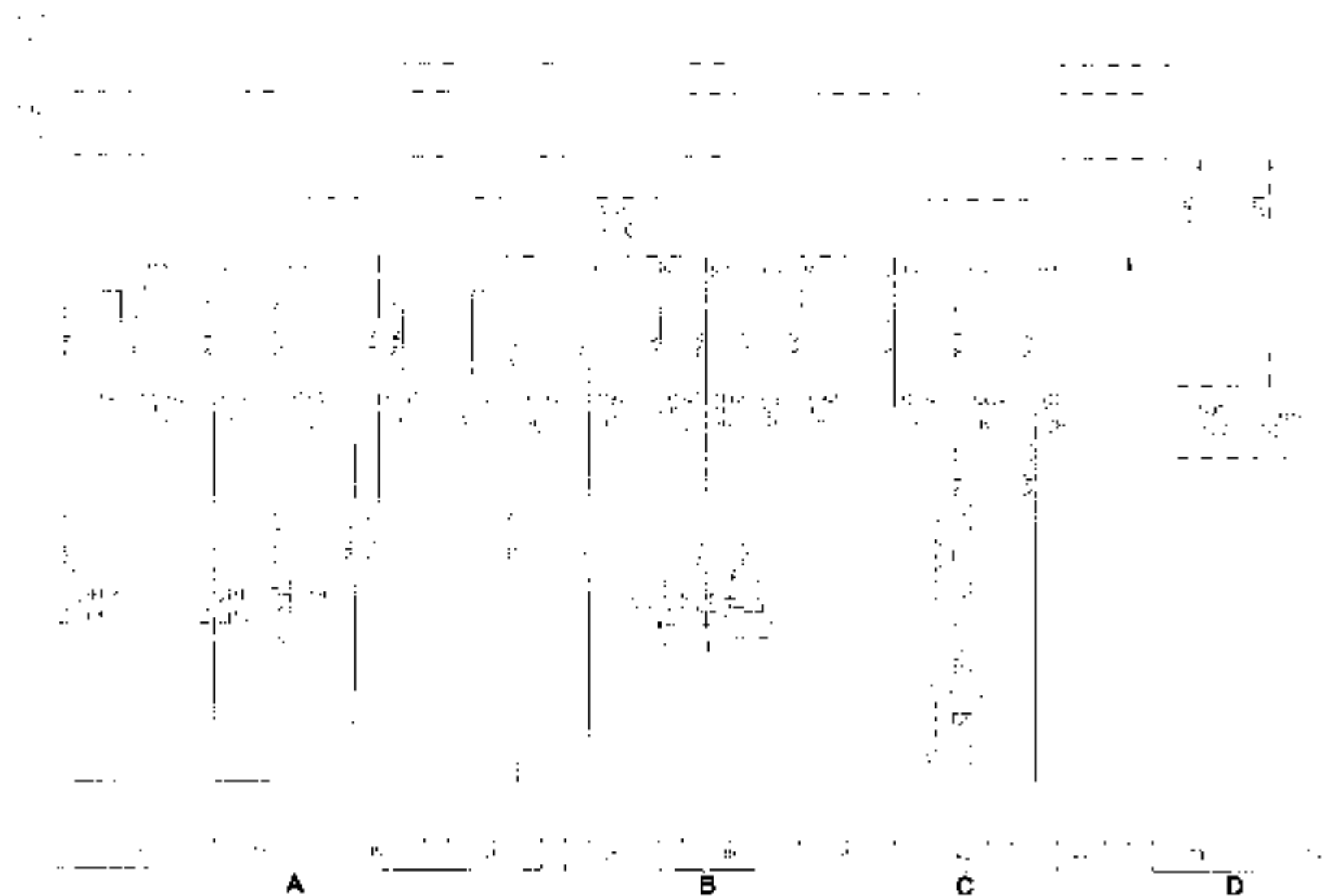
**Y132** (169) Solenoid valve block ECAS  
**Y172** (203) Adjustable shock absorber on rear axle right  
**Y173** (203) Adjustable shock absorber on rear axle left

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊕ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electronics area | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |



Wiring diagram no. **81.99192.1343** Sheet 2 of 2



**ECAS electronically controlled air suspension/  
EPR electronic shock absorber control 4x2 FLL**

**Legend**

Wiring diagram no. **81.99192.1344** Sheet 1 of 2  
Change status: 04.01

**A = Supply voltage**  
**B = Remote control**  
**C = Diagnosis**

**A100** (255) Central fuse, relay and terminal block  
**A143** (345) ECAS control unit  
**A221** (349) ECAS remote control  
**A302** (352) Central computer 2

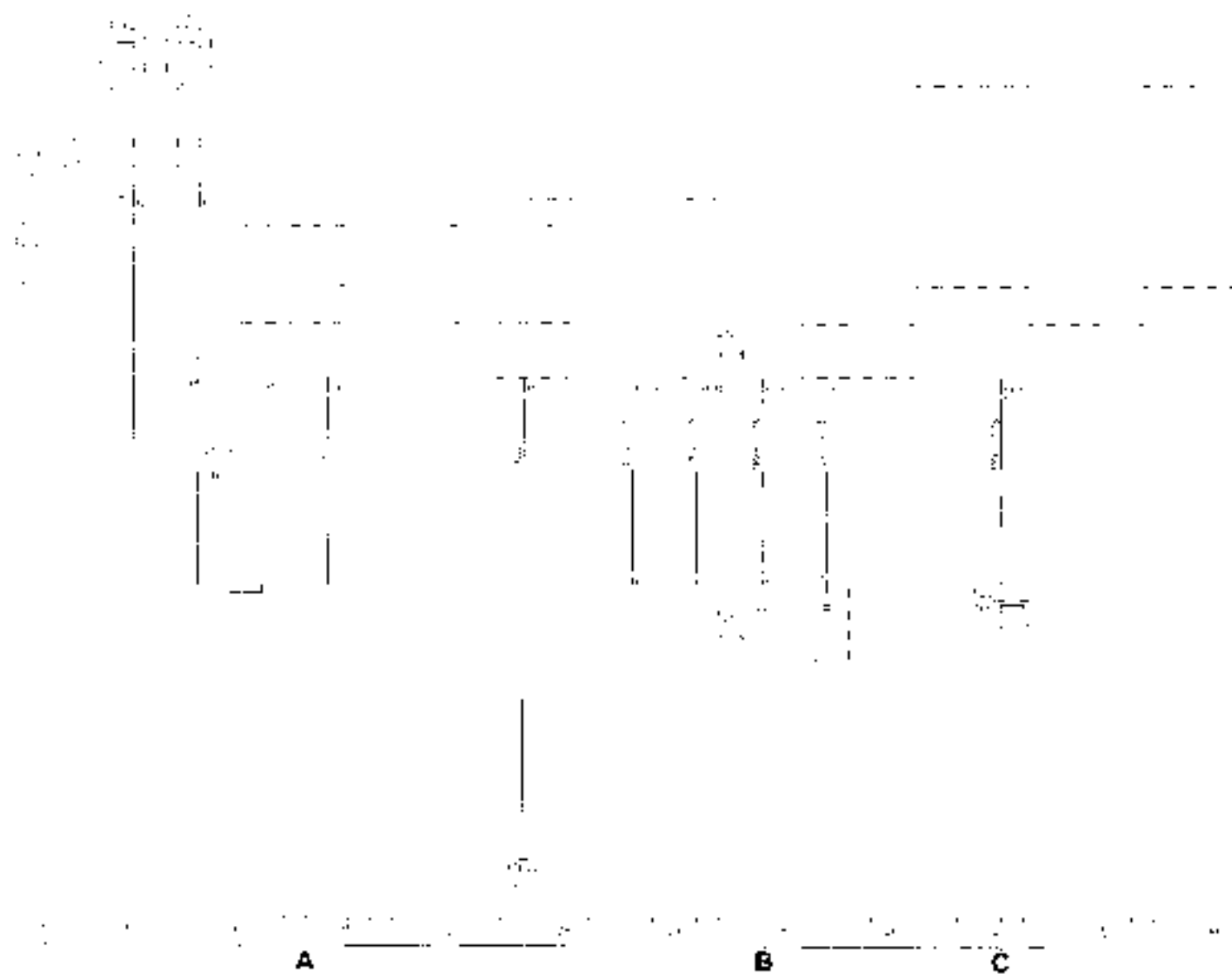
**F164** (101) Fuse ECAS (terminal 30)  
**F366** (101) ECAM/ECAS fuse (terminal 15)

**X1644** Earthing point, cab. adjacent to central fuse, relay and terminal block  
**X1809** Stvd. ECAS (terminal 15)  
**X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electric area    | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. B1.99192.1344 Sheet 1 of 2



**ECAS electronically controlled air suspension/  
EPR electronic shock absorber control 4x2 FLL**

**Legend**

Wiring diagram no. 81.99192.1344 Sheet 2 of 2  
Change status: 09/01

**A = Height sensors**

**B = Solenoid valves**

**C = Adjustable shock absorbers**

**D = Control lamp**

A100 (255) Central fuse, relay and terminal block  
A143 (345) ECAS control unit  
A302 (352) Central computer ?  
A407 (342) Instrumentation

B128 (311) Height sensor, front axle  
B129 (311) Height sensor, rear axle left  
B130 (311) Height sensor, rear axle right

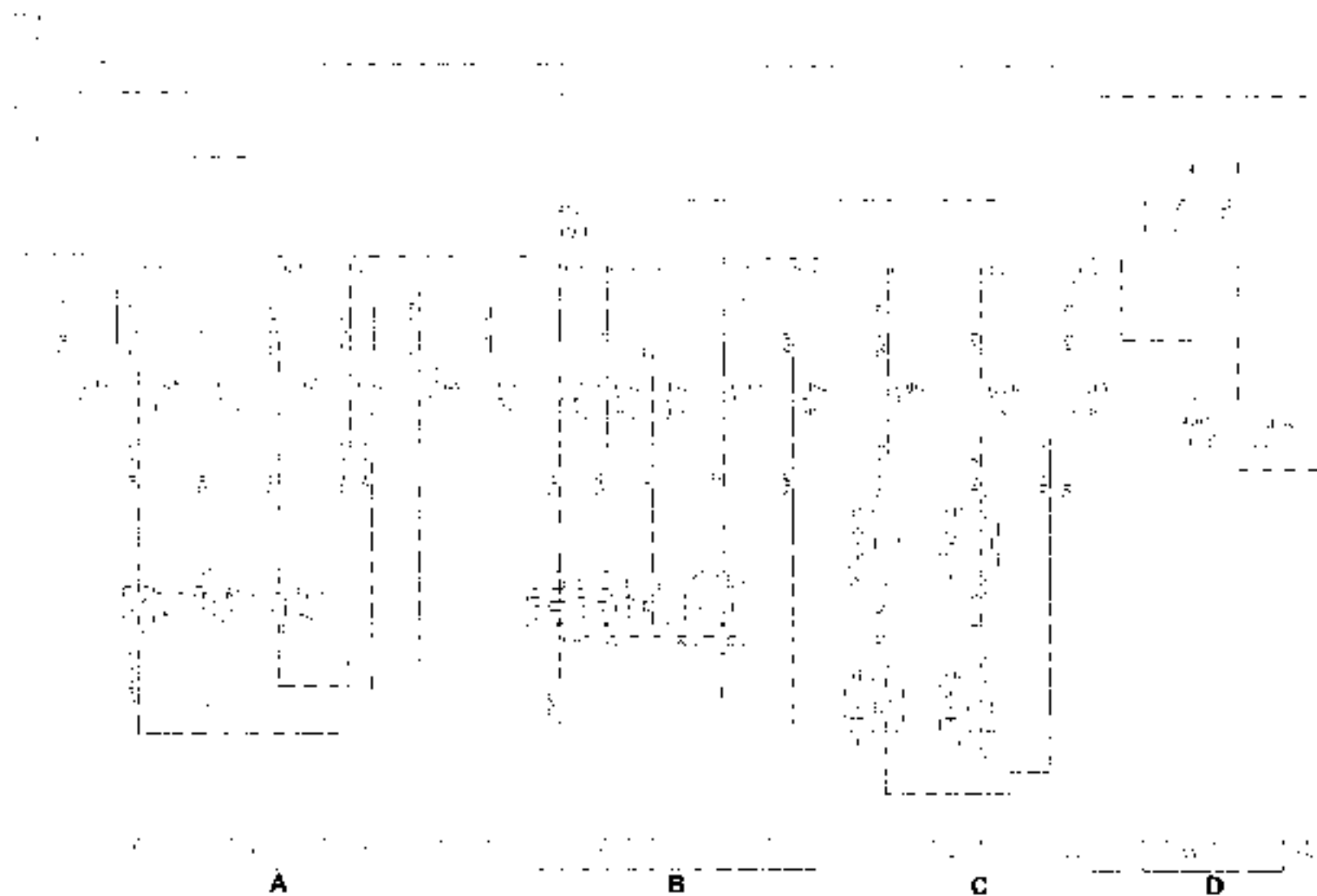
H394 Indicator light, ECAS malfunction/warning

X1946 Sld. ECAS/EPR  
X2004 Sld. cab frame EPR

Y152 (124) Solenoid valve block ECAS  
Y172 (203) Adjustable shock absorber on rear axle right  
Y173 (203) Adjustable shock absorber on rear axle left  
Y174 (202) Adjustable shock absorber on front axle right  
Y175 (202) Adjustable shock absorber on front axle left

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊙ Tail                     | ⊙ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊙ Gearbox                  | ⊙ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Bumper                   | ⊙ B-pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B-pillar on passenger's side |
| ⊙ Central electric area    | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/roof                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊙ Central part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Foot pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |



**ECAS electronically controlled air suspension/  
EFF electronic shock absorber control 6x2 FNL**

**Legend**

Wiring diagram no. **81.99192.1345** Sheet 1 of 2  
Change status: 04.01

**A = Switch/control lamp**

**B = Remote control**

**C = Diagnosis**

**A100** (255) Central fuse, relay and terminal block  
**A143** (345) ECAS control unit  
**A221** (349) ECAS remote control  
**A302** (352) Central computer 2  
**A407** (342) Instrumentation

**F164** (101) Fuse ECAS (terminal 3D)  
**F366** (101) ECAM/ECAS fuse (terminal 15)

**H394** Indicator light, ECAS malfunction/warning

**S266** (5'4) Switch ECAS NLA/VLA raise/release  
**S267** (5'5) Control switch ECAS traction help

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1809** Shvd. ECAS (terminal 15)

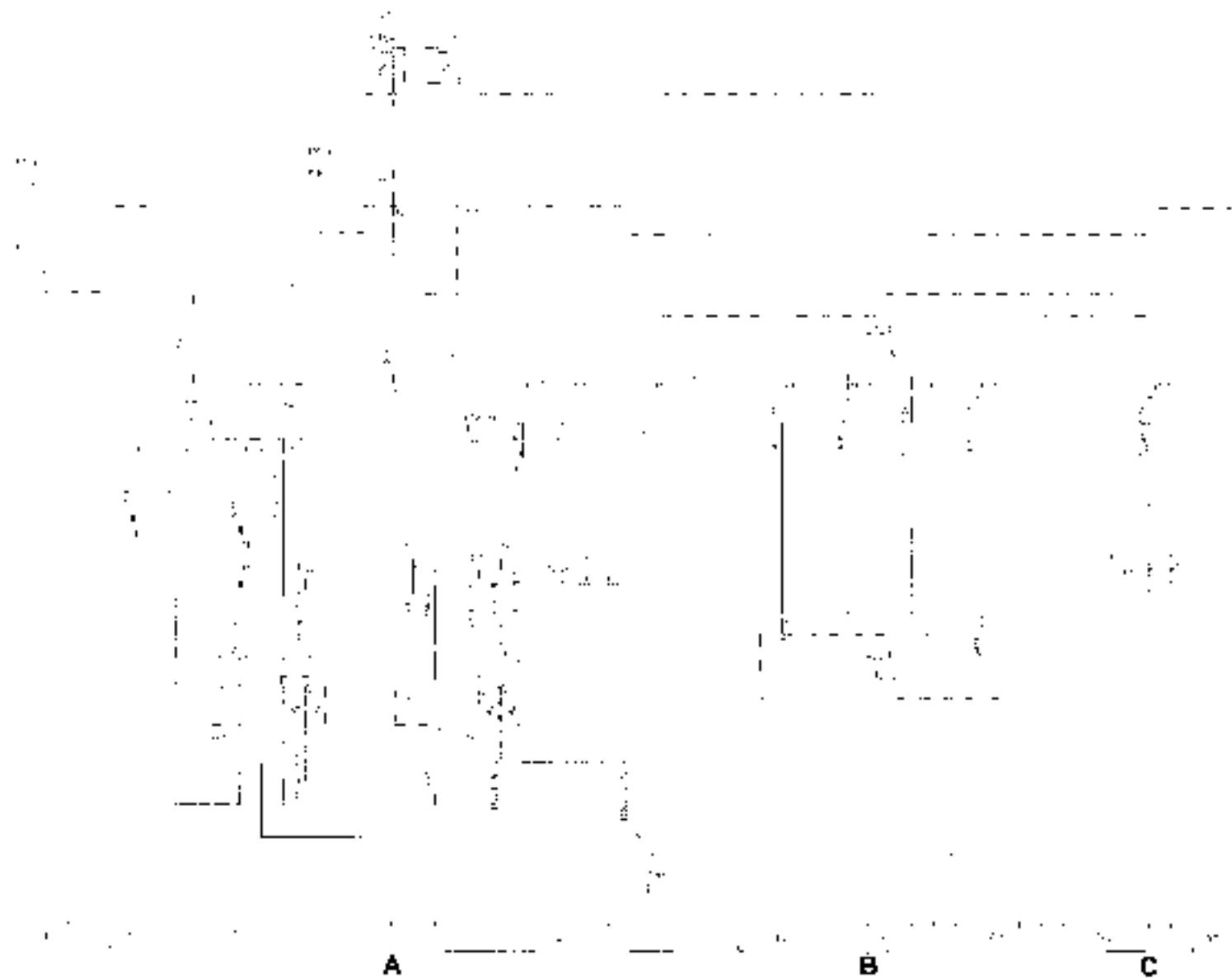
**X2542** (246) Potential distributor, 21-pin line 58000

**X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊗ Tail                     | ⊗ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊕ Gearbox                  | ⊕ Control panel                |
| ⊖ Front                    | ⊖ Battery box                  |
| ⊗ Bumper                   | ⊗ B-pillar on driver's side    |
| ⊕ Entrance right           | ⊕ A-pillar on driver's side    |
| ⊖ Entrance left            | ⊖ B-pillar on passenger's side |
| ⊗ Central electrics area   | ⊗ A-pillar on passenger's side |
| ⊕ Control unit racks       | ⊕ Ceiling/rail                 |
| ⊖ Rear wall of cab         | ⊖ Front axle                   |
| ⊗ Instrument panel         | ⊗ Rear axle                    |
| ⊕ Central part             | ⊕ Front part of frame          |
| ⊖ Steering wheel/column    | ⊖ Rear part of frame           |
| ⊗ Foot pedals              | ⊗ Door left                    |
| ⊕ Front wall, inside left  | ⊕ Door right                   |
| ⊖ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1345 Sheet 1 of 2



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 6x2 FNL**

**Legend**

Wiring diagram no. **81.99192.1345** Sheet 2 of 2  
Change status: 09.01

**A = Height sensors**

**B = Solenoid valves**

**C = Adjustable shock absorbers**

**A100** (255) Central fuse, relay and terminal block  
**A143** (345) ECAS control unit  
**A302** (352) Central computer 2

**B128** (311) Height sensor, front axle  
**B129** (311) Height sensor, rear axle left  
**B130** (311) Height sensor, rear axle right

**X1945** Stvc. ECAS/EFR  
**X2004** Stvc. cab frame EFR

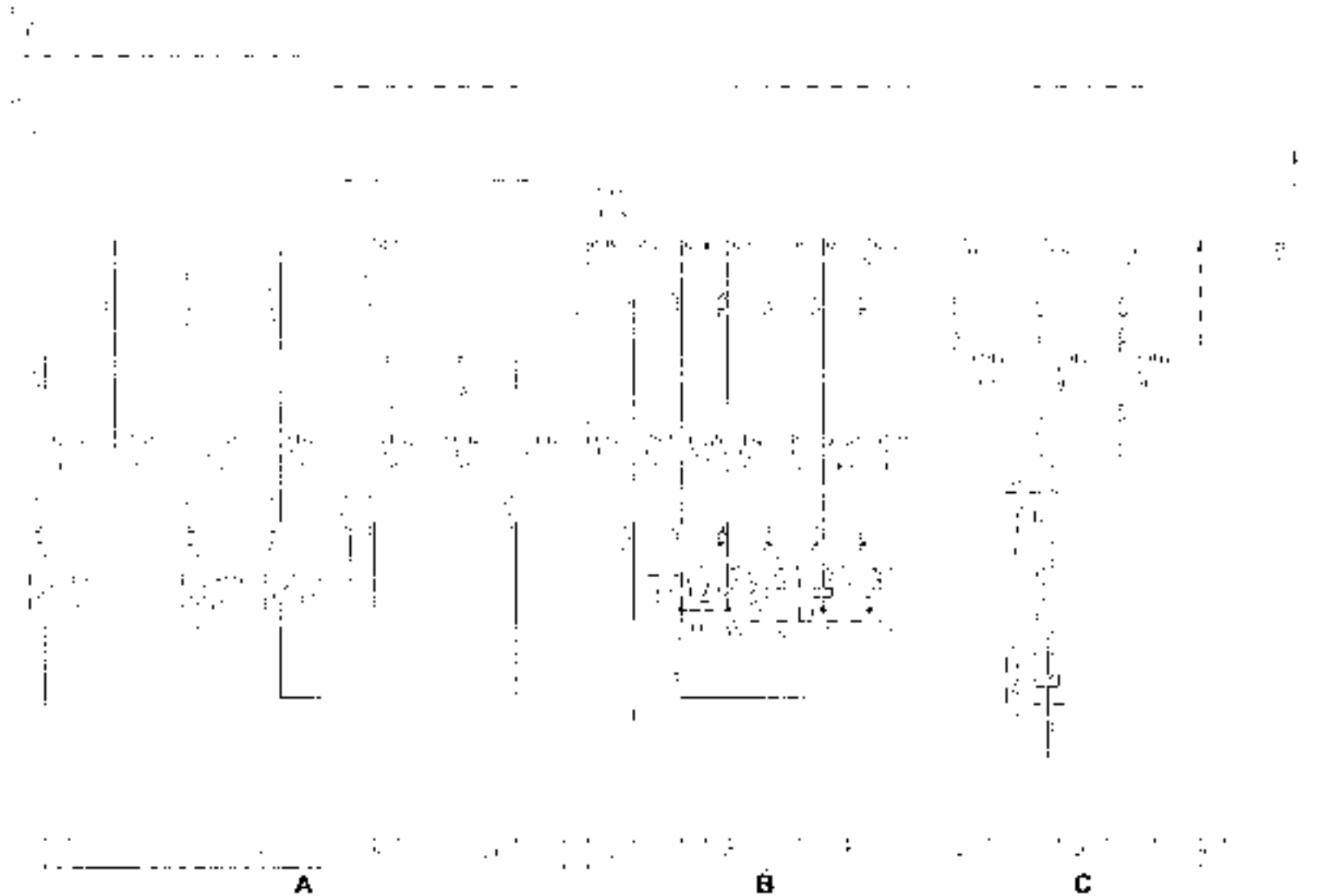
**Y161** (160) Solenoid valve ECAS I = HA (rear axle) II = NLA/VLA  
(trailing/leading axle)  
**Y172** (203) Adjustable shock absorber on rear axle right  
**Y173** (203) Adjustable shock absorber on rear axle left

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓛ Passenger seat               |
| Ⓒ Gearbox                  | Ⓜ Control panel                |
| Ⓓ Front                    | Ⓨ Battery box                  |
| Ⓔ Bumper                   | Ⓩ B-pillar on driver's side    |
| Ⓛ Entrance right           | ⓐ A-pillar on driver's side    |
| Ⓜ Entrance left            | ⓑ B-pillar on passenger's side |
| Ⓨ Central electric area    | ⓓ A-pillar on passenger's side |
| Ⓩ Control unit racks       | ⓔ Ceiling/inot                 |
| ⓐ Rear wall of cab         | ⓕ Front axle                   |
| ⓑ Instrument panel         | ⓖ Rear axle                    |
| ⓔ Central part             | ⓗ Front part of frame          |
| ⓕ Steering wheel/column    | ⓓ Rear part of frame           |
| ⓖ Foot pedals              | ⓓ Door left                    |
| ⓗ Front wall, inside left  | ⓓ Door right                   |
| ⓓ Front wall, inside right |                                |



Wiring diagram no. 81.99192.1345 Sheet: 2 of 2



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 6x2 FNL (Nordland)**

**Legend**

Wiring diagram no. **81.99192.1350** Sheet 1 of 2  
Change status: 04.01

**A = Supply voltage, switch**

**B = Remote control**

**C = Diagnosis**

**A100** (255) Central fuse, relay and terminal block  
**A143** (345) ECAS control unit  
**A221** (350) ECAS remote control  
**A302** (352) Central computer 2  
**A407** (342) Instrumentation

**F164** (101) Fuse ECAS (terminal 30)  
**F366** (101) ECAM/ECAS fuse (terminal 15)

**H394** Indicator light, ECAS malfunction/warning

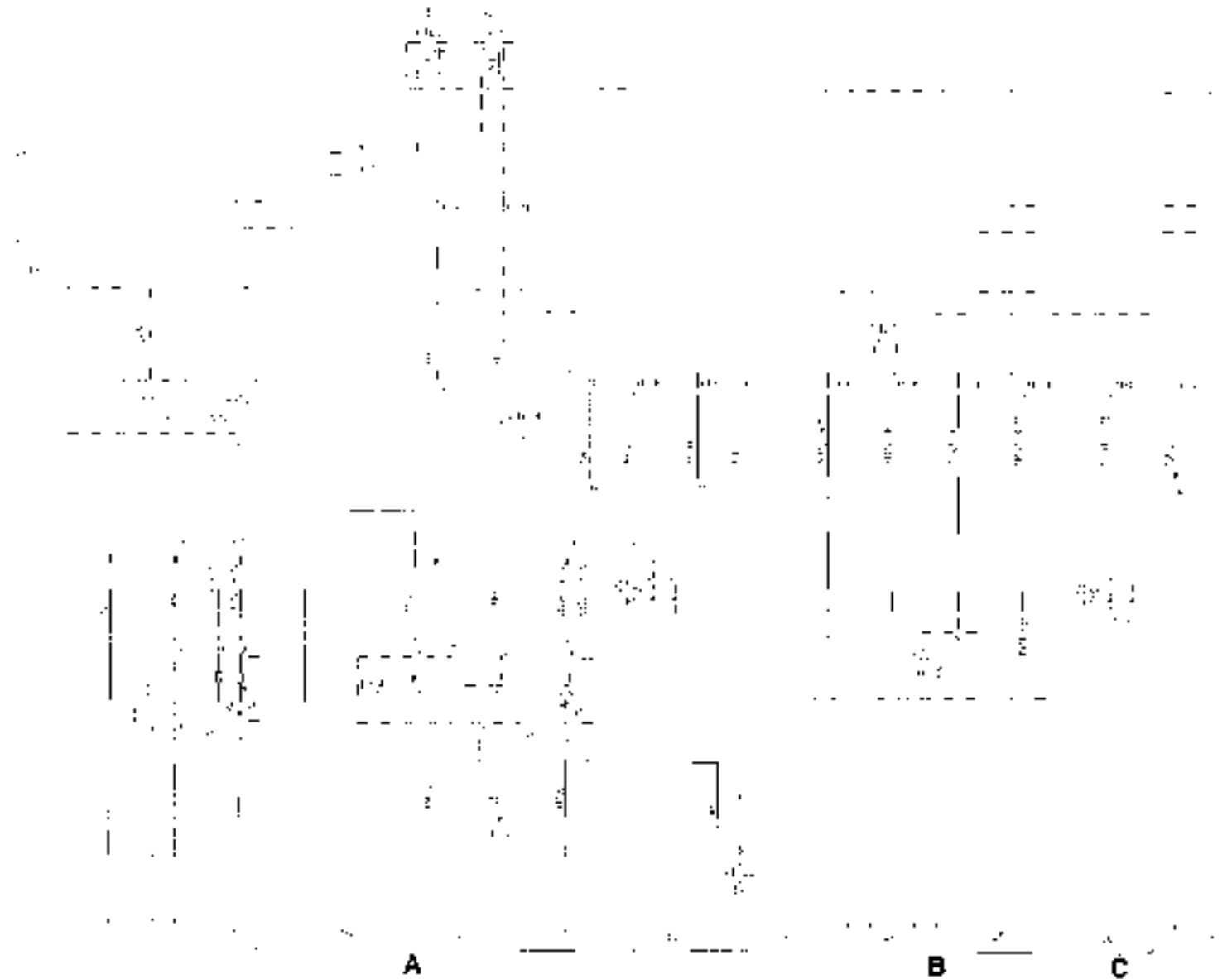
**S747** (680) Switch ECAS traction help Nordland  
**S790** (693) Control switch ECAS lift/relieve trailing/leading axle Nordland

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1609** Std. ECAS (terminal 15)  
**X2542** (246) Potential distributor, 21-pin line 58000  
**X2544** (246) Potential distributor, 21-pin K-line

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electric area    | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/corumn    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 6x2 FNL (Nordland)**

**Legend**

Wiring diagram no. 81.99192.1350 Sheet 2 of 2  
Change status: 09.01

**A = Height sensors**

**B = Solenoid valves**

**C = Adjustable shock absorbers**

A100 (255) Central fuse, relay and terminal block  
A143 (345) ECAS control unit  
A302 (362) Central computer 2

B128 (311) Height sensor front axle  
B129 (311) Height sensor rear axle left  
B130 (311) Height sensor rear axle right

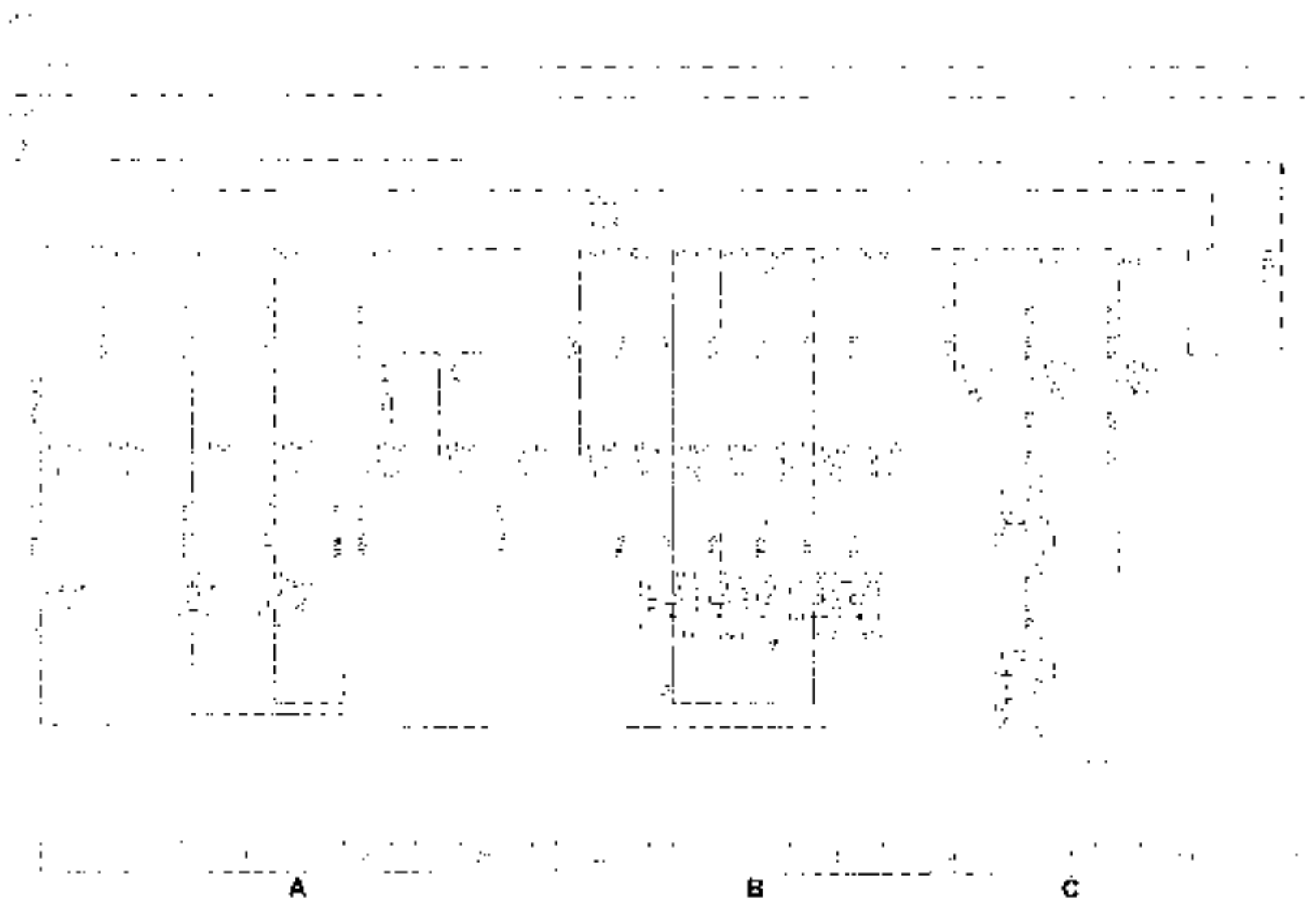
X1945 Stvd. ECAS/EFR  
X2004 Stvd. cab frame EFR

Y161 (169) Solenoid valve block ECAS I = HA II = NLA/VLA  
Y172 (203) Adjustable shock absorber on rear axle right  
Y173 (203) Adjustable shock absorber on rear axle left

**Marking of mounting positions**

- |                            |                                 |
|----------------------------|---------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                  |
| Ⓛ Engine                   | ⓁⓅ Passenger seat               |
| Ⓜ Gearbox                  | ⓁⓆ Control panel                |
| Ⓝ Front                    | ⓁⓇ Battery box                  |
| Ⓞ Bumper                   | ⓁⓈ R-pillar on driver's side    |
| Ⓟ Entrance right           | ⓁⓉ A-pillar on driver's side    |
| Ⓠ Entrance left            | ⓁⓊ B-pillar on passenger's side |
| Ⓡ Central electric area    | ⓁⓍ A-pillar on passenger's side |
| Ⓢ Control unit racks       | ⓁⓎ Ceiling/roof                 |
| Ⓣ Rear wall of cab         | ⓁⓏ Front axle                   |
| Ⓤ Instrument panel         | ⓁⓏ Rear axle                    |
| Ⓥ Central part             | Ⓛⓐ Front part of frame          |
| Ⓦ Steering wheel/column    | Ⓛⓑ Rear part of frame           |
| Ⓧ Foot pedals              | Ⓛⓐ Door left                    |
| Ⓨ Front wall, inside left  | Ⓛⓑ Door right                   |
| Ⓩ Front wall, inside right |                                 |

Wiring diagram no. 81.99192.1350 Sheet 2 of 2



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 6x2 FVL**

**Legend**

Wiring diagram no. **81.99192.1346** Sheet 1 of 2  
Change status: 04 01

**A = Switch**

**B = Remote control**

**C = Diagnosis**

**A100** (255) Central fuse, relay and terminal block  
**A143** (345) ECAS control unit  
**A221** (348) ECAS remote control  
**A302** (352) Central computer 2  
**A407** (342) Instrumentation

**F164** (101) Fuse ECAS (terminal 30)  
**F366** (101) ECAM/ECAS fuse (terminal 15)

**H394** Indicator light, ECAS malfunction/warning

**S266** (519) Switch ECAS NLA/VLA raise/release  
**S267** (563) Control switch ECAS traction help

**X1641** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1809** Shd. ECAS (terminal 15)

**X2542** (246) Potential distributor, 21-pin line 58000

**X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓒ Driving seat                 |
| Ⓔ Engine                   | Ⓓ Passenger seat               |
| Ⓕ Gearbox                  | Ⓔ Control panel                |
| Ⓖ Front                    | Ⓖ Battery box                  |
| Ⓒ Bumper                   | Ⓒ B-pillar on driver's side    |
| Ⓒ Entrance right           | Ⓒ A-pillar on driver's side    |
| Ⓒ Entrance left            | Ⓒ B-pillar on passenger's side |
| Ⓒ Central electric area    | Ⓒ A-pillar on passenger's side |
| Ⓒ Control unit racks       | Ⓒ Ceiling/roof                 |
| Ⓒ Rear wall of cab         | Ⓒ Front axle                   |
| Ⓒ Instrument panel         | Ⓒ Rear axle                    |
| Ⓒ Central part             | Ⓒ Front part of frame          |
| Ⓒ Steering wheel/column    | Ⓒ Rear part of frame           |
| Ⓒ Foot pedals              | Ⓒ Door left                    |
| Ⓒ Front wall, inside left  | Ⓒ Door right                   |
| Ⓒ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1346 Sheet 1 of 2



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 6x2 FVL**

**Legend**

Wiring diagram no. 81.99192.1346 Sheet 2 of 2  
Change status: 09 01

**A = Height sensors**

**B = Solenoid valves**

**C = Adjustable shock absorbers**

A100 (255) Central fuse, relay and terminal block  
A143 (345) ECAS control unit  
A302 (352) Central computer 2

B128 (311) Height sensor, front axle  
B129 (311) Height sensor, rear axle left  
B130 (311) Height sensor, rear axle right

X1945 Stvd. ECAS/EFR  
X2004 Stvd. cab frame EFR

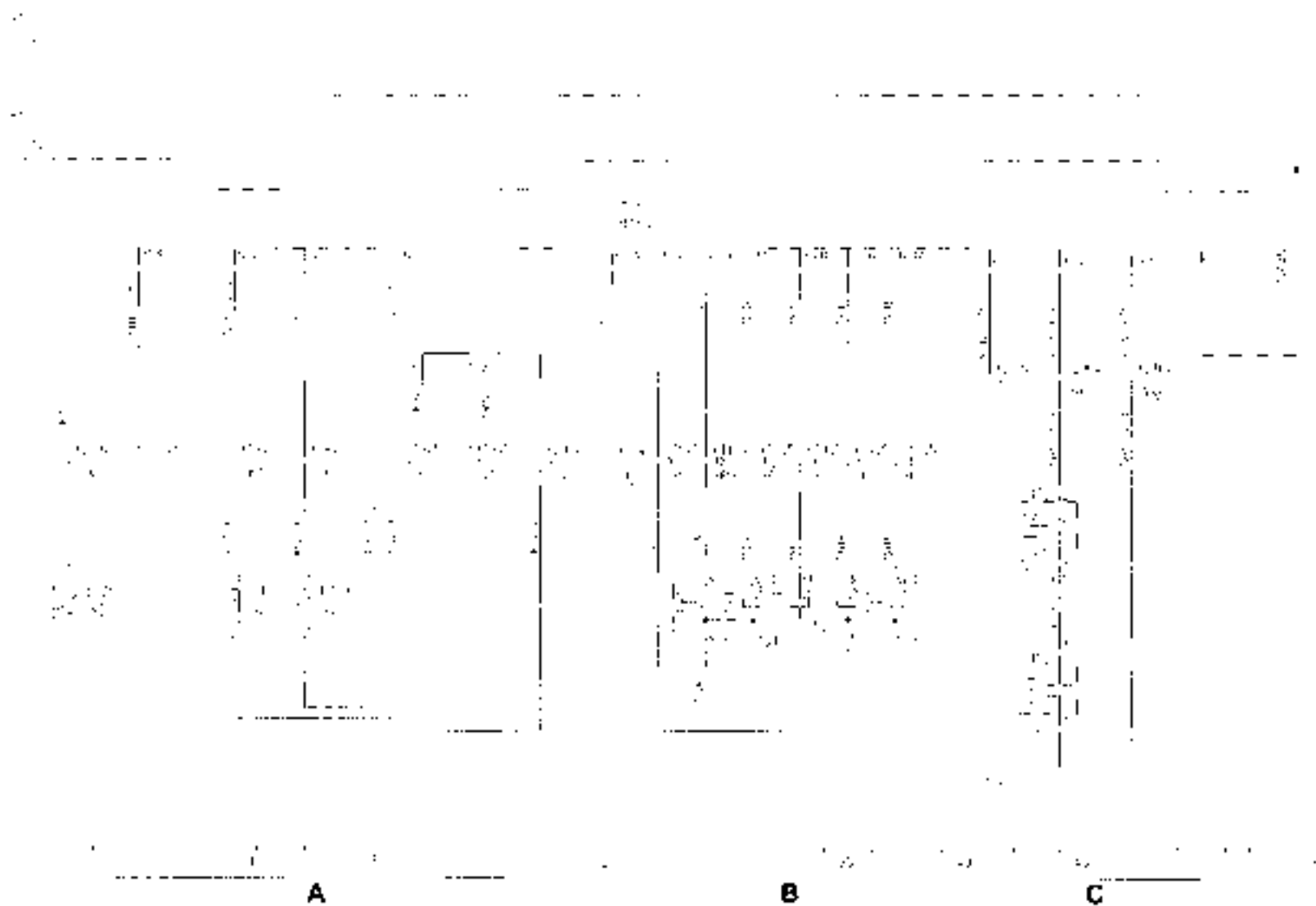
Y161 (169) Solenoid valve block ECAS I = HA II = NL A/VI A  
Y172 (203) Adjustable shock absorber on rear axle right  
Y173 (203) Adjustable shock absorber on rear axle left

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊗ | Fall                     | ⊗ | Driving seat                 |
| ⊕ | Engine                   | ⊗ | Passenger seat               |
| ⊗ | Gearbox                  | ⊗ | Control panel                |
| ⊗ | Front                    | ⊗ | Battery box                  |
| ⊗ | Bumper                   | ⊗ | B-pillar on driver's side    |
| ⊗ | Entrance right           | ⊗ | A-pillar on driver's side    |
| ⊗ | Entrance left            | ⊗ | B-pillar on passenger's side |
| ⊗ | Central electric area    | ⊗ | A-pillar on passenger's side |
| ⊗ | Control unit racks       | ⊗ | Ceiling/roof                 |
| ⊗ | Rear wall of cab         | ⊗ | Front axle                   |
| ⊗ | Instrument panel         | ⊗ | Rear axle                    |
| ⊗ | Central part             | ⊗ | Front part of frame          |
| ⊗ | Steering wheel/column    | ⊗ | Rear part of frame           |
| ⊗ | Foot pedals              | ⊗ | Door left                    |
| ⊗ | Front wall, inside left  | ⊗ | Door right                   |
| ⊗ | Front wall, inside right |   |                              |



Wiring diagram no. 81.99192.1346 Sheet 2 of 2



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 6x2 FNLL**

**Legend**

Wiring diagram no. **81.99192.1347** Sheet 1 of 2  
Change status: 04.01

**A = Switch**

**B = Remote control**

**C = Diagnosis**

**A\*00** (255) Central fuse, relay and terminal block  
**A143** (345) ECAS control unit  
**A221** (350) ECAS remote control  
**A302** (352) Central computer 2  
**A407** (342) Instrumentation

**F164** (161) Fuse ECAS (terminal 30)  
**F366** (10\*) ECAM/ECAS fuse (terminal 15)

**H394** Indicator light, ECAS malfunction/warning

**S266** (514) Switch ECAS NLA/VLA raise/release  
**S267** (515) Control switch ECAS traction help

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1809** Std. ECAS (terminal 15)

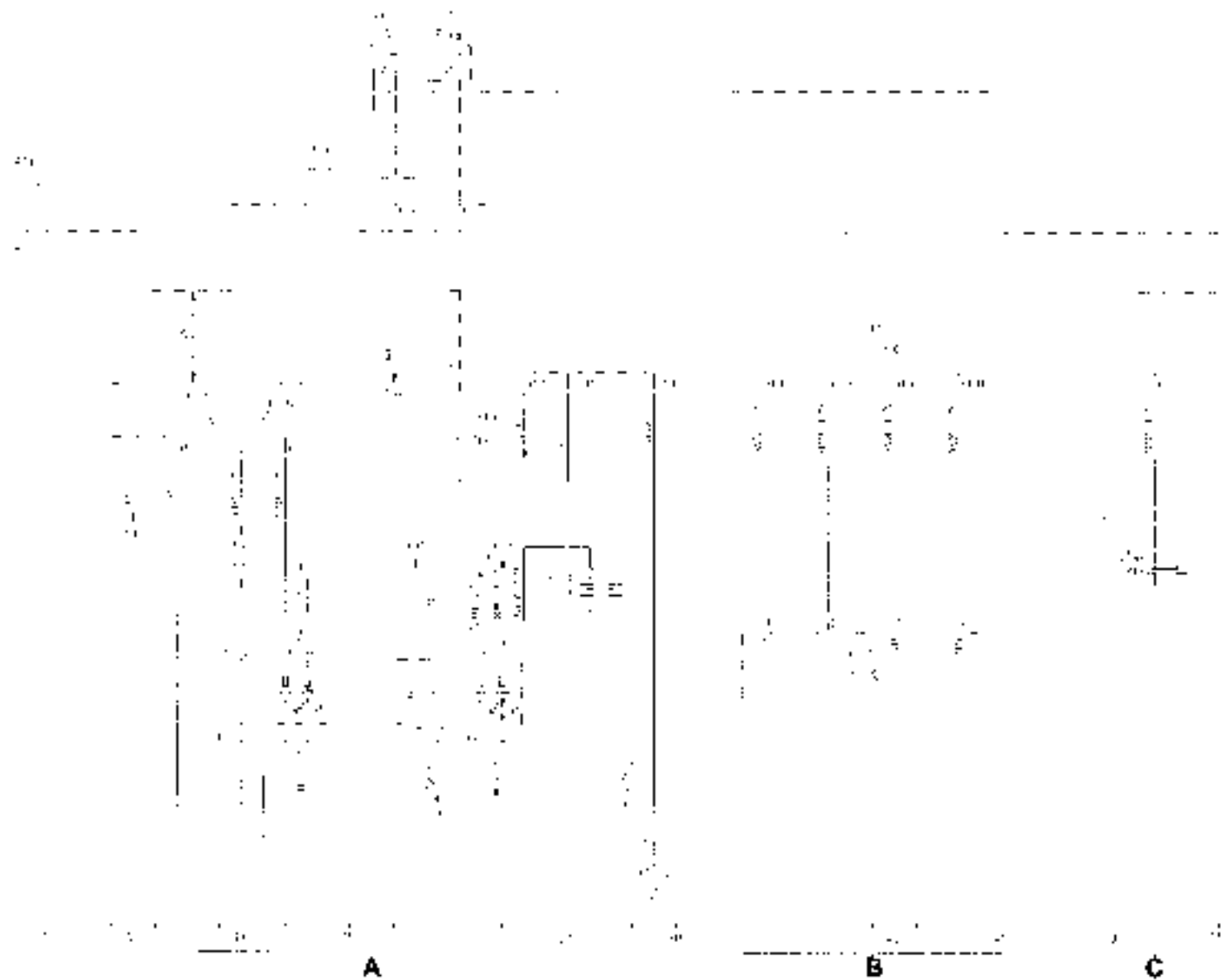
**X2542** (246) Potential distributor, 21-pin line SB000

**X2544** (246) Potential distributor 21-pin 4 line

**Marking of mounting positions**

- |                                  |                                |
|----------------------------------|--------------------------------|
| ⊙ Tail                           | ⊙ Driving seat                 |
| ⊙ Engine                         | ⊙ Passenger seat               |
| ⊙ Gearbox                        | ⊙ Control panel                |
| ⊙ Front                          | ⊙ Battery box                  |
| ⊙ Bumper                         | ⊙ B-pillar on driver's side    |
| ⊙ Entrance right                 | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left                  | ⊙ B-pillar on passenger's side |
| ⊙ Central electric area          | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks             | ⊙ Ceiling/roof                 |
| ⊙ Rear wall of cab               | ⊙ Front axle                   |
| ⊙ Instrument panel               | ⊙ Rear axle                    |
| ⊙ Central part                   | ⊙ Front part of frame          |
| ⊙ Steering wheel/steering column | ⊙ Rear part of frame           |
| ⊙ Foot pedals                    | ⊙ Door left                    |
| ⊙ Front wall, inside left        | ⊙ Door right                   |
| ⊙ Front wall, inside right       |                                |

Wiring diagram no. 81.99192.1347 Sheet 1 of 2



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 6x2 FNLL**

**Legend**

Wiring diagram no. **81.99192.1347** Sheet 2 of 2  
Change status: 09.01

**A = Height sensors**

**B = Solenoid valves**

**C = Adjustable shock absorbers**

A100 (255) Central fuse, relay and terminal block  
A143 (345) ECAS control unit  
A302 (352) Central computer 2

B128 (311) Height sensor, front axle  
B129 (311) Height sensor, rear axle left  
B130 (311) Height sensor, rear axle right

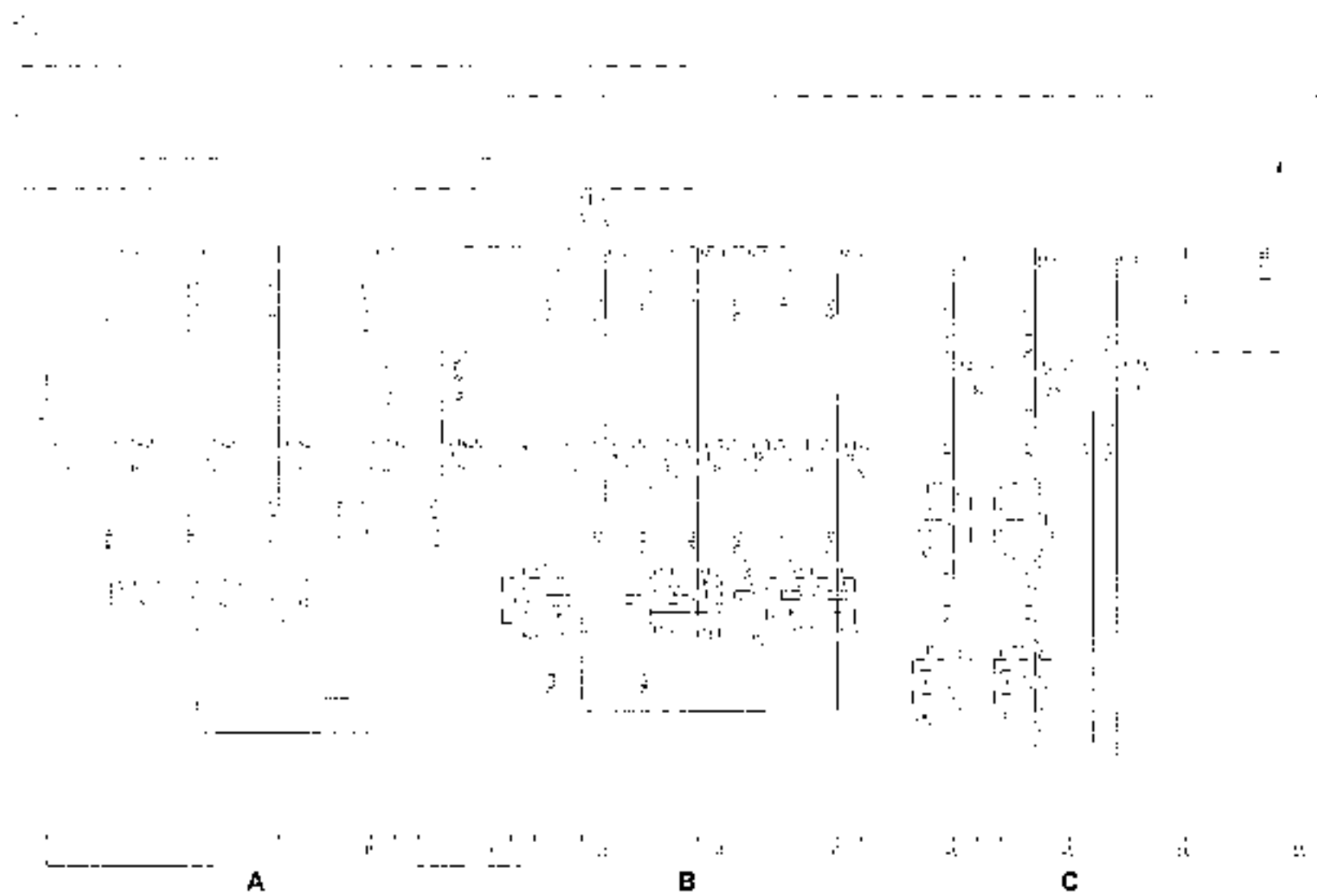
X1945 Stvd. ECAS/EFR  
X2004 Stvd. cab frame EFR

Y161 (169) Solenoid valve block ECAS I = HA II = NLA/VLA  
Y162 (128) Solenoid valve block ECAS front axle  
Y172 (203) Adjustable shock absorber on rear axle right  
Y173 (203) Adjustable shock absorber on rear axle left  
Y174 (202) Adjustable shock absorber on front axle right  
Y175 (202) Adjustable shock absorber on front axle left

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓜ Driving seat                 |
| Ⓑ Engine                   | Ⓝ Passenger seat               |
| Ⓒ Gearbox                  | Ⓞ Control panel                |
| Ⓓ Front                    | Ⓟ Battery box                  |
| Ⓔ Bumper                   | Ⓠ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓡ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓢ B-pillar on passenger's side |
| Ⓗ Central electrics area   | Ⓣ A-pillar on passenger's side |
| Ⓙ Control unit racks       | Ⓤ Ceiling/roof                 |
| Ⓚ Rear wall of cab         | Ⓡ Front axle                   |
| Ⓛ instrument panel         | Ⓢ Rear axle                    |
| Ⓜ Central part             | Ⓣ Front part of frame          |
| Ⓝ Steering wheel/column    | Ⓤ Rear part of frame           |
| Ⓞ Foot pedals              | Ⓡ Door left                    |
| Ⓟ Front wall, inside left  | Ⓢ Door right                   |
| Ⓠ Front wall, inside right |                                |

Wiring diagram no. **81.99192.1347** Sheet 2 of 2



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 6x2 FNLL (Nordland)**
































**Legend**

Wiring diagram no. **81.99192.1351** Sheet 1 of 2  
Change status: 04/01

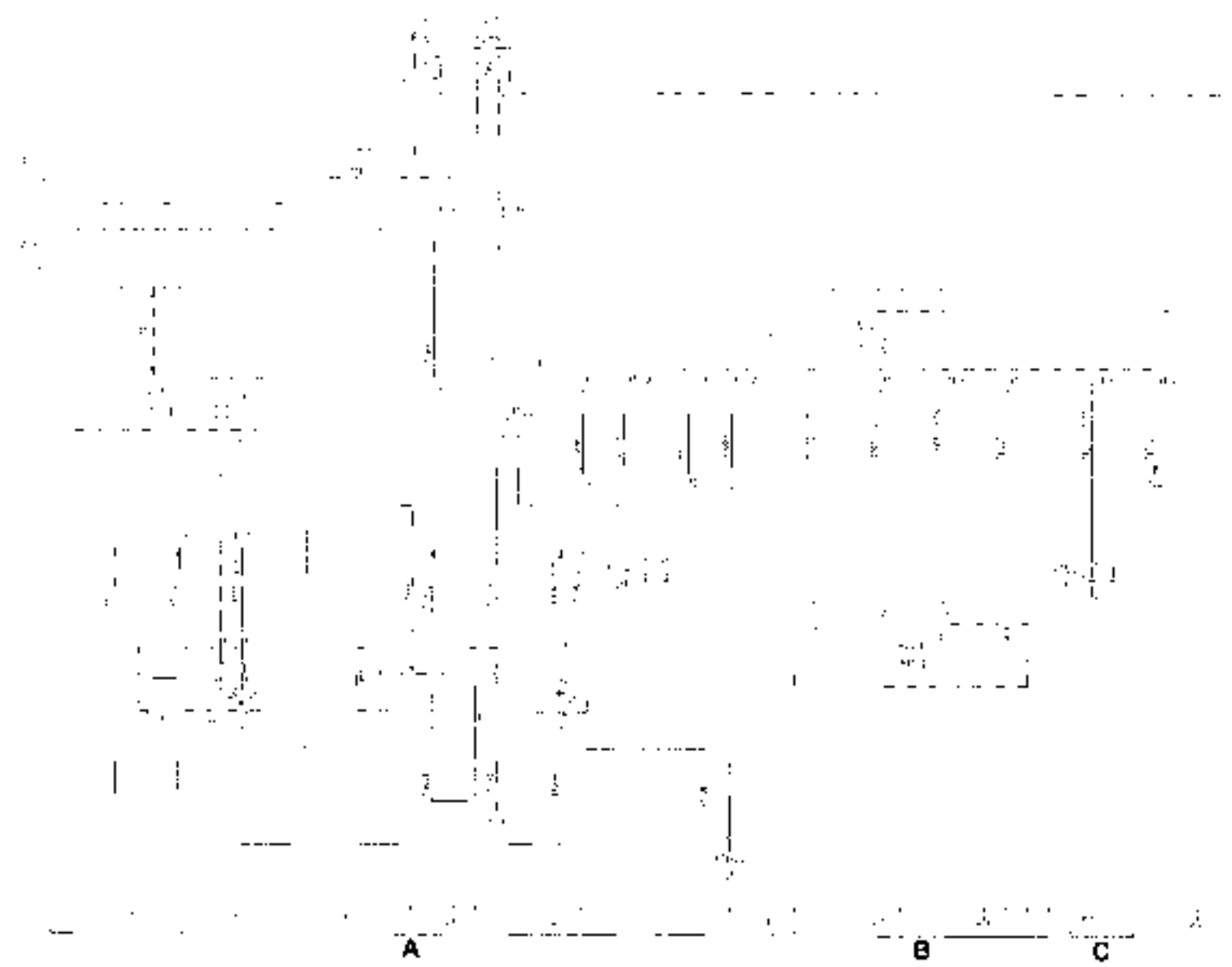
**A = Supply voltage, switch**  
**B = Remote control**  
**C = Diagnosis**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A143</b>	(345)	ECAS control unit
<b>A221</b>	(350)	ECAS remote control
<b>A302</b>	(352)	Central computer 2
<b>A407</b>	(342)	Instrumentation
<b>F164</b>	(101)	Fuse ECAS (terminal 30)
<b>F366</b>	(101)	ECAM/ECAS fuse (terminal 15)
<b>H394</b>		Indicator light, ECAS malfunction/warning
<b>S747</b>	(580)	Switch ECAS traction help Nordland
<b>S790</b>	(590)	Control switch ECAS lift/relieve trailing leading axle Nordland
<b>X1644</b>		Earthing point, cap. adjacent to central fuse, relay and terminal block
<b>X1839</b>		Std. ECAS (terminal 15)
<b>X2542</b>	(246)	Potential distributor, 21-pin line 58C00
<b>X2544</b>	(246)	Potential distributor 21-pin K-line

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electric area		A-pillar on passenger's side
	Control unit racks		Ceiling/rout
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		

Wiring diagram no. 81.99192.1351 Sheet 1 of 2



**ECAS electronically controlled air suspension/  
EFR electronic shock absorber control 6x2 FNLL (Nordland)**

**Legend**

Wiring diagram no. 81.99192.1351 Sheet 2 of 2  
Change status: 09.01

**A = Height sensors**

**B = Solenoid valves**

**C = Adjustable shock absorbers**

A100 (255) Central fuse, relay and terminal block

A143 (345) ECAS control unit

A302 (352) Central computer 2

B128 (311) Height sensor, front axle

B129 (311) Height sensor, rear axle left

B130 (311) Height sensor, rear axle right

X1945 Std ECAS/EFR

X2034 Std cab frame EFR

Y161 (160) Solenoid valve block ECAS I = 14A II = NLA/VLA

Y162 (12B) Solenoid valve block ECAS front axle

Y172 (203) Adjustable shock absorber on rear axle right

Y173 (203) Adjustable shock absorber on rear axle left

Y174 (202) Adjustable shock absorber on front axle right

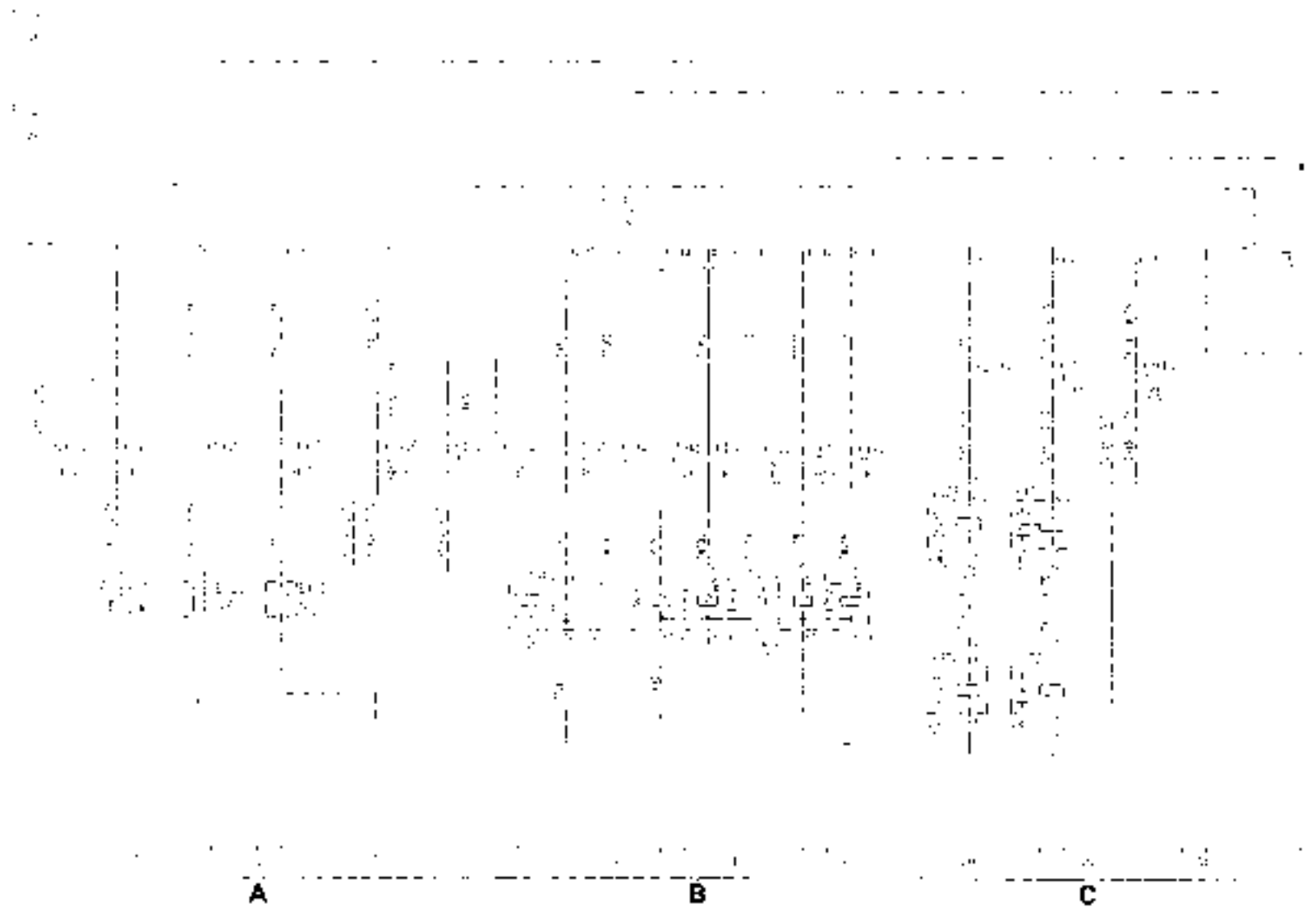
Y175 (202) Adjustable shock absorber on front axle left

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓓ Driving seat                 |
| Ⓑ Engine                   | Ⓔ Passenger seat               |
| Ⓒ Gearbox                  | Ⓚ Control panel                |
| Ⓓ Front                    | Ⓛ Battery box                  |
| Ⓚ Bumper                   | Ⓜ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓨ A-pillar on driver's side    |
| Ⓜ Entrance left            | Ⓩ B-pillar on passenger's side |
| Ⓨ Central electric area    | ⓐ A-pillar on passenger's side |
| Ⓩ Control unit racks       | ⓑ Ceiling/roof                 |
| ⓐ Rear wall of cab         | ⓓ Front axle                   |
| ⓑ Instrument panel         | ⓔ Rear axle                    |
| ⓓ Central part             | ⓕ Front part of frame          |
| ⓔ Steering wheel/column    | ⓖ Rear part of frame           |
| ⓖ Fuel pedals              | ⓗ Door left                    |
| ⓗ Front wall, inside left  | ⓓ Door right                   |
| ⓓ Front wall, inside right |                                |



Wiring diagram no. 81-99192.1351 Sheet 2 of 2



**EDC electronically controlled diesel injection**  
**EDC MS6.1 (EURO 2)**

**Legend**

Wiring diagram no. **B1.99192.2985** Sheet 1 of 3  
 Change status: 03.01

**A = Starting motor control (see series wiring diagram)**

**B = Actuator unit**

**C = Temperature sensor, fuel**

**D = Charge air pressure sensor**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer ?

**A405** (308) EDC control unit

**B125** (314) Charge air pressure sensor

**B197** (265) Temperature sensor, fuel

**M100** (144) Starting motor

**X1906** Threaded bolt M6 (MP box)

**X1907** Threaded bolt M6 (MP box)

**Y130** (196) Actuator unit, injector pump

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electrics area   | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2985 Sheet 1 of 3



**EDC electronically controlled diesel injection**  
**EDC MS6.1 (EURO 2)**

**Legend**

Wiring diagram no. 81.99192.2985 Sheet 2 of 3  
 Change status: 03.01

- A** = Temperature sensor, coolant
- B** = Engine speed sensor
- C** = Auxiliary engine speed sensor
- D** = Needle movement sensor
- E** = Oil pressure sensor
- F** = Fuel pressure sensor
- G** = Earthing point, engine

- A100 (255) Central fuse, relay and terminal block
- A302 (352) Central computer ?
- A435 (339) EDC control unit

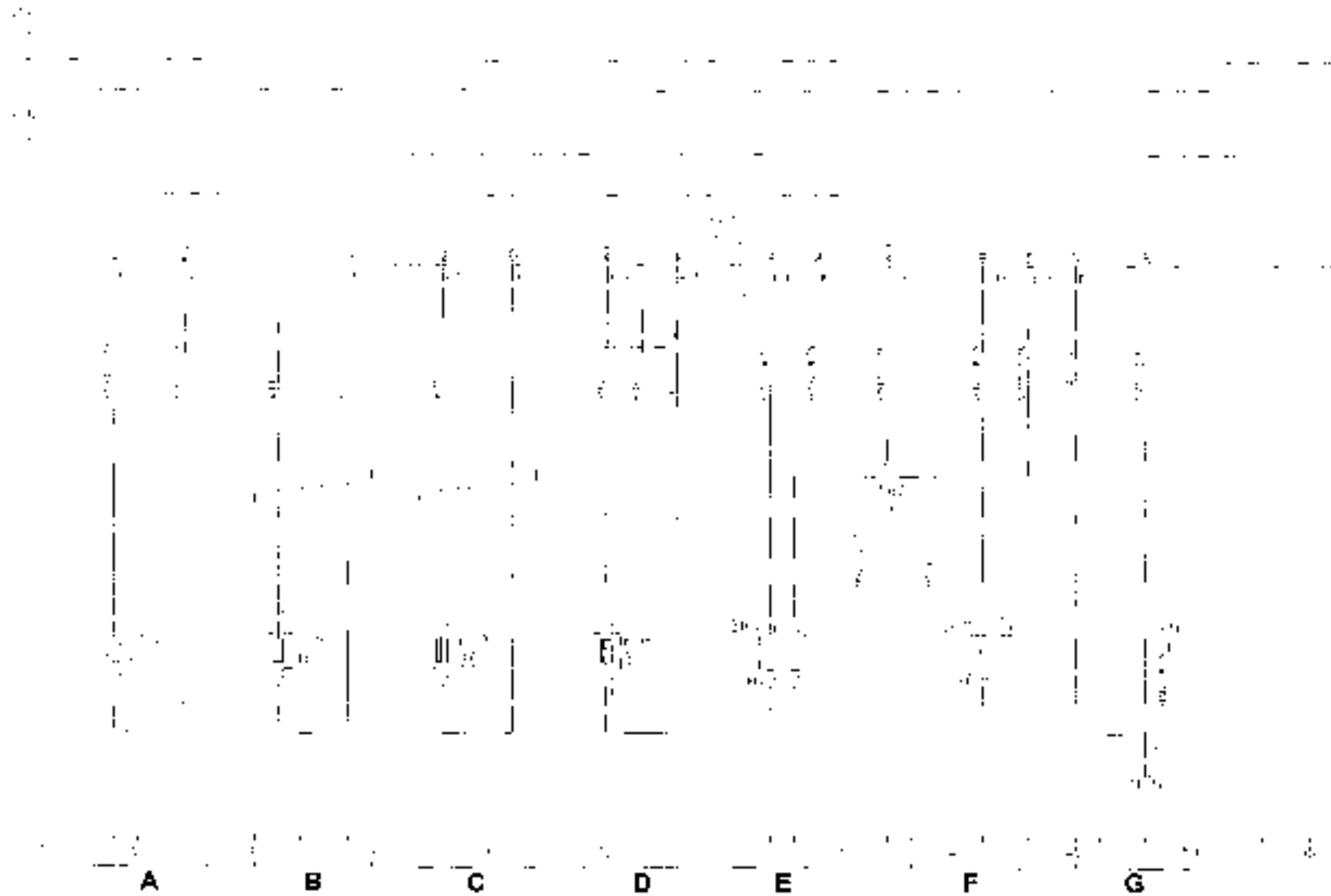
- B104 (340) Oil pressure sensor
- B124 (265) Temperature sensor, coolant
- B198 (315) Needle movement sensor
- B199 (316) Engine speed sensor
- B200 (317) Auxiliary engine speed sensor
- B377 (340) Fuel pressure sensor

- X1904 Threaded bolt M6 (MP box)
- X1902 Threaded bolt M5 (MP box)

**Marking of mounting positions**

- ⊖ Tail
- ⊕ Engine
- ⊗ Gearbox
- ⊙ Front
- ⊘ Bumper
- ⊙ Entrance right
- ⊙ Entrance left
- ⊕ Central electrics area
- ⊙ Control unit racks
- ⊕ Rear wall of cab
- ⊙ Instrument panel
- ⊙ Central part
- ⊙ Steering wheel/column
- ⊙ Foot pedals
- ⊙ Front wall, inside left
- ⊙ Front wall, inside right
- ⊕ Driving seat
- ⊕ Passenger seat
- ⊕ Control panel
- ⊙ Battery box
- ⊕ B-pillar on driver's side
- ⊕ A-pillar on driver's side
- ⊙ B-pillar on passenger's side
- ⊕ A-pillar on passenger's side
- ⊙ Ceiling/nof
- ⊕ Front axle
- ⊕ Rear axle
- ⊕ Front part of frame
- ⊕ Rear part of frame
- ⊙ Door left
- ⊙ Door right

Wiring diagram no. 81.99192.2985 Sheet 2 of 3



**EDC electronically controlled diesel injection**  
**EDC MS6.1 (EURO 2)**

































**Legend**

Wiring diagram no. **81.99192.2985** Sheet 3 of 3  
 Change status 03.01

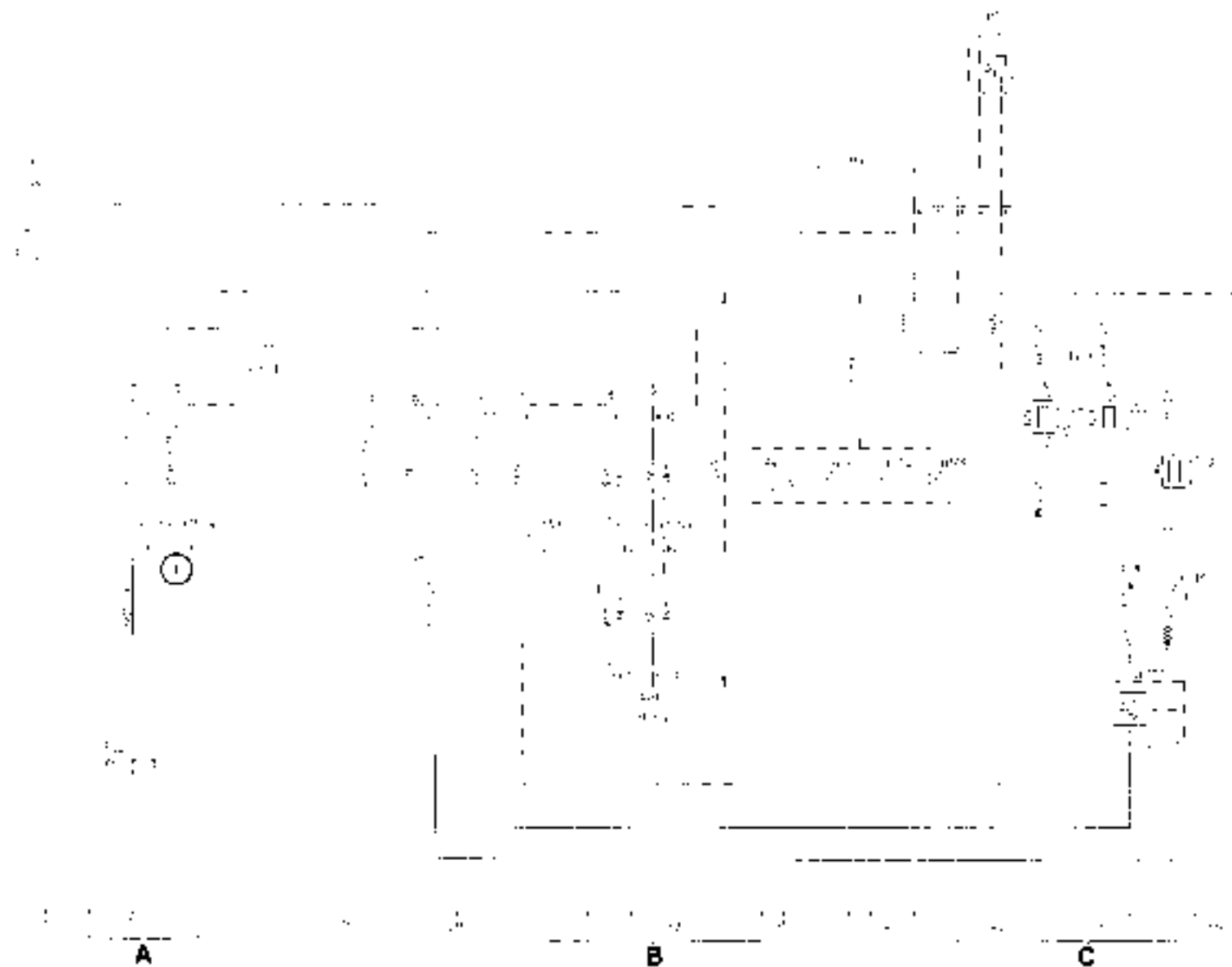
**A = Diagnosis**  
**B = CAN databus**  
**C = Power supply**

- A100** (255) Central fuse, relay and terminal block
- A302** (352) Central computer 2
- A405** (339) Vehicle management computer
- A407** (342) Instrumentation
- A425** (338) EDC control unit
  
- F163** (104) Generator engine control (terminal 30)
- F236** (111) Generator engine control (terminal 15)
- F354** (132) Main fuse (terminal 30-1)
- F356** (132) Main fuse (terminal 30-2)
  
- H109** Indicator light, oil pressure
- H296** Indicator light, EDC (malfunction)
- H374** Indicator light, air filter dirty
  
- K170** (297) Relay, power supply engine control (terminal 30)
  
- X1559** Std. engine/EDC/transmission IV
- X1913** (199) Bridge, line 30000 (MP box)
- X1983** Threaded bolt M6 (MP box)
- X1987** Threaded bolt M6 (MP box)
- X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electrics area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
  
-  Reserve for engine speed signal
  
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

Wiring diagram no. 81.99192.2985 Sheet 3 of 3



**EDC electronically controlled diesel injection**  
**EDC MS6.1 with exhaust gas recirculation EGR (EURO 3)**

**Legend**

Wiring diagram no. **81.99192.2986** Sheet 1 of 3

Change status: 03.01

**A = Actuator unit**

**B = Temperature sensor, fuel**

**C = Charge air pressure sensor**

**D = Temperature sensor, charge air**

**E = Exhaust gas recirculation cylinder**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A405** (338) EDC control unit

**B123** (311) Temperature sensor, charge air

**B125** (314) Charge air pressure sensor

**B197** (266) Temperature sensor, fuel

**X1904** Threaded bolt M6 (MP box)

**X1906** Threaded bolt M6 (MP box)

**X1907** Threaded bolt M6 (MP box)

**Y130** (196) Actuator unit injector pump

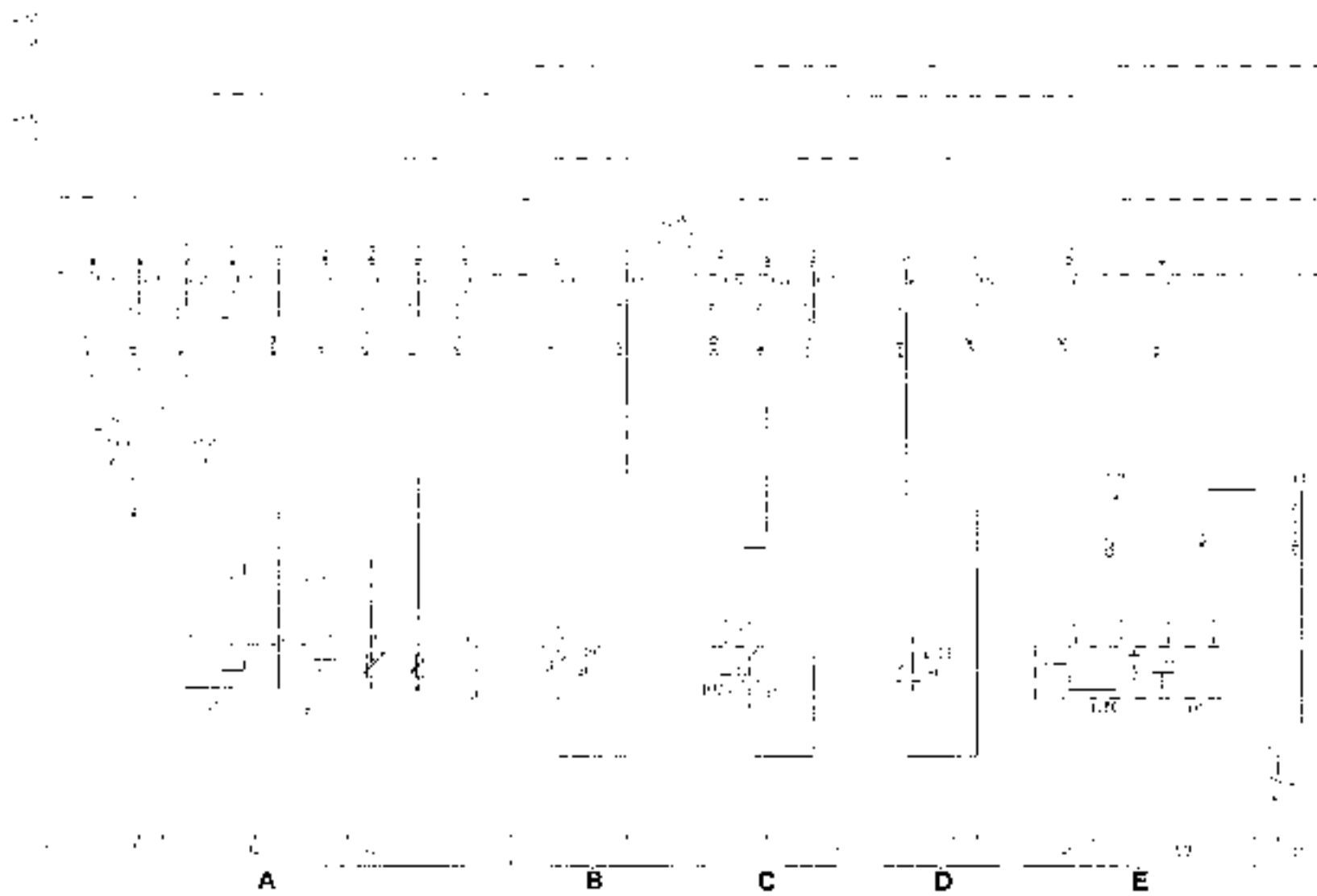
**Y280** (205) AGH cylinder

**Marking of mounting positions**

- ① Tail
- ② Engine
- ③ Gearbox
- ④ Front
- ⑤ Dumpster
- ⑥ Entrance right
- ⑦ Entrance left
- ⑧ Central electric area
- ⑨ Control unit racks
- ⑩ Rear wall of cab
- ⑪ Instrument panel
- ⑫ Central part
- ⑬ Steering wheel/column
- ⑭ Foot pedals
- ⑮ Front wall, inside left
- ⑯ Front wall, inside right
- ⑰ Driving seat
- ⑱ Passenger seat
- ⑲ Control panel
- ⑳ Battery box
- ㉑ B-pillar on driver's side
- ㉒ A-pillar on driver's side
- ㉓ B-pillar on passenger's side
- ㉔ A-pillar on passenger's side
- ㉕ Ceiling/roof
- ㉖ Front axle
- ㉗ Rear axle
- ㉘ Front part of frame
- ㉙ Rear part of frame
- ㉚ Door left
- ㉛ Door right



Wiring diagram no. **81.99192.2986** Sheet 1 of 3



**EDC electronically controlled diesel injection**  
**EDC MS6.1 with exhaust gas recirculation (EURO 3)**

**Legend**

Wiring diagram no. **81.99192.2986** Sheet 2 of 3

Change status: 03/01

**A = Temperature sensor, coolant**

**B = Engine speed sensor**

**C = Auxiliary engine speed sensor**

**D = Needle movement sensor**

**E = Oil pressure sensor**

**F = Fuel pressure sensor**

**G = Earthing point, engine**

**H = Starting motor control (see series wiring diagram)**

**A100 (256) Central fuse, relay and terminal block**

**A302 (352) Central computer 2**

**A435 (338) EDC control unit**

**B104 (340) Oil pressure sensor**

**B124 (216) Temperature sensor, coolant**

**B198 (315) Needle movement sensor**

**B199 (316) Engine speed sensor**

**B200 (317) Auxiliary engine speed sensor**

**B377 (340) Fuel pressure sensor**

**M100 Starting motor**

**X1904 Threaded bolt M6 (MP box)**

**X1982 Threaded bolt M5 (MP box)**

**Marking of mounting positions**

⊖ Tail

⊕ Engine

⊕ Gearbox

⊕ Front

⊕ Bumper

⊕ Entrance right

⊕ Entrance left

⊕ Central electrics area

⊕ Control unit racks

⊕ Rear wall of cab

⊕ Instrument panel

⊕ Central part

⊕ Steering wheel/column

⊕ Foot pedals

⊕ Front wall, inside left

⊕ Front wall, inside right

⊕ Driving seat

⊕ Passenger seat

⊕ Control panel

⊕ Battery box

⊕ B-pillar on driver's side

⊕ A-pillar on driver's side

⊕ B-pillar on passenger's side

⊕ A-pillar on passenger's side

⊕ Ceiling/roof

⊕ Front axle

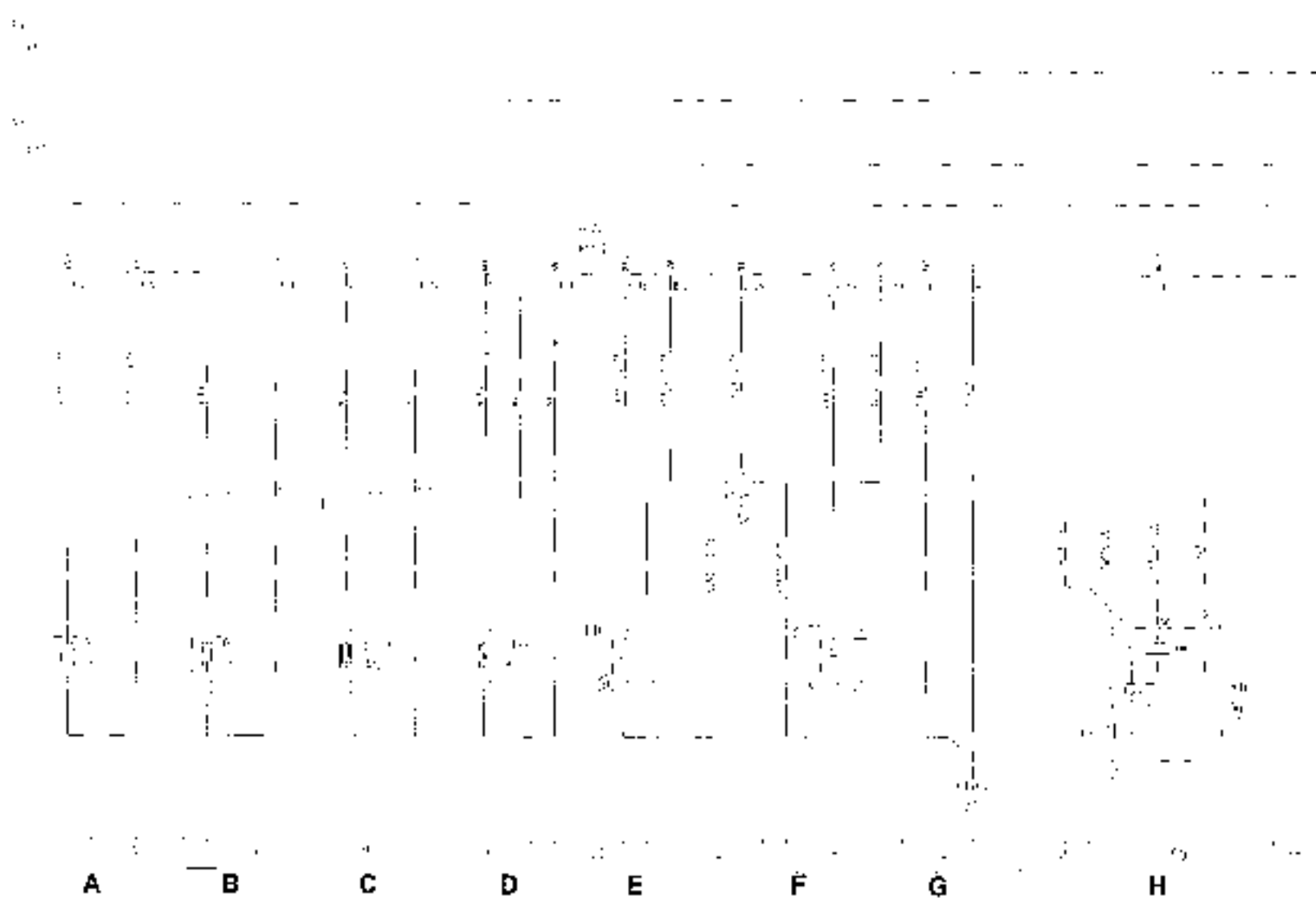
⊕ Rear axle

⊕ Front part of frame

⊕ Rear part of frame

⊕ Door left

⊕ Door right



**EDC electronically controlled diesel injection**  
**EDC MS6.1 with exhaust gas recirculation (EURO 3)**

**Legend**

Wiring diagram no. **61.99192.2986** Sheet 3 of 3  
 Change status: 03.01

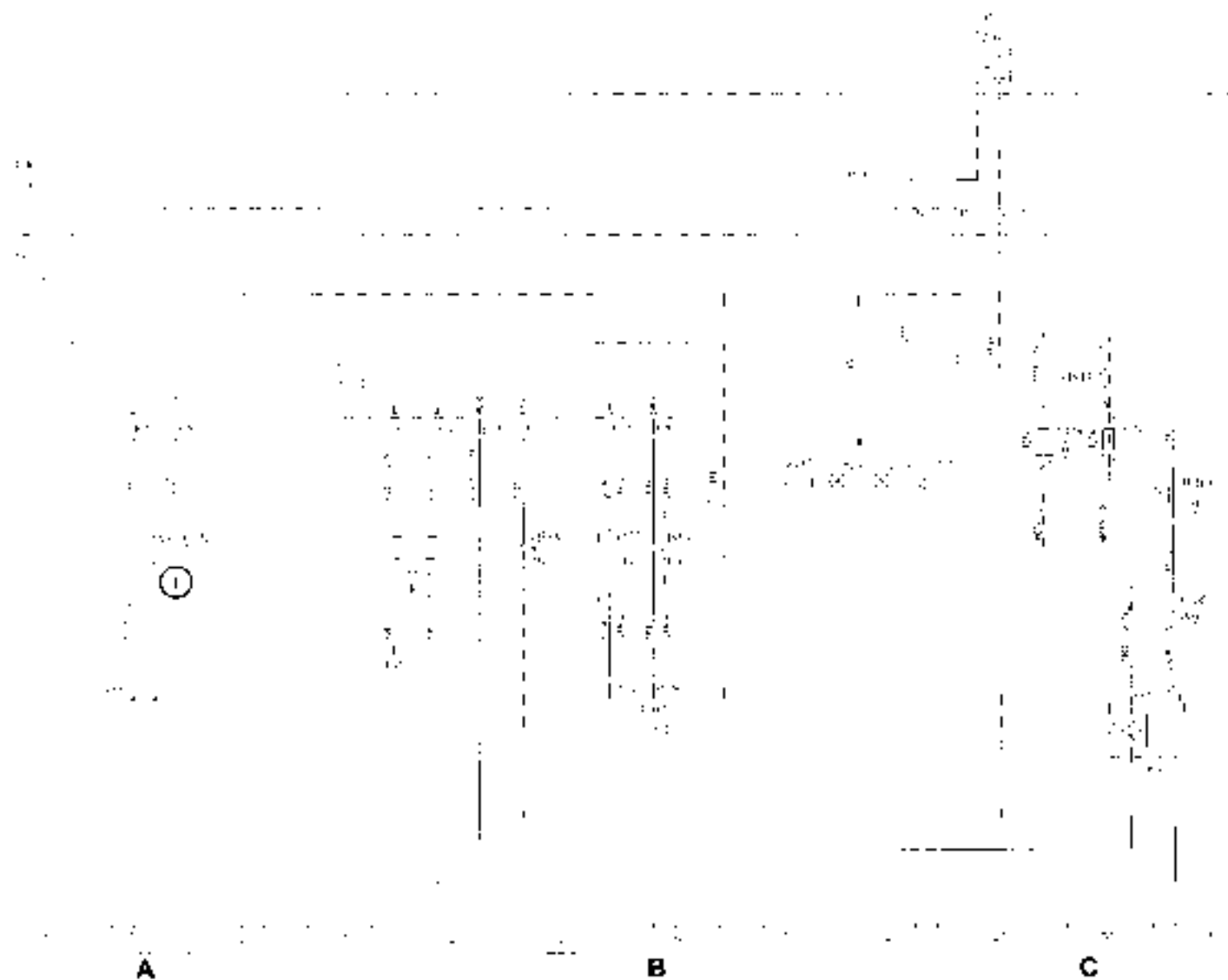
**A = Diagnosis**  
**B = CAN databus**  
**C = Power supply**

- A11X1 (255) Central fuse, relay and terminal block
- A302 (352) Central computer 2
- A403 (339) Vehicle management computer
- A407 (342) Instrumentation
- A435 (338) EDC control unit
  
- H163 (134) Generator engine control (terminal 30)
- F230 (111) Generator engine control (terminal 15)
- F354 (132) Main fuse (terminal 30-1)
- F355 (132) Main fuse (terminal 30-2)
  
- H109 Indicator light, oil pressure
- H296 Indicator light, EDC (malfunction)
- H374 Indicator light, air filter dirty
  
- K170 (207) Relay, power supply engine control (terminal 30)
  
- X1559 Svtd. engine/EDC/transmission IV
- X1913 ('99) Bridge, line 30000 (MP box)
- X1983 Threaded bolt M6 (MP box)
- X1987 Threaded bolt M6 (MP box)
- X2544 (246) Potential distributor 21-pir K-line

**Marking of mounting positions**

- Ⓐ Tail
- Ⓑ Engine
- Ⓒ Gearbox
- Ⓓ Front
- Ⓔ Bumper
- Ⓕ Entrance right
- Ⓖ Entrance left
- Ⓖ Central electrics area
- Ⓖ Control unit racks
- Ⓖ Rear wall of cab
- Ⓖ Instrument panel
- Ⓖ Central part
- Ⓖ Steering wheel/column
- Ⓖ Front pedals
- Ⓖ Front wall inside left
- Ⓖ Front wall inside right
  
- Ⓘ Reserve for engine speed signal
  
- Ⓕ Driving seat
- Ⓖ Passenger seat
- Ⓖ Control panel
- Ⓖ Battery box
- Ⓖ B-pillar on driver's side
- Ⓖ A-pillar on driver's side
- Ⓖ B-pillar on passenger's side
- Ⓖ A-pillar on passenger's side
- Ⓖ Ceiling/roof
- Ⓖ Front axle
- Ⓖ Rear axle
- Ⓖ Front part of frame
- Ⓖ Rear part of frame
- Ⓖ Door left
- Ⓖ Door right

Wiring diagram no. 81,99192,2985 Sheet 3 of 3



**EDC7 electronically controlled diesel injection**  
**EDC7 Common Rail D0836LF**

**Legend**

Wiring diagram no. 81.99192 2692 Street 1 of 4  
 Change status: 10.00

- A = Rail pressure sensor**
- B = Proportional valve, fuel**
- C = Exhaust gas recirculation cylinder**
- D = Cylinders 1 + 2**
- E = Cylinders 3 + 4**
- F = Cylinders 5 + 6**

- A100 (255) Central fusc. relay and terminal block
- A302 (352) Central computer 2
- A435 (526) EDC control unit

- B497 (242) Rail pressure pickup

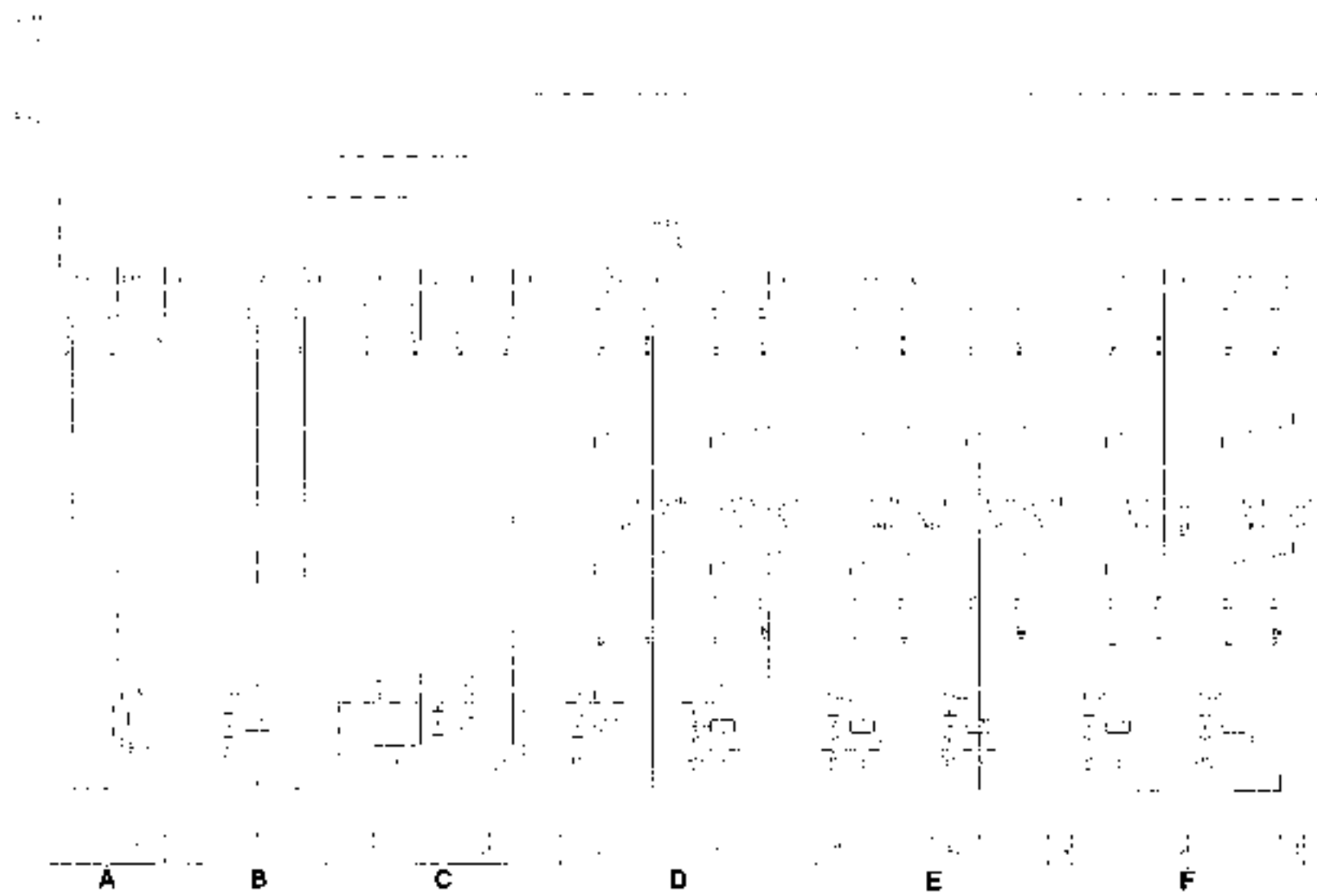
- X2265 Stvd injector cylinders 1 + 2
- X2266 Stvd injector cylinders 3 + 4
- X2267 Stvd injector cylinders 5 + 6

- Y280 (205) AGH actuator
- Y332 (215) Proportional valve, fuel
- Y341 (216) Injector, 1st cylinder
- Y342 (216) Injector, 2nd cylinder
- Y343 (216) Injector, 3rd cylinder
- Y344 (216) Injector, 4th cylinder
- Y345 (216) Injector, 5th cylinder
- Y346 (216) Injector, 6th cylinder

**Marking of mounting positions**

- (T) Tail
- (E) Engine
- (G) Gearbox
- (F) Front
- (R) Rumper
- (E) Entrance right
- (L) Entrance left
- (C) Central electrics area
- (U) Control unit racks
- (H) Rear wall of cab
- (I) Instrument panel
- (C) Central part
- (S) Steering wheel/column
- (P) Foot pedals
- (L) Front wall, inside left
- (R) Front wall, inside right
- (S) Driving seat
- (P) Passenger seat
- (C) Control panel
- (B) Battery box
- (L) B-pillar on driver's side
- (R) A-pillar on driver's side
- (L) B-pillar on passenger's side
- (R) A-pillar on passenger's side
- (C) Ceiling/roof
- (F) Front axle
- (R) Rear axle
- (F) Front part of frame
- (R) Rear part of frame
- (L) Door left
- (R) Door right

Wiring diagram no. 81.99192.2692 Sheet 1 of 4



**EDC7 electronically controlled diesel injection**  
**EDC7 Common Rail D0836LF**

**Legend**

Wiring diagram no. **81.99192.2692** Sheet 2 of 4  
 Change status: 10.00

- A = Water temperature sensor**
- B = Crankshaft**
- C = Camshaft**
- D = Fuel pressure sensor**
- E = Air temperature sensor**
- F = Charge air pressure sensor**
- G = Oil pressure sensor**

- A100 (255) Central fuse, relay and terminal block
- A302 (352) Central computer 2
- A405 (325) EDC control unit

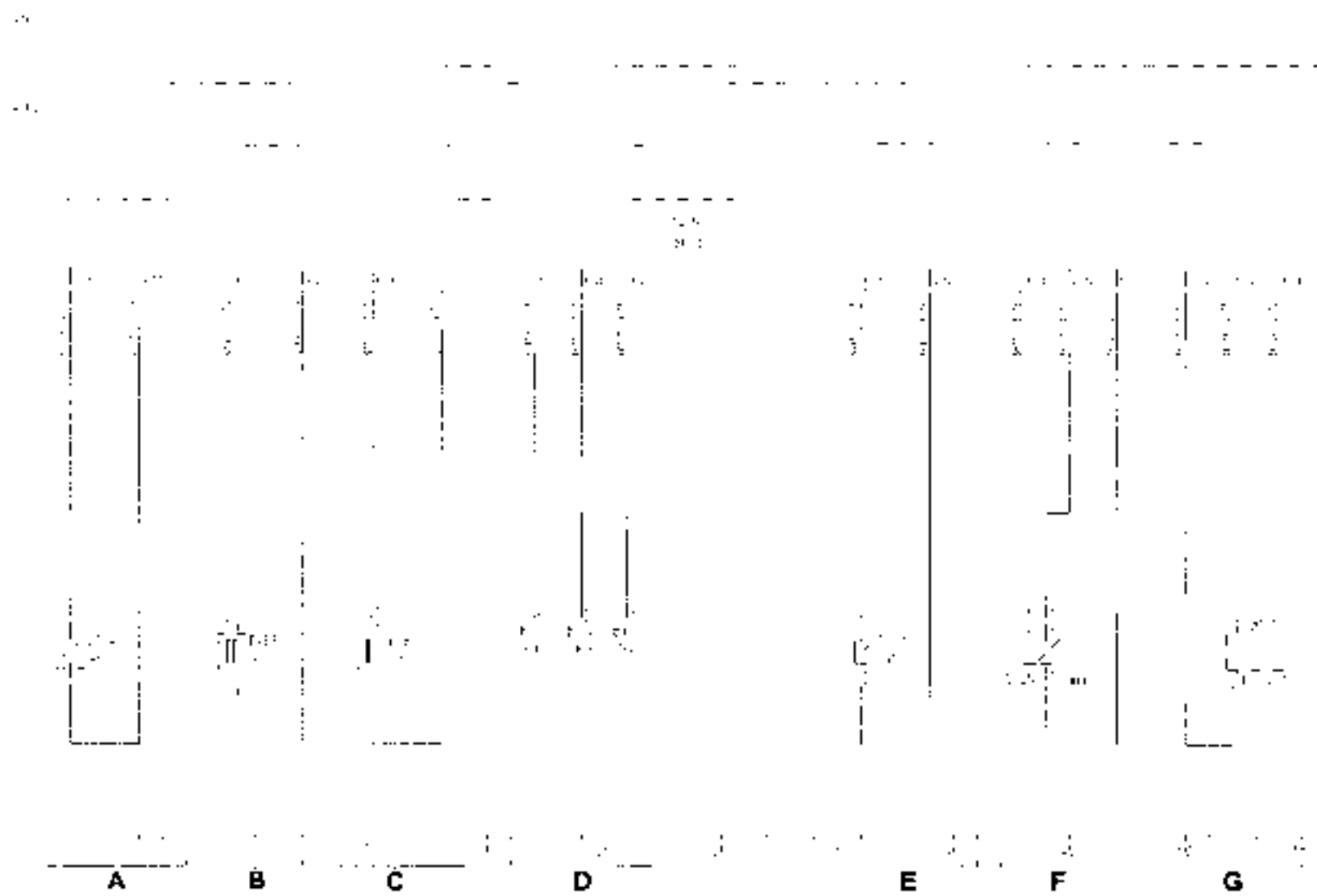
- B104 (340) Oil pressure sensor
- B123 (341) Temperature sensor, charge air
- B124 (285) Temperature sensor, coolant
- B125 (350) Charge air pressure sensor
- B377 Fuel pressure sensor
- B488 (348) Engine speed incremental encoder
- B489 (349) Engine speed segment encoder

**Marking of mounting positions**

- Ⓐ Tail
- Ⓔ Engine
- Ⓕ Gear box
- Ⓖ Front
- Ⓢ Bumper
- Ⓣ Entrance right
- Ⓤ Entrance left
- Ⓔ Central electric area
- Ⓖ Control unit racks
- Ⓢ Rear wall of cab
- Ⓣ Instrument panel
- Ⓔ Central part
- Ⓢ Steering wheel/column
- Ⓤ Foot pedals
- Ⓔ Front wall, inside left
- Ⓢ Front wall, inside right
- Ⓢ Driving seat
- Ⓔ Passenger seat
- Ⓔ Control panel
- Ⓢ Battery box
- Ⓔ B-pillar on driver's side
- Ⓣ A-pillar on driver's side
- Ⓣ B-pillar on passenger's side
- Ⓔ A-pillar on passenger's side
- Ⓢ Ceiling/roof
- Ⓔ Front axle
- Ⓢ Rear axle
- Ⓔ Front part of frame
- Ⓢ Rear part of frame
- Ⓢ Door left
- Ⓢ Door right



Wiring diagram no. #1.99192.2692 Sheet 2 of 4



**EDC7 electronically controlled diesel injection**  
**EDC7 Common Rail D0636LF**

**Legend**

Wiring diagram no. **81.99192.2692** Sheet 3 of 4  
 Change status: 13.03

- A = CAN databus**
- B = Diagnosis**
- C = Earthing point, box**
- D = Power supply**
































- A100** (256) Central fuse, relay and terminal block
- A302** (352) Central computer 2
- A402** (239) Vehicle management computer
- A407** (342) instrumentation
- A435** (526) EDC control unit

- F163** (140) Generator engine control (terminal 30)
- F238** (111) Generator engine control (terminal 15)
- F354** (132) Main fuse (terminal 30-1)
- F355** (132) Main fuse (terminal 30-2)

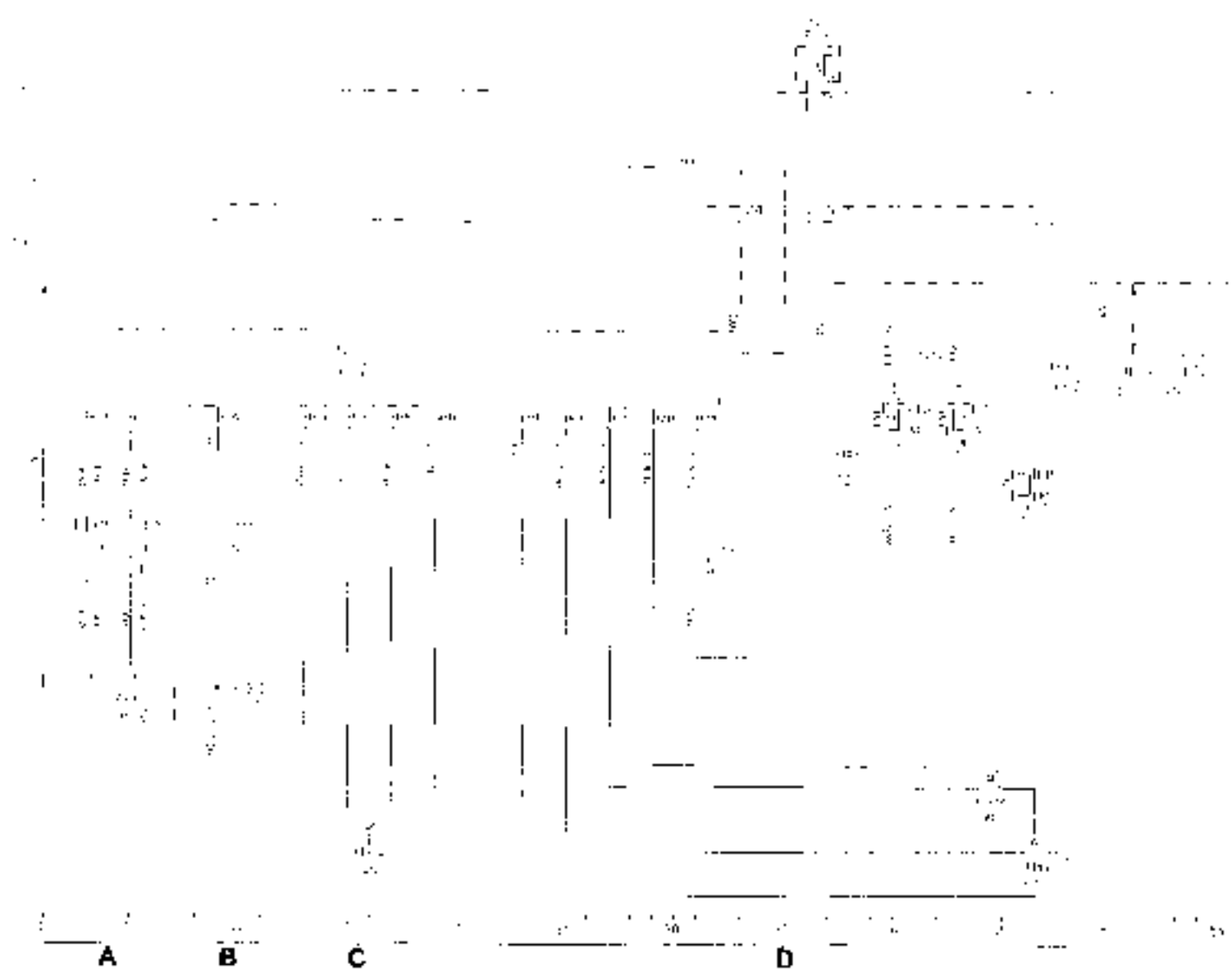
- H296** Indicator light, EDC (malfunction)
- H374** Indicator light, air filter dirty

- X1559** Std. engine/EDC/transmission IV
- X1680** Std. power supply, EDC, terminal 15
- X1904** Threaded bolt M6 (MP box)
- X1910** Crimped connector K-KWP2 (SA)
- X1912** (199) Bridge, line 30000 (MP box)
- X1988** Threaded bolt M5 (MP box)
- X1989** Threaded bolt M5 (MP box)

**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electric area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

Wiring diagram no. 81.99192.2692 Sheet 3 of 4



**EDC7 electronically controlled diesel injection**  
**EDC7 Common Rail D0836LF**

**Legend**

Wiring diagram no. **81.99192.2692** Sheet 4 of 4  
 Change status: 10.00

**A = Starting motor control (see series wiring diagram)**

**E = Proportional valve, turbocharger**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A435** (526) EDC control unit

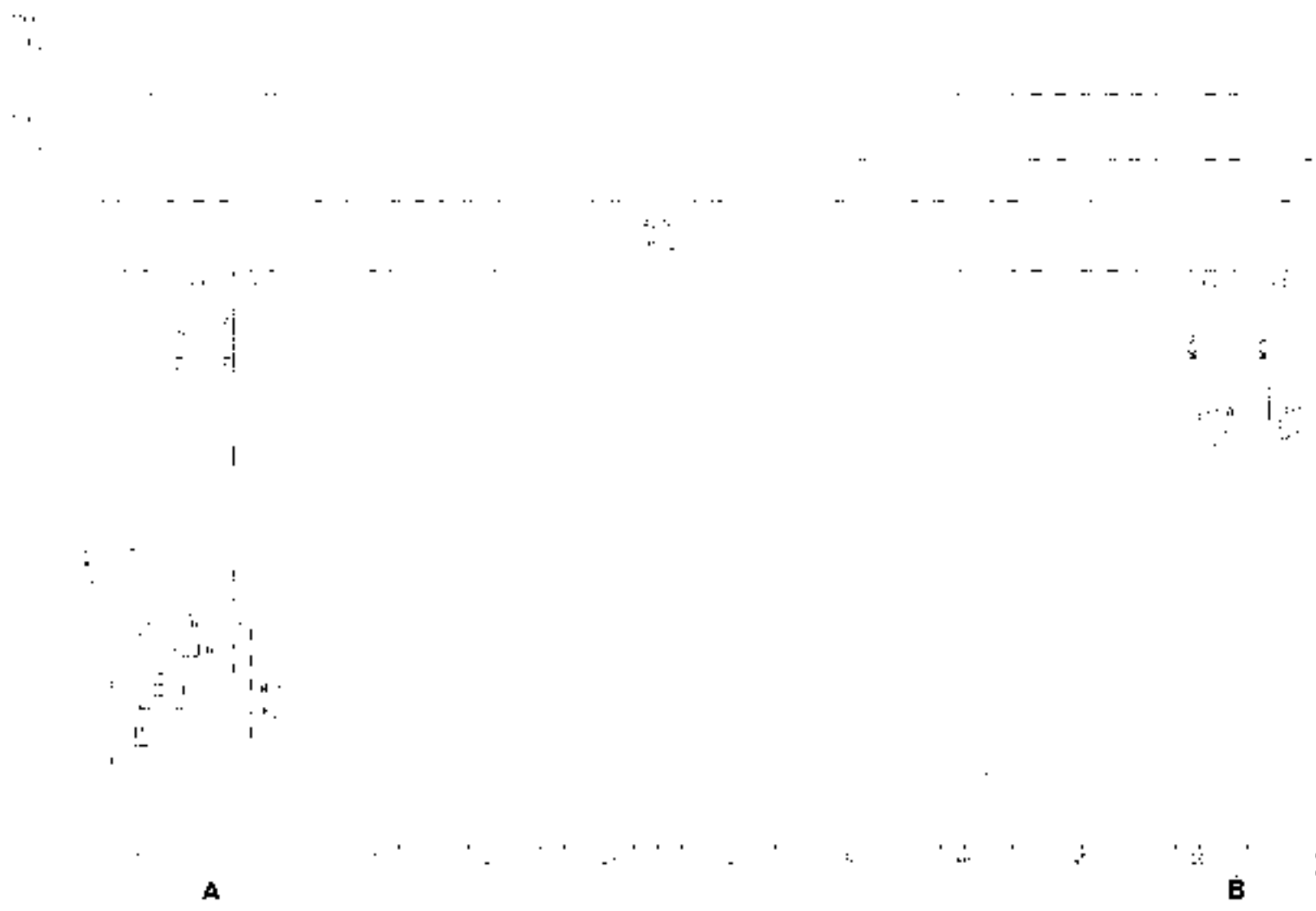
**M100** (167) Starter motor

**Y340** Proportional valve, 2-stage charging

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | ⓫ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | ⓪ Battery box                  |
| Ⓛ Bumper                   | Ⓜ B-pillar on driver's side    |
| Ⓜ Entrance right           | Ⓝ A pillar on driver's side    |
| Ⓜ Entrance left            | Ⓜ B-pillar on passenger's side |
| Ⓜ Central electrics area   | Ⓝ A pillar on passenger's side |
| Ⓜ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓜ Rear wall of cab         | Ⓜ Front axle                   |
| Ⓜ Instrument panel         | Ⓜ Rear axle                    |
| Ⓜ Central part             | Ⓜ Front part of frame          |
| Ⓜ Steering wheel/column    | Ⓜ Rear part of frame           |
| Ⓜ Foot pedals              | Ⓜ Door left                    |
| Ⓜ Front wall, inside left  | Ⓜ Door right                   |
| Ⓜ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2692 Sheet 4 of 4



**EVB electronically controlled engine brake, controlled**

**Legend**

Wiring diagram no. 01.99192.2832 Sheet 1 of 1

Change status: 06.00

**A = EVB (exhaust valve brake), controlled**

A100 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

A403 (339) Vehicle management computer

X1657 Stvd. frame left

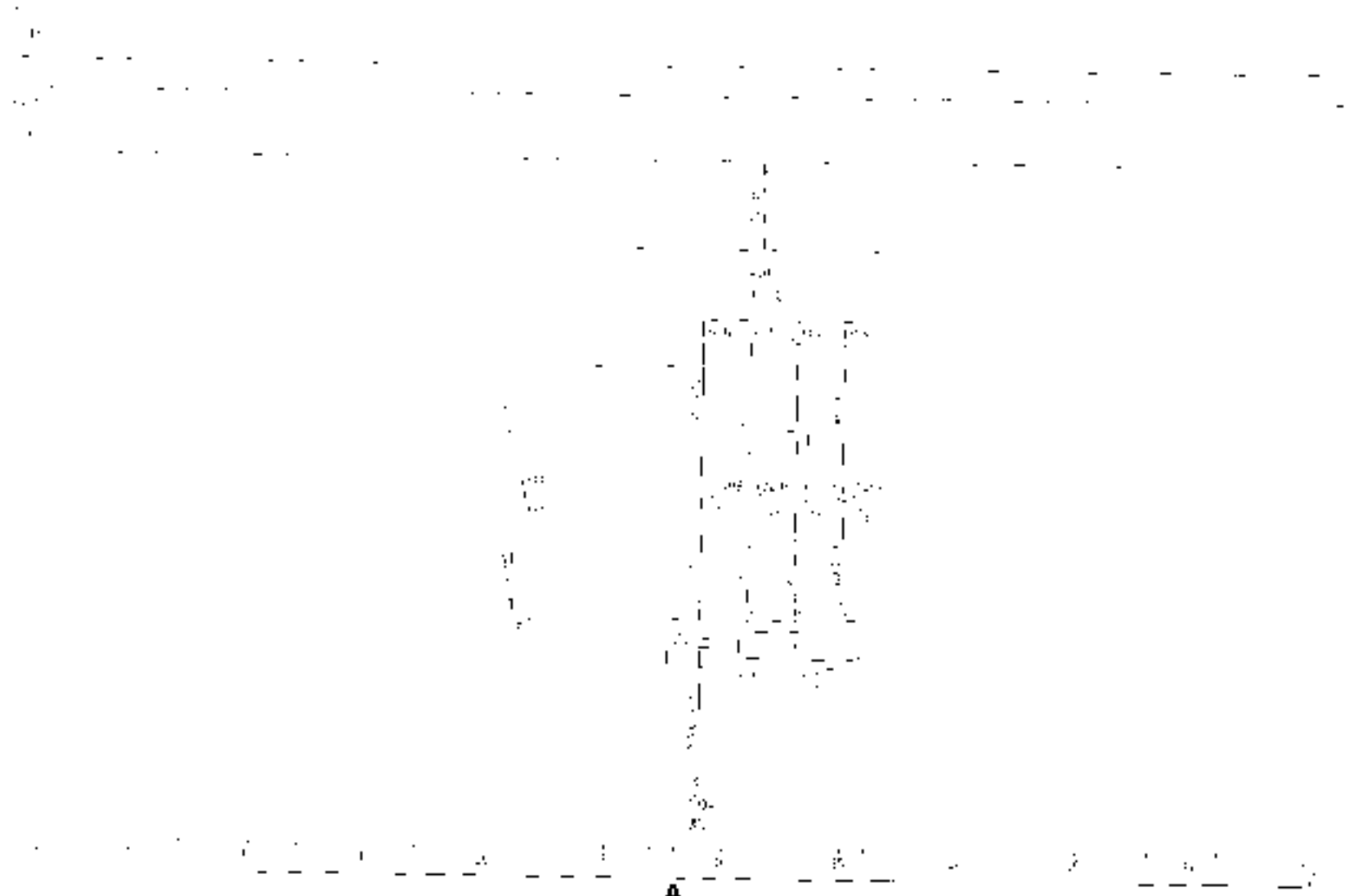
X1904 Threaded bolt M6 (MP box)

X2408 Stvc. EVB module

Y355 (222) EVU module

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊙ Tail                     | ⊙ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊙ Gearbox                  | ⊙ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Bumper                   | ⊙ B-pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B-pillar on passenger's side |
| ⊙ Central electrics area   | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/roof                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊙ Central part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Foot pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |







Driving dynamics control

Legend

Wiring diagram no. 81.99192.2843 Sheet 1 of 1

Change status 37 (10)

A = EBS control unit 2.3

B = Steering angle sensor

C = Turning rate sensor

A100 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

A402 (399) EBS control unit

A575 (568) Control unit, driving dynamics control

B475 ESP steering angle sensor

H476 ESP steering rate sensor

X2204 Std. cab steering rate sensor

X2207 Std. steering column, ESP steering angle sensor

Marking of mounting positions

(A) Tail

(E) Engine

(G) Gearbox

(F) Front

(B) Bumper

(R) Entrance right

(L) Entrance left

(C) Central electric area

(U) Control unit racks

(H) Rear wall of cab

(I) Instrument panel

(P) Central part

(S) Steering wheel/column

(D) Foot pedals

(4) Front wall, inside left

(3) Front wall, inside right

( ) Scope of delivery

(S) Driving seat

(P) Passenger seat

(C) Control panel

(U) Battery box

(R) B-pillar on driver's side

(L) A-pillar on driver's side

(R) B-pillar on passenger's side

(L) A-pillar on passenger's side

(C) Ceiling/roof

(A) Front axle

(R) Rear axle

(F) Front part of frame

(R) Rear part of frame

(L) Door left

(R) Door right

507



**Cab tilt device (electrical)**

**Legend**

Wiring diagram no. B1.99192.1370 Shee: 1 of 1

Change status: 05.01

**A = Supply voltage**

**B = Release switch**

**C = Tilt switches**

**D = Tilt pump**

A110 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

F190 (130) Fuse, cab tilt device

K415 (280) Relay, cab tilt device

M137 (148) Pump, cab tilt device

S374 (546) Switch, release cab tilt device

S375 (292) Control switch, actuation cab tilt device

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block

X1842 Stud, cab tilt device

X2541 (246) Potential distributor, 21-pin line 31000

X2542 (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

Ⓐ Tail

Ⓑ Engine

Ⓒ Gearbox

Ⓓ Front

Ⓔ Bumper

Ⓕ Entrance right

Ⓖ Entrance left

Ⓖ Central electric area

Ⓖ Control unit racks

Ⓖ Rear wall of cab

Ⓖ Instrument panel

Ⓖ Central part

Ⓖ Steering wheel/column

Ⓖ Foot pedals

Ⓖ Front wall, inside left

Ⓖ Front wall, inside right

Ⓖ Driving seat

Ⓖ Passenger seat

Ⓖ Control panel

Ⓖ Battery box

Ⓖ B-pillar on driver's side

Ⓖ A-pillar on driver's side

Ⓖ B-pillar on passenger's side

Ⓖ A-pillar on passenger's side

Ⓖ Ceiling/roof

Ⓖ Front axle

Ⓖ Rear axle

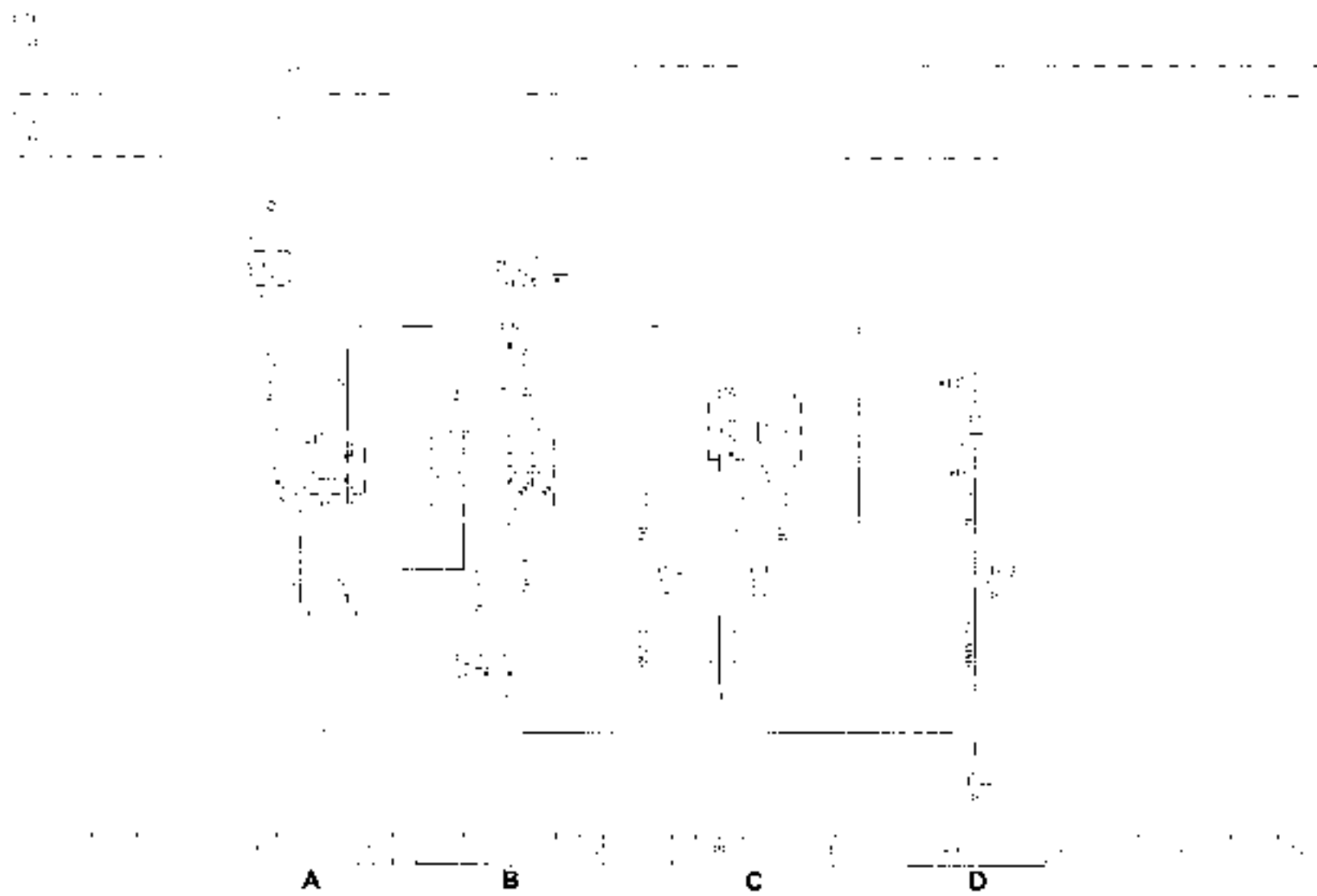
Ⓖ Front part of frame

Ⓖ Rear part of frame

Ⓖ Door left

Ⓖ Door right

Wiring diagram no. 81.99192-1370 Sheet 1 of 1



**Windscreen heating**

**Legend**

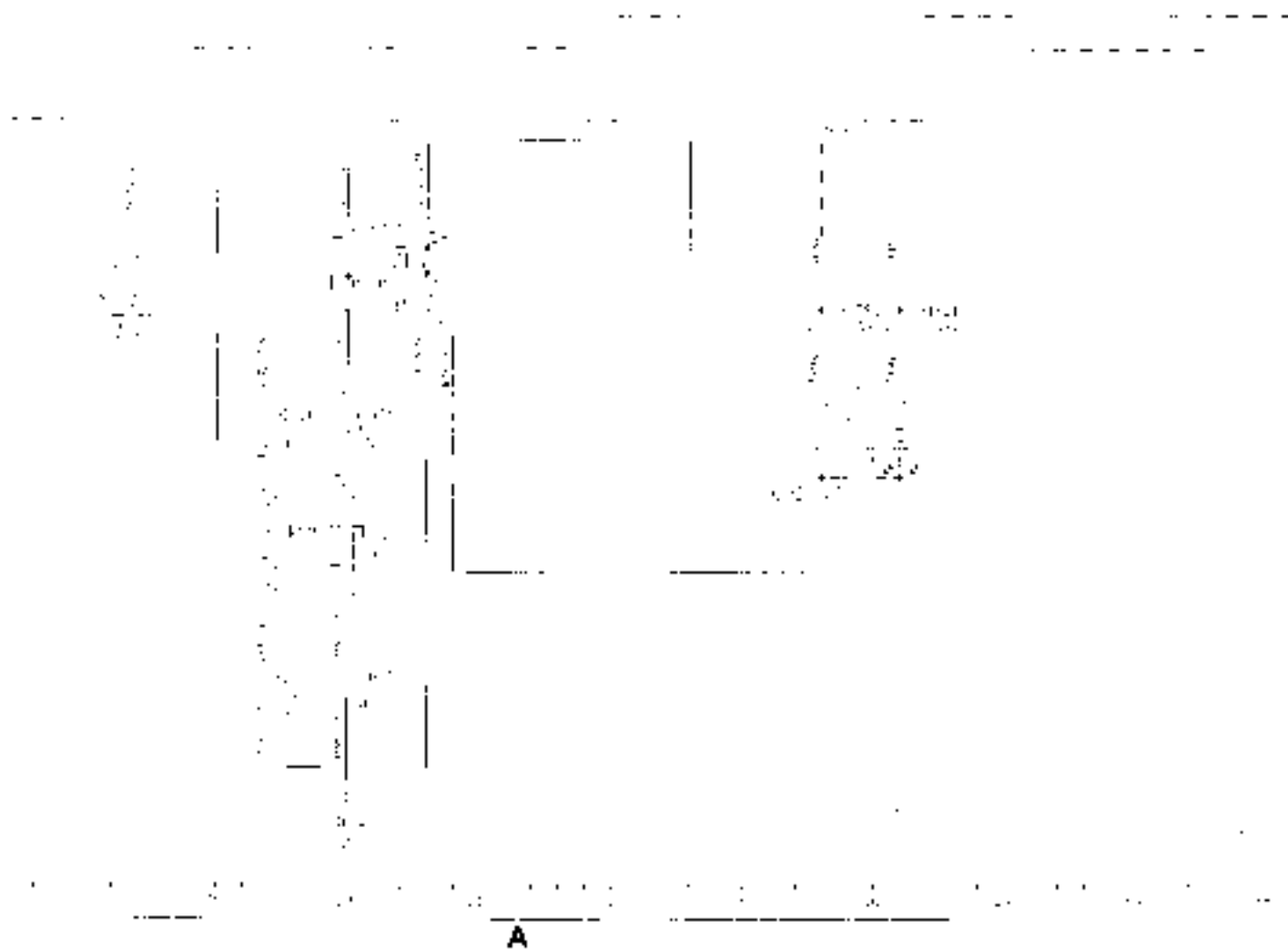
Wiring diagram no. 81.99192.2571 Sheet 1 of 1  
Change status: 03.01

**A = Windscreen heating**

<b>A100</b>	(250) Central fuse, relay and terminal block
<b>A302</b>	(352) Central computer 2
<b>F187</b>	(131) Fuse, windscreen heating
<b>K221</b>	(280) Relay, windscreen heating
<b>R127</b>	(150) Windscreen heating, left
<b>P128</b>	(150) Windscreen heating, right
<b>S224</b>	(561) Switch, screen heating
<b>X1041</b>	Soldered connector, line 58000
<b>X1044</b>	Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X1754</b>	Crimped connector, line 59104
<b>X2020</b>	Svc. windscreen heating, right
<b>X2021</b>	Svc. windscreen heating, left

**Marking of mounting positions**

(A) Tail	(66) Driving seat
(B) Engine	(67) Passenger seat
(C) Gearbox	(68) Control panel
(D) Front	(69) Battery box
(E) Bumper	(70) B-pillar on driver's side
(F) Entrance right	(71) A-pillar on driver's side
(G) Entrance left	(72) B-pillar on passenger's side
(H) Central electrics area	(73) A-pillar on passenger's side
(I) Control unit racks	(74) Ceiling/roof
(J) Rear wall of cab	(75) Front axle
(K) Instrument panel	(76) Rear axle
(L) Central part	(77) Front part of frame
(M) Steering wheel/column	(78) Rear part of frame
(N) Foot pedals	(79) Door left
(O) Front wall, inside left	(80) Door right
(P) Front wall, inside right	



**Windscreen heating (wide cab)**

**Legend**

Wiring diagram no. 81.99192.1373 Sheet 1 of 1  
Change status: 04/01

**A = Windscreen heating**

A100 (255) Central fuse, relay and terminal block  
A302 (352) Central computer 2

F187 (130) Fuse, windscreen heating  
F342 (130) Fuse, front nose screen heating

K524 (280) Relay, front nose screen heating  
K525 (280) Relay, front nose screen heating

R127 (150) Windscreen heating, left  
R128 (150) Windscreen heating, right

S224 (561) Switch, screen heating

X1641 Earthing point, cab, adjacent to central fuse, relay and terminal block

X1754 Soldered connector, line 58104

X2020 Std. windscreen heating, right

X2021 Std. windscreen heating, left

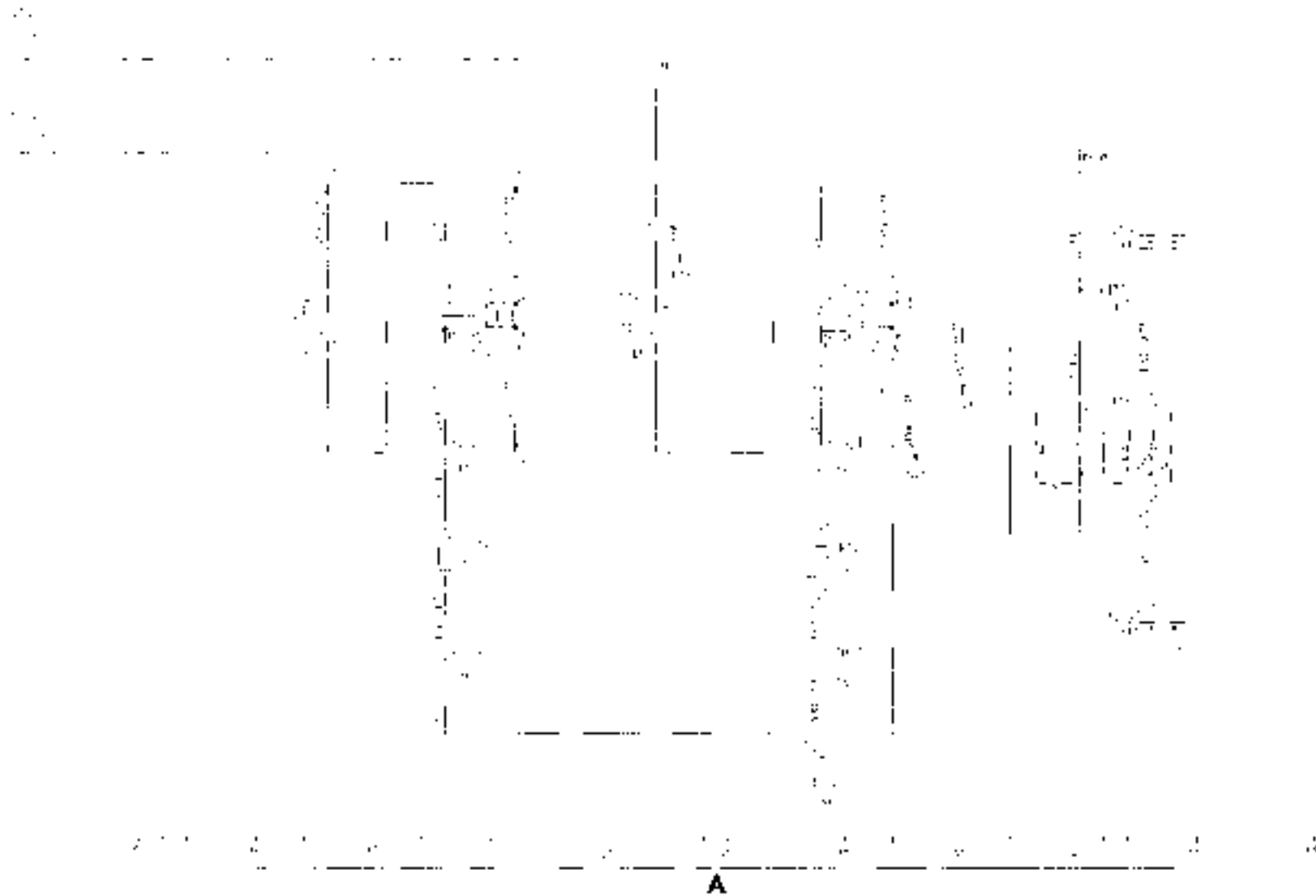
X2541 (246) Potential distributor, 21-pin line 31030

X2542 (246) Potential distributor, 21-pin line 58030

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊙ Tail                     | ⊙ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊙ Gearbox                  | ⊙ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Bumper                   | ⊙ B-pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B-pillar on passenger's side |
| ⊙ Central electric area    | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/roof                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊙ Central part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Foot pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1373 Sheet 1 of 1







**AS-TRONIC transmission (12-GEAR)**

**Legend**

Wiring diagram no. **61.99192.2993** Sheet 1 of 2  
 Change status: 04.01

**A = Supply voltage**

**B = Diagnosis**

**C = Gear display, indicator light**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A330** (442) Control unit, AS-TRONIC (at gearbox)  
**A407** (342) Instrumentation

**F154** (118) Fuse, transmission (terminal 15)  
**F196** (118) Fuse, transmission (terminal 30)

**H179** Indicator light, transmission, monitoring of state

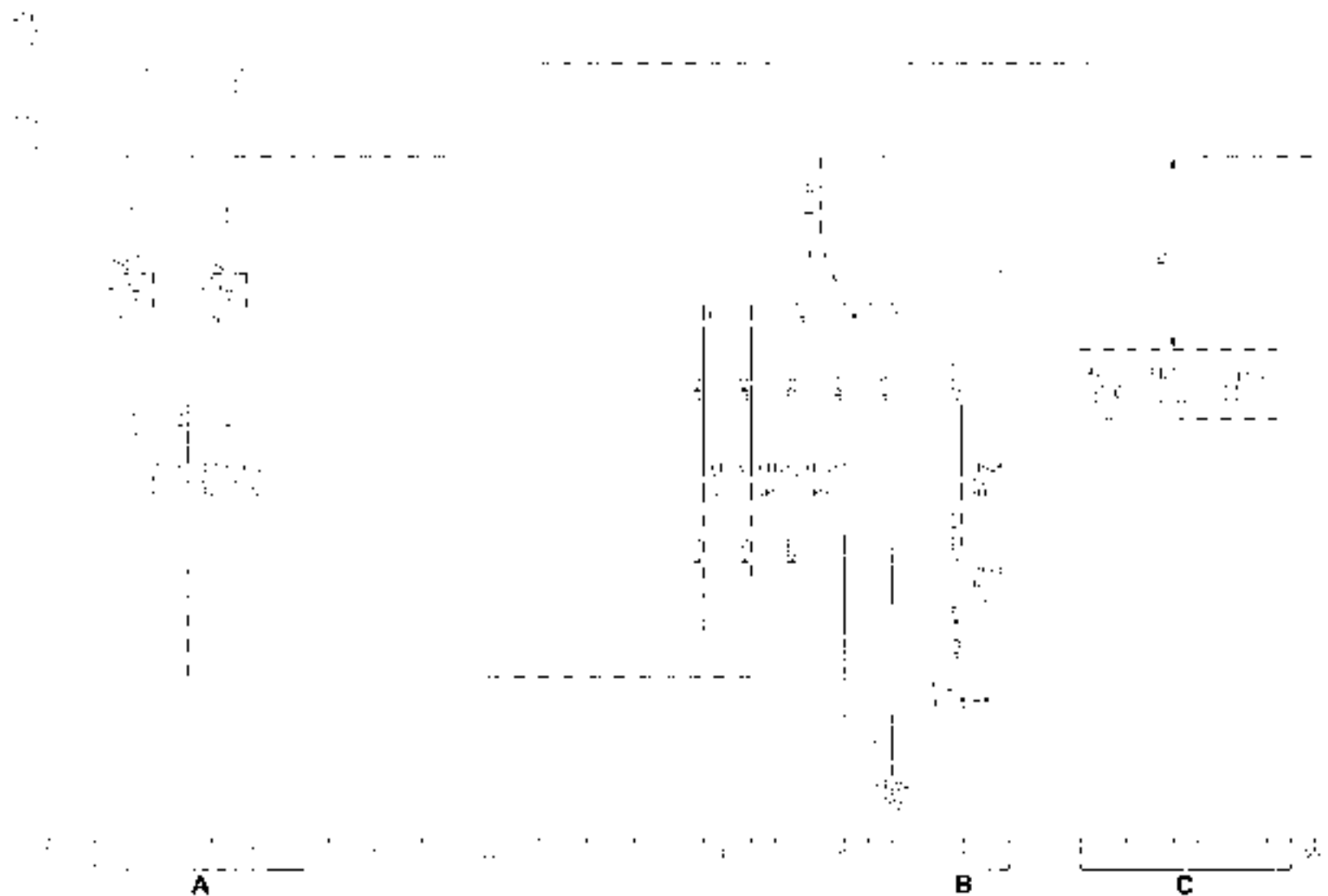
**P122** Gear display

**X1553** Std. engine/EDC/transmission III  
**X1904** Threaded bolt M6 (M.P. box)  
**X1948** Std. engine/transmission (M.P. box)  
**X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊗ Tail                     | ⊗ Driving seat                 |
| ⊕ Engine                   | ⊗ Passenger seat               |
| ⊙ Gearbox                  | ⊗ Control panel                |
| ⊖ Front                    | ⊗ Battery box                  |
| ⊘ Bumper                   | ⊗ B-pillar on driver's side    |
| ⊙ Entrance right           | ⊗ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊗ B-pillar on passenger's side |
| ⊗ Control electric area    | ⊗ A-pillar on passenger's side |
| ⊗ Control unit racks       | ⊙ Ceiling/front                |
| ⊗ Rear wall of cap         | ⊗ Front axle                   |
| ⊗ Instrument panel         | ⊗ Rear axle                    |
| ⊙ Centre part              | ⊗ Front part of frame          |
| ⊗ Steering wheel/column    | ⊗ Rear part of frame           |
| ⊗ Foot pedals              | ⊗ Door left                    |
| ⊗ Front wall, inside left  | ⊗ Door right                   |
| ⊗ Front wall, inside right |                                |

Wiring diagram no. 61.99192.2993 Sheet 1 of 2



**AS-TRONIC transmission (12-GEAR)**

**Legend**

Wiring diagram no. **81.99192.2993** Sheet 2 of 2  
 Change status: 04/01

**A = Gear selection, cruise control**

**B = Driving range selection**

**C = Actuation of reversing light**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A403** (339) Vehicle management computer  
**A429** (401) Steering column switch, cruise control/transmission  
**A434** (402) Driving range switch, transmission

































**F314** (101) Fuse, reversing light

**H378** Indicator light FGR/FGB (LED)

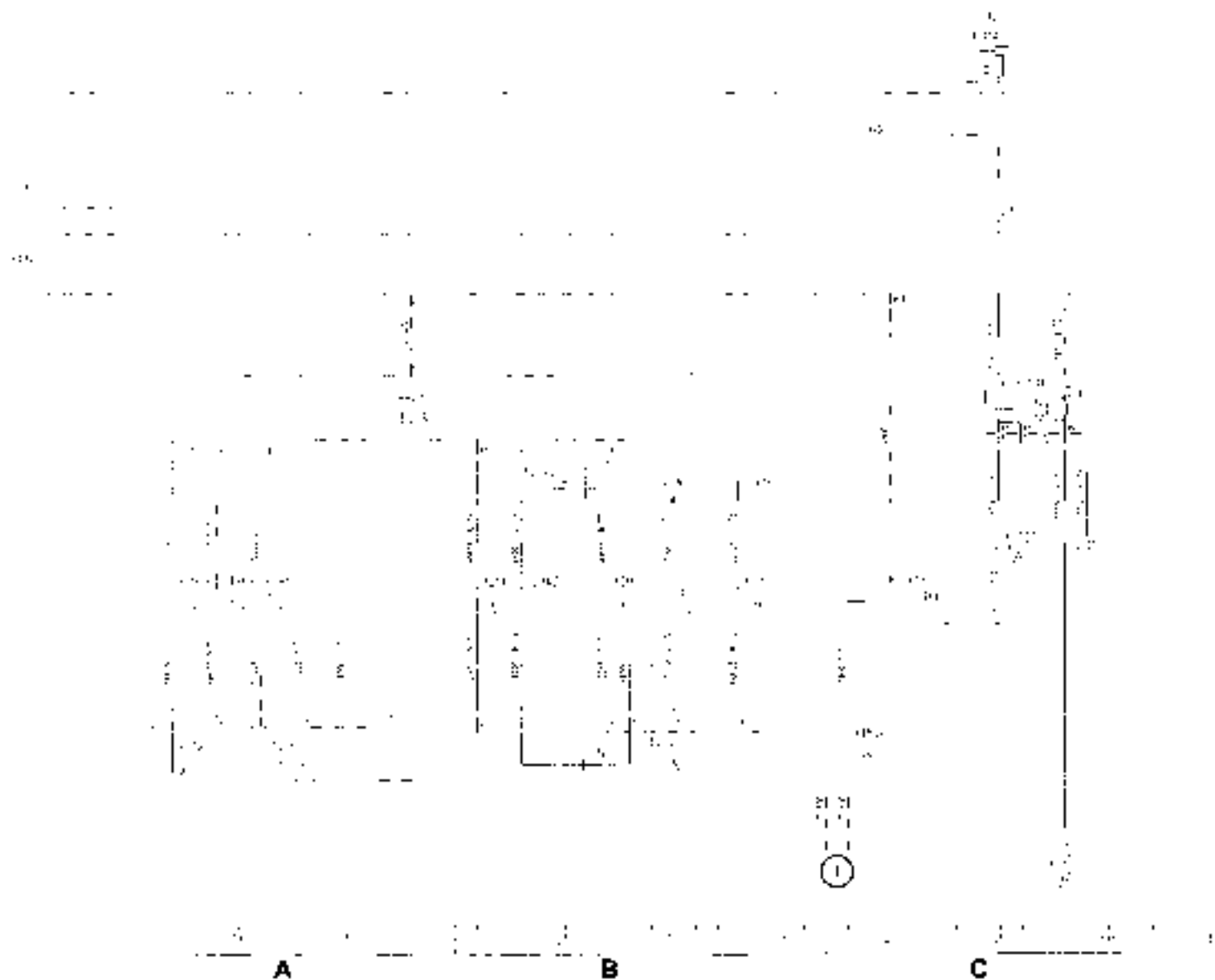
**K250** (280) Relay, reversing light

**X1544** Std. frame III  
**X1627** Std. reversing beam  
**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1693** Crimped connector, line 60028  
**X1834** Crimped connector, line 71309  
**X1968** Std. cruise control switch  
**X2002** Std. B-pillar pre-selector switch  
**X2542** (246) Potential distributor, 21-pin line S9000

**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electrics area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
-  Reversing light
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

Wiring diagram no. 81.99192.2993 Sheet 2 of 2



**AS-TRONIC transmission (16-GEAR)**

**Legend**

Wiring diagram no. 81.99192.2992 Sheet 1 of 2

Change status: 04.01

**A = Supply voltage**

**B = Diagnosis**

**C = Gear display, indicator light**

A100 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

A330 (442) Control unit, AS-TRONIC (at gearbox)

A407 (342) Instrumentation

F154 (118) Fuse, transmission (terminal 15)

F196 (118) Fuse, transmission (terminal 30)

H179 Indicator light, transmission, monitoring of state

P122 Gear display

X1553 Slave engine/EDC/transmission III

X1904 Threaded bolt M6 (MP box)

X1948 Slave engine/transmission (MP box)

X2544 (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

Ⓐ Tail

Ⓔ Engine

Ⓕ Gearbox

Ⓗ Front

Ⓒ Bumper

Ⓓ Entrance right

Ⓔ Entrance left

Ⓖ Central electronics area

Ⓗ Control unit racks

Ⓒ Rear wall of cab

Ⓗ Instrument panel

Ⓔ Central part

Ⓔ Steering wheel/column

Ⓔ Foot pedals

Ⓔ Front wall, inside left

Ⓔ Front wall, inside right

Ⓔ Driving seat

Ⓔ Passenger seat

Ⓗ Control panel

Ⓒ Battery box

Ⓔ B-pillar on driver's side

Ⓔ A-pillar on driver's side

Ⓔ B-pillar on passenger's side

Ⓔ A-pillar on passenger's side

Ⓗ Ceiling/roof

Ⓔ Front axle

Ⓔ Rear axle

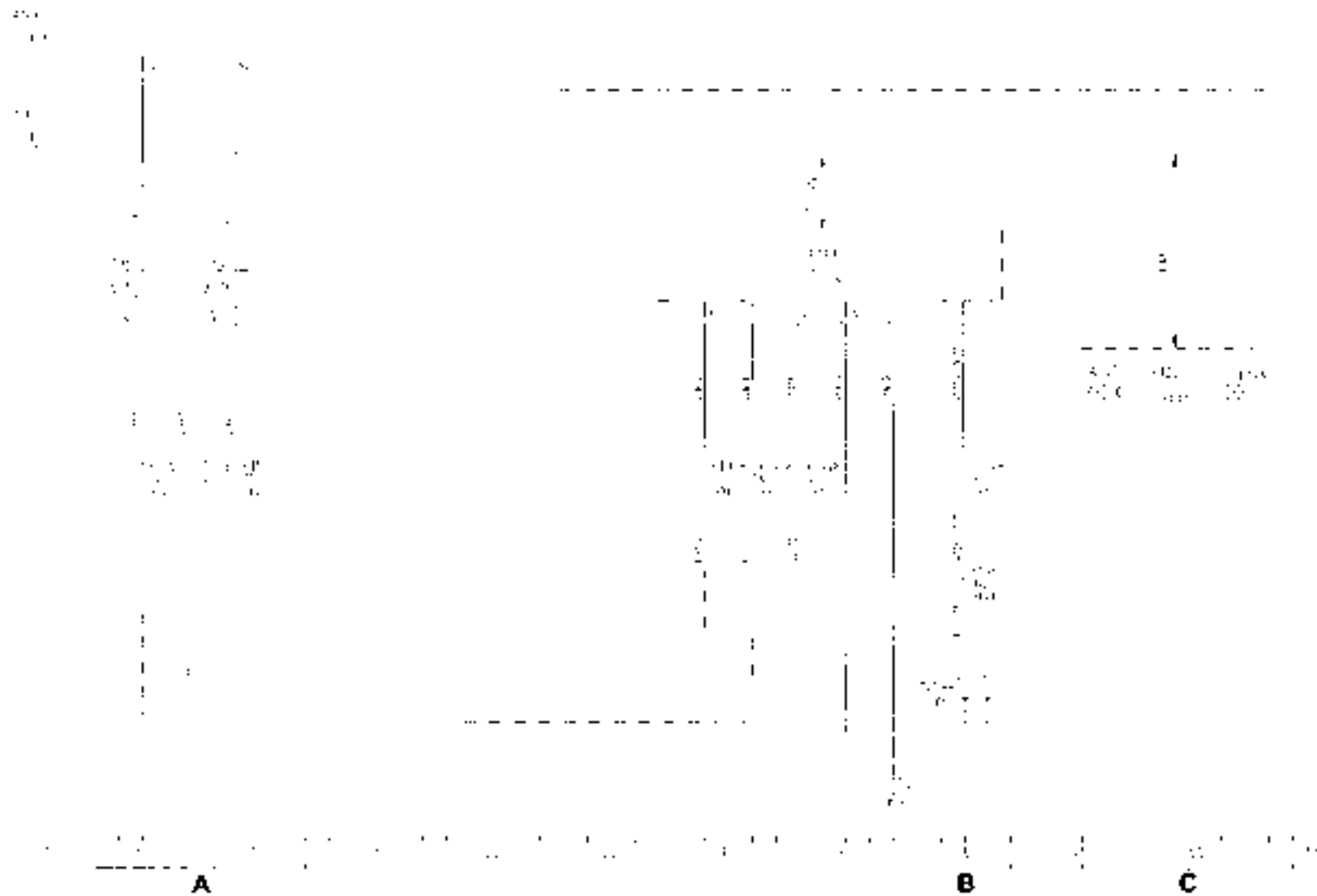
Ⓔ Front part of frame

Ⓔ Rear part of frame

Ⓔ Door left

Ⓔ Door right

Wiring diagram no. 81.99192.2992 Sheet 1 of 2



**AS-TRONIC transmission (16-GEAR)**

**Legend**

Wiring diagram no. **81.99192.2992** Sheet 2 of 2

Change status: 04.01

**A = Gear selection, cruise control**

**B = Driving range selection**

**C = Actuation of reversing light**

**A100** (255) Central fuse, relay and terminal block

**A300** (352) Central computer 2

**A400** (339) Vehicle management computer

**A429** (401) Steering column switch, cruise control/transmission

**A434** (402) Driving range switch, transmission

**F314** (101) Fuse, reversing light

**H378** Indicator light FGR/FGB (LED)

**K250** (280) Relay, reversing light

**X1544** Std. frame .II

**X1627** Std. reversing beam

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1693** Crimped connector, line 60028

**X1834** Crimped connector, line 71300

**X1968** Std. cruise control switch

**X2002** Std. B-pillar preselector switch

**X2542** (245) Potential distributor, 21-pin line 5R01X

**Marking of mounting positions**

Ⓐ Tail

Ⓔ Engine

Ⓕ Gearbox

Ⓖ Front

Ⓗ Bumper

Ⓙ Entrance right

Ⓚ Entrance left

Ⓛ Central electric area

Ⓜ Control unit racks

Ⓝ Rear wall of cab

Ⓞ Instrument panel

Ⓟ Central part

Ⓠ Steering wheel/column

Ⓡ Foot pedals

Ⓢ Front wall, inside left

Ⓣ Front wall, inside right

Ⓤ Reversing light

Ⓜ Driving seat

Ⓝ Passenger seat

Ⓞ Control panel

Ⓟ Battery box

Ⓠ B-pillar on driver's side

Ⓡ A-pillar on driver's side

Ⓢ B-pillar on passenger's side

Ⓣ A-pillar on passenger's side

Ⓤ Ceiling/roof

Ⓡ Front axle

Ⓢ Rear axle

Ⓣ Front part of frame

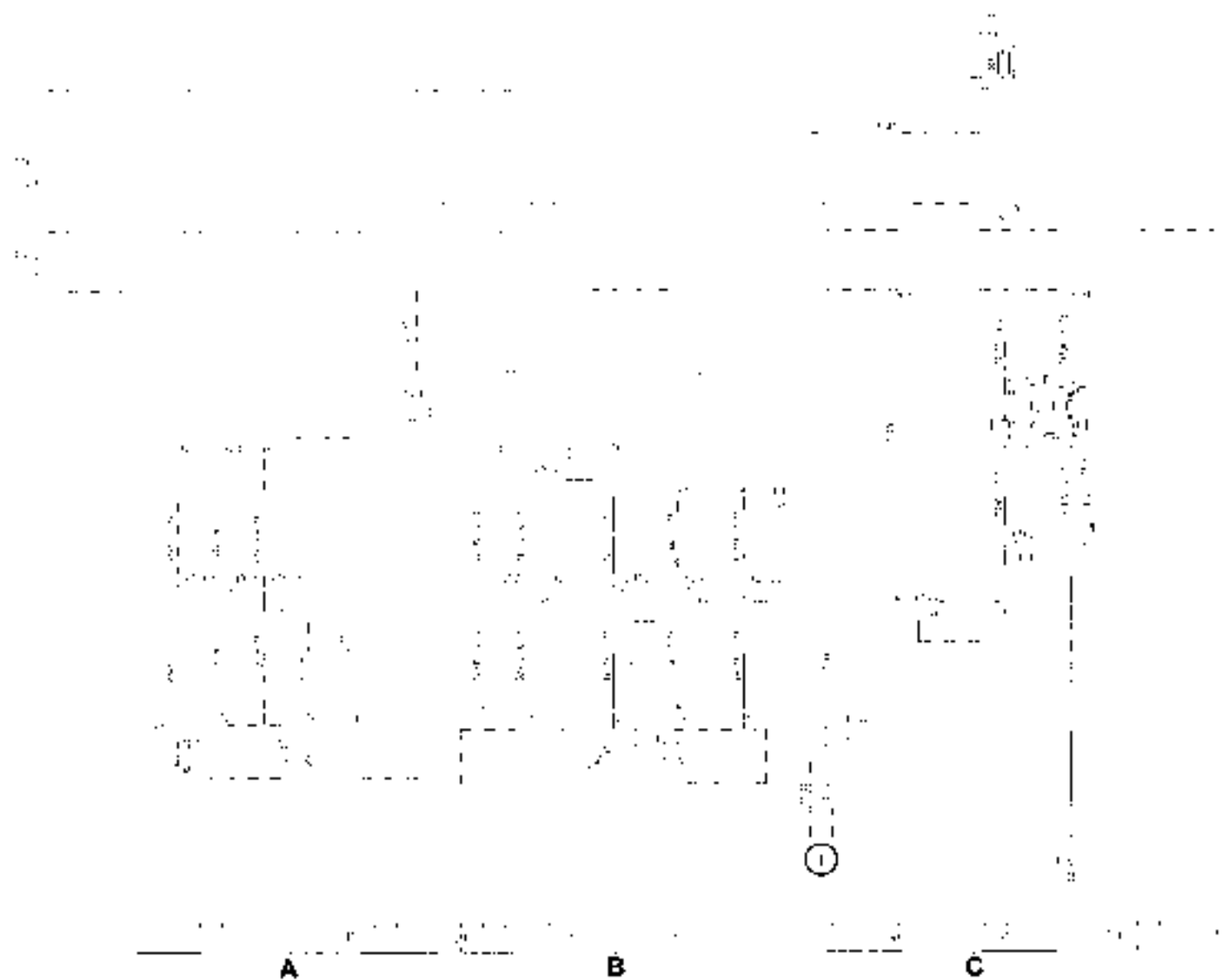
Ⓤ Rear part of frame

Ⓡ Door left

Ⓢ Door right



Wiring diagram no. 61.99192.2992 Sheet 2 of 2



**EATON RTSO transmission (LL)**

**Legend**

Wiring diagram no. 81.99192.2601 Sheet 1 of 2

Charge status: 06/00

**A = Pre-shift group, range shift group**

A100 (1255) Central fuse, relay and terminal block  
 A302 (1352) Central computer 2  
 A400 (1339) Vehicle management computer  
 A407 (1342) Instrumentation

H195 Indicator light, pre-shift group  
 H377 Indicator light, range shift group

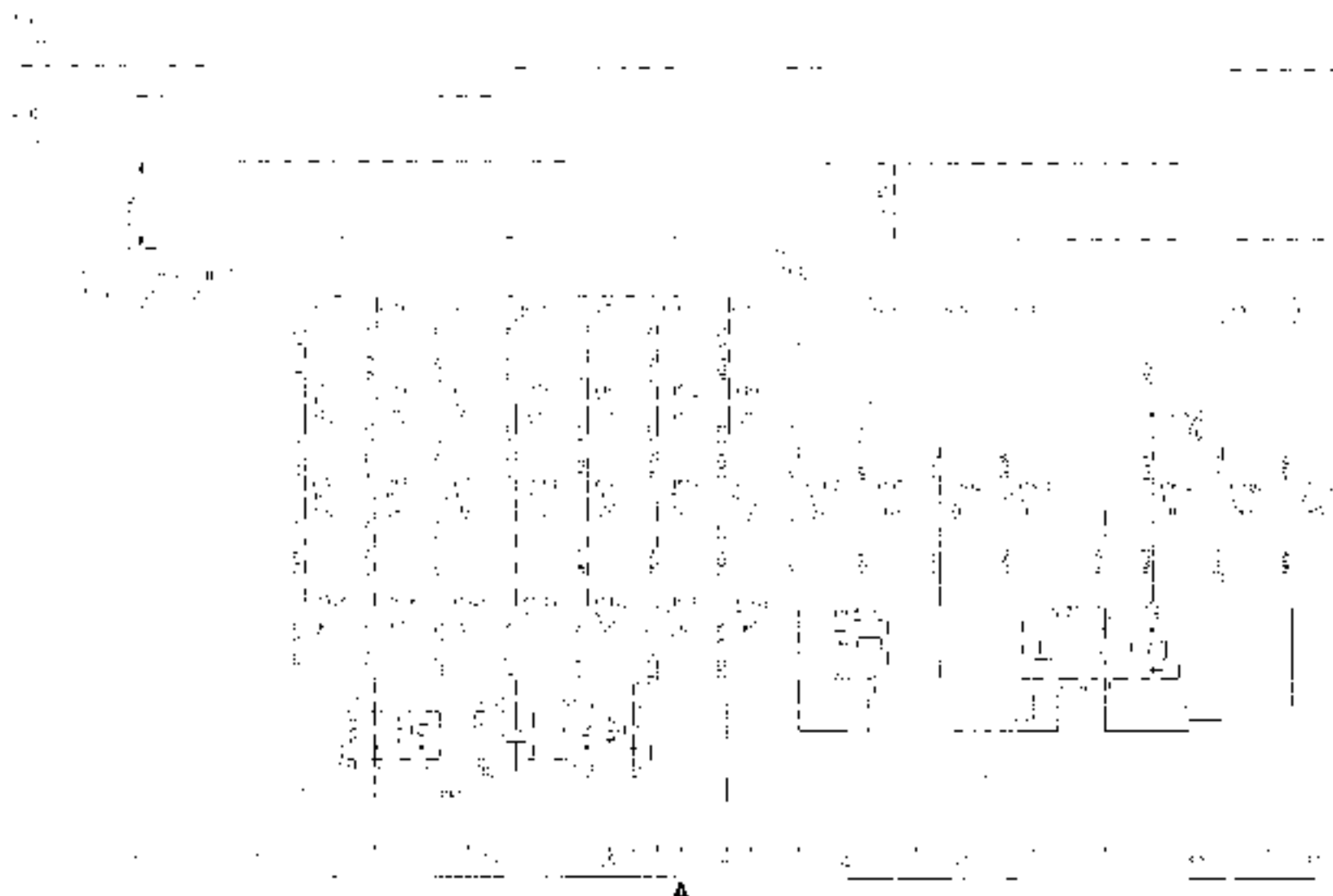
S477 (1474) Switch, gearshift lever

X1553 Std. engine/EDC/transmission III  
 X1562 Std. gearbox  
 X1604 Std. switch in gearshift knob  
 X1852 Crimped connector, hno 60020  
 X1948 Std. engine/transmission (MP box)  
 X1972 Std. pedals, external

Y208 (1102) Clutch servo  
 Y312 (1193) Solenoid va. va. range group  
 Y313 (1193) Solenoid va. va. splitter group  
 Y327 (1220) Solenoid valve, luno guard

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊕ | Driving seat                 |
| ⊖ | Engine                   | ⊕ | Passenger seat               |
| ⊖ | Gearbox                  | ⊕ | Control panel                |
| ⊖ | Front                    | ⊕ | Battery box                  |
| ⊖ | Bumper                   | ⊕ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊕ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊕ | R-pillar on passenger's side |
| ⊖ | Central electrics area   | ⊕ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊕ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊕ | Front axle                   |
| ⊖ | Instrument panel         | ⊕ | Rear axle                    |
| ⊖ | Central part             | ⊕ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊕ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊕ | Door left                    |
| ⊖ | Front wall, inside left  | ⊕ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |



**EATON RTSO transmission (LL)**

**Legend**

Wiring diagram no. **81.99192.2601** Sheet 2 of 2  
 Charge status: 04.00

**A = Clutch displacement sensor**

**B = Gearbox input speed**

**C = Gearbox neutral**

**D = Switch, reverse gear**

**E = Clutch fluid level probe**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A403** (339) Vehicle management computer

**B362** (264) Clutch displacement sensor

**B368** (292) Induction-type pulse generator, gearbox input speed

**B454** (272) Sensor for clutch fluid

**F314** (101) Fuse, reversing light

**S104** (478) Switch, reverse gear

**S172** (646) Switch, neutral position

**X100** Earthing point, engine

**X1553** Std. engine/EDC/transmission III

**X1562** Std. gearbox

**X1627** Std. reversing beam

**X1829** Crimped connector, line 31000

**X1948** Std. engine/transmission (MP box)

**X1943** Std. engine/transmission (MP box)

**X1972** Std. pedals, external

**Marking of mounting positions**

⊗ Tail

⊕ Engine

⊙ Gearbox

⊖ Front

⊗ Bumper

⊕ Entrance right

⊙ Entrance left

⊖ Central electric area

⊗ Control unit racks

⊕ Rear wall of cab

⊙ Instrument panel

⊖ Central part

⊗ Steering wheel/column

⊕ Foot pedals

⊙ Front wall, inside left

⊖ Front wall, inside right

⊕ Driving seat

⊙ Passenger seat

⊖ Control panel

⊗ Battery box

⊕ B-pillar on driver's side

⊙ A-pillar on driver's side

⊖ B-pillar on passenger's side

⊗ A-pillar on passenger's side

⊕ Ceiling/front

⊙ Front axle

⊖ Rear axle

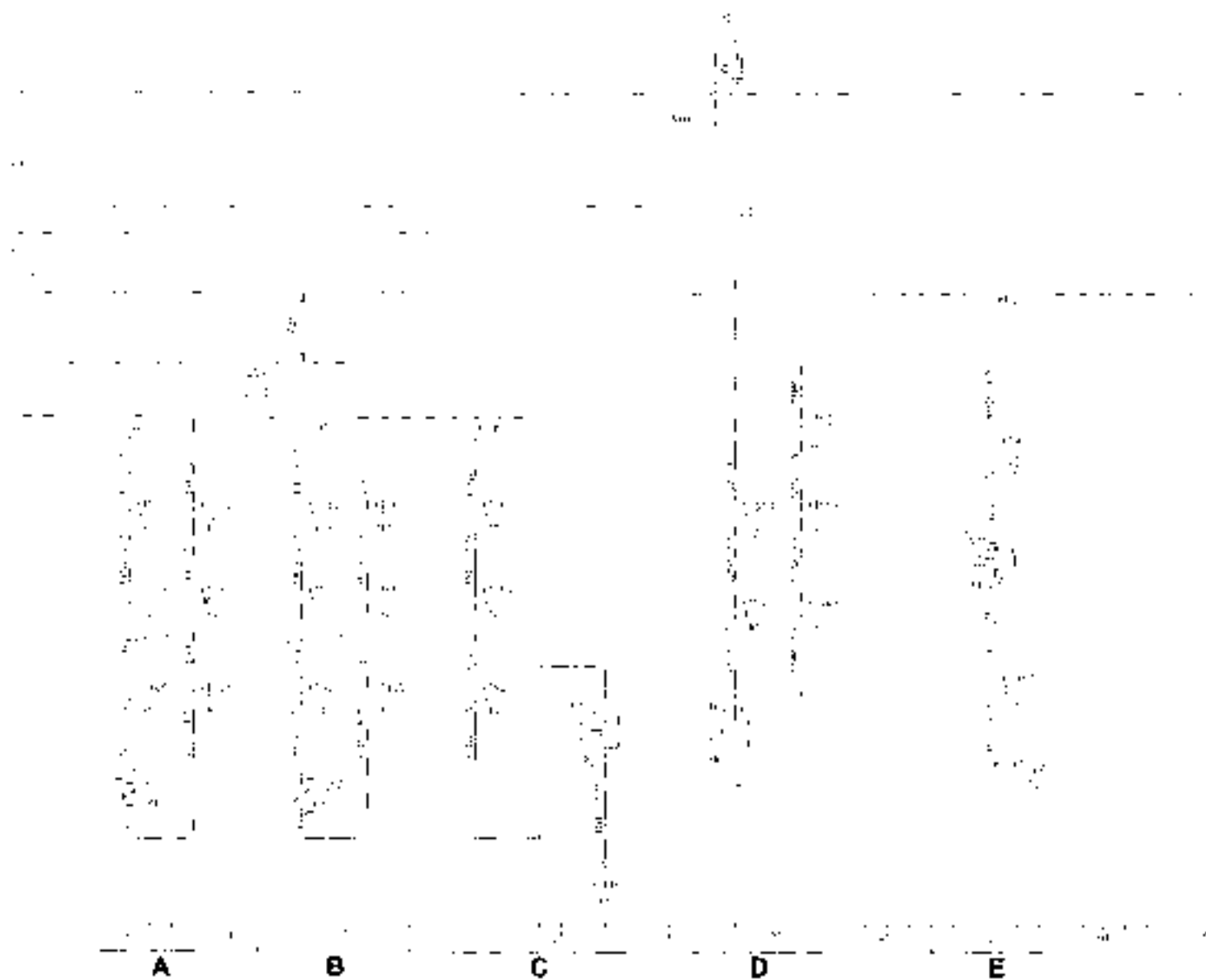
⊗ Front part of frame

⊕ Rear part of frame

⊙ Door left

⊖ Door right

Wiring diagram no. 81.99192.2501 Sheet 2 of 2



**EATON RTSO transmission (RL)**

**Legend**

Wiring diagram no. **81.99192.2417** Sheet 1 of 2  
 Change status: 00.00

**A = Pre-shift group, range shift group**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A403** (319) Vehicle management computer  
**A407** (342) Instrumentation

**H195** Indicator light pre-shift group  
**H377** Indicator light, lower range active

**S477** (474) Switch, gearshift lever

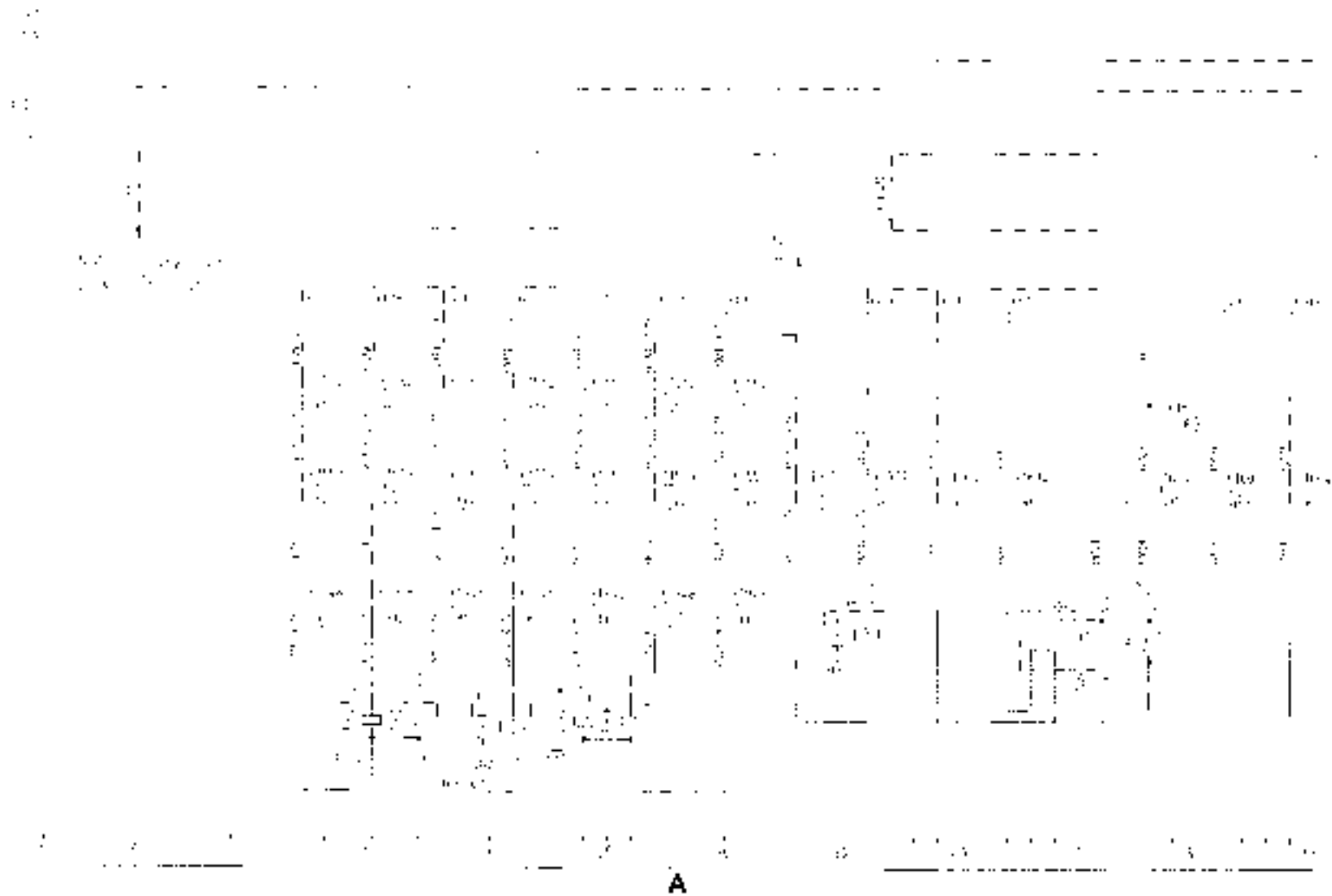
**X1553** Svd. engine/EDC/transmission III  
**X1562** Svd. gearbox  
**X1604** Svd. switch in gearshift knob  
**X1832** Cramped connector, line 60028  
**X1946** Svd. engine/transmission (MP box)  
**X1972** Svd. pedals, external

**Y308** (192) Clutch servo  
**Y312** (193) Solenoid valve, range group  
**Y313** (193) Solenoid valve, splitter group  
**Y357** (221) Solenoid valve, lane guard

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | Ⓜ | Driving seat                 |
| Ⓜ | Engine                   | Ⓝ | Passenger seat               |
| Ⓜ | Gearbox                  | Ⓝ | Control panel                |
| Ⓜ | Front                    | Ⓜ | Battery box                  |
| Ⓜ | Bumper                   | Ⓜ | B-pillar on driver's side    |
| Ⓜ | Entrance right           | Ⓜ | A-pillar on driver's side    |
| Ⓜ | Entrance left            | Ⓜ | B-pillar on passenger's side |
| Ⓜ | Central electronics area | Ⓜ | A-pillar on passenger's side |
| Ⓜ | Control unit racks       | Ⓜ | Ceiling/roof                 |
| Ⓜ | Rear wall of cab         | Ⓜ | Front axle                   |
| Ⓜ | Instrument panel         | Ⓜ | Rear axle                    |
| Ⓜ | Central part             | Ⓜ | Front part of frame          |
| Ⓜ | Steering wheel/column    | Ⓜ | Rear part of frame           |
| Ⓜ | Foot pedals              | Ⓜ | Door left                    |
| Ⓜ | Front wall, inside left  | Ⓜ | Door right                   |
| Ⓜ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2417 Sheet 1 of 2



**EATON RTSO transmission (RL)**

**Legend**

Wiring diagram no. 81.09192.2417 Sheet 2 of 2  
Change status: 01.00

**A = Clutch displacement sensor**

**B = Gearbox input speed**

**C = Gearbox neutral**

**D = Switch, reverse gear**

**E = Clutch fluid level probe**

A100 (255) Control fuse, relay and terminal block  
A302 (352) Central computer 2  
A400 Vehicle management computer

B362 (264) Clutch displacement sensor  
B360 (292) Induction-type pulse generator, gearbox input speed  
B434 (272) Sensor for clutch fluid

F314 (101) Fuse, reversing light

S104 (476) Switch, reverse gear  
S172 (646) Switch, neutral position

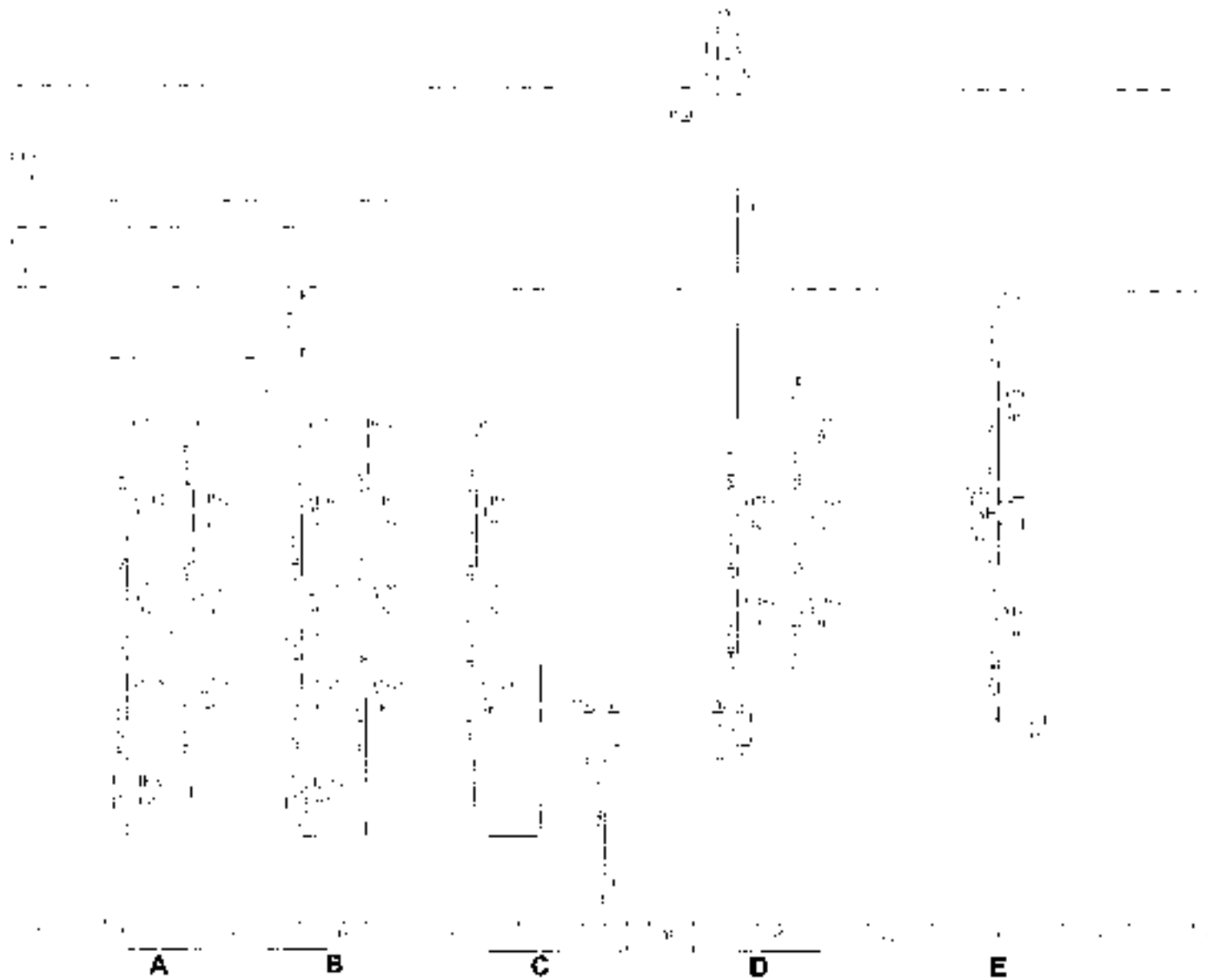
X100 Earthing point, engine  
X1563 Std. engine/DOC/transmission III  
X1562 Std. gearbox  
X1627 Std. reversing beam  
X1829 Crimped connector, line 31003  
X1948 Std. engine/transmission (MP box)  
X1949 Std. engine/transmission (MP box)  
X1972 Std. pedals, external

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓙ Battery box                  |
| Ⓔ Bumper                   | Ⓚ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓛ A-pillar on driver's side    |
| Ⓜ Entrance left            | Ⓜ B-pillar on passenger's side |
| Ⓝ Central electric area    | Ⓜ A-pillar on passenger's side |
| Ⓞ Control unit racks       | Ⓞ Ceiling/roof                 |
| Ⓟ Rear wall of cab         | Ⓟ Front axle                   |
| Ⓠ Instrument panel         | Ⓠ Rear axle                    |
| Ⓡ Central part             | Ⓡ Front part of frame          |
| Ⓢ Steering wheel/column    | Ⓢ Rear part of frame           |
| Ⓣ Foot pedals              | Ⓣ Door left                    |
| Ⓤ Front wall, inside left  | Ⓤ Door right                   |
| Ⓥ Front wall, inside right |                                |



Wiring diagram no. 81.99192.2417 Sheet 2 of 2



**ZF transmission 16S151/16S181 (LL)**

**Legend**

Wiring diagram no. 81.99192.2579 Sheet 1 of 2  
Change status: 07.01

**A = Pre-shift group, range shift group**

A100 (255) Central fuse, relay and terminal block  
A302 (352) Central computer ?  
A403 (339) Vehicle management computer  
A407 (342) Instrumentation

H195 Indicator light, pre-shift group  
H377 Indicator light, range shift group

S477 (474) Switch, gearshift lever

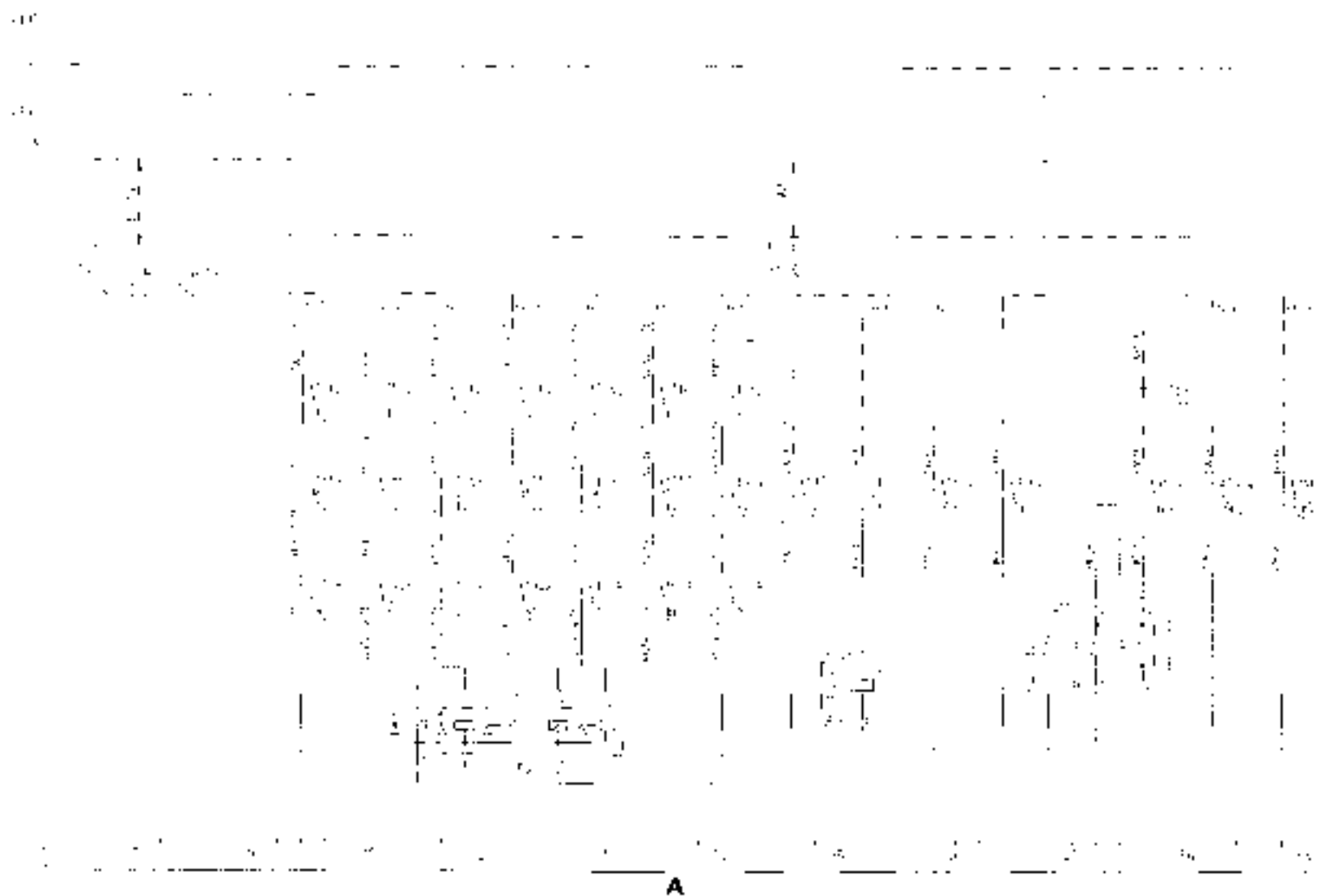
X1553 Stvd. engine/EDC/transmission III  
X1562 Stvd. gearbox  
X1604 Stvd. switch in gearshift knob  
X1032 Crimped connector, line 601126  
X1048 Stvd. engine/transmission (MP box)  
X1972 Stvd. foot pedals, exterior

Y307 (191) Solenoid valve, splitter and range group  
Y308 (192) Clutch servo

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊖ Tail                     | ⊕ Driving seat                 |
| ⊕ Engine                   | ⊕ Passenger seat               |
| ⊕ Gearbox                  | ⊕ Control panel                |
| ⊖ Front                    | ⊕ Battery box                  |
| ⊕ Bumper                   | ⊕ B-pillar on driver's side    |
| ⊕ Entrance right           | ⊕ A-pillar on driver's side    |
| ⊕ Entrance left            | ⊕ B-pillar on passenger's side |
| ⊕ Central electric area    | ⊕ A-pillar on passenger's side |
| ⊕ Control unit racks       | ⊕ Ceiling/roof                 |
| ⊕ Rear wall of cab         | ⊕ Front axle                   |
| ⊕ Instrument panel         | ⊕ Rear axle                    |
| ⊕ Central part             | ⊕ Front part of frame          |
| ⊕ Steering wheel/column    | ⊕ Rear part of frame           |
| ⊕ Foot pedals              | ⊕ Door left                    |
| ⊕ Front wall, inside left  | ⊕ Door right                   |
| ⊕ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2579 Sheet 1 of 2



**ZF transmission 16S151/16S161 (LL)**

**Legend**

Wiring diagram no. **81.99192.2579** Sheet 2 of 2  
Change status: 07.01

**A = Clutch displacement sensor**

**B = Gearbox input speed**

**C = Gearbox neutral**

**D = Switch, reverse gear**

**E = Clutch fluid level probe**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A403** (339) Vehicle management computer

**B362** (264) Clutch displacement sensor

**B368** (292) Induction-type pulse generator, gearbox input speed

**B434** (272) Sensor for clutch fluid

**F014** (101) Fuse, reversing light

**S104** (478) Switch, reverse gear

**S172** (478) Switch, neutral position

**X100** Earthing point, engine

**X1553** Std. engine/EDC/transmission III

**X1562** Std. gearbox

**X1627** Std. reversing beam

**X1829** Crimped connector, line 31030

**X1948** Std. engine/transmission (MP box)

**X1949** Std. engine/transmission (MP box)

**X1972** Std. pedals, external

**Marking of mounting positions**

Ⓐ Tail

Ⓑ Engine

Ⓒ Gearbox

Ⓓ Front

Ⓔ Bumper

Ⓕ Entrance right

Ⓖ Entrance left

Ⓗ Central electric area

Ⓙ Control unit racks

Ⓚ Rear wall of cab

Ⓛ Instrument panel

Ⓜ Central part

Ⓝ Steering wheel/column

Ⓟ Foot pedals

Ⓠ Front wall, inside left

Ⓡ Front wall, inside right

Ⓢ Driving seat

Ⓣ Passenger seat

Ⓤ Control panel

Ⓡ Battery box

Ⓢ B-pillar on driver's side

Ⓣ A-pillar on driver's side

Ⓚ B-pillar on passenger's side

Ⓛ A-pillar on passenger's side

Ⓜ Ceiling/rail

Ⓝ Front axle

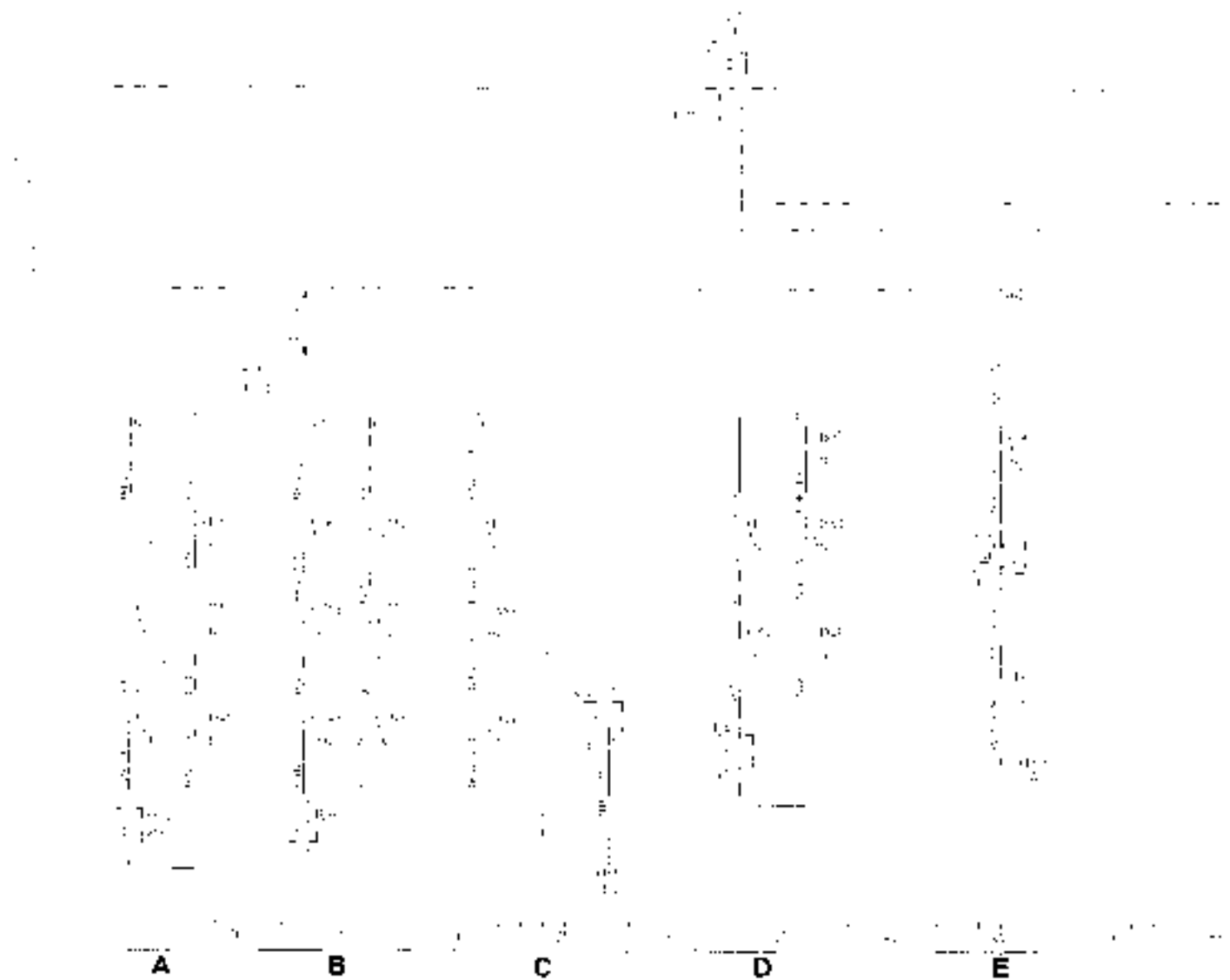
Ⓟ Rear axle

Ⓠ Front part of frame

Ⓡ Rear part of frame

Ⓢ Door left

Ⓣ Door right



**ZF transmission 16S151/16S181 (RL)**

**Legend**

Wiring diagram no. **81.99192.2835** Sheet 1 of 2

Change status: 05/01

**A = Pre-shift group, range shift group**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A403** (339) Vehicle management computer  
**A407** (342) Instrumentation

**H195** Indicator light pre-shift group  
**H377** Indicator light, lower range active

**S477** (474) Switch, gearshift lever

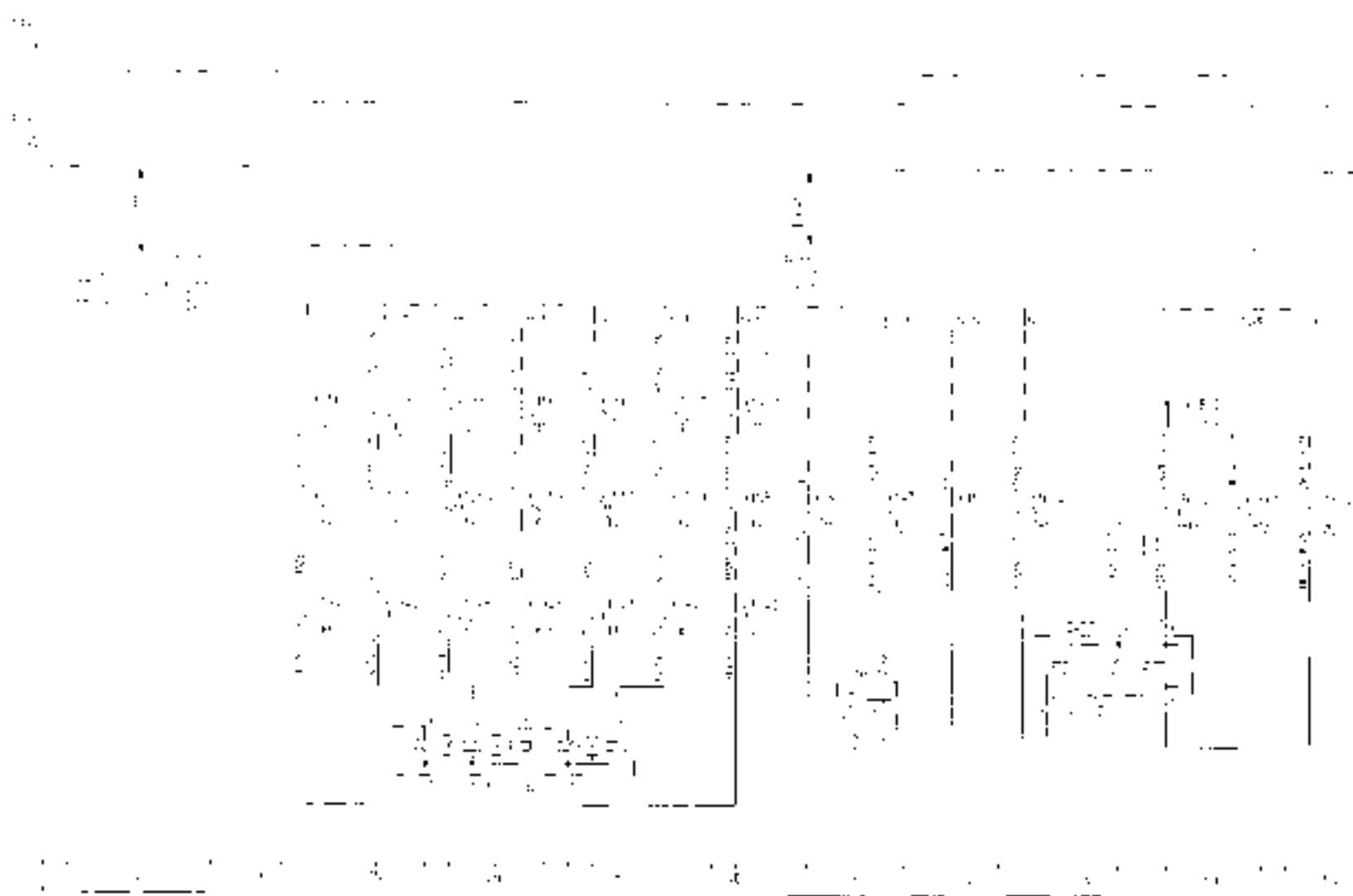
**X1563** Stvd. engine/EDC/transmission III  
**X1562** Stvd. gearbox  
**X1604** Stvd. switch in gearshift knob  
**X1832** Crimped connector, line 6002B  
**X1918** Stvd. engine/transmission (MP box)  
**X1972** Stvd. foot pedals, exterior

**Y307** (191) Solenoid valve, splitter and range group  
**Y308** (192) Clutch servo

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓒ Driving seat                 |
| Ⓔ Engine                   | Ⓓ Passenger seat               |
| Ⓜ Gearbox                  | Ⓔ Control panel                |
| Ⓝ Front                    | Ⓝ Battery box                  |
| Ⓒ Rumper                   | Ⓒ B-pillar on driver's side    |
| Ⓒ Entrance right           | Ⓒ A-pillar on driver's side    |
| Ⓒ Entrance left            | Ⓒ B-pillar on passenger's side |
| Ⓒ Central electronics area | Ⓒ A-pillar on passenger's side |
| Ⓒ Control unit racks       | Ⓒ Ceiling/roof                 |
| Ⓒ Rear wall of cap         | Ⓒ Front axle                   |
| Ⓒ Instrument panel         | Ⓒ Rear axle                    |
| Ⓒ Central part             | Ⓒ Front part of frame          |
| Ⓒ Steering wheel/column    | Ⓒ Rear part of frame           |
| Ⓒ Foot pedals              | Ⓒ Door left                    |
| Ⓒ Front wall, inside left  | Ⓒ Door right                   |
| Ⓒ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2835 Sheet 1 of 2



**A**

**ZF transmission 16S151/16S181 (RL)**

**Legend**

Wiring diagram no. **81.99192.2835** Sheet 2 of 2

Change status: 12.00

**A = Clutch displacement sensor**

**B = Gearbox input speed**

**C = Gearbox neutral**

**D = Switch, reverse gear**

**E = Clutch fluid level probe**

**A100** (256) Central elec. relay and terminal block

**A302** (352) Central computer 2

**A403** (339) Vehicle management computer

**B362** (264) Clutch displacement sensor

**B388** (292) Induction-type pulse generator, gearbox input speed

**B434** (272) Sensor for clutch fluid

**F314** (104) Func. reversing light

**S104** Switch, reverse gear

**S172** (476) Switch, neutral position gearbox

**S275** (476) Switch, neutral position gearbox

**X1549** Std. engine/EDC/transmission I

**X1553** Std. engine/EDC/transmission III

**X1562** Std. gearbox

**X1627** Std. reversing beam

**X1693** Crimped connector line 60028

**X1829** Crimped connector line 31000

**X1914** Threaded bolt M6 (MP box)

**X1948** Std. engine/transmission (MP box)

**X1949** Std. engine/transmission (MP box)

**X1951** Std. engine/transmission (MP box)

**X1972** Std. pedals, external

**Marking of mounting positions**

⊖ Tail

⊕ Engine

⊗ Gearbox

⊙ Front

⊖ Bumper

⊙ Entrance right

⊙ Entrance left

⊗ Central electric area

⊖ Control unit racks

⊙ Rear wall of cab

⊙ Instrument panel

⊙ Central part

⊖ Steering wheel/corner

⊙ Foot pedals

⊖ Front wall, inside left

⊖ Front wall, inside right

⊖ Driving seat

⊖ Passenger seat

⊗ Control panel

⊙ Battery box

⊖ B-pillar on driver's side

⊖ A-pillar on driver's side

⊖ B-pillar on passenger's side

⊖ A-pillar on passenger's side

⊙ Ceiling/roof

⊙ Front axle

⊙ Rear axle

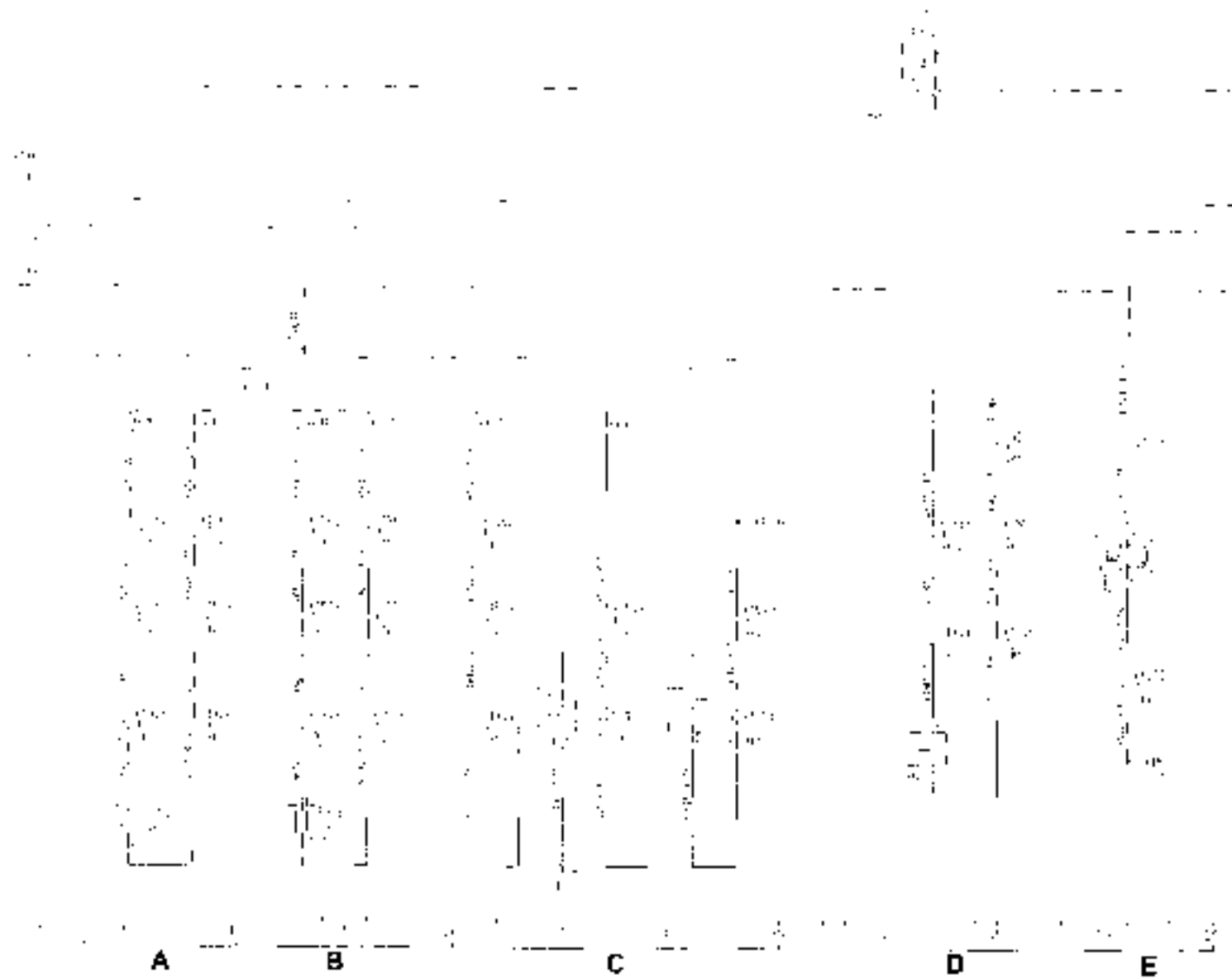
⊖ Front part of frame

⊖ Rear part of frame

⊖ Door left

⊖ Door right





**Seat belt indicator, driver**

**Legend**

Wiring diagram no. 81.99192.1374 Sheet 1 of 1

Change status: 114.01

**A = Seatbelt indicator**

A100 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

A407 (342) Instrumentation

H177 Indicator light, seat belt

S252 (562) Switch in driver's seat belt lock

X600 Sld. seat belt indicator, driver/middle seat

X2541 (246) Potenti distributor 21-pin line 31000

**Marking of mounting positions**

(T) Tail

(E) Engine

(G) Gearbox

(F) Front

(B) Bumper

(R) Entrance right

(L) Entrance left

(CE) Central electric area

(C) Control unit racks

(H) Rear wall of cab

(I) Instrument panel

(C) Central part

(S) Steering wheel/column

(P) Foot pedals

(FL) Front wall, inside left

(FR) Front wall, inside right

(FS) Driving seat

(FP) Passenger seat

(CP) Control panel

(B) Battery box

(DR) B-pillar on driver's side

(DL) A-pillar on driver's side

(PR) B-pillar on passenger's side

(PL) A-pillar on passenger's side

(R) Ceiling/roof

(F) Front axle

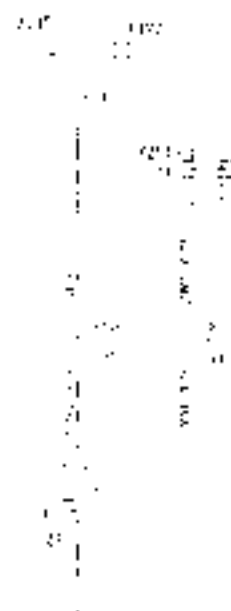
(R) Rear axle

(FR) Front part of frame

(RR) Rear part of frame

(S) Door left

(SR) Door right





**Trailer charge 24V**

**Legend**

Wiring diagram no. **81.99192.2616** Sheet 1 of 1  
 Change status: 07.39

**A = Trailer charge**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A302</b>	(352)	Central computer ?
<b>A372</b>		Distributor box, trailer charge 24V
<b>F220</b>	(125)	Fuse, trailer charge 24V
<b>G100</b>	(113)	Battery 1
<b>G101</b>	(113)	Battery 2
<b>K319</b>	(104)	Relay, trailer charge 24V
<b>X100</b>		Earthing point, engine
<b>X805</b>		Std. trailer charge 24V
<b>X806</b>		Std. trailer charge 24V
<b>X807</b>		Std. trailer charge 24V
<b>X808</b>	(141)	Trailer charge 24V
<b>X1754</b>		Crimped connector, line 59104

**Marking of mounting positions**

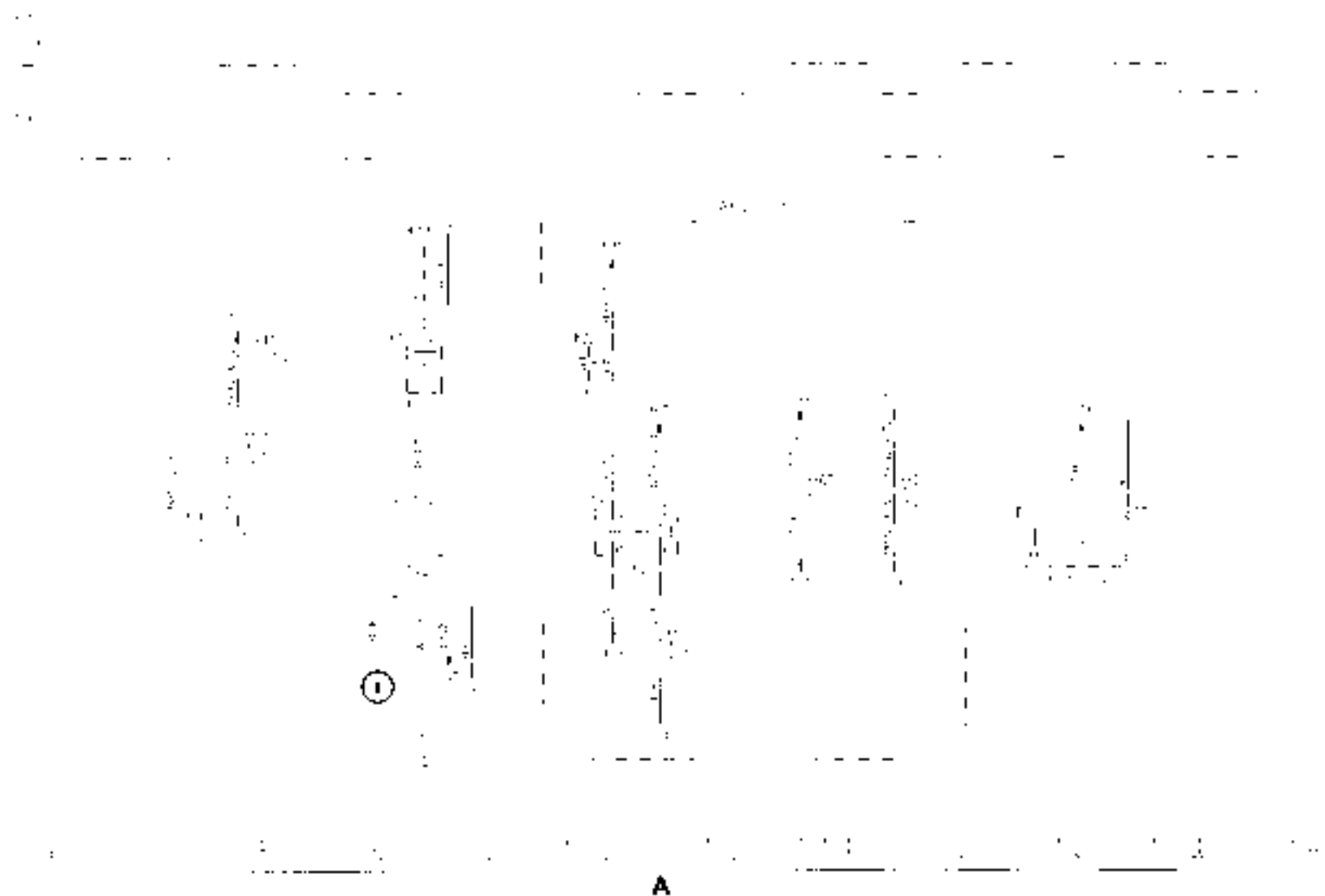
- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓓ Driving seat                 |
| Ⓑ Engine                   | Ⓔ Passenger seat               |
| Ⓒ Gearbox                  | Ⓚ Control panel                |
| Ⓓ Front                    | Ⓛ Battery box                  |
| Ⓔ Bumper                   | Ⓜ B-pillar on driver's side    |
| Ⓚ Entrance right           | Ⓨ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓩ B-pillar on passenger's side |
| Ⓜ Central electrics area   | ⓐ A-pillar on passenger's side |
| Ⓨ Control unit racks       | ⓑ Ceiling/roof                 |
| Ⓩ Rear wall of cab         | Ⓒ Front axle                   |
| ⓐ Instrument panel         | Ⓓ Rear axle                    |
| ⓑ Central part             | Ⓖ Front part of frame          |
| Ⓒ Steering wheel/column    | Ⓗ Rear part of frame           |
| Ⓓ Foot pedals              | Ⓙ Door left                    |
| Ⓚ Front wall, inside left  | Ⓚ Door right                   |
| Ⓛ Front wall, inside right |                                |

○ to exit of consumers in frame

**Note:**

Mounting position of **X808** for semitrailers is E8!

Wiring diagram no. B1.99192.2616 Sheet 1 of 1



**Heating for hydraulic gearshift (HGS) (LL)**

**Legend**

Wiring diagram no. **81.99192.2684** Sheet 1 of 1  
 Change status: 10 99

**A = HGS (hydraulic gearshift) heating**

A100 (255) Central fuse, relay and terminal block  
 A302 (352) Central computer 2

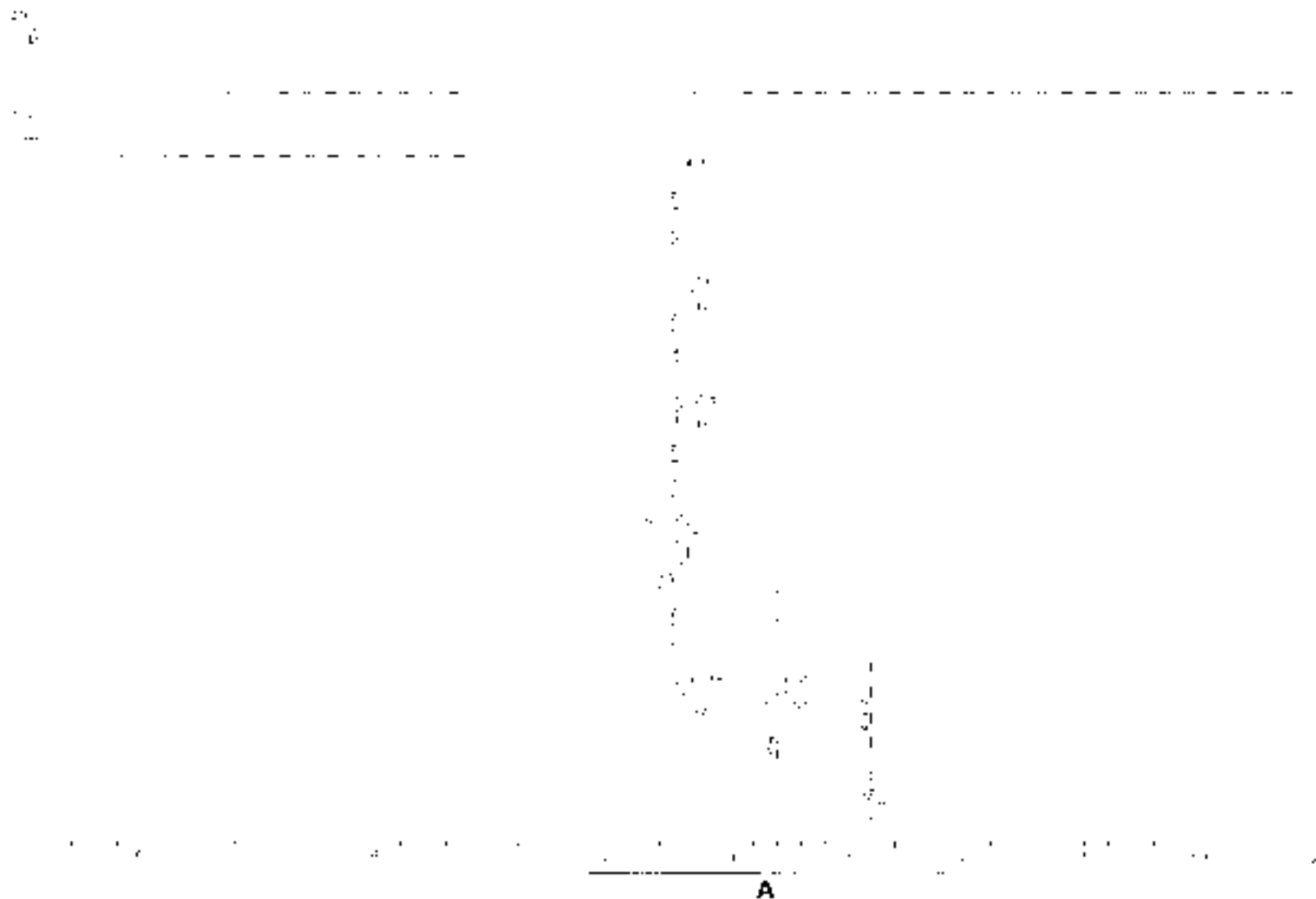
R214 (155) Heating element for HGS (hydraulic gearshift) heating

X1642 Earthing point, cab. behind instrument panel  
 X1972 Swd. pedals, external  
 X2255 Swd. HGS (hydraulic gearshift) heating

**Marking of mounting positions**

- |                             |                                |
|-----------------------------|--------------------------------|
| Ⓐ Tail                      | Ⓔ Driving seat                 |
| Ⓑ Engine                    | Ⓕ Passenger seat               |
| Ⓒ Gearbox                   | Ⓖ Control panel                |
| Ⓓ Front                     | Ⓗ Battery box                  |
| Ⓙ Bumper                    | Ⓜ B-pillar on driver's side    |
| Ⓚ Entrance right            | Ⓝ A pillar on driver's side    |
| Ⓛ Entrance left             | Ⓟ B-pillar on passenger's side |
| Ⓜ Central electrics area    | Ⓠ A pillar on passenger's side |
| Ⓝ Control unit racks        | Ⓡ Ceiling/roof                 |
| Ⓔ Rear wall of cab          | Ⓢ Front axle                   |
| Ⓕ Instrument panel          | Ⓣ Rear axle                    |
| Ⓖ Central part              | Ⓤ Front part of frame          |
| Ⓗ Steering wheel/column     | Ⓡ Rear part of frame           |
| Ⓜ Foot pedals               | Ⓢ Door left                    |
| Ⓝ Front: wall, inside left  | Ⓣ Door right                   |
| Ⓠ Front: wall, inside right |                                |

Wiring diagram no. 81.99192.2684 Sheet 1 of 1





**Heating for hydraulic gearshift (HGS) (RL)**

**Legend**

Wiring diagram no. **81.99192.2590** Sheet 1 of 1  
 Change status: 10.99

**A = HGS (hydraulic gearshift) heating**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2

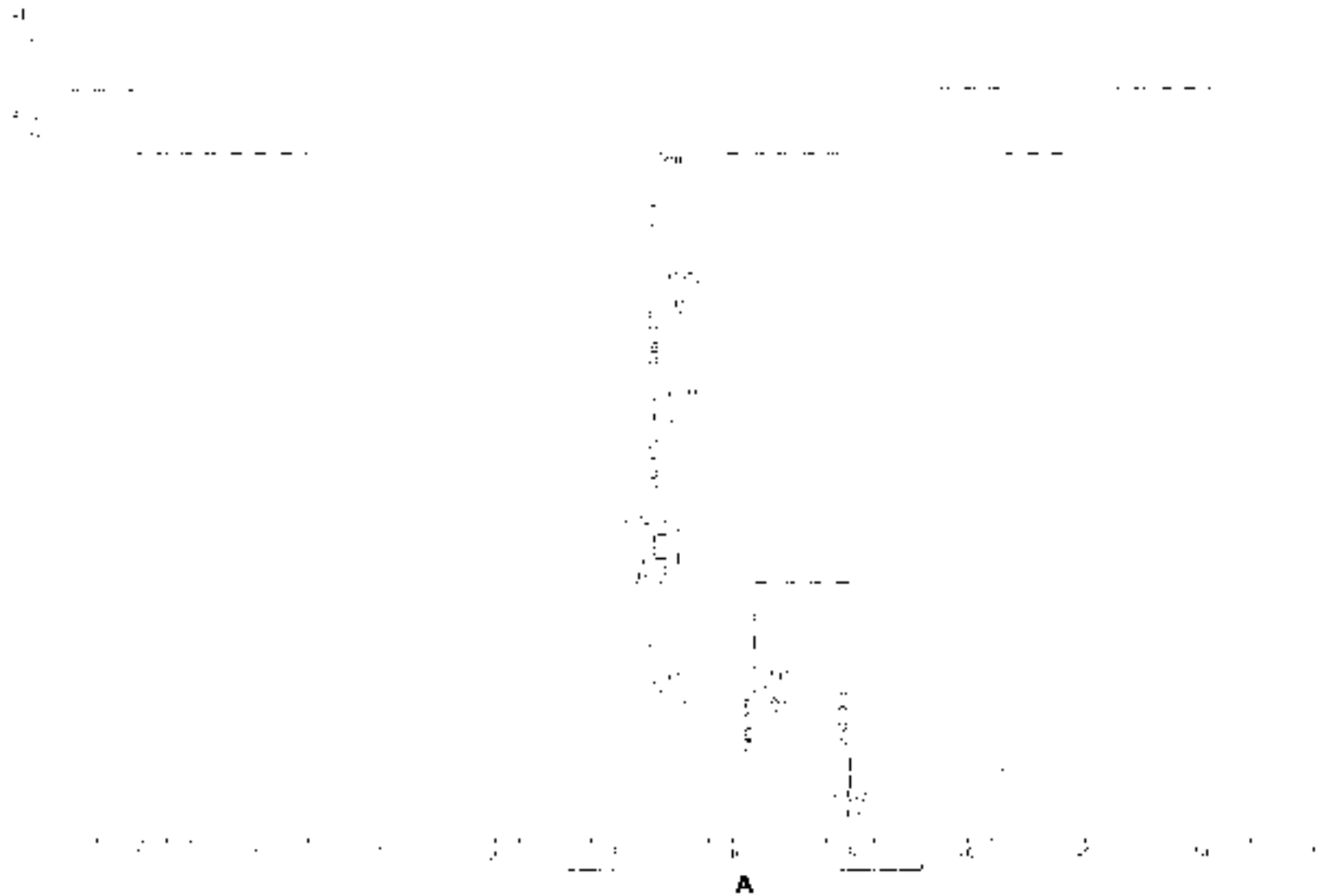
**R214** (155) Heating element for HGS (hydraulic gearshift) heating

**X1642** Earthing point, cab, behind instrument panel  
**X1972** Std. foot pedals, exterior  
**X2255** Std. HGS (hydraulic gearshift) heating

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊖ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Rumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electricals area | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

Wiring diagram no. **81.99192.2690** Sheet 1 of 1



**Horn switchover (LL)**

**Legend**

Wiring diagram no. **81.99192.1375** Sheet 1 of 1  
 Change status: 04/01

**A = Horn switchover**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2

**F375** (101) Fuse, cab outside (terminal: 15)

**H102** (142) Horn  
**H169** (143) Horn (dual-tone)

**S108** (472) Steering column switch (indicators, wipers and headlights)  
**S160** (565) Switchover device, horn 1 - horn 2

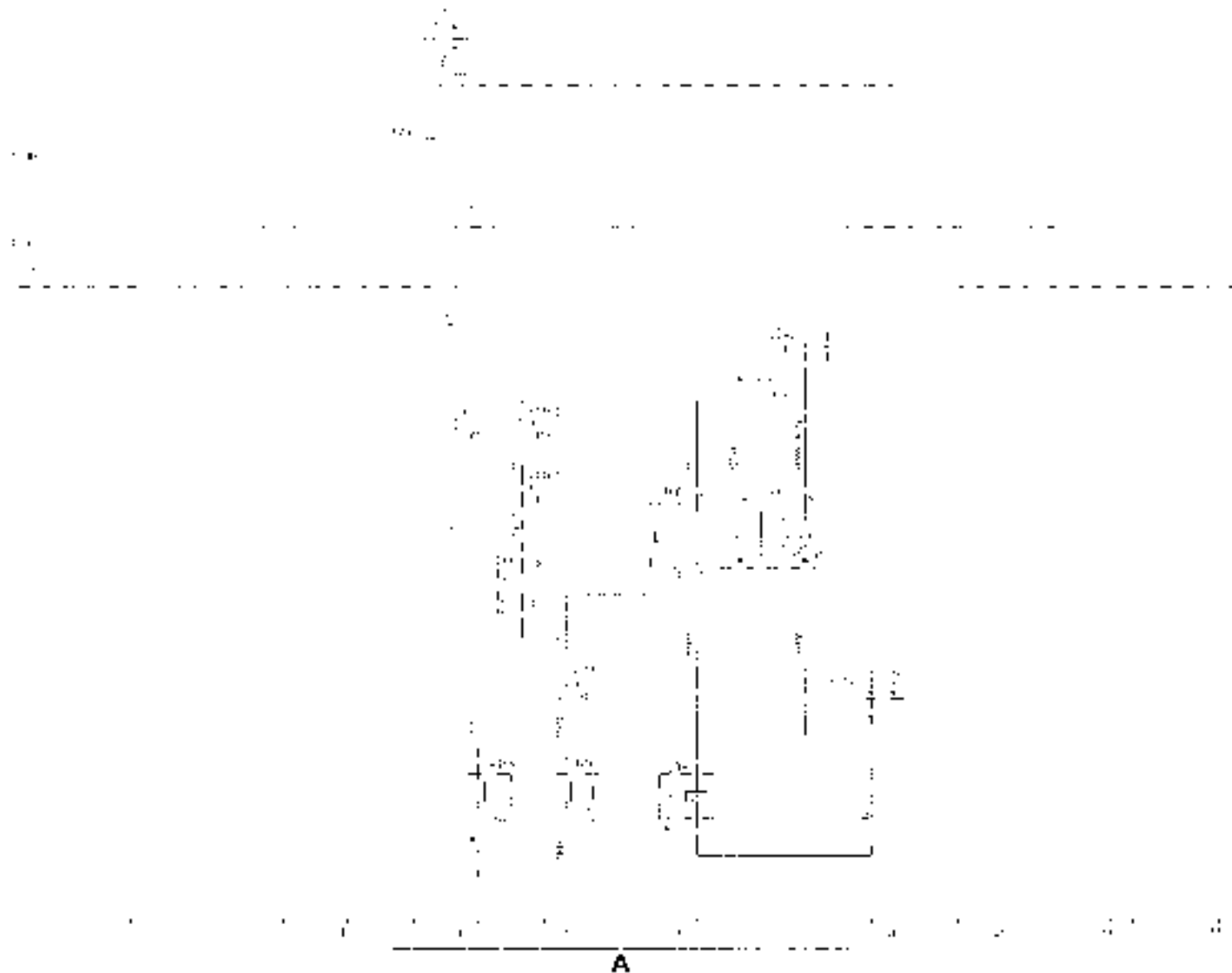
**X1550** Std. front region, right  
**X1639** Soldered connector, line 16000  
**X1891** Std. adaptation horn switchover  
**X19E7** Std. 1 combination steering column switch  
**X2541** (246) Potential distributor, 21-pin line 31000  
**X2542** (246) Potential distributor, 21-pin line 58000

**Y299** (186) Solenoid valve for compressed air horn

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊗ Tail                     | ⊗ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊗ Gearbox                  | ⊗ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Bumper                   | ⊙ B-pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B-pillar on passenger's side |
| ⊙ Central electrics area   | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/rail                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊙ Central part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Foot pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1375 Sheet 1 of 1



**Horn switchover (RL)**

**Legend**

Wiring diagram no. **61.99192-1376** Sheet 1 of 1

Change status: 04 01

**A = Horn switchover**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**F375** (101) Fuse, cab outside (terminal 15)

**H102** (142) Horn

**H169** (143) Horn (dual-tone)

**S108** (472) Steering column switch (indicators, wipers and headlights)

**S160** (565) Switchover device, horn 1 – horn 2

**X1545** Stvd. front region, left

**X1629** Crimped connector, line 16000

**X1891** Stvd. adaptation horn switchover

**X1967** Stvd. 1 combinal on steering column switch

**X2541** (246) Potential distributor, 21-pin line 31000

**X2542** (246) Potential distributor, 21-pin line 58000

**Y299** (186) Solenoid valve for compressed air horn

**Marking of mounting positions**

Ⓐ Tail

Ⓑ Engine

Ⓒ Gear-box

Ⓓ Front

Ⓔ Bumper

Ⓕ Entrance right

Ⓖ Entrance left

Ⓚ Central electric area

Ⓛ Control unit racks

Ⓜ Rear wall of cab

Ⓝ Instrument panel

Ⓔ Central part

Ⓞ Steering wheel/column

Ⓗ Foot pedals

Ⓛ Front wall, ins de left

Ⓛ Front wall, ins de right

Ⓐ Driving seat

Ⓑ Passenger seat

Ⓒ Control panel

Ⓓ Battery box

Ⓚ B-pillar on driver's side

Ⓛ A-pillar on driver's side

Ⓛ B-pillar on passenger's side

Ⓛ A-pillar on passenger's side

Ⓛ Ceiling/roof

Ⓛ Front axle

Ⓛ Rear axle

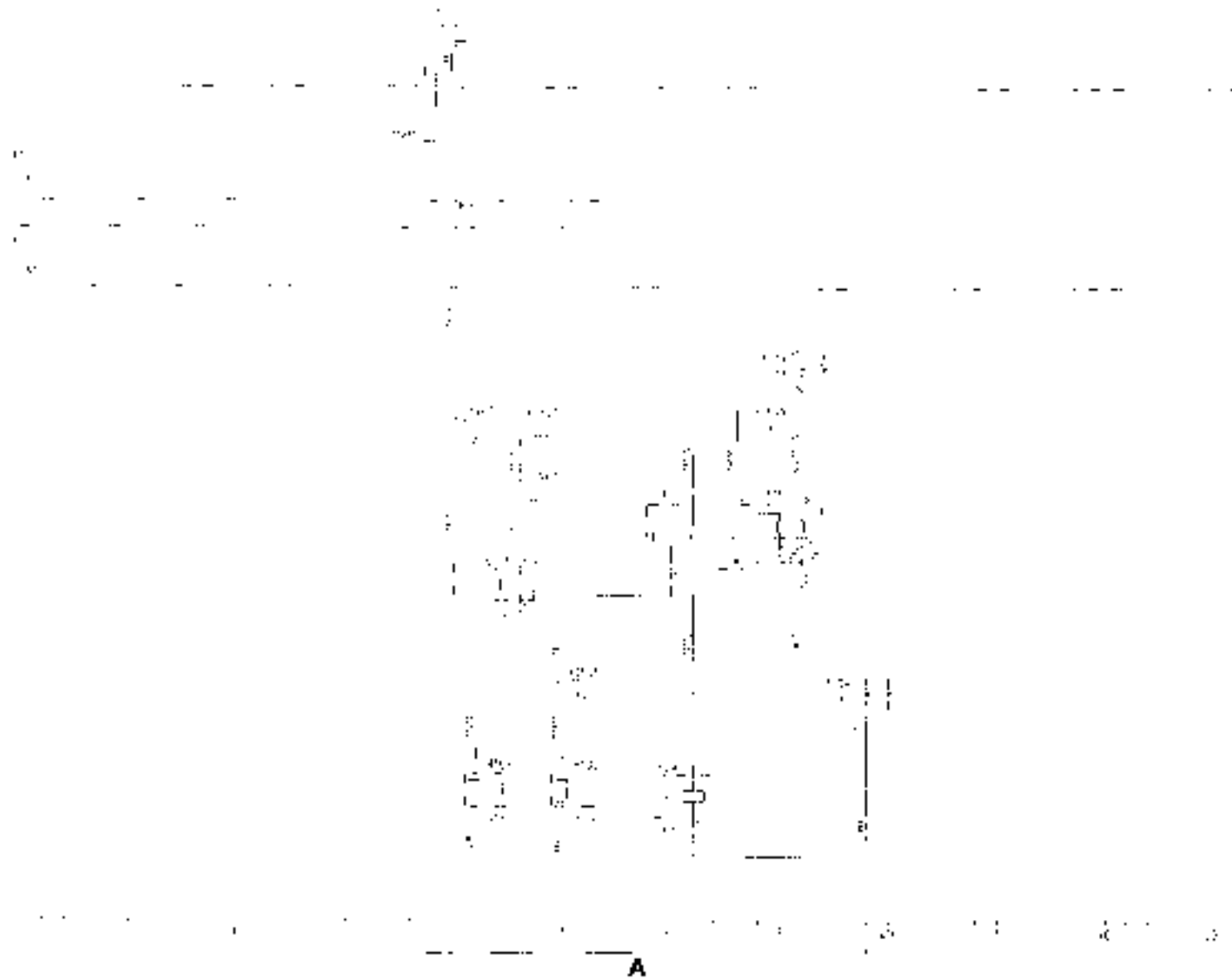
Ⓛ Front part of frame

Ⓛ Rear part of frame

Ⓛ Door left

Ⓛ Door right

Wiring diagram no. 81.99192.1376 Sheet 1 of 1





**Interior lighting, roof (white/red)**

**Legend**

Wiring diagram no. **81.99192.1377** Sheet 1 of 1  
 Change status: 04/01

**A = Interior lighting, roof (white/red)**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer ?

**E276** (175) Interior lighting, roof (white/red), left  
**E276** (175) Interior lighting, roof (white/red), right

**S405** (540) Switch, interior lighting (red)  
**S540** (539) Switch, interior lighting (white)

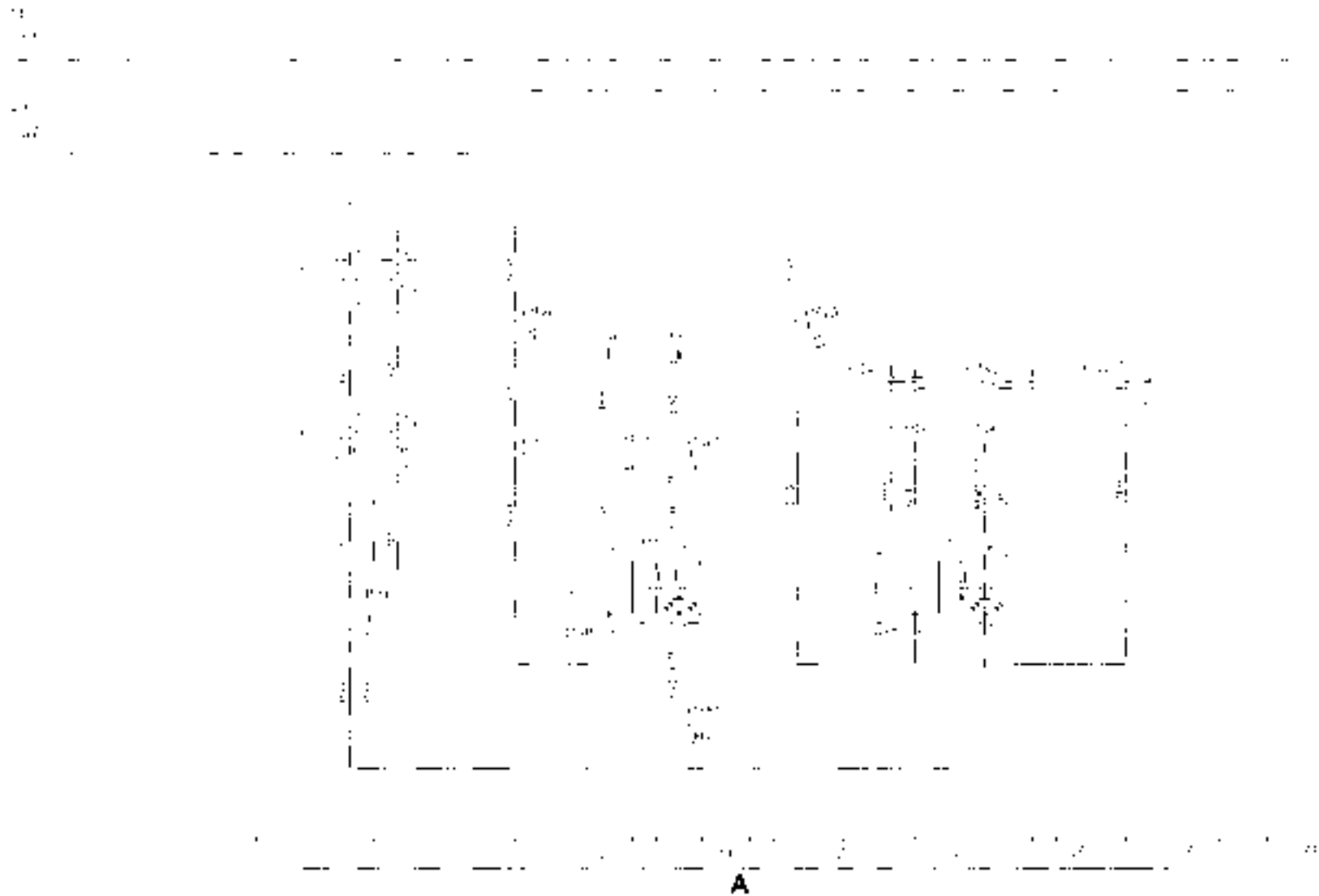
**X1580** Std. interior lighting  
**X1561** Std. switch, interior lighting  
**X2541** (245) Potential distributor, 21-pin line 3101X  
**X2542** (245) Potential distributor, 21-pin line 5801X  
**X2543** (245) Potential distributor, 21-pin line 30006

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊖ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Dumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electric area    | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |



Wiring diagram no. B1.99192-1377 Sheet 1 of 1



**Intarder ZF-EST 48**

**Legend**

Wiring diagram no. **81.99192.1378** Sheet 1 of 1  
 Change status: 04.01

**A = Additional retarding brake pushbutton switch**

**B = Temperature sensor**
































**C = Solenoid valve**

**D = Diagnosis**

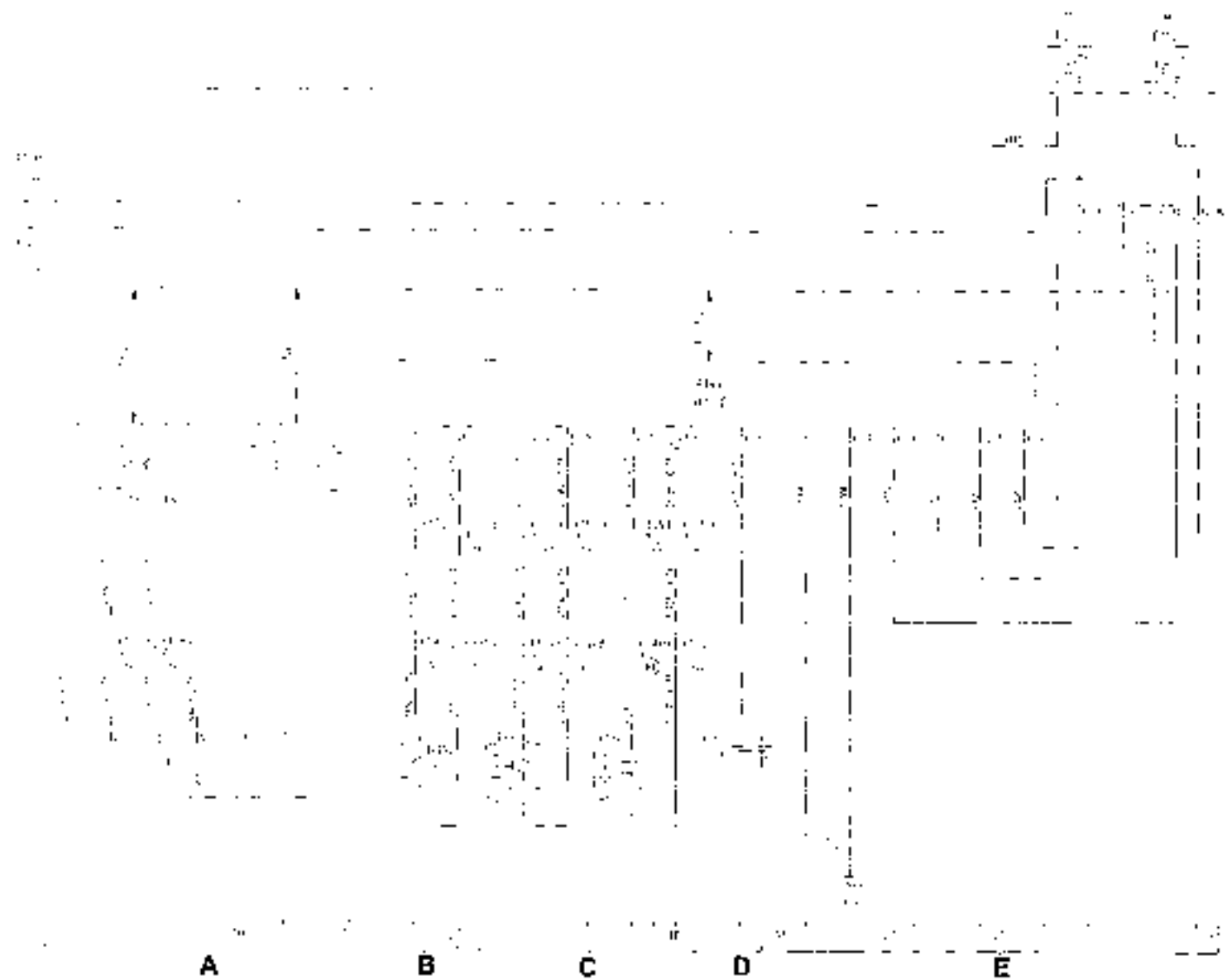
**E = Power supply**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A144</b>	(451)	Control unit, retarder
<b>A302</b>	(352)	Central computer 2
<b>A403</b>	(319)	Vehicle management computer
<b>A407</b>	(342)	Instrumentation
<b>A437</b>	(398)	Additional retarding brake pushbutton switch
<b>B134</b>	(155)	Temperature sensor, cooling water (retarder)
<b>F152</b>	(10*)	Fuse retarder (terminal 15)
<b>F374</b>	(10*)	Fuse retarder (terminal 30)
<b>H145</b>		Indicator light, retarder
<b>X1553</b>		Std. engine/EDC/transmission III
<b>X1559</b>		Std. engine/EDC/transmission IV
<b>X1644</b>		Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X1948</b>		Std. engine/transmission (MP box)
<b>X1949</b>		Std. engine/transmission (MP box)
<b>X1951</b>		Std. engine/transmission (MP box)
<b>X1959</b>		Std. engine brake switch
<b>X2544</b>	(246)	Potential distributor 21-pin K-line
<b>Y133</b>	(182)	Proportioning valve, retarder
<b>Y134</b>	(123)	Solenoid valve, reservoir

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electronics area		A-pillar on passenger's side
	Control unit, tanks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/co-urn		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		

Wiring diagram no. 81.99192.1378 Sheet 1 of 1





**Tipper indicator****Legend**

Wiring diagram no. 81.99192.1379 Sheet 1 of 1

Change status: 04.01

**A = Tipper indicator**

A110 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

A407 (342) Instrumentation

H148 Indicator light, tipper

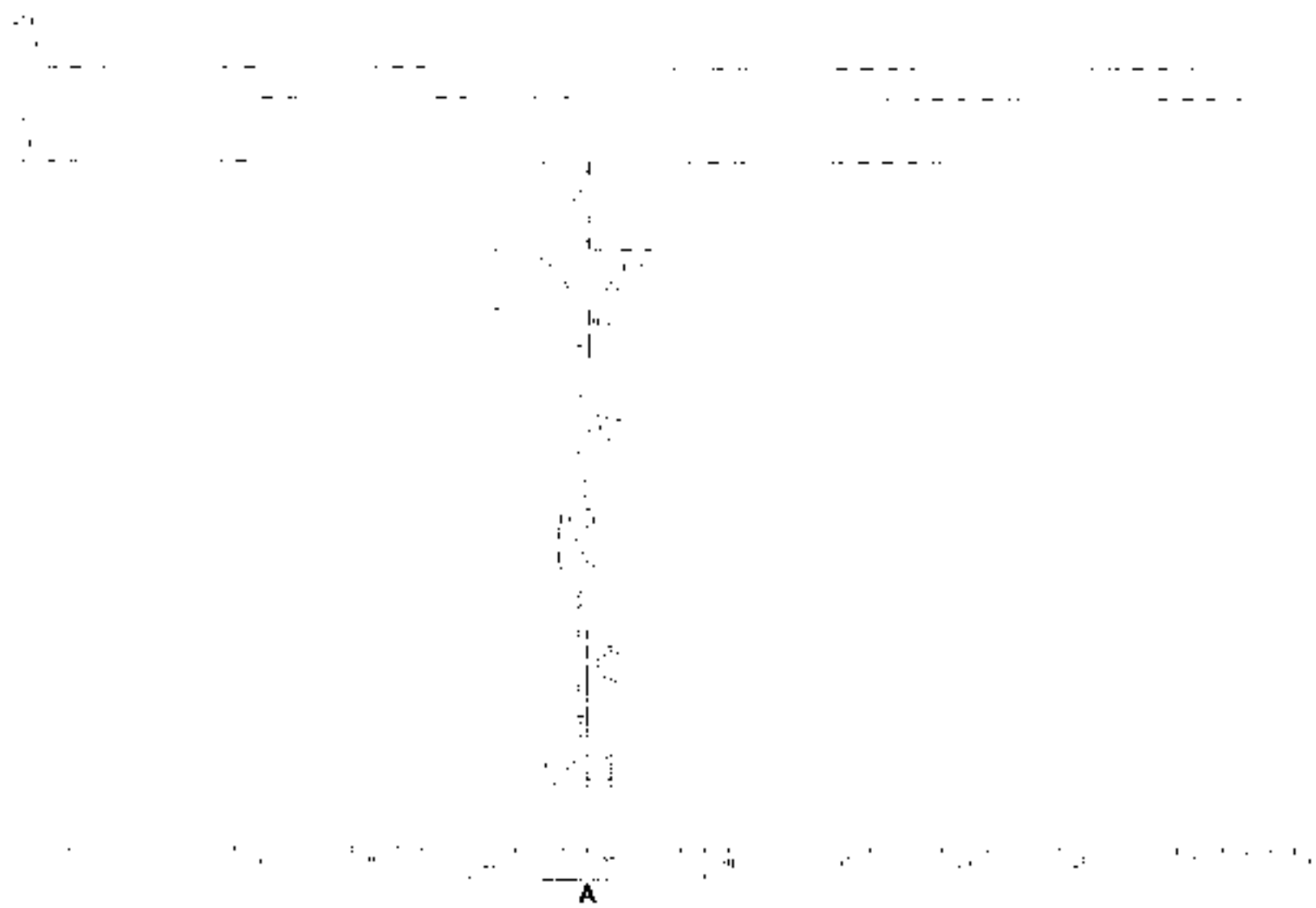
S192 (537) Switch, indicator tipper

X574 Std. tipper indicator

X2541 (246) Potential distributor, 21-pin line 37000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓜ Driving seat                 |
| Ⓑ Engine                   | Ⓝ Passenger seat               |
| Ⓒ Gearbox                  | Ⓞ Control panel                |
| Ⓓ Front                    | Ⓟ Battery box                  |
| Ⓔ Bumper                   | Ⓠ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓡ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓢ B-pillar on passenger's side |
| Ⓗ Central electrics area   | Ⓣ A-pillar on passenger's side |
| Ⓘ Control unit racks       | Ⓤ Ceiling/roof                 |
| Ⓚ Rear wall of cab         | Ⓦ Front axle                   |
| Ⓛ Instrument panel         | Ⓧ Rear axle                    |
| Ⓜ Central part             | Ⓨ Front part of frame          |
| Ⓨ Steering wheel/column    | Ⓩ Rear part of frame           |
| Ⓩ Foot pedals              | ⓐ Door left                    |
| ⓐ Front wall, inside left  | ⓑ Door right                   |
| ⓑ Front wall, inside right |                                |



**Air conditioning unit**
































**Legend**

Wiring diagram no. **81.99192.1380** Sheet 1 of 2  
 Charge status: (U) (V)

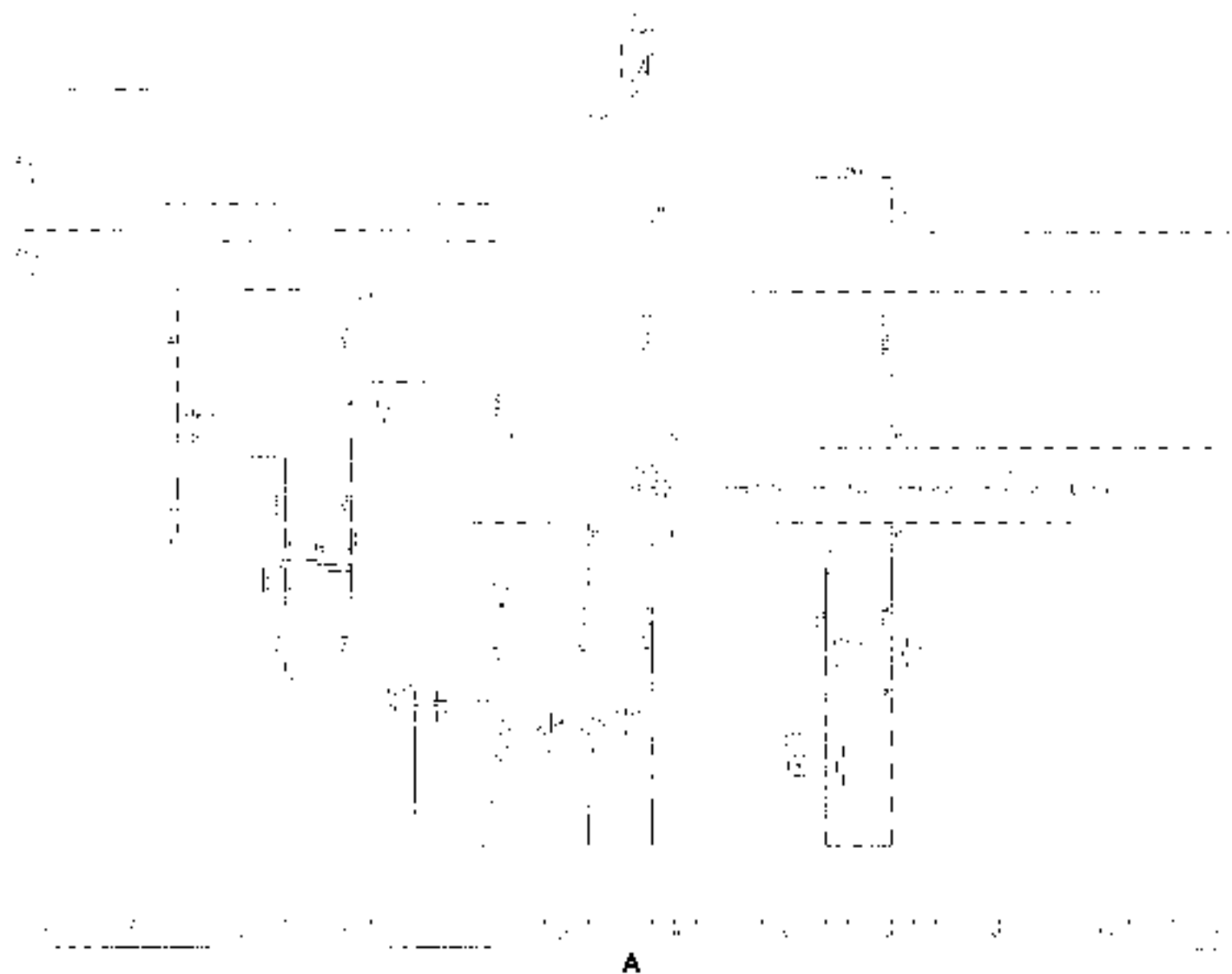
**A = Power supply, water timing valve,  
 internal temperature sensor**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A302</b>	(352)	Central computer 2
<b>A474</b>	(467)	Control device, cab heating with/without air-conditioning
<b>B393</b>	(302)	Temperature sensor, internal air (air-conditioning system)
<b>F397</b>	(104)	Fuse, heater blower/air-conditioning unit
<b>K718</b>	(283)	Relay, temperature sensor, internal air (air-conditioning system)
<b>S123</b>	(A467)	Switch, fresh air circulation vent
<b>S544</b>	(A467)	Switch AC-EIN ("ON")
<b>S545</b>	(A467)	Switch, reheat
<b>S546</b>	(A467)	Rotary control, internal temperature
<b>S547</b>	(A467)	Rotary control, blower
<b>X1500</b>	(203)	Relay socket K710, K...
<b>X1704</b>		Crimped connector, line 50-04
<b>X1822</b>		Std. air-conditioning system
<b>X1823</b>		Std. air-conditioning, terminal 15
<b>X2541</b>	(246)	Potential distributor, 21-pin line 31000
<b>Y117</b>		Solenoid valve, front air-conditioning unit

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electronics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		

Wiring diagram no. 81.99192.1380 Sheet 1 of 2





**Air conditioning unit**

**Legend**

Wiring diagram no. **81,99192,1380** Sheet: 2 of 2

Change status: 04/01

**A = Coolant vessel**

**B = Magnetic clutch, compressor**

**C = Air-conditioning system, scope of delivery, Behr**

- A100** (255) Central fuse, relay and terminal block
- A302** (352) Central computer 2
- A474** (467) Control device, cab heating with/without air-conditioning
- A460** (373) Air-conditioning system, scope of delivery, BEHR

**B203** (303) High/low pressure switch, coolant vessel

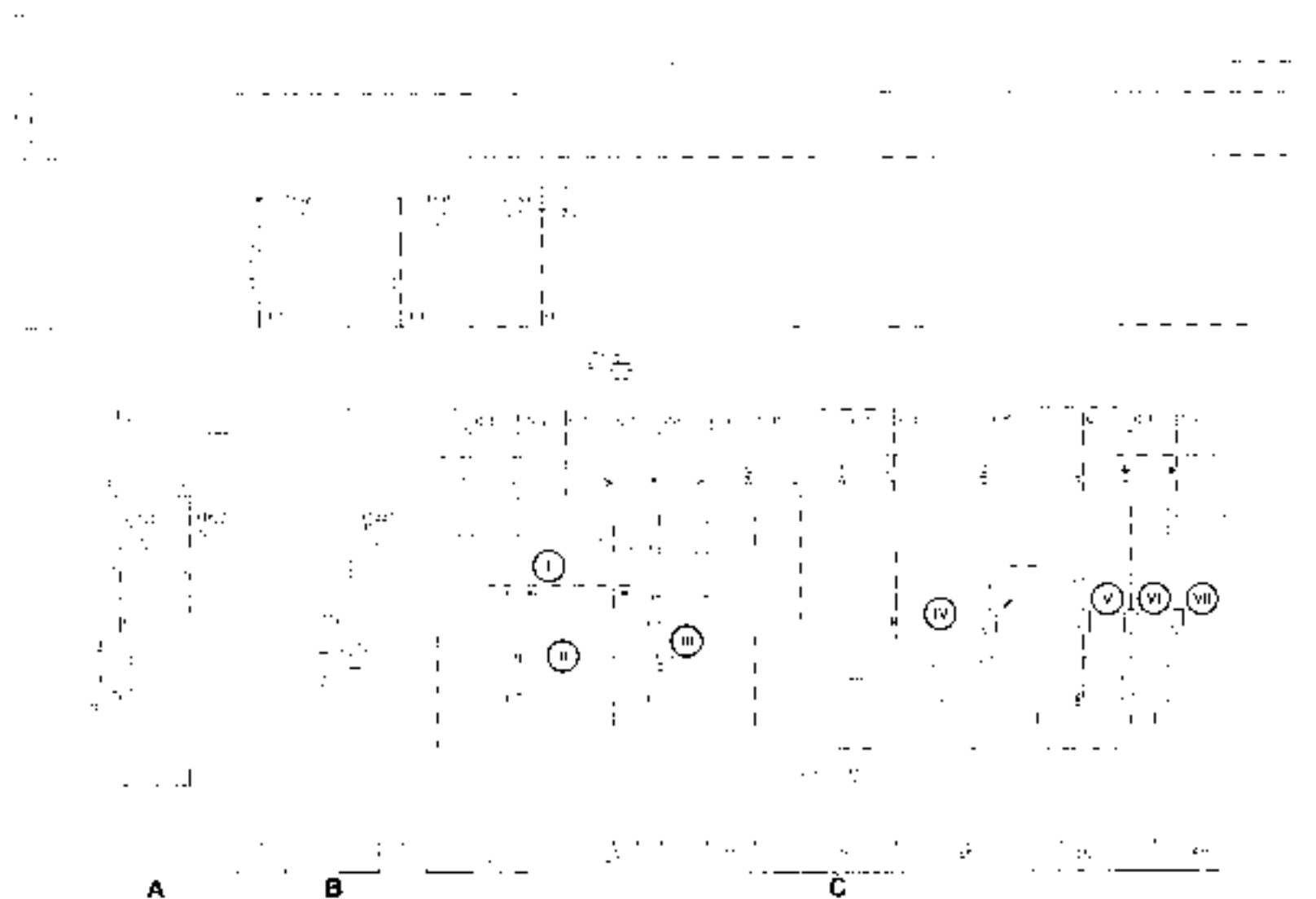
- X1551** Stvd. engine/EDC/transmission II
- X1822** Stvd. air conditioning unit
- X1805** (221) Crimped connector, line 56300
- X1808** (221) Crimped connector, line 56300
- X2544** (246) Potential distributor 21-pin K-line

**Y114** (139) Magnetic clutch, compressor

**Marking of mounting positions**

- Ⓐ Tail
- Ⓔ Engine
- Ⓕ Gearbox
- Ⓖ Front
- Ⓗ Bumper
- Ⓙ Entrance right
- Ⓚ Entrance left
- Ⓛ Central electrics area
- Ⓜ Control unit racks
- Ⓝ Rear wall of cab
- Ⓟ Instrument panel
- Ⓠ Central part
- Ⓡ Steering wheel/column
- Ⓢ Foot pedals
- Ⓣ Front wall, inside left
- Ⓤ Front wall, inside right
- Ⓡ Clock-pulse regulator
- Ⓡ Blower
- Ⓡ Fresh/circulating air
- Ⓡ HK bypass
- Ⓡ Heat exchanger sensor
- Ⓡ External temperature sensor
- Ⓡ Condenser sensor
- Ⓝ Driving seat
- Ⓝ Passenger seat
- Ⓝ Control panel
- Ⓝ Battery box
- Ⓝ B-pillar on driver's side
- Ⓝ A-pillar on driver's side
- Ⓝ B-pillar on passenger's side
- Ⓝ A-pillar on passenger's side
- Ⓝ Ceiling, front
- Ⓝ Front axle
- Ⓝ Rear axle
- Ⓝ Front part of frame
- Ⓝ Rear part of frame
- Ⓝ Door left
- Ⓝ Door right

Wiring diagram no. 81.99192.1380 Sheet 2 of 2



**Fuel filter heater**

**Legend**

Wiring diagram no. **81.99192.2487** Sheet 1 of 1  
 Change status: 05.00

**A = Fuel filter heating**

**A110** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2

**F156** (140) Fuse, fuel filter heating  
**F555** (132) Main fuse (terminal 30 2)

**K177** (239) Relay, fuel filter heating

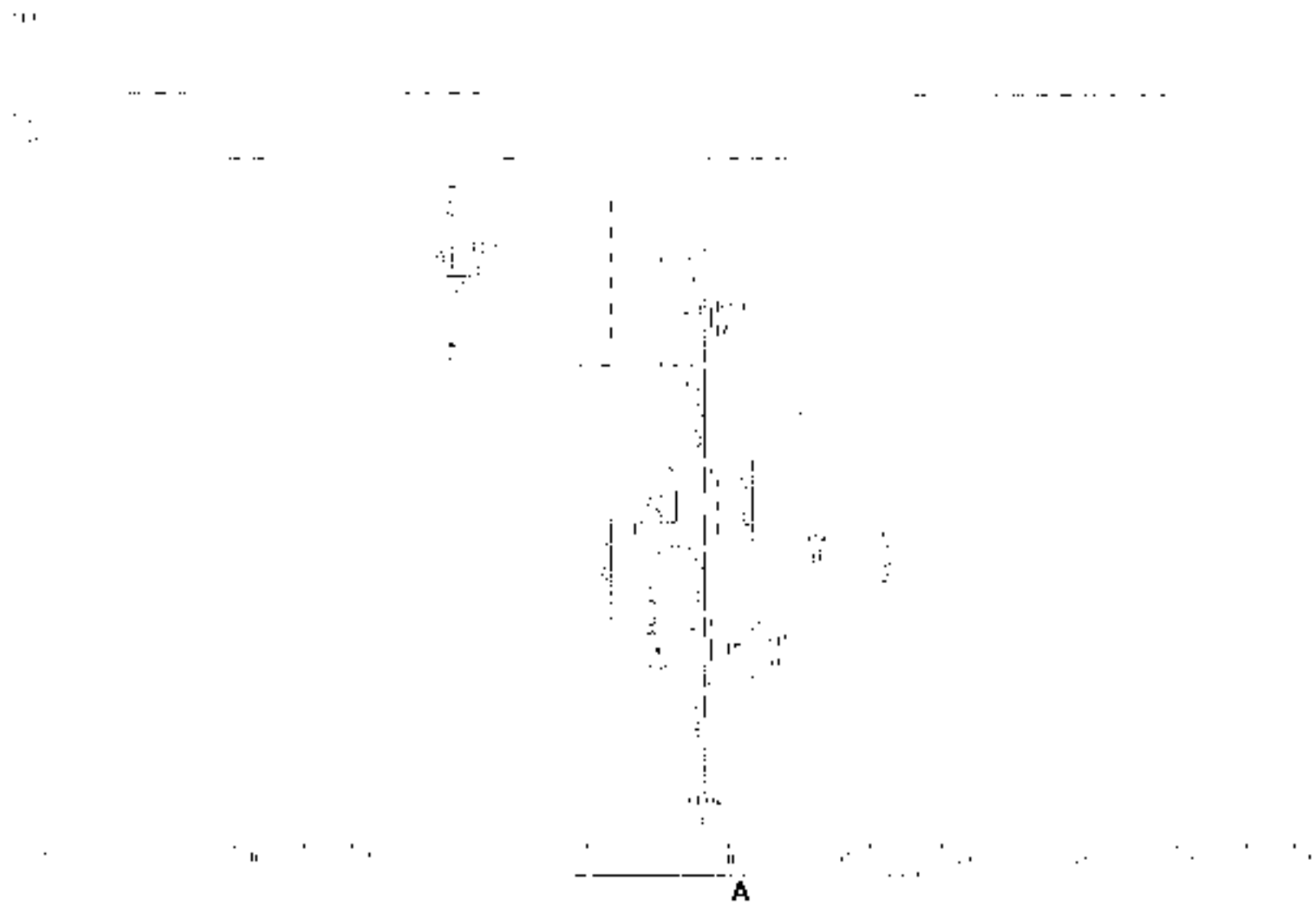
**R: 10** (147) Fuel filter heating 1

**X1903** Threaded bolt V6 (MP box)  
**X1904** Threaded bolt V6 (MP box)  
**X1988** Threaded bolt V5 (MP box)  
**X1989** Threaded bolt V5 (MP box)

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊖ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electrics area   | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/front                |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Centre part              | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2487 Sheet 1 of 1



**Fuel filter heater, Separ**

**Legend**

Wiring diagram no. **81.99192.2665** Sheet 1 of 1  
 Change status: 08.03

**A = Fuel filter heating, Separ**

**A100** (255) Central fuse relay and terminal block  
**A302** (352) Central computer 2

**F549** (105) Fuse, fuel filter heating

**G100** (113) Battery 1  
**G101** (113) Battery 2

**K177** (299) Relay, fuel filter heating

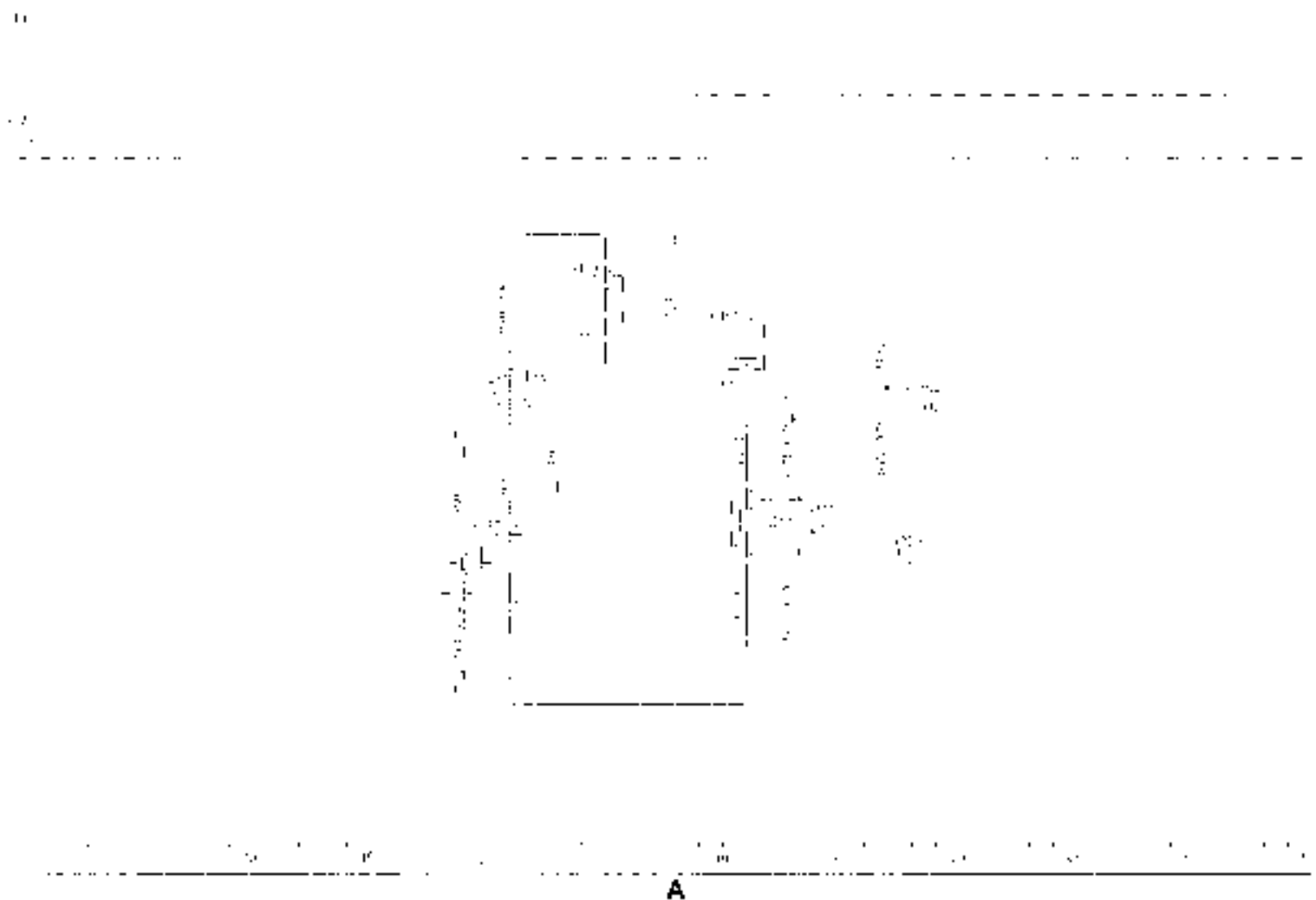
**R110** (153) Fuel filter heating 1

**X1754** Crimped connector, line 53104  
**X2201** Svcd. filter heating, Separ

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓜ Driving seat                 |
| Ⓡ Engine                   | Ⓝ Passenger seat               |
| Ⓔ Gearbox                  | Ⓢ Control panel                |
| Ⓛ Front                    | Ⓟ Battery box                  |
| Ⓜ Bumper                   | Ⓛ B-pillar on driver's side    |
| Ⓡ Entrance right           | Ⓛ A-pillar on driver's side    |
| Ⓡ Entrance left            | Ⓛ B-pillar on passenger's side |
| Ⓡ Control electrics area   | Ⓛ A-pillar on passenger's side |
| Ⓡ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓡ Rear wall of cab         | Ⓛ Front axle                   |
| Ⓡ Instrument panel         | Ⓛ Rear axle                    |
| Ⓡ Central part             | Ⓛ Front part of frame          |
| Ⓡ Steering wheel/column    | Ⓛ Rear part of frame           |
| Ⓡ Foot pedals              | Ⓛ Door left                    |
| Ⓡ Front wall, inside left  | Ⓛ Door right                   |
| Ⓡ Front wall, inside right |                                |

Wiring diagram no. **81.99192.2665** Sheet **1** of **1**



**Cool box**

**Legend**

Wiring diagram no. 81.99192.1382 Sheet 1 of 1  
 Change status: 11.01

**A = Cool box**

A100 (255) Central fuse, relay and terminal block  
 A302 (352) Central computer 2  
 A479 (368) Refrigerator

F147 (118) Fuse, refrigerator

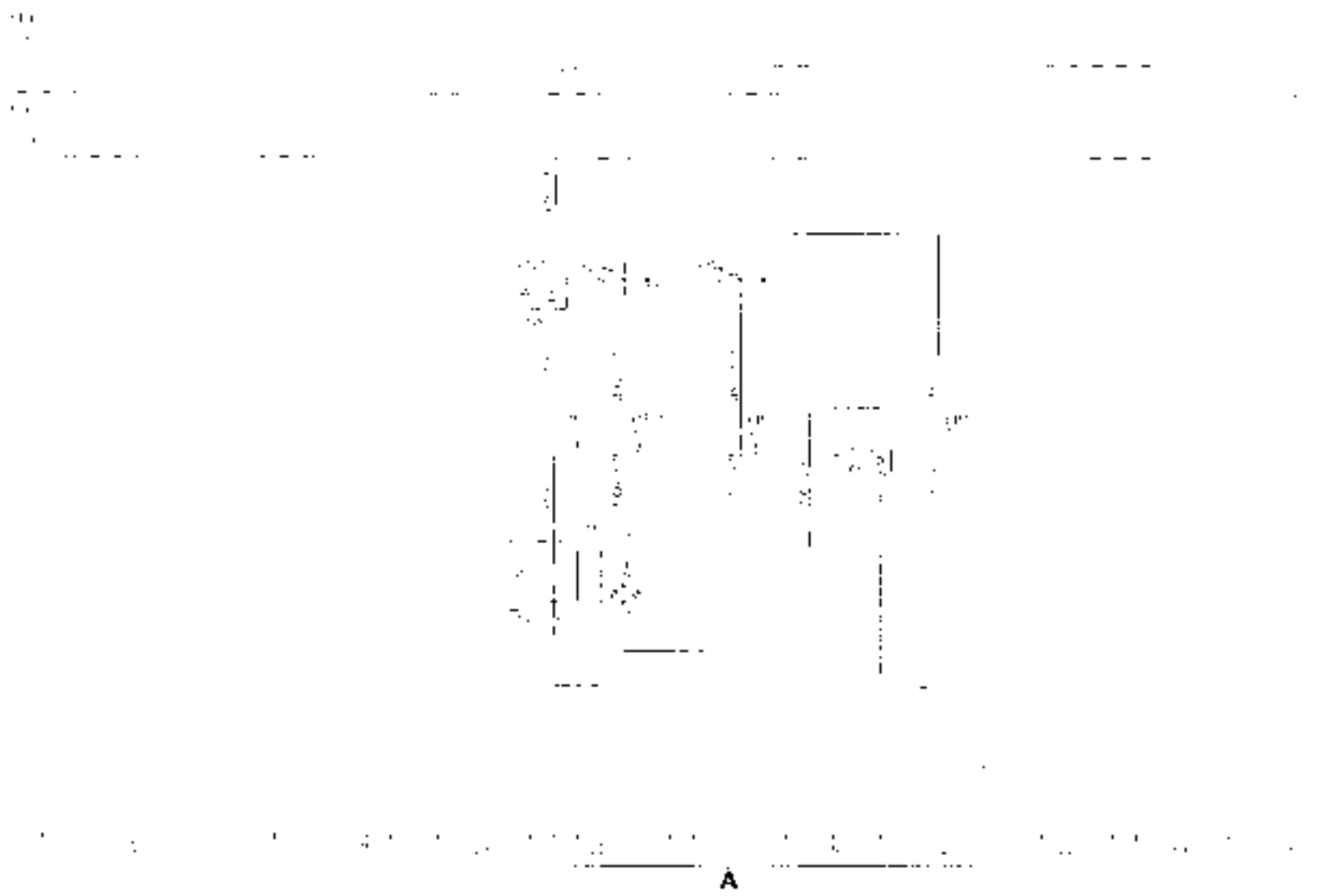
S549 (521) Switch, refrigerator

X1571 Svd refrigerator  
 X2541 (246) Potential distributor, 21-pin line 81000  
 X2542 (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- |                           |                                |
|---------------------------|--------------------------------|
| Ⓐ Tail                    | Ⓓ Driving seat                 |
| Ⓑ Engine                  | Ⓔ Passenger seat               |
| Ⓒ Gearbox                 | Ⓚ Control panel                |
| Ⓓ Front                   | Ⓛ Battery box                  |
| Ⓔ Bumper                  | Ⓜ B-pillar on driver's side    |
| Ⓚ Entrance right          | Ⓨ A-pillar on driver's side    |
| Ⓛ Entrance left           | Ⓩ B-pillar on passenger's side |
| Ⓜ Central electrics area  | ⓐ A pillar on passenger's side |
| Ⓨ Control unit racks      | ⓑ Ceiling/roof                 |
| Ⓩ Rear wall of cab        | ⓓ Front axle                   |
| ⓐ Instrument panel        | ⓔ Rear axle                    |
| ⓑ Central part            | ⓕ Front part of frame          |
| ⓓ Steering wheel/column   | ⓖ Rear part of frame           |
| ⓔ Foot pedals             | ⓗ Door left                    |
| ⓕ Front wall inside left  | ⓘ Door right                   |
| ⓖ Front wall inside right |                                |

Wiring diagram no. **B1.99192.1382** Sheet 1 of 1





**Special customised module**

**Legend**

Wiring diagram no. 81.99192.1381 Sheet 1 of 1

Change status: 04/01

**A = ZDR interface (FFR)**

**B = ZDR interface (KSM)**

**C = Diagnosis**

**D = Power supply**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A312** (397) Customer-specific control module

**A403** (338) Vehicle management computer

**F428** (118) Fuse, special customer module (terminal 15)

**F429** (118) Fuse, special customer module (terminal 30)

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1996** Std. intermediate speed control interface (FFR)

**X1997** Std. intermediate speed control interface (KSM)

**X2544** (246) Potential distributor 21-air K-line

**Marking of mounting positions**

Ⓣ Tail

Ⓧ Engine

Ⓛ Gearbox

Ⓛ Front

Ⓛ Bumper

Ⓛ Entrance right

Ⓛ Entrance left

Ⓛ Central electric area

Ⓛ Control unit racks

Ⓛ Rear wall of cab

Ⓛ Instrument panel

Ⓛ Central part

Ⓛ Steering wheel/column

Ⓛ Foot pedals

Ⓛ Front wall, inside left

Ⓛ Front wall, inside right

Ⓛ Driving seat

Ⓛ Passenger seat

Ⓛ Control panel

Ⓛ Battery box

Ⓛ B-pillar on driver's side

Ⓛ A-pillar on driver's side

Ⓛ B-pillar on passenger's side

Ⓛ A-pillar on passenger's side

Ⓛ Ceiling/roof

Ⓛ Front axle

Ⓛ Rear axle

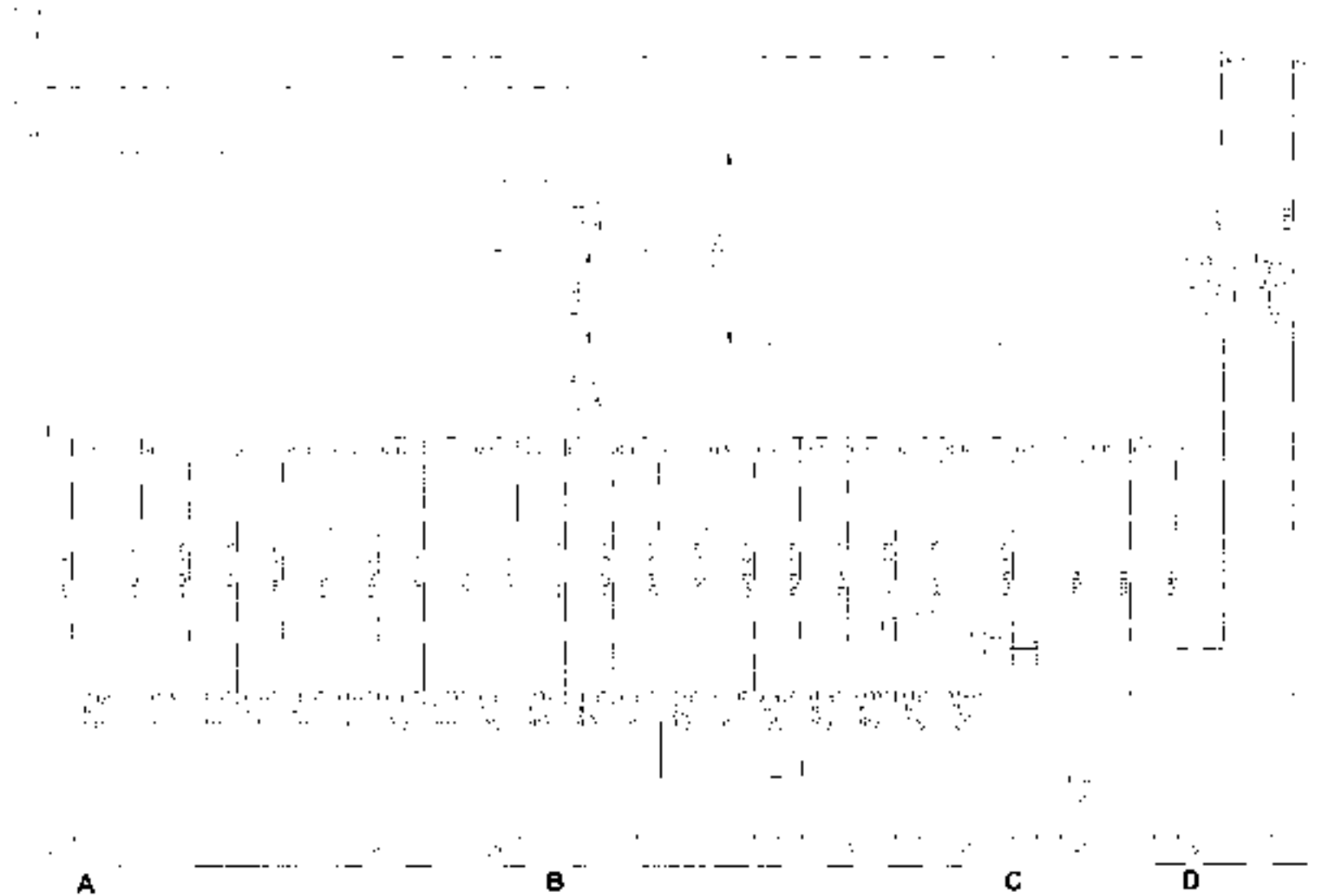
Ⓛ Front part of frame

Ⓛ Rear part of frame

Ⓛ Door left

Ⓛ Door right

Wiring diagram no. 81.99192.1381 Sheet 1 of 1





**Tailgate**

**Legend**

Wiring diagram no. 81.99192.1537 Sheet 1 of 1

Change status: 09 01

**A = Tailgate**

A100 (255) Central fuse, relay and terminal block  
 A302 (352) Central computer 2  
 A358 Control, tailgate  
 A403 (339) Vehicle management computer  
 A407 (342) Instrumentation

F219 (118) Fuse, tailgate (terminal 15)

H254 Indicator light, tailgate

K175 (281) Relay, start inhibitor  
 K467 (281) Relay, tailgate

S286 (547) Switch, tailgate

X068 Std. start inhibitor  
 X744 Std. cab tailgate  
 X2541 (246) Potential distributor, 21-pin line 21000  
 X2542 (246) Potential distributor, 21-pin line 58000  
 X3186 Std. tailgate

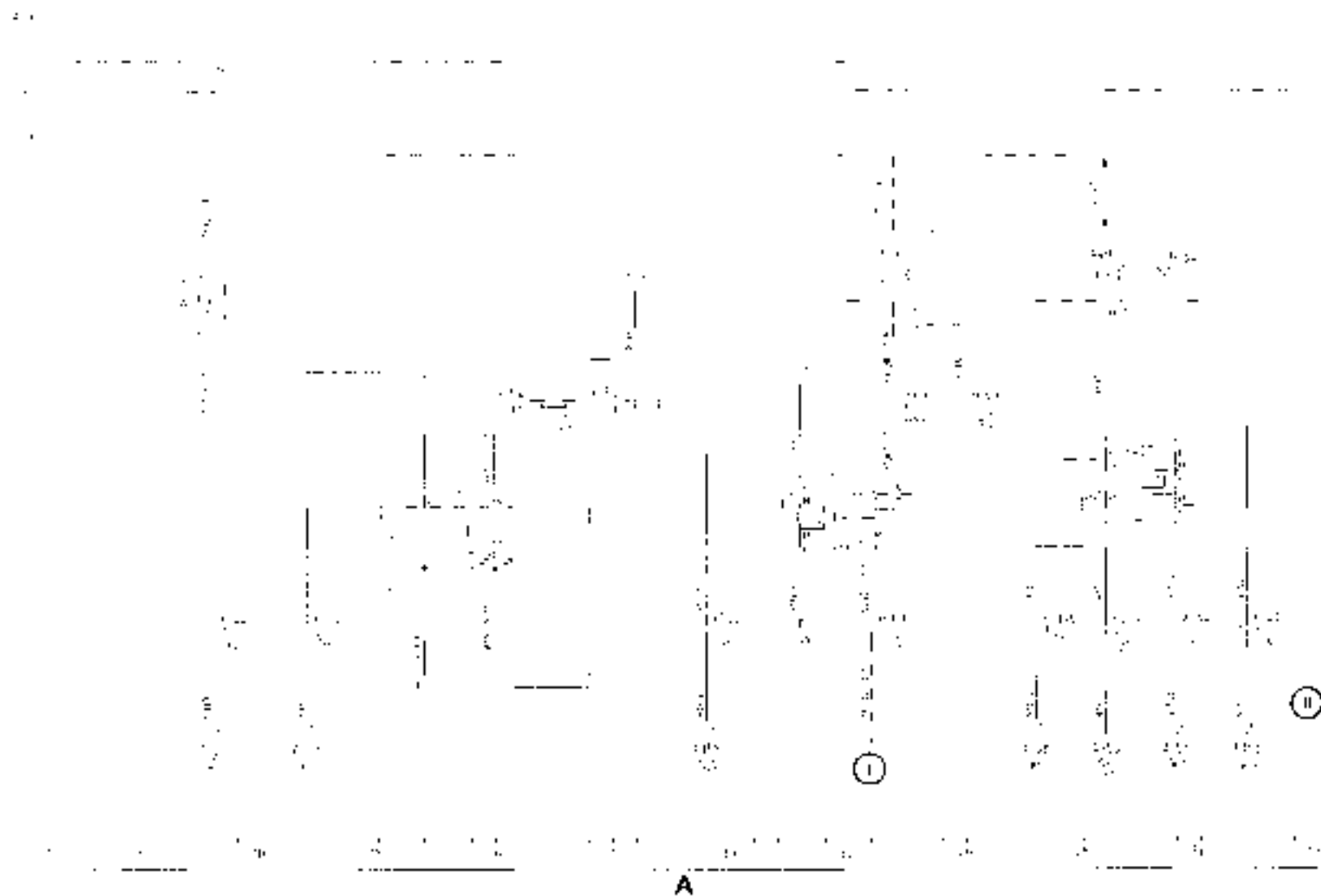
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊖ Tail                     | ⊙ Driving seat                 |
| ⊕ Engine                   | ⊙ Passenger seat               |
| ⊕ Gearbox                  | ⊙ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Bumper                   | ⊙ B-pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B-pillar on passenger's side |
| ⊕ Central electric area    | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/roof                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊕ Control part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Fuel pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |

⊙ Separate series Std. X669 and connect "Kbs." cab tailgate between them

⊙ Cables 91003, 91336, 91555, 91556, 91557, 91572 and 91573 lead to 7-pin terminal casing at the end of the frame (rolled up)

Wiring diagram no. 81.99192.1537 Sheet 1 of 1



**Cargo area lighting**

**Legend**

Wiring diagram no. 81.99192.1384 Sheet 1 of 1  
 Change status: 04.01

**A = Cargo space lighting**

- A100 (255) Central fuse, relay and terminal block
- A302 (352) Control computer 2
- F170 (119) Fuse, cargo space lighting
- S226 (541) Switch, cargo space lighting
- X1572 Std., cargo area lighting
- X2541 (246) Potential distributor, 21-pin line 31000
- X2542 (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- ⊖ Tail
- ⊕ Engine
- ⊖ Gearbox
- ⊖ Front
- ⊖ Bumper
- ⊖ Entrance right
- ⊖ Entrance left
- ⊖ Central electric area
- ⊖ Control unit racks
- ⊖ Rear wall of cab
- ⊖ Instrument panel
- ⊖ Central part
- ⊖ Steering wheel/column
- ⊖ Foot pedals
- ⊖ Front wall, inside left
- ⊖ Front wall, inside right
- ⊖ Driving seat
- ⊖ Passenger seat
- ⊖ Control panel
- ⊖ Battery box
- ⊖ B-pillar on driver's side
- ⊖ A-pillar on driver's side
- ⊖ B-pillar on passenger's side
- ⊖ A-pillar on passenger's side
- ⊖ Ceiling/front
- ⊖ Front axle
- ⊖ Rear axle
- ⊖ Front part of frame
- ⊖ Rear part of frame
- ⊖ Door left
- ⊖ Door right
- ⊖ Scope of delivery, body manufacturers
- ⊖ Cables 58009 and 31000 are placed rolled up as reserve for cargo space lighting, left

Wiring diagram no. 61.99192.1384 Sheet 1 of 1



**Headlight levelling (LL)**

**Legend**

Wiring diagram no. 81.99192.2477 Sheet 1 of 1

Change status: -

**A = Headlight levelling**

A100 (255) Central fuse, relay and terminal block  
 A167 (411) Headlights, left  
 A188 (412) Headlights, right  
 A302 (352) Central computer 2

M117 (A411) Actuator motor, headlight levelling, left  
 M118 (A412) Actuator motor, headlight levelling, right

R139 (136) Positioning potentiometer, headlight levelling

X1545 Svd. front region, left  
 X1550 Svd. front region, right  
 X1835 Crimped connector, line 58000

**Marking of mounting positions**

- ⊗ Tail
- ⊙ Engine
- ⊙ Gearbox
- ⊙ Front
- ⊙ Bumper
- ⊙ Entrance right
- ⊙ Entrance left
- ⊙ Central electrics area
- ⊙ Control unit tracks
- ⊙ Rear wall of cab
- ⊙ Instrument panel
- ⊙ Central part
- ⊙ Steering wheel/column
- ⊙ Foot pedals
- ⊙ Front wall, inside left
- ⊙ Front wall, inside right
- ⊙ Driving seat
- ⊙ Passenger seat
- ⊙ Control panel
- ⊙ Battery box
- ⊙ B-pillar on driver's side
- ⊙ A-pillar on driver's side
- ⊙ B-pillar on passenger's side
- ⊙ A-pillar on passenger's side
- ⊙ Ceiling/roof
- ⊙ Front axle
- ⊙ Rear axle
- ⊙ Front part of frame
- ⊙ Rear part of frame
- ⊙ Door left
- ⊙ Door right
- Parking light, left
- ⊙ Parking light, right



**Headlight levelling (RL)**

**Legend**

Wiring diagram no. **81.99192-2445** Sheet **1** of 1  
 Change status: 02 89

**A = Headlight levelling**

<b>A100</b>	(255)	Central fuse, relay and termina. block
<b>A187</b>	(411)	Headlights, left
<b>A188</b>	(412)	Headlights, right
<b>A302</b>	(352)	Central computer 2
<b>M117</b>	(A411)	Actuator motor, headlight levelling, left
<b>M118</b>	(A412)	Actuator motor, headlight levelling, right
<b>R100</b>	(136)	Positioning potentiometer, headlight levelling
<b>X1545</b>		Stud front region, left
<b>X1550</b>		Stud front region, right
<b>X1835</b>		Cumped connector, line 56300

**Marking of mounting positions**

(A)	Tail	(S)	Driving seat
(E)	Engine	(P)	Passenger seat
(G)	Gearbox	(C)	Control panel
(F)	Front	(B)	Battery box
(B)	Bumper	(R)	R-pillar on driver's side
(D)	Entrance right	(A)	A-pillar on driver's side
(L)	Entrance left	(P)	B-pillar on passenger's side
(E)	Central electronics area	(A)	A-pillar on passenger's side
(C)	Control unit racks	(L)	Ceiling/roof
(R)	Rear wall of cab	(N)	Front axle
(I)	Instrument panel	(R)	Rear axle
(C)	Central part	(F)	Front part of frame
(S)	Steering wheel/column	(R)	Rear part of frame
(P)	Foot pedals	(D)	Door, left
(F)	Front wall, inside left	(D)	Door, right
(S)	Front wall, inside right		
(P)	Parking light, left		
(R)	Parking light, right		

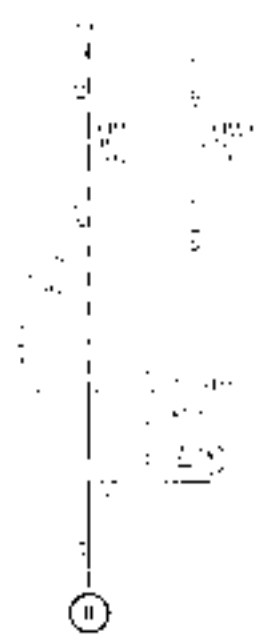
Wiring diagram no. 81.99192.2445 Sheet 1 of 1

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**A**



**Engine brake, automatic**

**Legend**

Wiring diagram no. **81.99192.1385** Sheet 1 of 1  
 Change status: 04.01

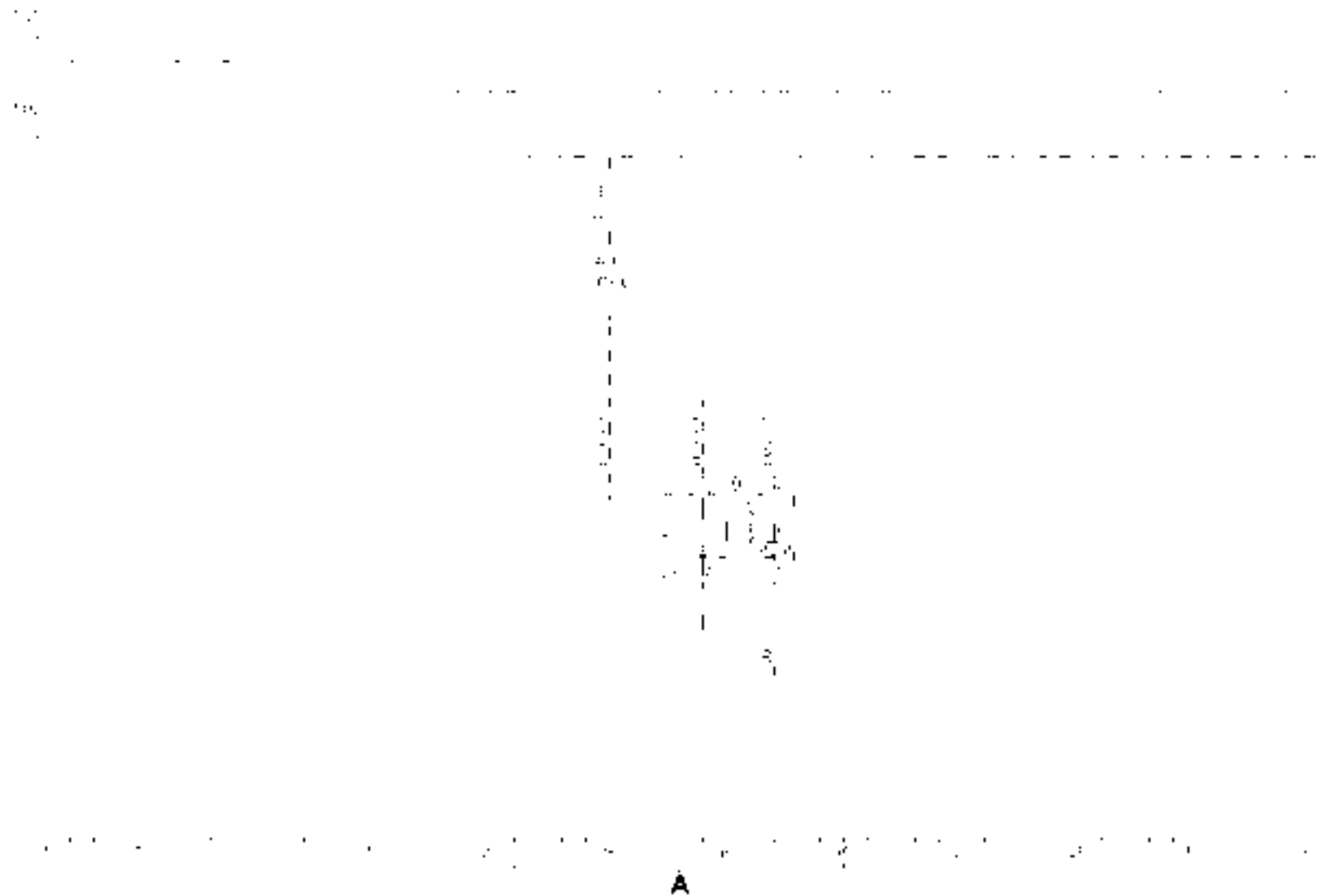
**A = Engine brake, automatic**

- A103 (255) Contra: fuse, relay and terminal block
- A302 (352) Contra: computer 2
- A403 (339) Vehicle management computer
  
- S753 (607) Switch, engine brake

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electronics area | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.1385 Sheet 1 of 1





**Power take-off 1**
































**Legend**

Wiring diagram no. 81.99192.1368 Sheet 1 of 1  
 Change status: 04.01

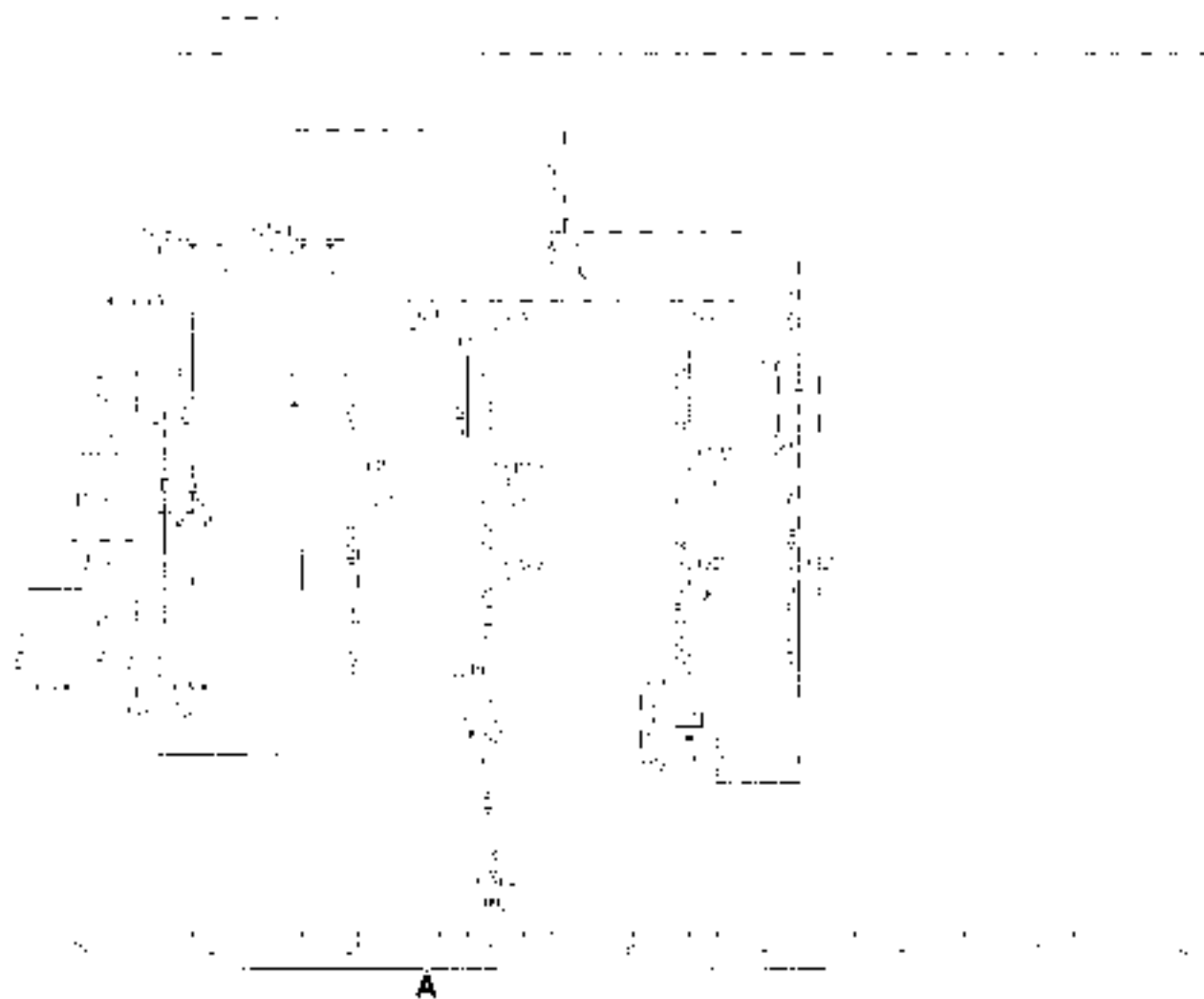
**A = Power take-off 1 with ZDR interface**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A302</b>	(352)	Central computer 2
<b>A403</b>	(339)	Vehicle management computer
<b>G101</b>	(113)	Battery 2
<b>S210</b>	(476)	Switch, indicator, power take-off 1
<b>S222</b>	(536)	Switch, power take-off 1
<b>X327</b>		Std. solenoid valve, frame
<b>X1552</b>		Std. power take-off I/TAS heating
<b>X1557</b>		Std. frame left
<b>X1559</b>		Std. engine/EDC/transmission IV
<b>X1693</b>		Crimped connector, line 50028
<b>X1904</b>		Threaded bolt M6 (MP box)
<b>X1940</b>		Std. engine/transmission (MP box)
<b>X1060</b>		Std. intermediate speed control interface (FFR)
<b>X2541</b>	(246)	Potential distributor, 21-pin line 31000
<b>X2542</b>	(246)	Potential distributor, 21-pin line 59000
<b>Y153</b>	(126)	Solenoid valve, power take-off 1

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electric area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		

Wiring diagram no. 81.99192.1388 Sheet 1 of 1





**Power take-off 2**

**Legend**

Wiring diagram no. 81.99192.1389 Sheet 1 of 1  
 Charge status 04 01

**A = Power take-off 2 with ZDR interface**

A100 (255) Central fuse, relay and terminal block  
 A302 (352) Central computer ?  
 A403 (339) Vehicle management computer

S220 (478) Switch, indicator, power take-off ?  
 S223 (471) Switch, power take-off ?

X858 Stvd. cab frame  
 X1554 Stvd. power take off 2/TRS heating  
 X1559 Stvd. engine/EDC/transmission IV  
 X1644 Earthing point, cab. adjacent to central fuse, relay and terminal block  
 X1693 Crimped connector, line 60028  
 X1904 Threaded bolt M6 (VP box)  
 X1949 Stvd. engine/transmission (VP box)  
 X1996 Stvd. intermediate speed control interface (FFR)  
 X2541 (246) Potential distributor, 21-pin line 31000  
 X2542 (246) Potential distributor, 21-pin line 53000

Y154 (126) Solenoid valve, power take-off 2

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electrics area   | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |
| ⊖ | Supplementary heating    |   |                              |

Wiring diagram no. 81.99192.1389 Sheet 1 of 1





Radio 12V

Legend

Wiring diagram no. **81.99192.2475** Sheet 1 of 1  
 Change status: 02 01

**A = Radio**

**B = Active aerial**

A100 (255) Central fuse, relay and terminal block

A148 Radio/cassette player

A155 (182) Voltage transformer 24V/12V

AJ02 (352) Central computer 2

B157 (298) Driver's loudspeaker, front left

B158 (298) Driver's loudspeaker, front right

W100 (173) Radio aerial

X1546 Stvd. door right

X1547 Stvd. door left

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block

X1863 Stvd. loudspeaker, left

X1864 Stvd. loudspeaker, right

X1974 Stvd. for active aerial

X2432 Stvd. adaptation 12V radio

X2459 Stvd. adaptal on mute signal

X2496 Adaptation mute signal lane guard

Marking of mounting positions

⊙ Tail

⊙ Engine

⊙ Gearbox

⊙ Front

⊙ Bumper

⊙ Entrance right

⊙ Entrance left

⊙ Central electrics area

⊙ Control unit racks

⊙ Rear wall of cab

⊙ Instrument panel

⊙ Central part

⊙ Steering wheel/column

⊙ Foot pedals

⊙ Front wall, inside left

⊙ Front wall, inside right

⊙ Driving seat

⊙ Passenger seat

⊙ Control panel

⊙ Battery box

⊙ B-pillar on driver's side

⊙ A-pillar on driver's side

⊙ B-pillar on passenger's side

⊙ A-pillar on passenger's side

⊙ Ceiling/roof

⊙ Front axle

⊙ Rear axle

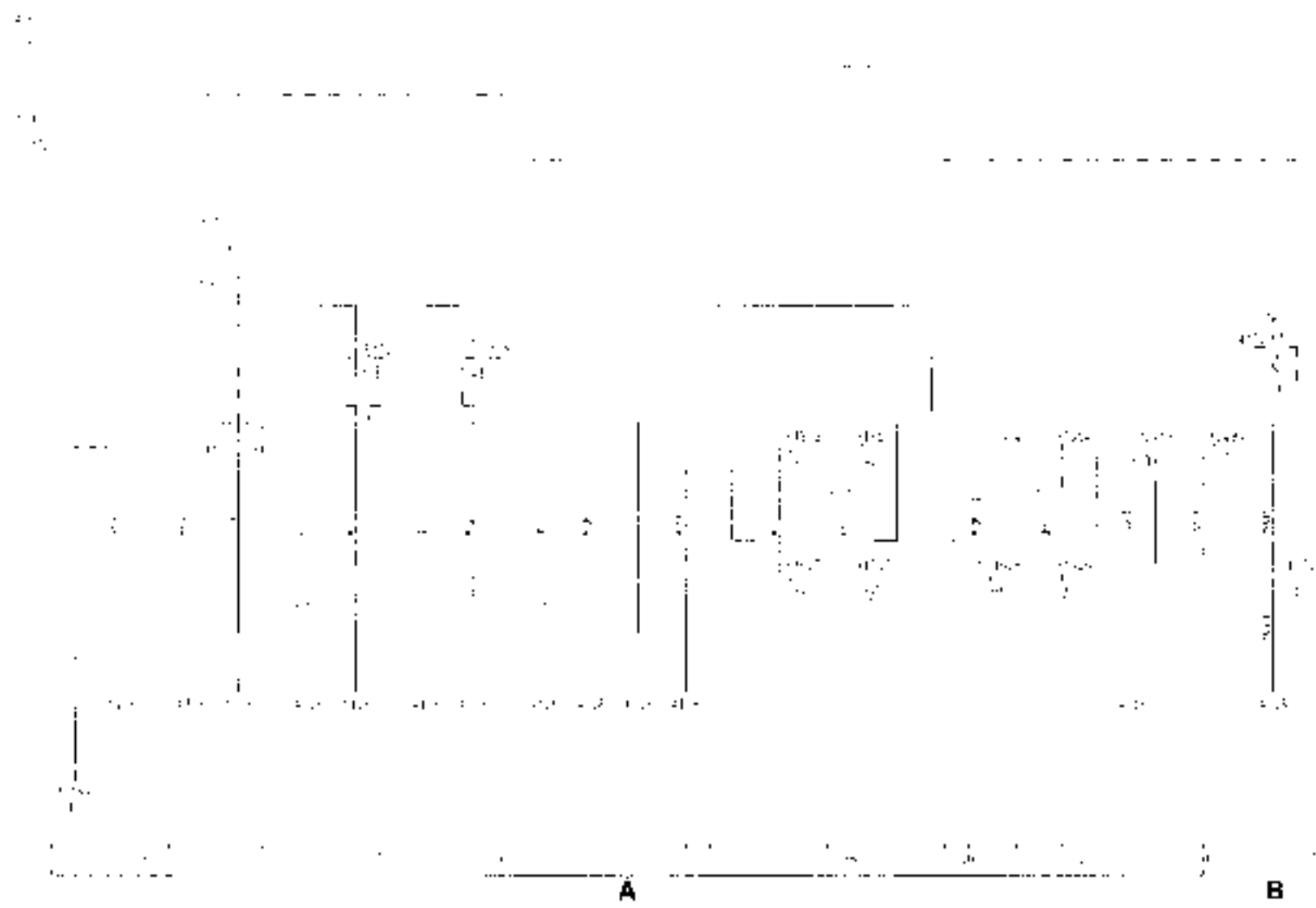
⊙ Front part of frame

⊙ Rear part of frame

⊙ Door left

⊙ Door right

Wiring diagram no. 81.99192.2475 Sheet 1 of 1



Radio 12V MAN-Sound (LL)

Legend

Wiring diagram no. 81.99192.2484 Sheet 1 of 1  
Change status: 11.00

**A = Radio**

**B = Active aerial**

**C = Loudspeaker**

A100 (255) Central fuse, relay and terminal block  
A143 Radiocassette player  
A155 (182) Voltage transformer 24V/12V  
A302 (352) Central computer ?

B141 (296) Loudspeaker 1, door left  
B142 (296) Loudspeaker 1, door right  
B143 (297) Loudspeaker 2, door left  
B144 (297) Loudspeaker 2, door right  
B157 (298) Driver's loudspeaker, front left  
B158 (298) Driver's loudspeaker, front right

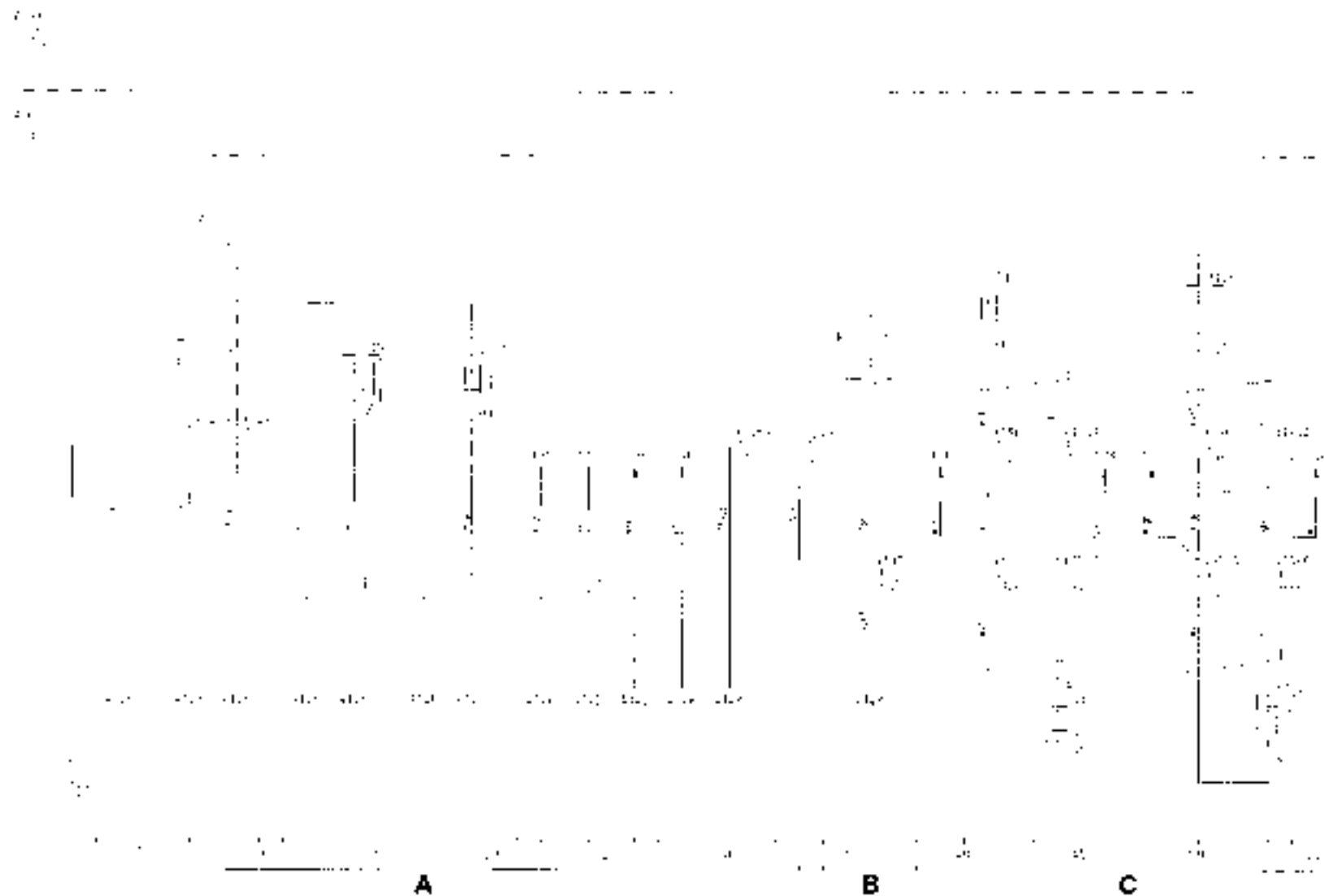
W100 (173) Radio aerial

X1546 Std. door right  
X1547 Std. door left  
X1841 Earthing point, cap. adjacent to central fuse relay and terminal block  
X1863 Std. loudspeaker, left  
X1864 Std. loudspeaker, right  
X1974 Std. for active aerial  
X2439 Std. adaptation 12V radio  
X2459 Std. adaptation mute signal  
X2495 Std. adaptation mute signal lane guard

Marking of mounting positions

- |                              |                                   |
|------------------------------|-----------------------------------|
| (A) Tail                     | (16) Driving seat                 |
| (B) Engine                   | (17) Passenger seat               |
| (C) Gearbox                  | (20) Control panel                |
| (F) Front                    | (18) Battery box                  |
| (R) Bumper                   | (41) B-pillar on driver's side    |
| (E) Entrance right           | (42) A-pillar on driver's side    |
| (L) Entrance left            | (43) B-pillar on passenger's side |
| (E) Central electric area    | (44) A pillar on passenger's side |
| (C) Control unit racks       | (19) Ceiling/roof                 |
| (10) Rear wall of cab        | (14) Front axle                   |
| (I) Instrument panel         | (15) Rear axle                    |
| (E) Central part             | (40) Front part of frame          |
| (S) Steering wheel/column    | (45) Rear part of frame           |
| (P) Foot pedals              | (60) Door left                    |
| (F) Front wall, inside left  | (61) Door right                   |
| (R) Front wall, inside right |                                   |

Wiring diagram no. 81.99192.2484 Sheet 1 of 1



Radio 12V MAN-Sound (RL)

Legend

Wiring diagram no. 81.99192 2444 Sheet 1 of 1  
Change status: 12.00

A = Radio

B = Active aerial

C = Loudspeaker

A100 (255) Central fuse, relay and terminal block  
A148 Radio/cassette player  
A155 (182) Voltage transformer 24V/12V  
A302 (352) Central computer 2

B141 (296) Loudspeaker 1, door left  
B142 (296) Loudspeaker 1, door right  
B143 (297) Loudspeaker 2, door left  
B144 (297) Loudspeaker 2, door right  
B157 (298) Driver's loudspeaker, front left  
B158 (298) Driver's loudspeaker, front right

W100 (173) Radio aerial

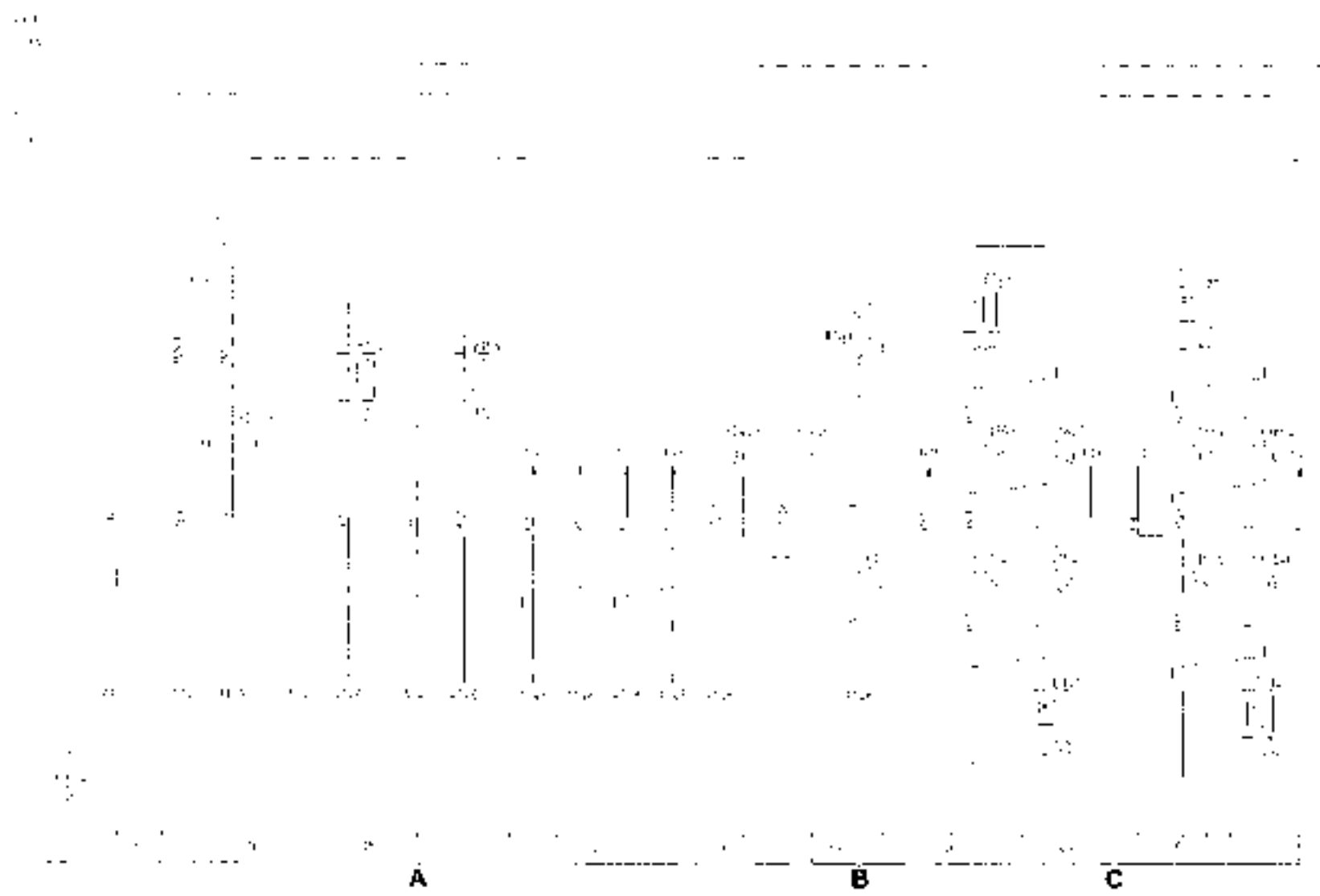
X1546 Std. door right  
X1547 Std. door left  
X1644 Earthing point, cab. adjacent to central fuse, relay and terminal block  
X1863 Std. loudspeaker, left  
X1864 Std. loudspeaker, right  
X1974 Std. for active aerial  
X2432 Std. adaptation 12V radio  
X2459 Std. adaptation mute signal  
X2496 Std. adaptation mute signal lane guard

Marking of mounting positions

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓒ Driving seat                 |
| Ⓔ Engine                   | Ⓓ Passenger seat               |
| Ⓕ Gearbox                  | Ⓔ Control panel                |
| Ⓖ Front                    | Ⓕ Battery box                  |
| Ⓗ Bumper                   | Ⓖ R-pillar on driver's side    |
| Ⓙ Entrance right           | Ⓗ A-pillar on driver's side    |
| Ⓚ Entrance left            | Ⓙ B-pillar on passenger's side |
| Ⓛ Central electrics area   | Ⓚ A-pillar on passenger's side |
| Ⓜ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓝ Rear wall of cab         | Ⓜ Front axle                   |
| Ⓟ Instrument panel         | Ⓝ Rear axle                    |
| Ⓠ Central part             | Ⓟ Front part of frame          |
| Ⓡ Steering wheel/column    | Ⓠ Rear part of frame           |
| Ⓢ Foot pedals              | Ⓡ Door left                    |
| Ⓣ Front wall, inside left  | Ⓢ Door right                   |
| Ⓤ Front wall, inside right |                                |



Wiring diagram no. 81.99192.2444 Sheet 1 of 1



**Radio 24V**

**Legend**

Wiring diagram no. **81.99192.2879** Sheet 1 of 1  
 Charge status: 10.00

**A = Active aerial**

**B = Radio**

**A100** (255) Central fuse, relay and terminal block  
**A148** (574) Radio/cassette player  
**A302** (352) Central computer 2

**B157** (298) Driver's loudspeaker, front left  
**B158** (298) Driver's loudspeaker, front right

**W100** (173) Radio aerial

**X1639** Soldered connector, 1 no 16000  
**X1643** Soldered connector, 1 no 58300  
**X1644** Earthing point, cab. adjacent to central fuse, relay and terminal block  
**X1974** Slvd. for active aerial  
**X2543** (246) Potential distributor, 21 pin line 30006

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓜ Passenger seat               |
| Ⓒ Gearbox                  | Ⓝ Control panel                |
| Ⓓ Front                    | Ⓞ Battery box                  |
| Ⓔ Bumper                   | Ⓟ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓠ A-pillar on driver's side    |
| Ⓜ Entrance left            | Ⓡ B-pillar on passenger's side |
| Ⓝ Central electric area    | Ⓢ A-pillar on passenger's side |
| Ⓞ Control unit racks       | Ⓣ Ceiling/roof                 |
| Ⓟ Rear wall of cab         | Ⓤ Front axle                   |
| Ⓠ Instrument panel         | Ⓥ Rear axle                    |
| Ⓡ Central part             | Ⓦ Front part of frame          |
| Ⓢ Steering wheel/column    | Ⓧ Rear part of frame           |
| Ⓣ Foot pedals              | Ⓨ Door left                    |
| Ⓤ Front wall, inside left  | Ⓩ Door right                   |
| Ⓥ Front wall, inside right |                                |

Wiring diagram no. **B1 99192.2879** Sheet **1** of **1**

100

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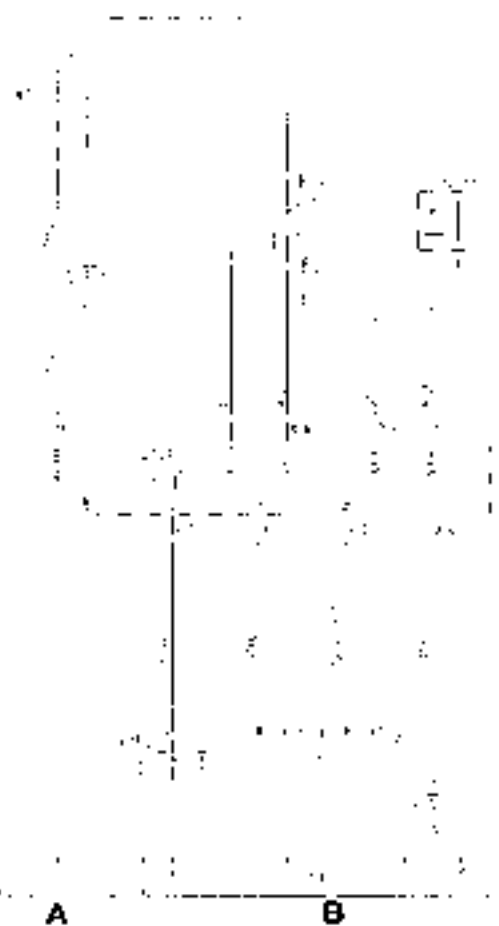
108

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**Radio 24V MAN-Sound (LL)**

**Legend**

Wiring diagram no. 81.99192.2855 Sheet 1 of 1  
Change status: 09.00

**A = Active aerial**  
**B = Radio**  
**C = Amplifier**  
**D = Loudspeaker**

**A100** (255) Central fuse, relay and terminal block  
**A148** (574) Radio/cassette player  
**A302** (352) Central computer 2

**B141** (296) Loudspeaker 1, door left  
**B142** (296) Loudspeaker 1, door right  
**B143** (297) Loudspeaker 2, door left  
**B144** (297) Loudspeaker 2, door right  
**B157** (296) Driver's loudspeaker, front left  
**B158** (298) Driver's loudspeaker, front right

**N106** (127) Audio amplifier

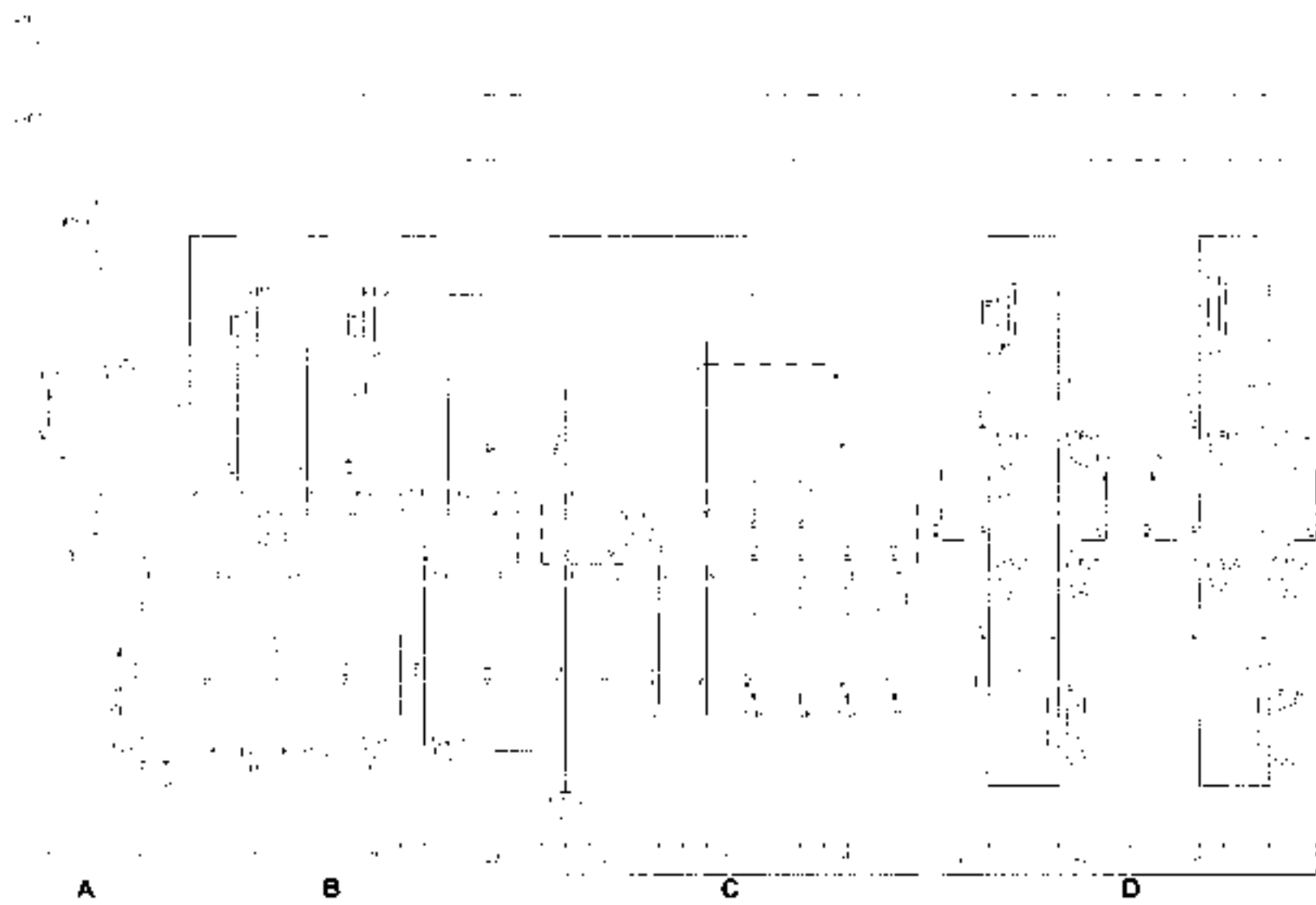
**W130** (173) Radio aerial

**X1546** Std. door right  
**X1547** Std. door left  
**X1639** Soldered connector, line 16000  
**X1643** Soldered connector, line 58300  
**X1644** Earthing point, cab. adjacent to central fuse, relay and terminal block  
**X1683** Std. loudspeaker, left  
**X1684** Std. loudspeaker, right  
**X1974** Std. for active aerial  
**X2459** Std. adaptation mute signal  
**X2496** Adaptation mute signal lane guard  
**X2540** (246) Potential distributor, 21-pin line 30008

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊙ Tail                     | ⊙ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊙ Gearbox                  | ⊙ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Rumper                   | ⊙ B-pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B-pillar on passenger's side |
| ⊙ Central electrics area   | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/roof                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊙ Central part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Foot pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |

Wiring diagram no. **81.99192.2855** Sheet **1** of **1**



**Radio 24V MAN-Sound (RL)**

**Legend**

Wiring diagram no. **81.99192.2656** Sheet 1 of 3  
 Change status: 09.08

**A = Active aerial**

**B = Radio**

**C = Amplifier**

**D = Loudspeaker**

**A100** (255) Central fuse, relay and terminal block  
**A148** (574) Radiocassette player  
**A302** (352) Central computer ?

**B141** (296) Loudspeaker 1, door left  
**B142** (296) Loudspeaker 1, door right  
**B143** (297) Loudspeaker 2, door left  
**B144** (297) Loudspeaker 2, door right  
**B157** (298) Driver's loudspeaker, front left  
**B158** (298) Driver's loudspeaker, front right

**N106** (127) Audio amplifier

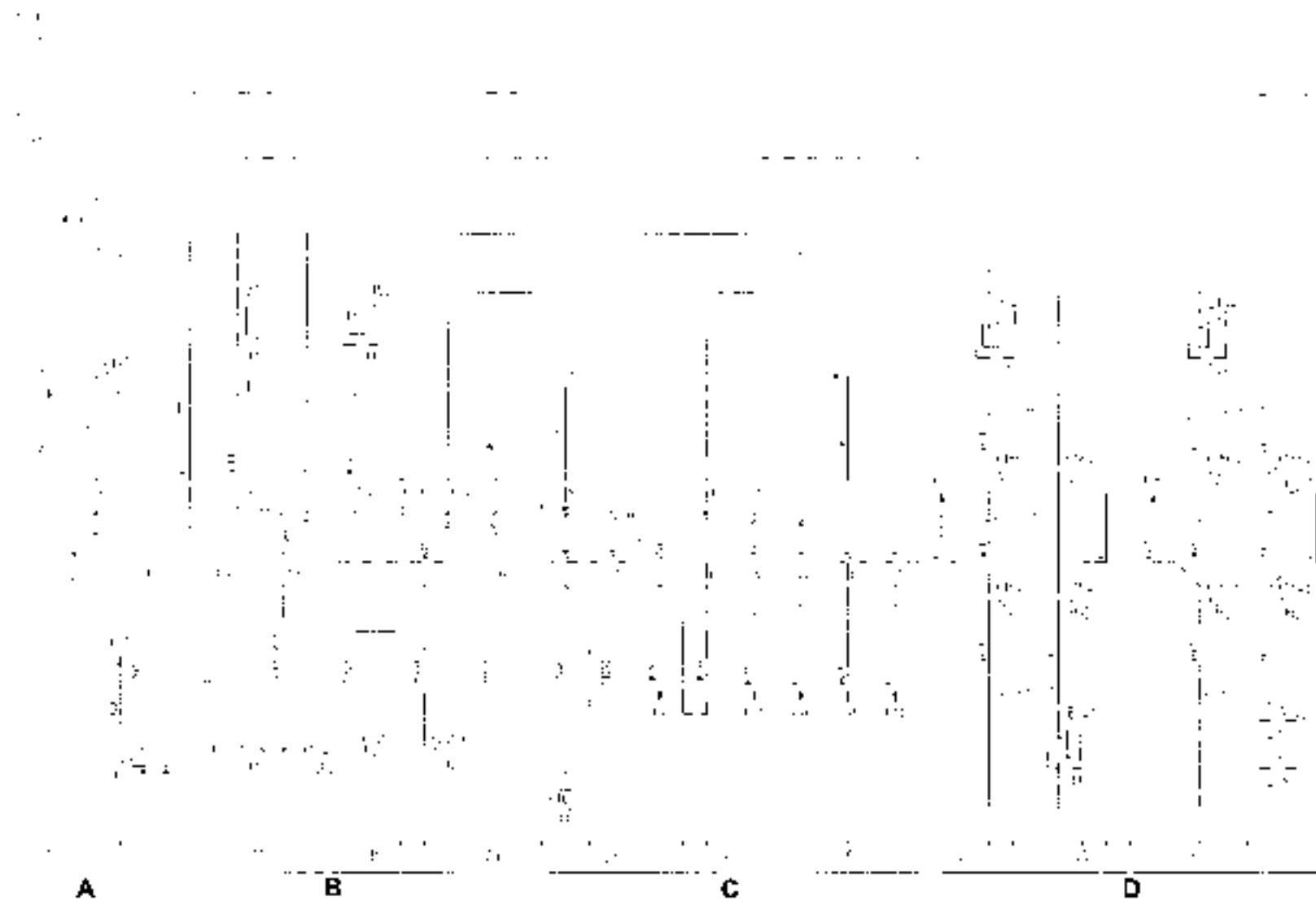
**W100** (173) Radio aerial

**X1546** Std. door right  
**X1547** Std. door left  
**X1639** Soldered connector, line 46000  
**X1643** Soldered connector, line 58300  
**X1544** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1863** Std. loudspeaker, left  
**X1864** Std. loudspeaker, right  
**X1874** Std. for active aerial  
**X2459** Std. adaptation mute signal  
**X2496** Adaptation mute signal line guard  
**X2543** (246) Potential distributor, 21-pin line 30006

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓔ Bumper                   | Ⓜ B-pillar on driver's side    |
| Ⓚ Entrance right           | Ⓝ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓞ B-pillar on passenger's side |
| Ⓜ Central electric area    | Ⓟ A-pillar on passenger's side |
| Ⓝ Control unit racks       | Ⓠ Ceiling/roof                 |
| Ⓞ Rear wall of cab         | Ⓡ Front axle                   |
| Ⓟ Instrument panel         | Ⓢ Rear axle                    |
| Ⓠ Central part             | Ⓣ Front part of frame          |
| Ⓡ Steering wheel/column    | Ⓤ Rear part of frame           |
| Ⓢ Foot pedals              | Ⓡ Door left                    |
| Ⓣ Front wall, inside left  | Ⓢ Door right                   |
| Ⓤ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2856 Sheet 1 of 1



**Radio 24V with CD changer and MAN-Sound (LL)**

**Legend**

Wiring diagram no. **81.99192.2858** Sheet 1 of 2

Change status 09.00

**A = Active aenial**

**B = Radio, CD changer**

**A100** (255) Central fuse, relay and terminal block

**A148** (574) Radio/cassette player

**A155** (182) Voltage transformer 24V/12V

**A302** (352) Central computer 2

**A568** (546) CU changer

**B157** (298) Driver's loudspeaker, front left

**U158** (298) Driver's loudspeaker, front right

**W100** (173) Radio aenal

**X1639** Soldered connector, line 16000

**X1643** Soldered connector, line 58300

**X1974** Shvd. for active aenal

**X2372** Shvd. supply to CD changer

**X2433** Shvd. adaptation 12V radio

**X2543** (246) Potential distributor, 21-pin line 30006

**Marking of mounting positions**

⊖ Tail

⊕ Engine

⊕ Gearbox

⊕ Front

⊕ Bumper

⊕ Entrance right

⊕ Entrance left

⊕ Central electrics area

⊕ Control unit racks

⊕ Rear wall of cab

⊕ Instrument panel

⊕ Central part

⊕ Steering wheel/column

⊕ Front pedals

⊕ Front wall, inside left

⊕ Front wall, inside right

⊕ Driving seat

⊕ Passenger seat

⊕ Control panel

⊕ Battery box

⊕ B-pillar on driver's side

⊕ A-pillar on driver's side

⊕ U-pillar on passenger's side

⊕ A-pillar on passenger's side

⊕ Ceiling/roof

⊕ Front axle

⊕ Rear axle

⊕ Front part of frame

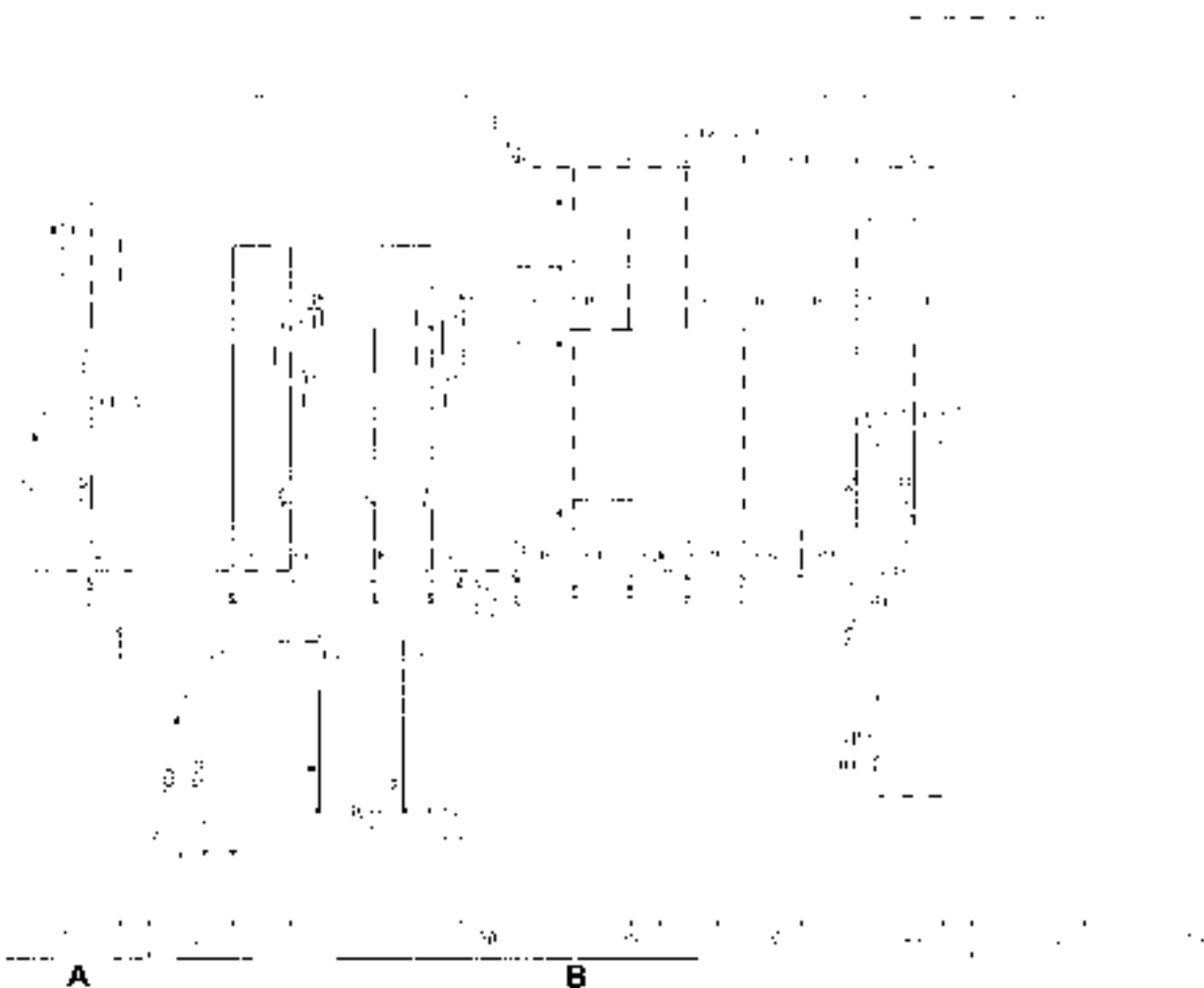
⊕ Rear part of frame

⊕ Door left

⊕ Door right



Wiring diagram no. 81.99192.2858 Shee: 1 of 2



**Radio 24V with CD changer and MAN-Sound (LL)****Legend**Wiring diagram no. **81.99192.2858** Sheet 2 of 2

Change status: 10.00

**A = Radio****B = Amplifier****C = Loudspeaker****A100** (255) Central fuse, relay and terminal block**A148** (574) Radio/cassette player**A302** (352) Central computer 2**B141** (296) Loudspeaker 1, door left**B142** (296) Loudspeaker 1, door right**B143** (297) Loudspeaker 2, door left**B144** (297) Loudspeaker 2, door right**N106** (127) Audio amplifier**X1646** Std. door right**X1647** Std. door left**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block**X1863** Std. loudspeaker, left**X1864** Std. loudspeaker, right**X2459** Std. adaptation mute signal**X2406** Adaptation mute signal - lane guard**Marking of mounting positions**

① Tail

② Engine

③ Gearbox

④ Front

⑤ Bumper

⑥ Entrance right

⑦ Entrance left

⑧ Central electrics area

⑨ Control unit racks

⑩ Rear wall of cab

⑪ Instrument panel

⑫ Central part

⑬ Steering wheel/column

⑭ Foot pedals

⑮ Front wall, inside left

⑯ Front wall, inside right

⑰ Driving seat

⑱ Passenger seat

⑲ Control panel

⑳ Battery box

㉑ B-pillar on driver's side

㉒ A-pillar on driver's side

㉓ B-pillar on passenger's side

㉔ A-pillar on passenger's side

㉕ Ceiling/roof

㉖ Front axle

㉗ Rear axle

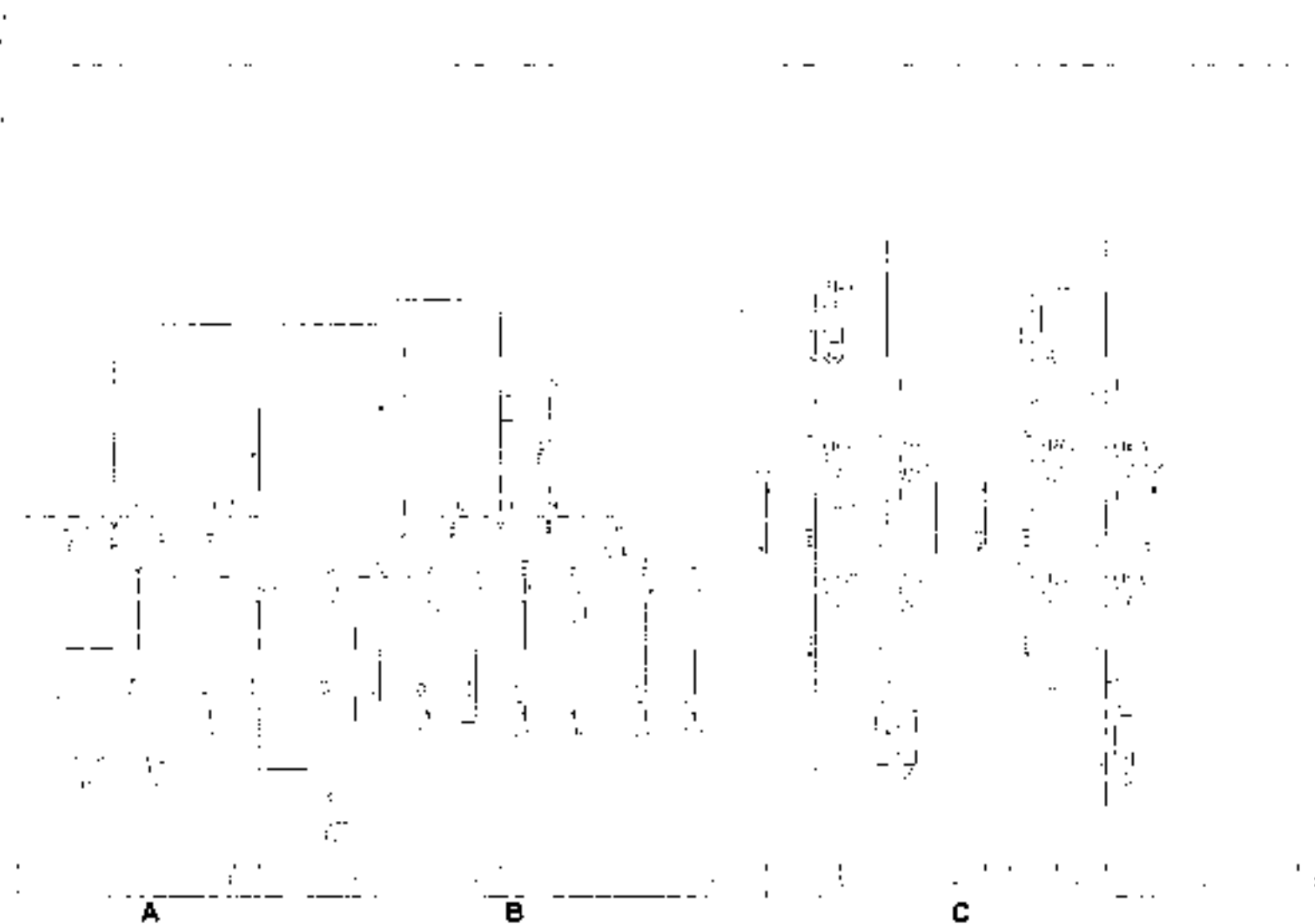
㉘ Front part of frame

㉙ Rear part of frame

㉚ Door left

㉛ Door right

Wiring diagram no. 81.99192.2858 Sheet 2 of 2



**Radio 24V with CD changer and MAN-Sound (RL)**

**Legend**

Wiring diagram no. **81.99192.2859** Sheet 1 of 2

Change status: 09/00

**A = Active aerial**

**B = Radio, CD changer**

**A100** (255) Central fuse, relay and terminal block  
**A146** (574) Radio/cassette player  
**A155** (182) Voltage transformer 24V/12V  
**A302** (352) Central computer 2  
**A568** (546) CD changer

**B157** (298) Driver's loudspeaker, front left  
**B158** (298) Driver's loudspeaker, front right

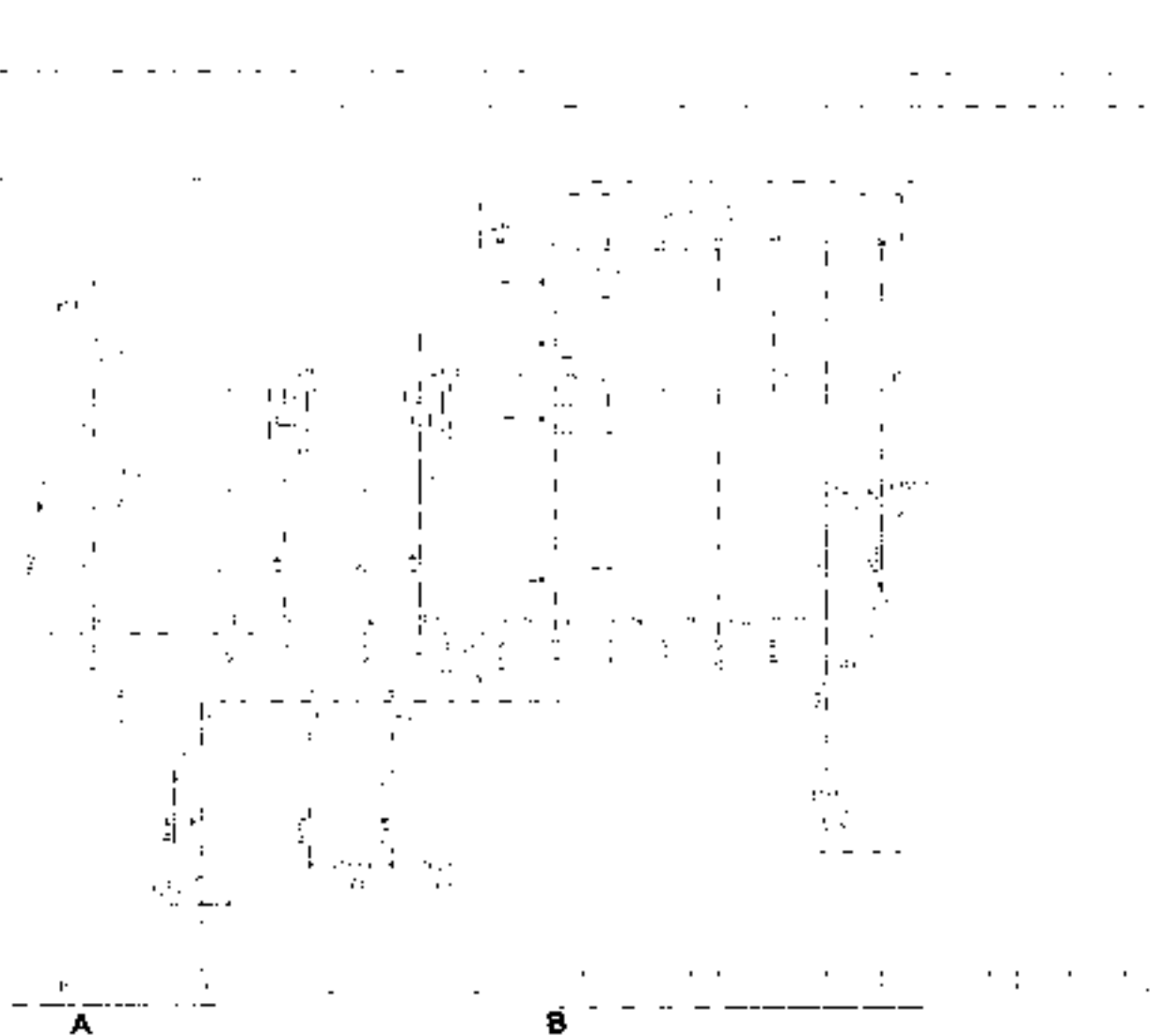
**W100** (173) Radio aerial

**X1639** Soldered connector, line 16000  
**X1643** Soldered connector, line 58300  
**X1974** Sld. for active aerial  
**X2372** Sld. supply to CD changer  
**X2435** Sld. adaptation 12V radio  
**X2543** (246) Potential distributor, 21-pin line 30306

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓒ Driver seat                  |
| Ⓔ Engine                   | Ⓓ Passenger seat               |
| Ⓕ Gearbox                  | Ⓔ Control panel                |
| Ⓗ Front                    | Ⓕ Battery box                  |
| Ⓖ Bumper                   | Ⓖ B-pillar on driver's side    |
| Ⓙ Entrance right           | Ⓖ A-pillar on driver's side    |
| Ⓚ Entrance left            | Ⓚ B-pillar on passenger's side |
| Ⓛ Central electric area    | Ⓛ A-pillar on passenger's side |
| Ⓜ Control unit racks       | Ⓛ Ceiling/mat                  |
| Ⓝ Rear wall of cab         | Ⓛ Front axle                   |
| Ⓟ Instrument panel         | Ⓛ Rear axle                    |
| Ⓠ Central part             | Ⓟ Front part of frame          |
| Ⓡ Steering wheel/column    | Ⓟ Rear part of frame           |
| Ⓢ Front pedals             | Ⓡ Door left                    |
| Ⓣ Front wall, inside left  | Ⓡ Door right                   |
| Ⓤ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2859 Sheet 1 of 2



## Radio 24V with CD changer and MAN-Sound (RL)

## Legend

Wiring diagram no. 81.99192.2859 Sheet 2 of 2

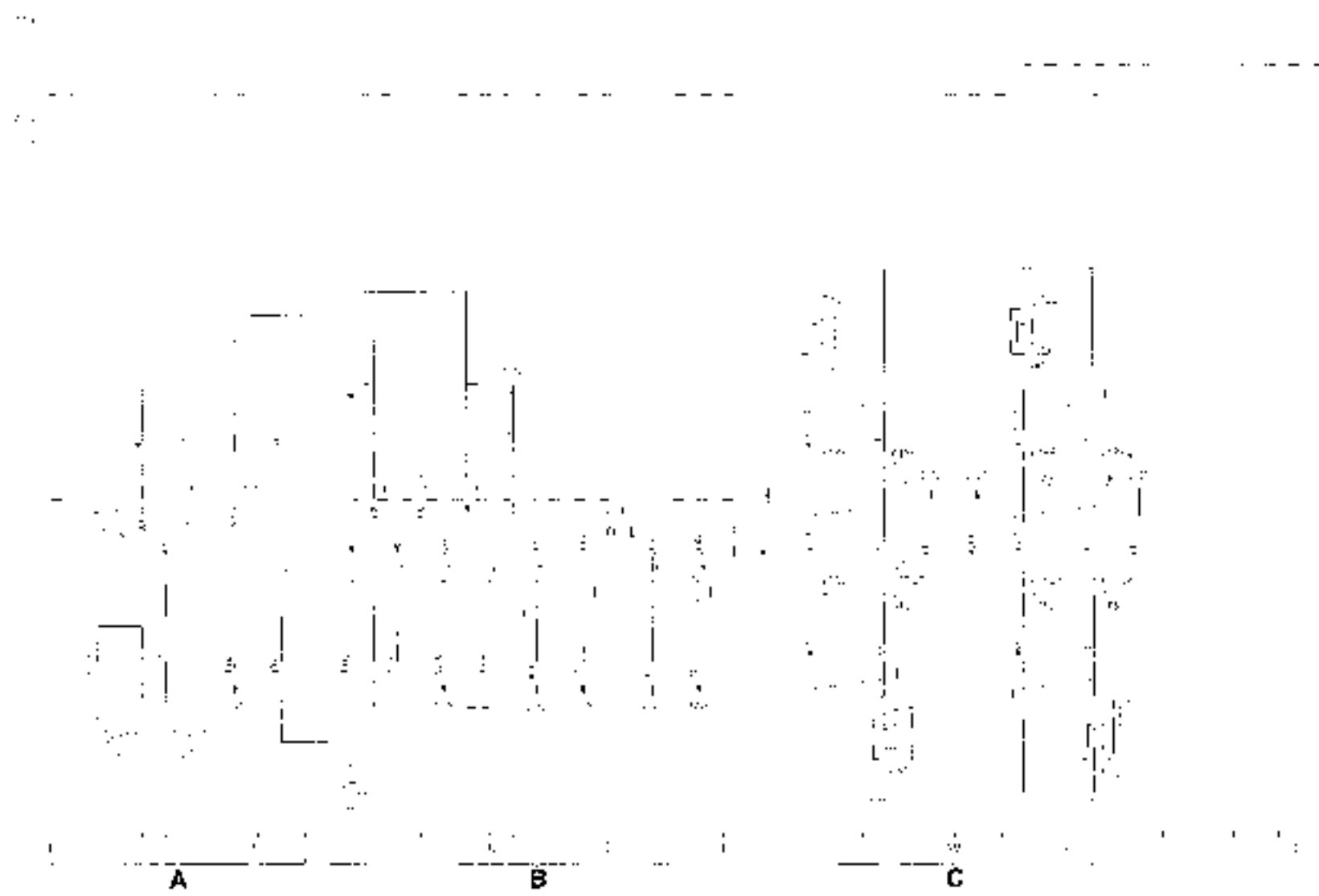
Change status: 10.00

**A = Radio****B = Amplifier****C = Loudspeaker****A100** (255) Central fuse, relay and terminal block**A148** (574) Radio/cassette player**A302** (352) Central computer 2**B141** (296) Loudspeaker 1, door left**B142** (296) Loudspeaker 1, door right**B143** (297) Loudspeaker 2, door left**B144** (297) Loudspeaker 2, door right**N106** (127) Audio amplifier**X1546** Stvd. door right**X1547** Stvd. door left**X1644** Fathing point, cab. adjacent to central fuse relay and terminal block**X1863** Stvd. loudspeaker, left**X1864** Stvd. loudspeaker, right**X2459** Stvd. adaptation mute signal**X2496** Adaptation mute signal - one quant

## Marking of mounting positions

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊗ | Tail                     | ⊗ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊕ | Gearbox                  | ⊕ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊗ | Bumper                   | ⊗ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊕ | Entrance left            | ⊕ | B-pillar on passenger's side |
| ⊖ | Central electric area    | ⊖ | A-pillar on passenger's side |
| ⊗ | Control unit racks       | ⊗ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊕ | Instrument panel         | ⊕ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊗ | Steering wheel/column    | ⊗ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊕ | Front wall, inside left  | ⊕ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2059 Sheet 2 of 2



**Radio remote control (Infrared)**

**Legend**

Wiring diagram no. 81.99192.1371 Sheet 1 of 1

Change status: 05.01

**A = Infrared radio remote control**

A100 (255) Central fuse, relay and terminal block  
 A148 (368) Radio-cassette player  
 A302 (352) Central computer ?  
 A394 (470) Infrared remote control (receiver)

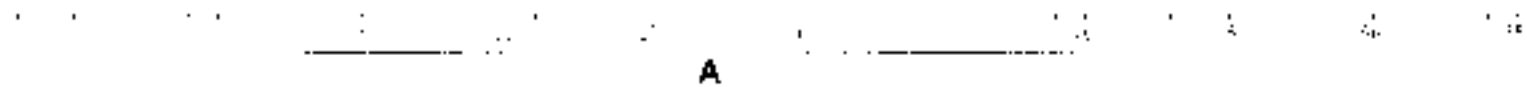
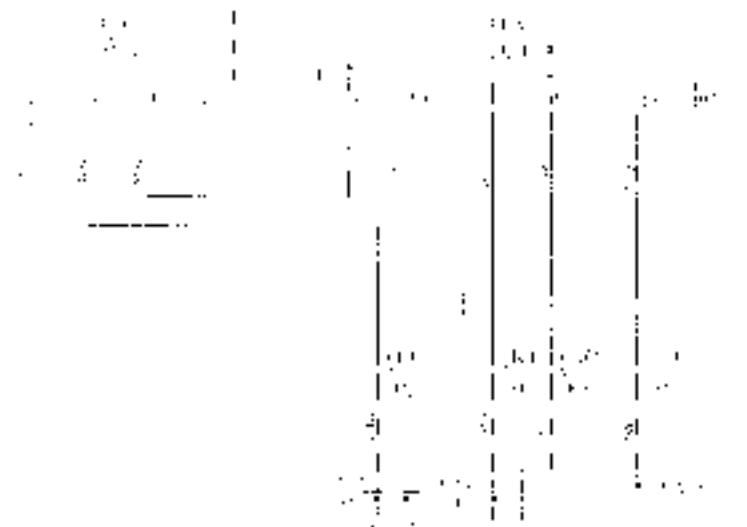
X1401 Stvd. adaptor radio  
 X1639 Soldered connector, line 16000  
 X2541 (24E) Potential distributor, 21-pin line 31000  
 X2543 (24E) Potential distributor, 21-pin line 30006

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊕ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊕ | Control panel                |
| ⊖ | Front                    | ⊕ | Battery box                  |
| ⊖ | Bumper                   | ⊕ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊕ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊕ | B-pillar on passenger's side |
| ⊖ | Central electric area    | ⊕ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊕ | Ceiling/front                |
| ⊖ | Rear wall of cab         | ⊕ | Front axle                   |
| ⊖ | Instrument panel         | ⊕ | Rear axle                    |
| ⊖ | Central part             | ⊕ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊕ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊕ | Door left                    |
| ⊖ | Front wall, inside left  | ⊕ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |



Wiring diagram no. 81.99192-1371 Sheet 1 of 1



A

**Radio navigation system 12V (LL)**

**Legend**

Wiring diagram no. **81.99192.1432** Sheet **1** of **1**

Change status: 05.01

**A = Active aerial, radio**

**B = Loudspeaker**

**A100** (255) Central fuse, relay and terminal block  
**A155** (182) Voltage transformer 24V/12V  
**A302** (352) Central computer 2  
**A408** (403) Tachograph  
**A560** (547) Radio navigation device RNS 3

**B141** (296) Loudspeaker 1, door left  
**B142** (296) Loudspeaker 1, door right  
**B143** (297) Loudspeaker 2, door left  
**B144** (297) Loudspeaker 2, door right  
**B157** (298) Driver's loudspeaker, front left  
**B158** (298) Driver's loudspeaker, front right

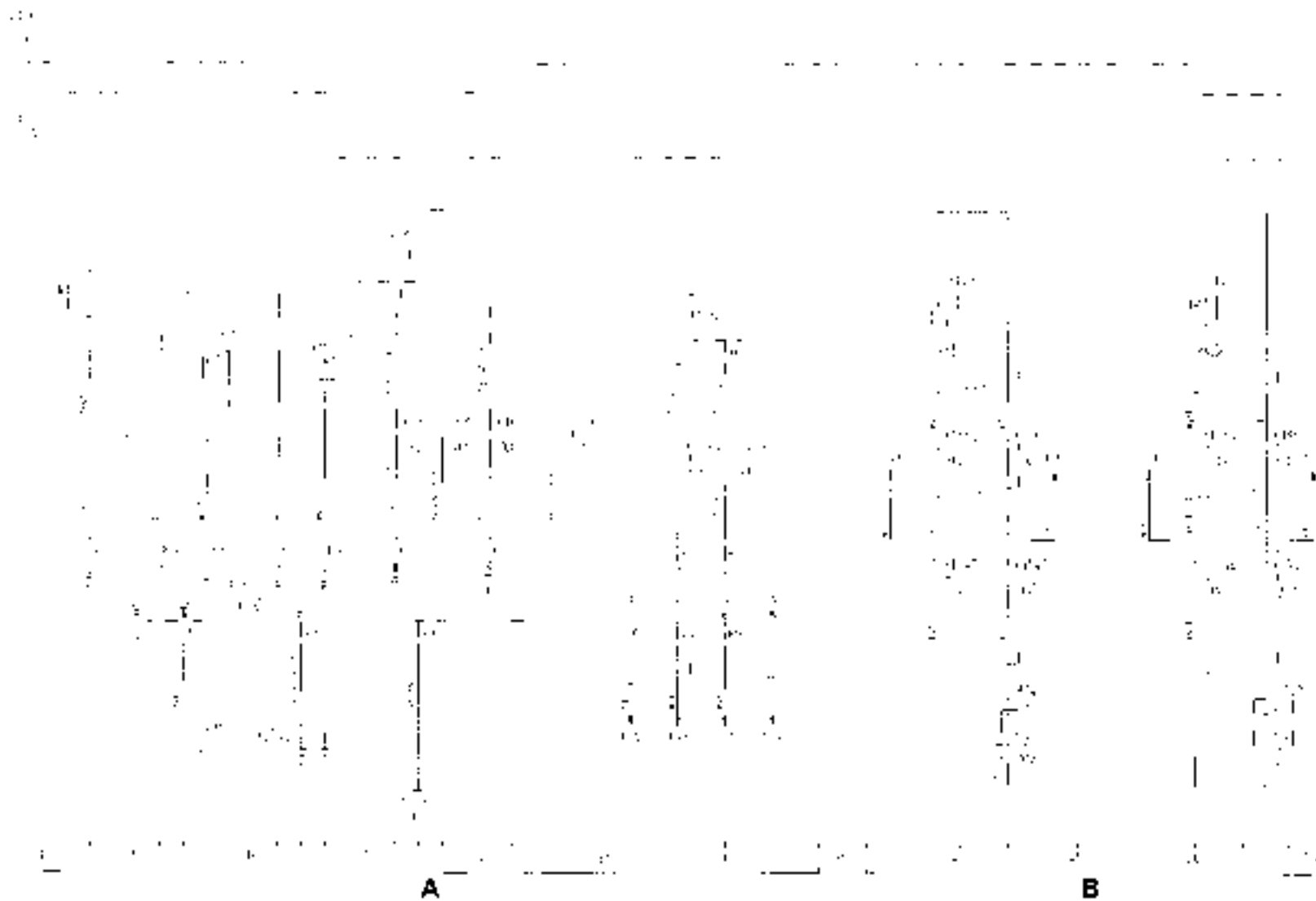
**W177** (171) Combination aerial

**X685** Stvd. line 16500  
**X1536** Stvd. cab tachograph  
**X1546** Stvd. door, right  
**X1547** Stvd. door, left  
**X1627** Stvd. reversing beam  
**X1644** Earthing point, cab adjacent to central fuse, relay and terminal block  
**X13E3** Stvd. loudspeaker, left  
**X18E4** Stvd. loudspeaker, right  
**X1974** Stvd. for active aerial  
**X239A** Stvd. adaptation reversing light  
**X2453** Stvd. adaptation 12V radio  
**X2496** Adaptation mute signal lane guard  
**X2542** (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- Ⓐ Tail
- Ⓑ Engine
- Ⓒ Gearbox
- Ⓓ Front
- Ⓔ Bumper
- Ⓕ Entrance right
- Ⓖ Entrance left
- Ⓗ Central electrics area
- Ⓙ Control unit racks
- Ⓚ Rear wall of van
- Ⓛ Instrument panel
- Ⓜ Central part
- Ⓨ Steering wheel/column
- Ⓩ Foot pedals
- Ⓟ Front wall, inside left
- Ⓠ Front wall, inside right
- Ⓡ Driving seat
- Ⓢ Passenger seat
- Ⓣ Control panel
- Ⓤ Battery box
- Ⓡ B-pillar on driver's side
- Ⓢ A-pillar on driver's side
- Ⓣ B-pillar on passenger's side
- Ⓤ A-pillar on passenger's side
- Ⓡ Ceiling/rout
- Ⓢ Front axle
- Ⓣ Rear axle
- Ⓤ Front part of frame
- Ⓡ Rear part of frame
- Ⓢ Door left
- Ⓣ Door right

Wiring diagram no. 81.99192.1432 Sheet 1 of 1



Radio navigation system 12V (RL)

Legend

Wiring diagram no. 81.99192.1433 Sheet 1 of 1  
Change status: 05.01

**A = Active aenal, radio**

**B = Loudspeaker**

**A100** {255} Control fuse, relay and terminal block  
**A155** {182} Voltage transformer 24V/12V  
**A302** {J52} Central computer 2  
**A408** {403} Tachograph  
**A569** {547} Radio navigation device RNS 3

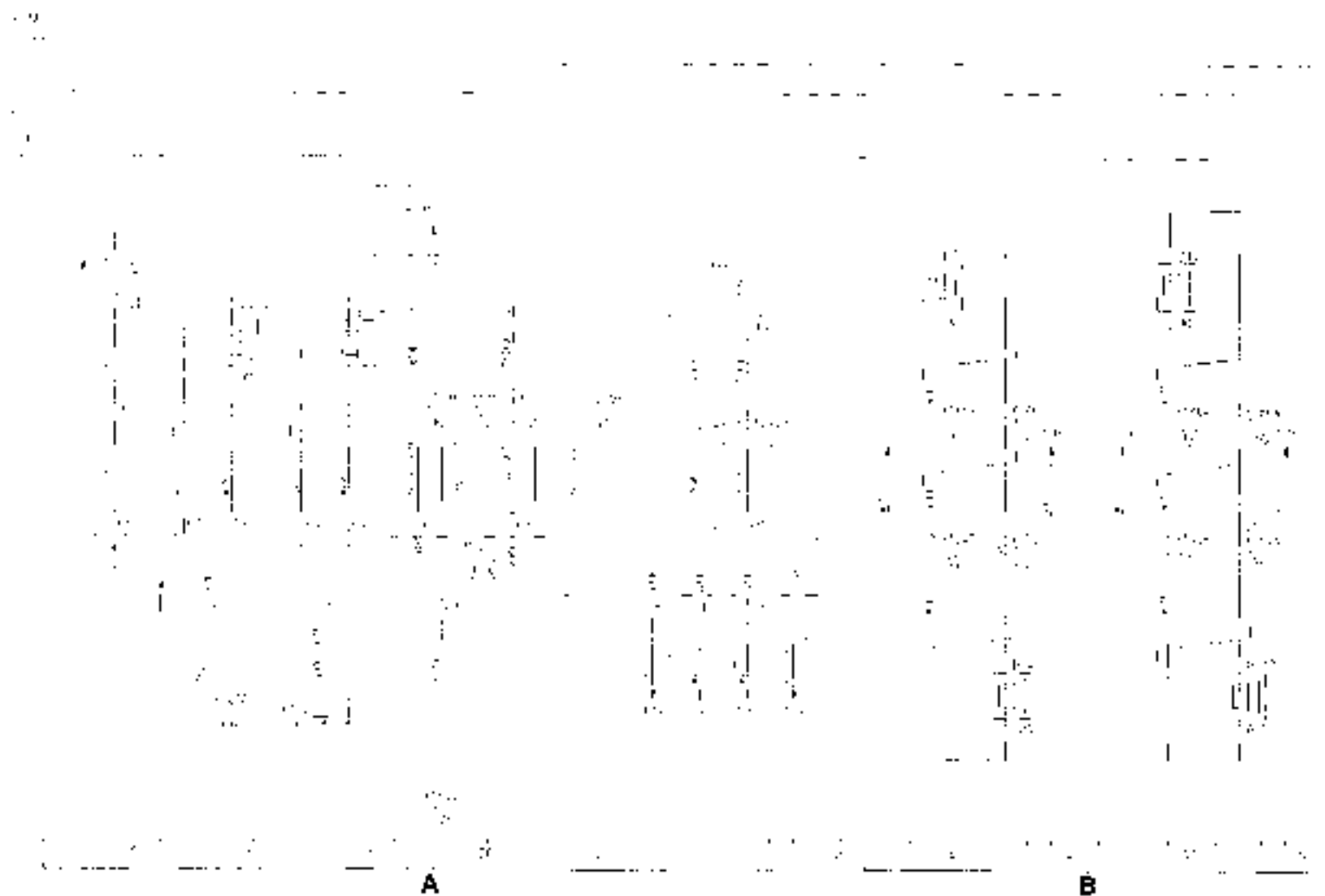
**B141** {296} Loudspeaker 1, door left  
**B142** {296} Loudspeaker 1, door right  
**B143** {297} Loudspeaker 2, door left  
**B144** {297} Loudspeaker 2, door right  
**B157** {298} Driver's loudspeaker, front left  
**B158** {298} Driver's loudspeaker, front right

**W177** {1/1} Combination aenal

**X465** Std. line 16500  
**X1536** Std. cab tachograph  
**X1546** Std. door, right  
**X1547** Std. door, left  
**X1627** Std. reversing beam  
**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1863** Std. loudspeaker, left  
**X1864** Std. loudspeaker, right  
**X1974** Std. for active aenal  
**X2398** Std. adaptation reversing light  
**X2433** Std. adaptation 12V radio  
**X2496** Adaptation mule signal lane guard  
**X2542** {245} Potential distributor, 21-pin line 58000

Marking of mounting positions

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊕ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊕ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electric area    | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/front                |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |



**Radio navigation system 12V with CD changer (LL)**

**Legend**

Wiring diagram no. 81.99192.1434 Sheet 1 of 1  
Change status: 05/01

**A = Active aerial, radio, CD changer**

**B = Loudspeaker**

**A130** (255) Central fuse, relay and terminal block  
**A155** (182) Voltage transformer 24V/12V  
**A302** (352) Central computer 2  
**A408** (403) Tachograph  
**A568** (546) CD changer  
**A569** (547) Radio navigation device RNS 3

**B141** (296) Loudspeaker 1, door left  
**B142** (296) Loudspeaker 1, door right  
**B143** (297) Loudspeaker 2, door left  
**B144** (297) Loudspeaker 2, door right  
**B137** (296) Driver's loudspeaker, front left  
**B158** (296) Driver's loudspeaker, front right

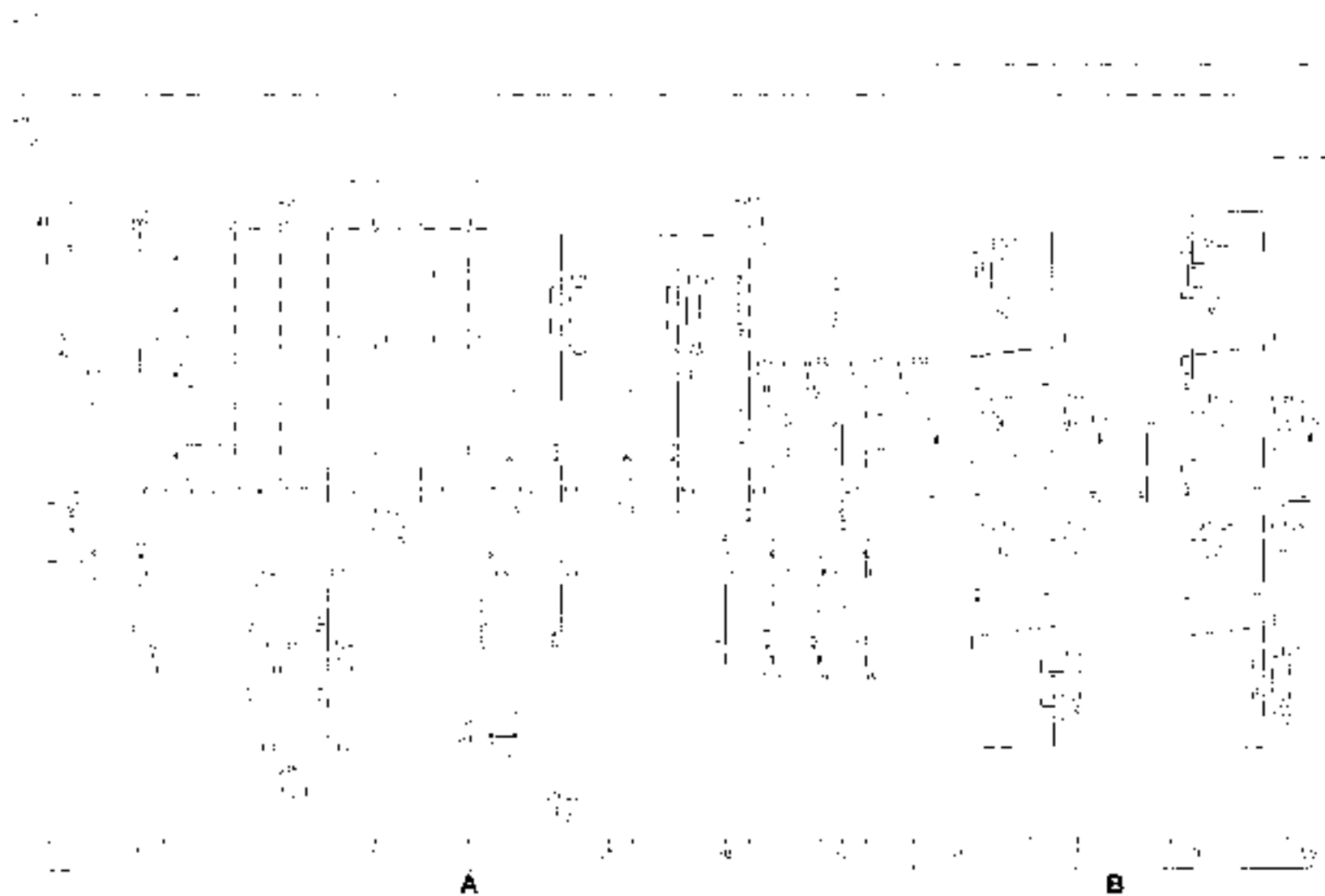
**W177** (171) Combination aerial

**X685** Std. line 16500  
**X1536** Std. cab tachograph  
**X1546** Std. door, right  
**X1547** Std. door, left  
**X1627** Std. reversing beam  
**X1644** Fathing point, cab, adjacent to central fuse relay and terminal block  
**X1063** Std. loudspeaker, left  
**X1064** Std. loudspeaker, right  
**X1874** Std. for active aerial  
**X2398** Std. adaptation reversing light  
**X2433** Std. adaptation 12V radio  
**X2496** Adaptation mute signal lane guard  
**X2542** (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓔ Bumper                   | Ⓙ B-pillar on driver's side    |
| Ⓚ Entrance right           | Ⓚ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓛ B-pillar on passenger's side |
| Ⓜ Central electric area    | Ⓜ A-pillar on passenger's side |
| Ⓝ Control unit racks       | Ⓝ Ceiling/roof                 |
| Ⓞ Rear wall of cab         | Ⓞ Front axle                   |
| Ⓟ Instrument panel         | Ⓟ Rear axle                    |
| Ⓠ Central part             | Ⓠ Front part of frame          |
| Ⓡ Steering wheel/column    | Ⓡ Rear part of frame           |
| Ⓢ Foot pedals              | Ⓢ Door left                    |
| Ⓣ Front wall, inside left  | Ⓣ Door right                   |
| Ⓤ Front wall, inside right |                                |

Wiring diagram no. **B1.99192.1434** Sheet 1 of 1



**Radio navigation system 12V with CD changer (RL)**

**Legend**

Wiring diagram no. **81.99192.1435** Sheet 1 of 1  
 Change status: 05.0'

**A = Active aerial, radio, CD changer**

**B = Loudspeaker**

**A100** (235) Central fuse, relay and terminal block  
**A155** (192) Voltage transformer 24V/12V  
**A302** (232) Central computer 2  
**A408** (403) Tachograph  
**A568** (546) CD changer  
**A660** (547) Radio navigation device RNS 3

**B141** (236) Loudspeaker 1, door left  
**B142** (236) Loudspeaker 1, door right  
**B143** (297) Loudspeaker 2, door left  
**B144** (297) Loudspeaker 2, door right  
**B157** (298) Driver's loudspeaker, front left  
**B158** (298) Driver's loudspeaker, front right

**W177** (171) Combination aerial

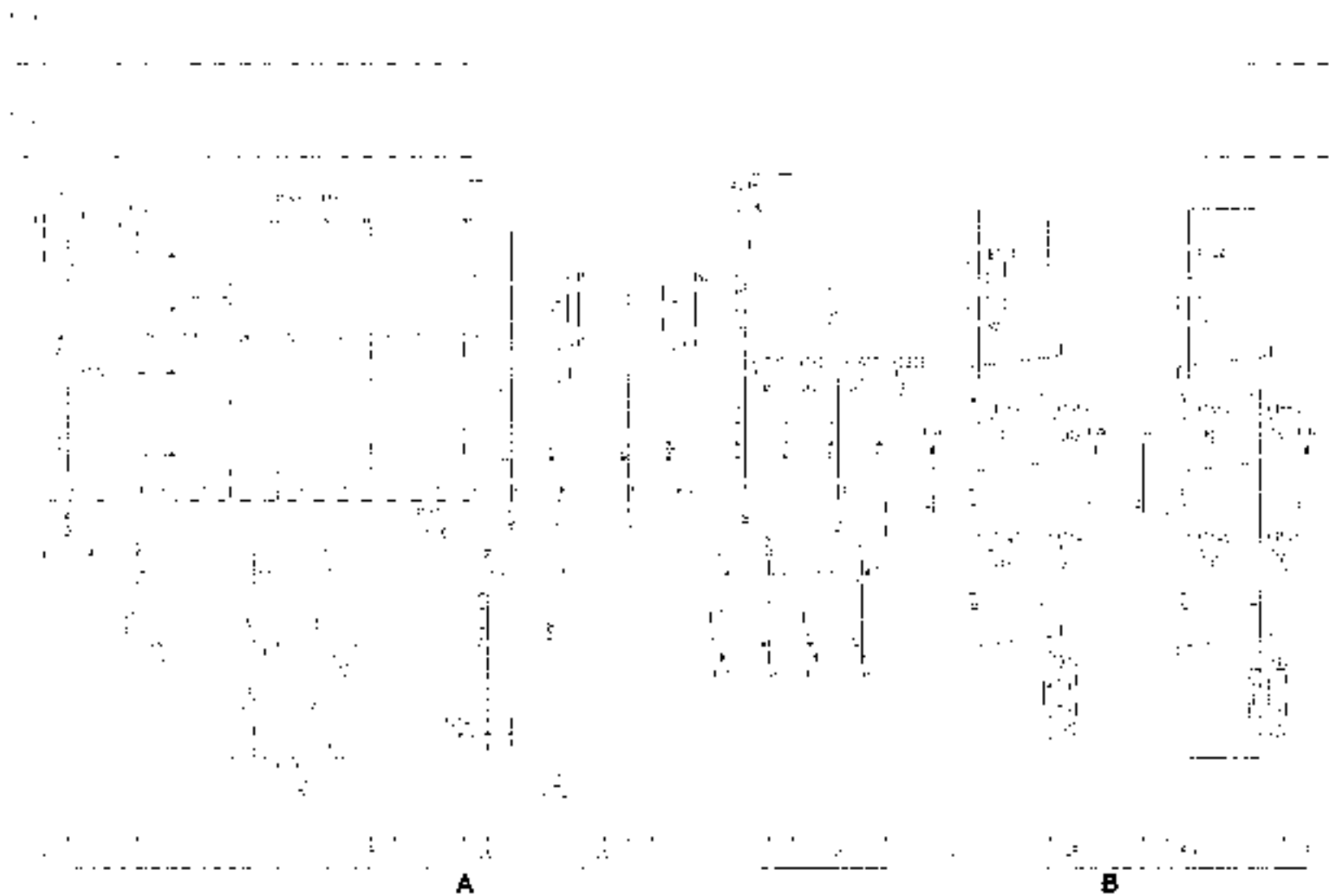
**X605** Std. line 16500  
**X1536** Std. cab tachograph  
**X1546** Std. door, right  
**X1547** Std. door, left  
**X1627** Std. reversing beam  
**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1863** Std. loudspeaker, left  
**X1864** Std. loudspeaker, right  
**X1974** Std. for active aerial  
**X2398** Std. adaptation reversing light  
**X2439** Std. adaptation 12V radio  
**X2496** Adaptation mute signal lane guard  
**X2542** (246) Potential distributor 21-pin line 58000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓔ Bumper                   | Ⓙ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓚ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓛ B-pillar on passenger's side |
| Ⓗ Central electrics area   | Ⓜ A-pillar on passenger's side |
| Ⓙ Control unit racks       | Ⓝ Ceiling/rout                 |
| Ⓛ Rear wall of cab         | Ⓗ Front axle                   |
| Ⓜ Instrument panel         | Ⓡ Rear axle                    |
| Ⓝ Central part             | Ⓢ Front part of frame          |
| Ⓗ Steering wheel/column    | Ⓣ Rear part of frame           |
| Ⓙ Foot pedals              | Ⓤ Door left                    |
| Ⓛ Front wall, inside left  | ⓖ Door right                   |
| Ⓜ Front wall, inside right |                                |



Wiring diagram no. 81.99192.1435 Sheet 1 of 1



**Radio navigation system 12V with Cullmann phone (LL)**

**Legend**

Wiring diagram no. B1.99192.1436 Sheet 1 of 2

Change status: 05.01

**A = Active aerial**

**B = Radio navigation system**

**A100** (255) Central fuse, relay and terminal block

**A140** (388) Radiocassette player

**A302** (352) Central computer 2

**A408** (403) Tachograph

**A560** (547) Radio navigation device RNS 3

**B158** (298) Driver's loudspeaker, front right

**B496** (344) Cab. loudspeaker, left, with hand-free telephone

**W177** (171) Combination aerial

**X686** Std. line 10500

**X1536** Std. cab tachograph

**X1627** Std. reversing gear

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1974** Std. for active aerial

**X2398** Std. adaptation reversing light

**X2496** Adaptation mule signal lane guard

**X2542** (246) Potential distributor 21-p-n line 58000

**Marking of mounting positions**

Ⓐ Tail

Ⓔ Engine

Ⓕ Gearbox

Ⓖ Front

Ⓗ Bumper

Ⓘ Entrance right

Ⓚ Entrance left

Ⓛ Central electrics area

Ⓜ Control unit racks

Ⓝ Near wall of cab

Ⓞ Instrument panel

Ⓟ Central part

Ⓠ Steering wheel/column

Ⓡ Foot pedals

Ⓢ Front wall, inside left

Ⓣ Front wall, inside right

ⓁⓁ Driving seat

ⓁⓇ Passenger seat

ⓁⓈ Control panel

ⓁⓉ Battery box

ⓁⓀ B-pillar on driver's side

ⓁⓁⓈ A-pillar on driver's side

ⓁⓁⓇ B-pillar on passenger's side

ⓁⓁⓈ A-pillar on passenger's side

ⓁⓁⓉ Ceiling/roof

ⓁⓁⓃ Front axle

ⓁⓁⓄ Rear axle

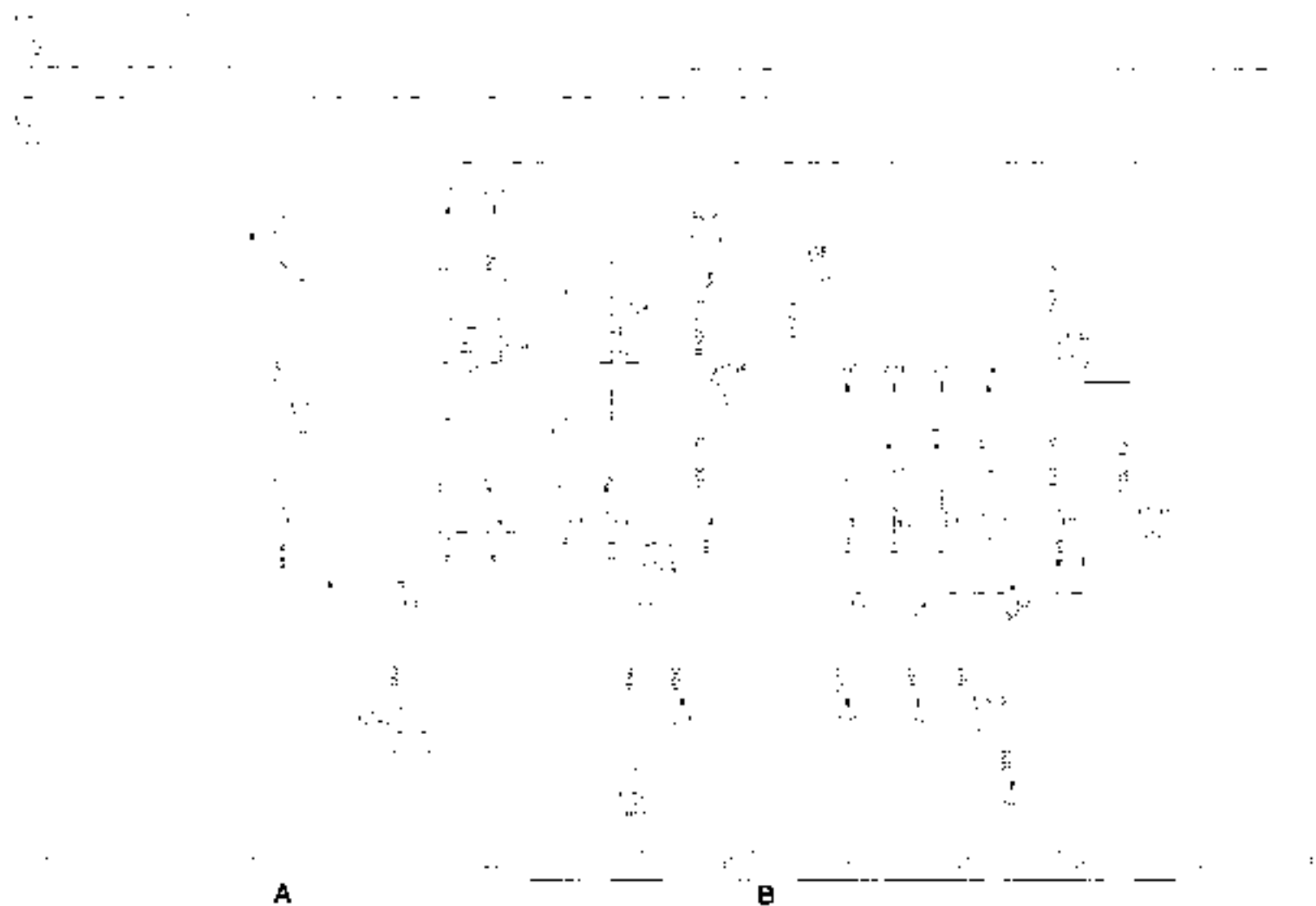
ⓁⓁⓅ Front part of frame

ⓁⓁⓆ Rear part of frame

ⓁⓁⓇ Door left

ⓁⓁⓈ Door right

Wiring diagram no. **81.99192.1436** Sheet 1 of 2



**Radio navigation system 12V with Cullmann phone (LL)**

**Legend**

Wiring diagram no. **81.99192.1436** Sheet: 2 of 2  
 Charge status: 05 01

**A = Loudspeaker**

**B = Cullmann telephone**

**A100** (255) Central fuse, relay and terminal block  
**A155** (182) Voltage transformer 24V/12V  
**A302** (352) Central computer 2  
**A568** (545) Cellular phone station

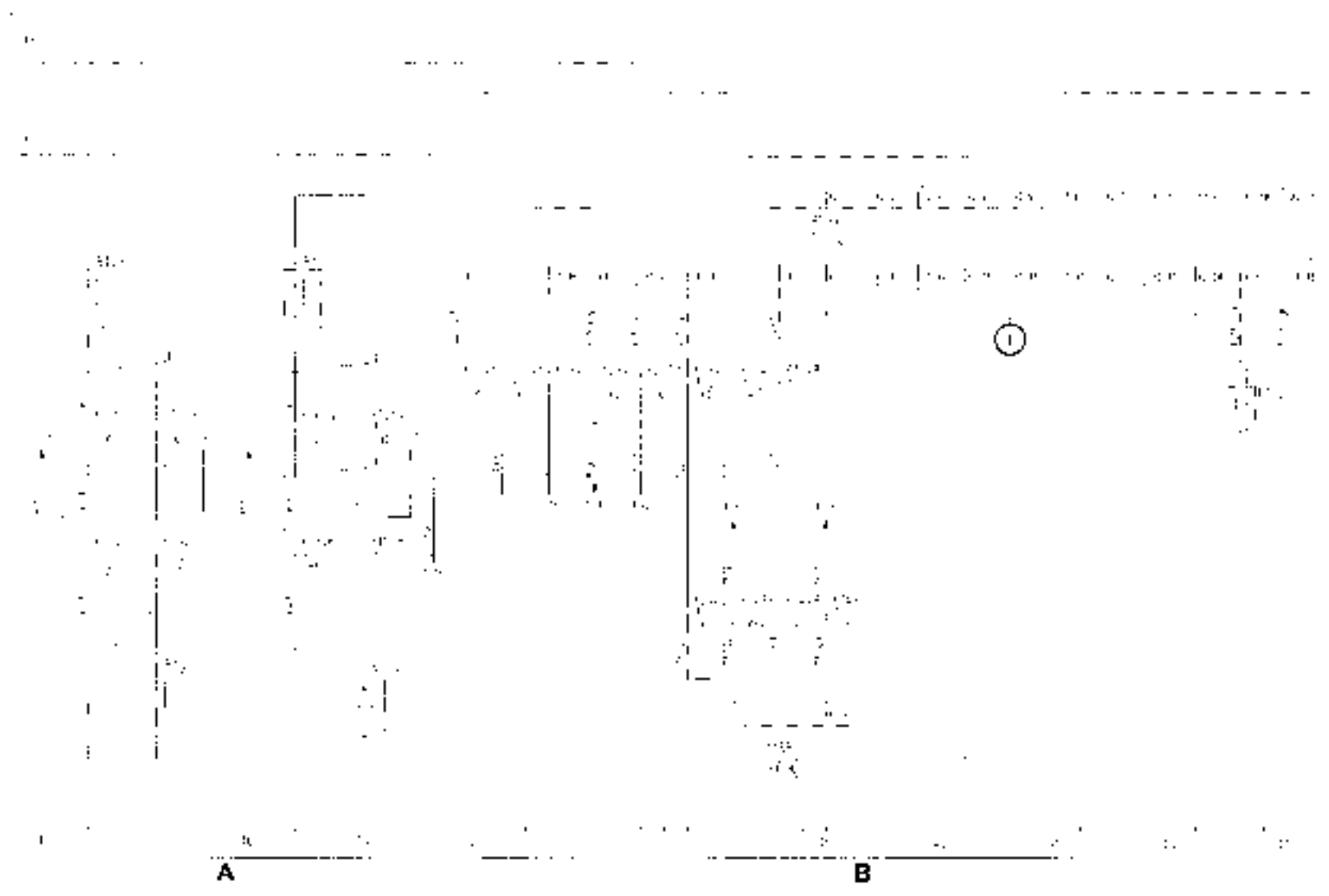
**B141** (296) Loudspeaker 1, door left  
**B142** (296) Loudspeaker 1, door right  
**B143** (297) Loudspeaker 2, door left  
**B144** (297) Loudspeaker 2, door right  
**B189** (345) Microphone for hands-free telephone

**X1546** Std. door right  
**X1547** Std. door left  
**X1863** Std. loudspeaker, left  
**X1864** Std. loudspeaker, right  
**X2340** Std. telephone  
**X2433** Std. adaptation 12V radio  
**X2448** Std. adaptation 12V telephone

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊙ | Driving seat                 |
| ⊕ | Engine                   | ⊙ | Passenger seat               |
| ⊕ | Gearbox                  | ⊙ | Control panel                |
| ⊕ | Front                    | ⊙ | Battery box                  |
| ⊕ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊕ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊕ | Entrance left            | ⊙ | R-pillar on passenger's side |
| ⊕ | Central electrics area   | ⊙ | A-pillar on passenger's side |
| ⊕ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊕ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊕ | Instrument panel         | ⊙ | Rear axle                    |
| ⊕ | Central part             | ⊙ | Front part of frame          |
| ⊕ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊕ | Fuel pedals              | ⊙ | Door left                    |
| ⊕ | Front wall, inside left  | ⊙ | Door right                   |
| ⊕ | Front wall, inside right |   |                              |
| ⊕ | Mobile phone interface   |   |                              |

Wiring Diagram no. 81.99192.1436 Sheet 2 of 2



**Radio navigation system 12V with Cullmann phone (RL)**

**Legend**

Wiring diagram no. **81.99192.1437** Sheet 1 of 2  
 Change status: 05/11

**A = Active aerial**

**B = Radio navigation system**

**A100** (255) Central fuse, relay and terminal block  
**A149** (388) Radio/cassette player  
**A302** (352) Central computer 2  
**A408** (403) Tachograph  
**A569** (547) Radio navigation device RNS 3

**B157** (298) Driver's loudspeaker, front left  
**B498** (344) Cab loudspeaker, right, with hand-free telephone

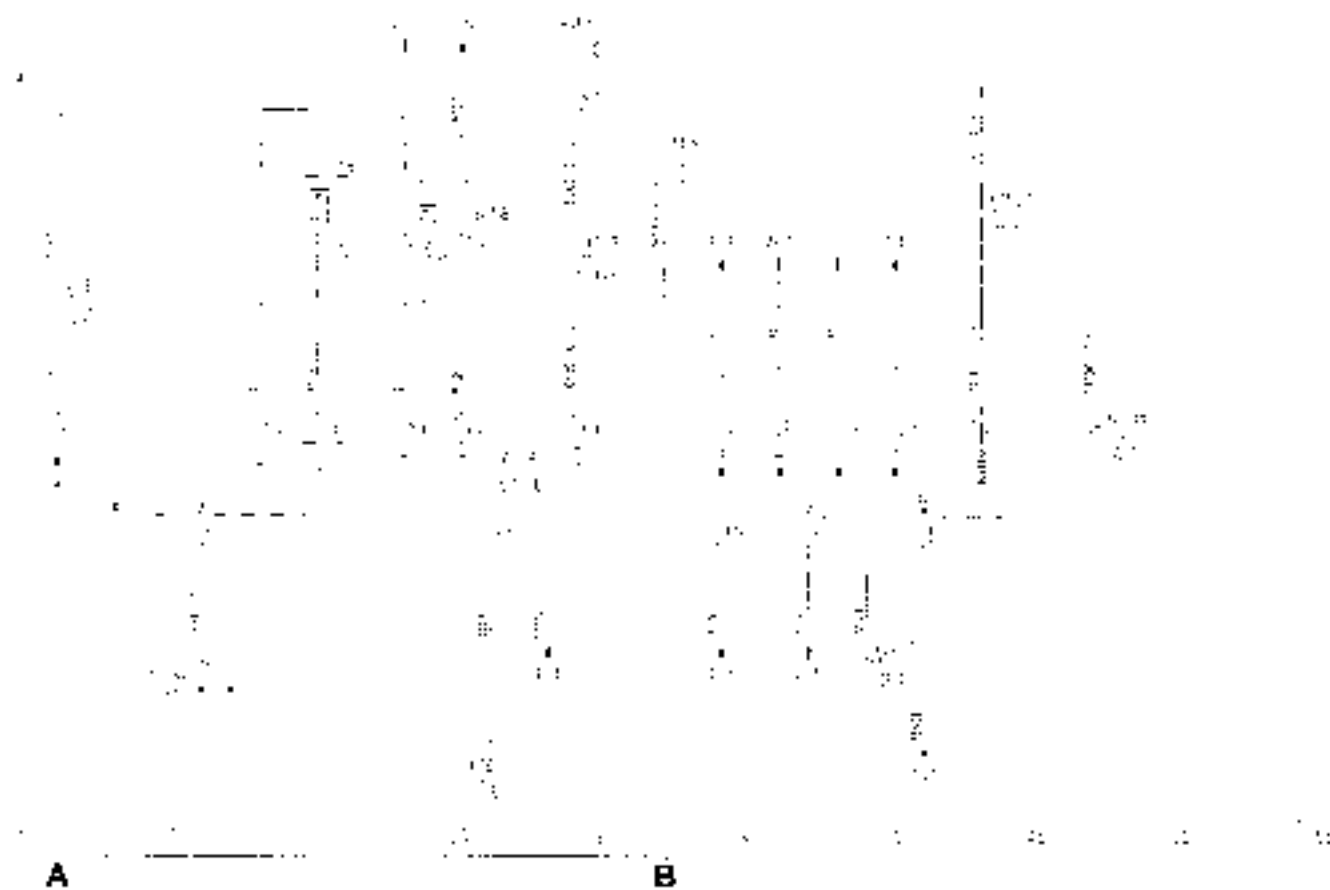
**W177** (171) Combination aerial

**X585** Std. line 16500  
**X1536** Std. cab tachograph  
**X1627** Std. reversing beam  
**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1974** Std. for active aerial  
**X2398** Std. adaptation reversing light  
**X2490** Adaptation mute signal lane guard  
**X2542** (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓔ Bumper                   | Ⓜ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓝ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓟ B-pillar on passenger's side |
| Ⓛ Central electrical area  | Ⓠ A-pillar on passenger's side |
| Ⓛ Control unit racks       | Ⓡ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | Ⓢ Front axle                   |
| Ⓛ Instrument panel         | Ⓣ Rear axle                    |
| Ⓛ Central part             | Ⓤ Front part of frame          |
| Ⓛ Steering wheel/column    | Ⓡ Rear part of frame           |
| Ⓛ Foot pedals              | Ⓢ Door left                    |
| Ⓛ Front wall, inside left  | Ⓣ Door right                   |
| Ⓛ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1437 Sheet 1 of 2



**Radio navigation system 12V with Cullmann phone (RL)**

**Legend**

Wiring diagram no. **81.99192.1437** Sheet 2 of 2  
 Change status: 05 01

**A = Loudspeaker**

**B = Cullmann telephone**

**A110** (255) Central fuse, relay and terminal block  
**A155** (182) Voltage transformer 24V/12V  
**A302** (352) Central computer 2  
**A568** (545) Cellular phone station

**B141** (296) Loudspeaker 1, door left  
**B142** (296) Loudspeaker 1, door right  
**B143** (297) Loudspeaker 2, door left  
**B144** (297) Loudspeaker 2, door right  
**B189** (345) Microphone for hands-free telephone

**X1516** Std. door, right  
**X1517** Std. door, left  
**X1863** Std. loudspeaker left  
**X1864** Std. loudspeaker right  
**X2348** Std. telephone  
**X2433** Std. adaptation 12V radio  
**X2448** Std. adaptation 12V telephone

**Marking of mounting positions**

- |                           |                                |
|---------------------------|--------------------------------|
| Ⓐ Tail                    | Ⓔ Driving seat                 |
| Ⓒ Engine                  | Ⓛ Passenger seat               |
| Ⓜ Gearbox                 | Ⓜ Control panel                |
| Ⓛ Front                   | Ⓛ Battery box                  |
| Ⓛ Bumper                  | Ⓛ B-pillar on driver's side    |
| Ⓛ Entrance right          | Ⓛ A-pillar on driver's side    |
| Ⓛ Entrance left           | Ⓛ B-pillar on passenger's side |
| Ⓛ Central electrics area  | Ⓛ A-pillar on passenger's side |
| Ⓛ Control unit racks      | Ⓛ Ceiling/roof                 |
| Ⓛ Rear wall of cab        | Ⓛ Front axle                   |
| Ⓛ Instrument panel        | Ⓛ Rear axle                    |
| Ⓛ Central part            | Ⓛ Front part of frame          |
| Ⓛ Steering wheel/column   | Ⓛ Rear part of frame           |
| Ⓛ Foot pedals             | Ⓛ Door left                    |
| Ⓛ From wall, inside left  | Ⓛ Door right                   |
| Ⓛ From wall, inside right |                                |
| ○ Mobile phone interface  |                                |



Wiring diagram no. 81,99192,1437 Sheet 2 of 2



## Radio navigation system 12V with Nokia phone (LL)

## Legend

Wiring diagram no. 81.99192.1438 Sheet 1 of 2

Change status: 05.01

**A = Active aerial****B = Radio navigation system**

A100 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

A408 (403) Tachograph

A569 (547) Radio navigation device RNS 3

B158 (293) Driver's loudspeaker, front right

B496 (344) Cab loudspeaker, left, with hand-free telephone

W177 (171) Combination aerial

X685 Std. line 16500

X1036 Std. cab tachograph

X1627 Std. reversing beam

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block

X1974 Std. for active aerial

X2398 Std. adaptation reversing light

X2496 Adaptation route signal lane guard

X2542 (246) Potential distributor 21-pin line 58000

## Marking of mounting positions

① Tail

② Engine

③ Gearbox

④ Front

⑤ Bumper

⑥ Entrance right

⑦ Entrance left

⑧ Central electric area

⑨ Control unit racks

⑩ Rear wall of cab

⑪ Instrument panel

⑫ Central part

⑬ Steering wheel/column

⑭ Foot pedals

⑮ Front wall, inside left

⑯ Front wall, inside right

⑰ Driving seat

⑱ Passenger seat

⑲ Control panel

⑳ Battery box

㉑ B-pillar on driver's side

㉒ A-pillar on driver's side

㉓ B-pillar on passenger's side

㉔ A-pillar on passenger's side

㉕ Ceiling/roof

㉖ Front axle

㉗ Rear axle

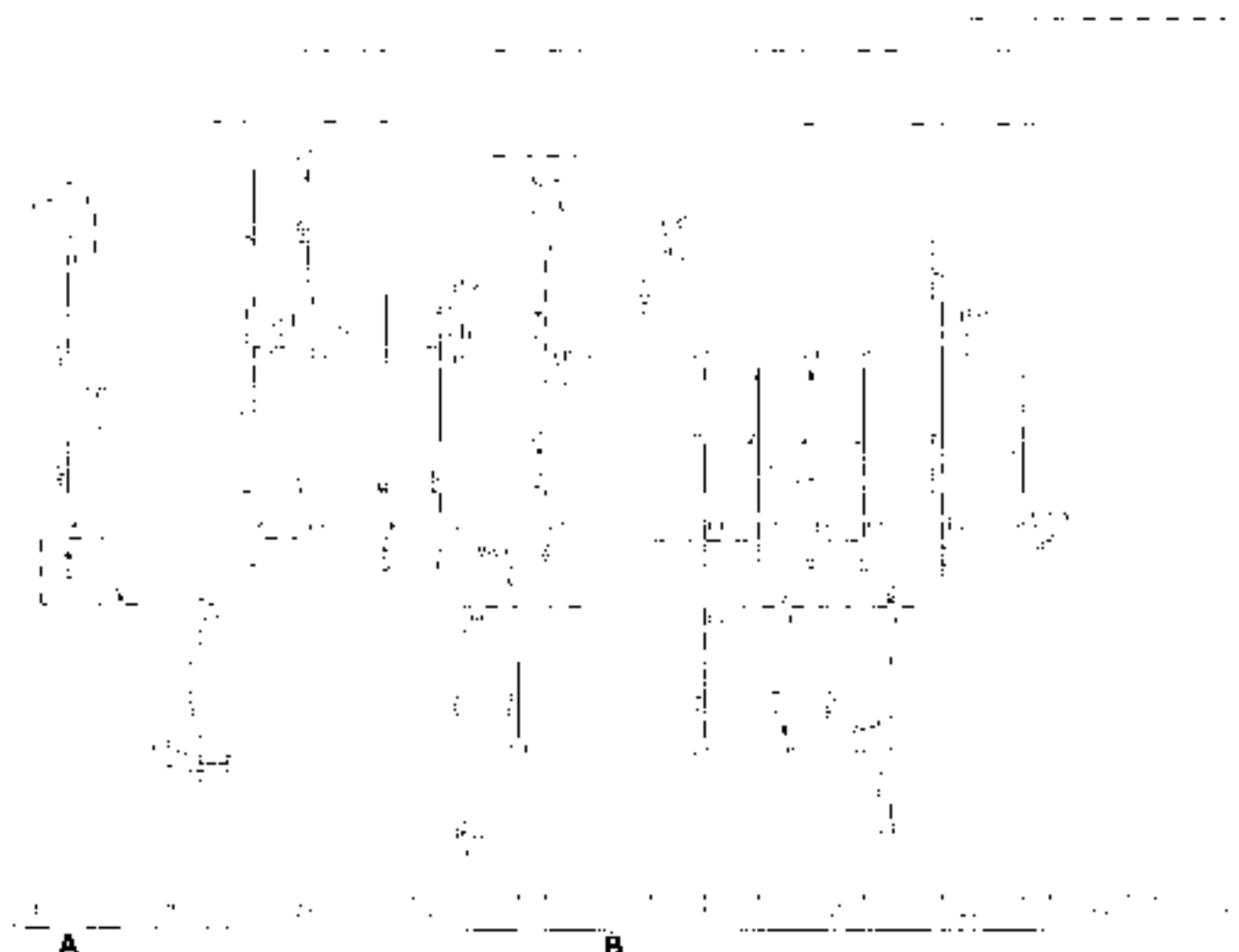
㉘ Front part of frame

㉙ Rear part of frame

㉚ Door left

㉛ Door right

Wiring diagram no. 81,99192-1438 Sheet 1 of 2



Radio navigation system 12V with Nokia phone (LL)

Legend

Wiring diagram no. 81.99192.1438 Sheet 2 of 2  
Change status 05.01

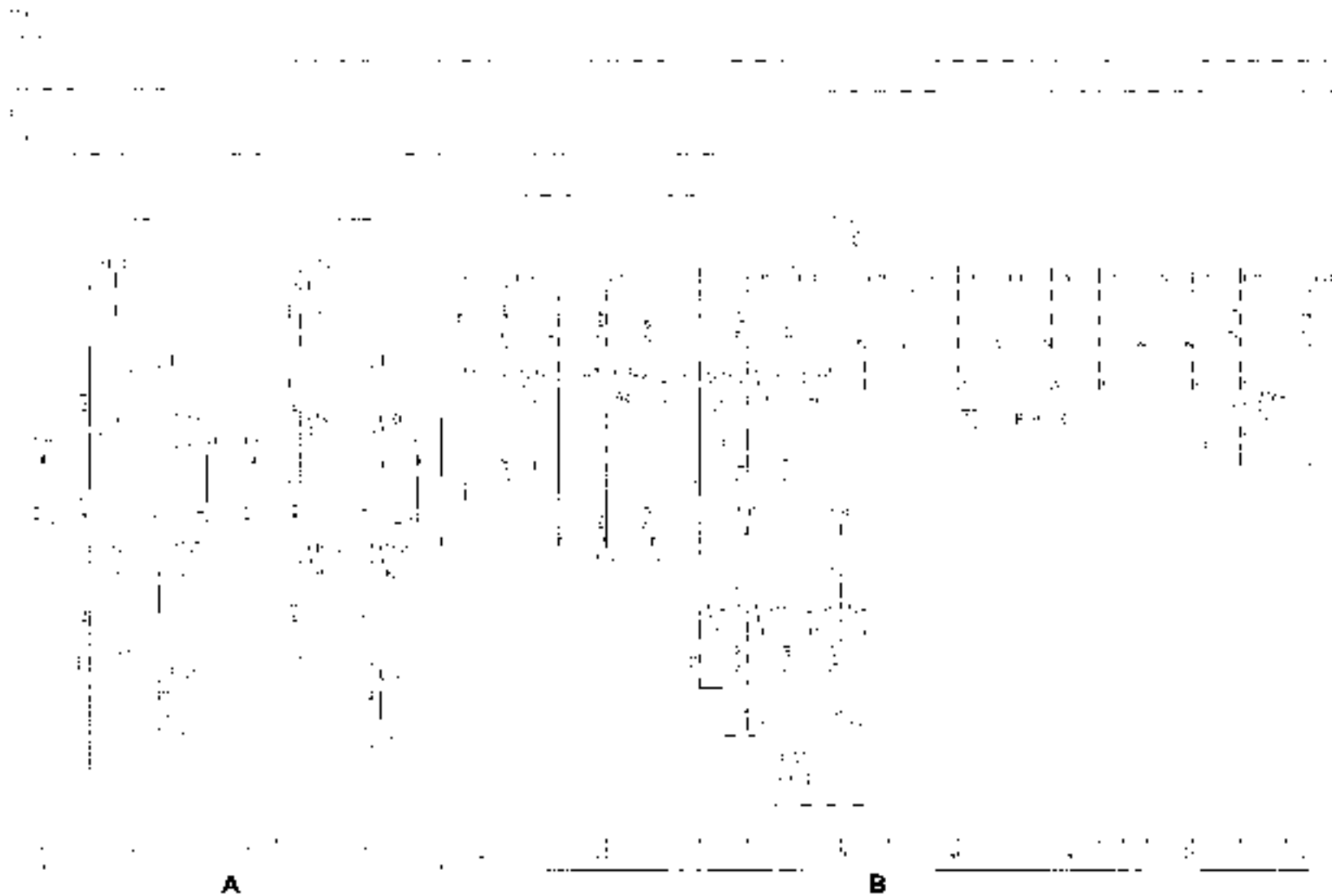
**A = Loudspeaker**  
**B = Nokia telephone**

A100	{255}	Central fuse, relay and terminal block
A155	{182}	Voltage transformer 24V/12V
A302	{352}	Central computer 2
A566	{533}	Cellular phone station
B141	{296}	Loudspeaker 1, door left
B142	{296}	Loudspeaker 1, door right
B143	{297}	Loudspeaker 2, door left
B144	{297}	Loudspeaker 2, door right
B189	{345}	Microphone for hands-free telephone
B497	{346}	Telephone receiver
X1546		Std. door, right
X1547		Std. door, left
X1663		Std. loudspeaker, left
X1664		Std. loudspeaker, right
X2348		Std. telephone
X2433		Std. adaptation 12V radio
X2448		Std. adaptation 12V telephone

Marking of mounting positions

(A)	Tail	(16)	Driving seat
(E)	Engine	(17)	Passenger seat
(G)	Gearbox	(13)	Control pane
(F)	Front	(14)	Battery box
(B)	Bumper	(1)	B-pillar on driver's side
(7)	Entrance right	(2)	A-pillar on driver's side
(8)	Entrance left	(3)	B-pillar on passenger's side
(9)	Central electric area	(4)	A-pillar on passenger's side
(6)	Control unit racks	(5)	Ceiling/roof
(4)	Rear wall of cab	(V)	Front axle
(I)	Instrument panel	(R)	Rear axle
(C)	Central part	(11)	Front part of frame
(V)	Steering wheel/column	(12)	Rear part of frame
(U)	Foot pedals	(S)	Door left
(2)	Front wall, inside left	(Z)	Door right
(3)	Front wall, inside right		

Wiring diagram no. 81.99192.1438 Sheet 2 of 2



**Radio navigation system 12V with Nokia phone (RL)**

**Legend**

Wiring diagram no. **81.98192.1438** Sheet 1 of 2  
 Change status: 05/01

**A = Active aerial**

**B = Radio navigation system**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A408** (403) Tachograph  
**A560** (547) Radio navigation device RNS 3

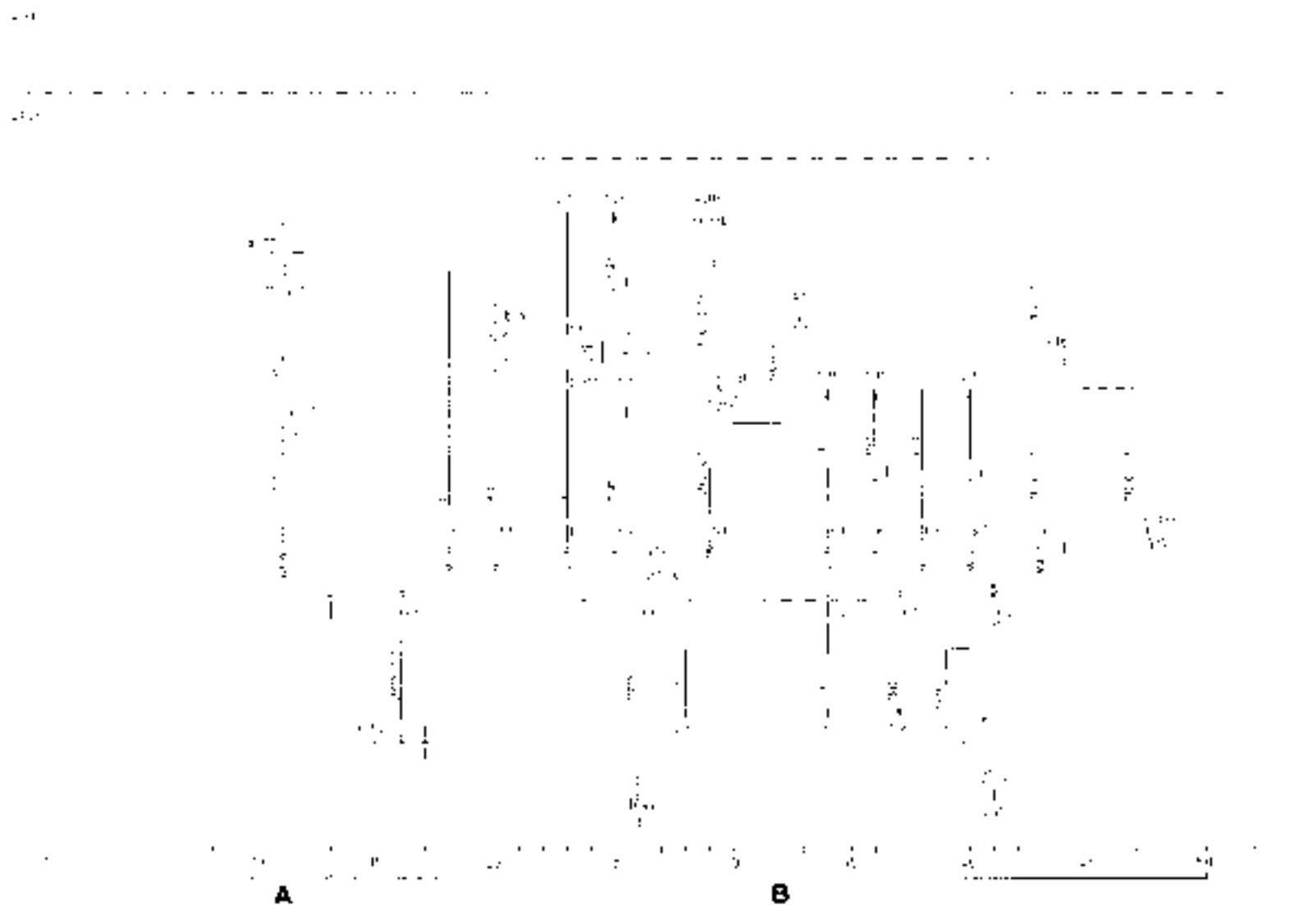
**B157** (238) Driver's loudspeaker, front left  
**B498** (344) Cab loudspeaker, right, with hand-free telephone

**W177** (171) Combination aerial

**X685** Std. line 16500  
**X1536** Std. cab tachograph  
**X1627** Std. reversing beam  
**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1974** Std. for active aerial  
**X2396** Std. adaptation reversing light  
**X2496** Adaptation multi signal lane guard  
**X2542** (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electric area    | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Curling roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |



**Radio navigation system 12V with Nokia phone (RL)**

**Legend**

Wiring diagram no. **B1.99192.1439** Sheet 2 of 2

Change status: 05.01

**A = Loudspeaker**

**B = Nokia telephone**

**A100** (255) Central fuse, relay and terminal block

**A156** (182) Voltage transformer 24V/12V

**A302** (352) Central computer 2

**A566** (539) Cellular phone station

**B141** (206) Loudspeaker 1, door left

**B142** (296) Loudspeaker 1, door right

**B143** (297) Loudspeaker 2, door left

**B144** (297) Loudspeaker 2, door right

**B189** (345) Microphone for hands-free telephone

**B197** (346) Telephone receiver

**X1546** Std. door right

**X1547** Std. door left

**X1863** Std. loudspeaker, left

**X1864** Std. loudspeaker, right

**X2348** Std. telephone

**X2433** Std. adaptation 12V radio

**X2448** Std. adaptation 12V telephone

**Marking of mounting positions**

⊖ Tail

⊖ Engine

⊖ Gearbox

⊖ Front

⊖ Bumper

⊖ Entrance right

⊖ Entrance left

⊖ Central electrics area

⊖ Control unit racks

⊖ Rear wall of cab

⊖ Instrument panel

⊖ Central part

⊖ Steering wheel/column

⊖ Foot pedals

⊖ Front wall, inside left

⊖ Front wall, inside right

⊖ Driving seat

⊖ Passenger seat

⊖ Control panel

⊖ Battery box

⊖ B-pillar on driver's side

⊖ A-pillar on driver's side

⊖ B-pillar on passenger's side

⊖ A-pillar on passenger's side

⊖ Ceiling/front

⊖ Front axle

⊖ Rear axle

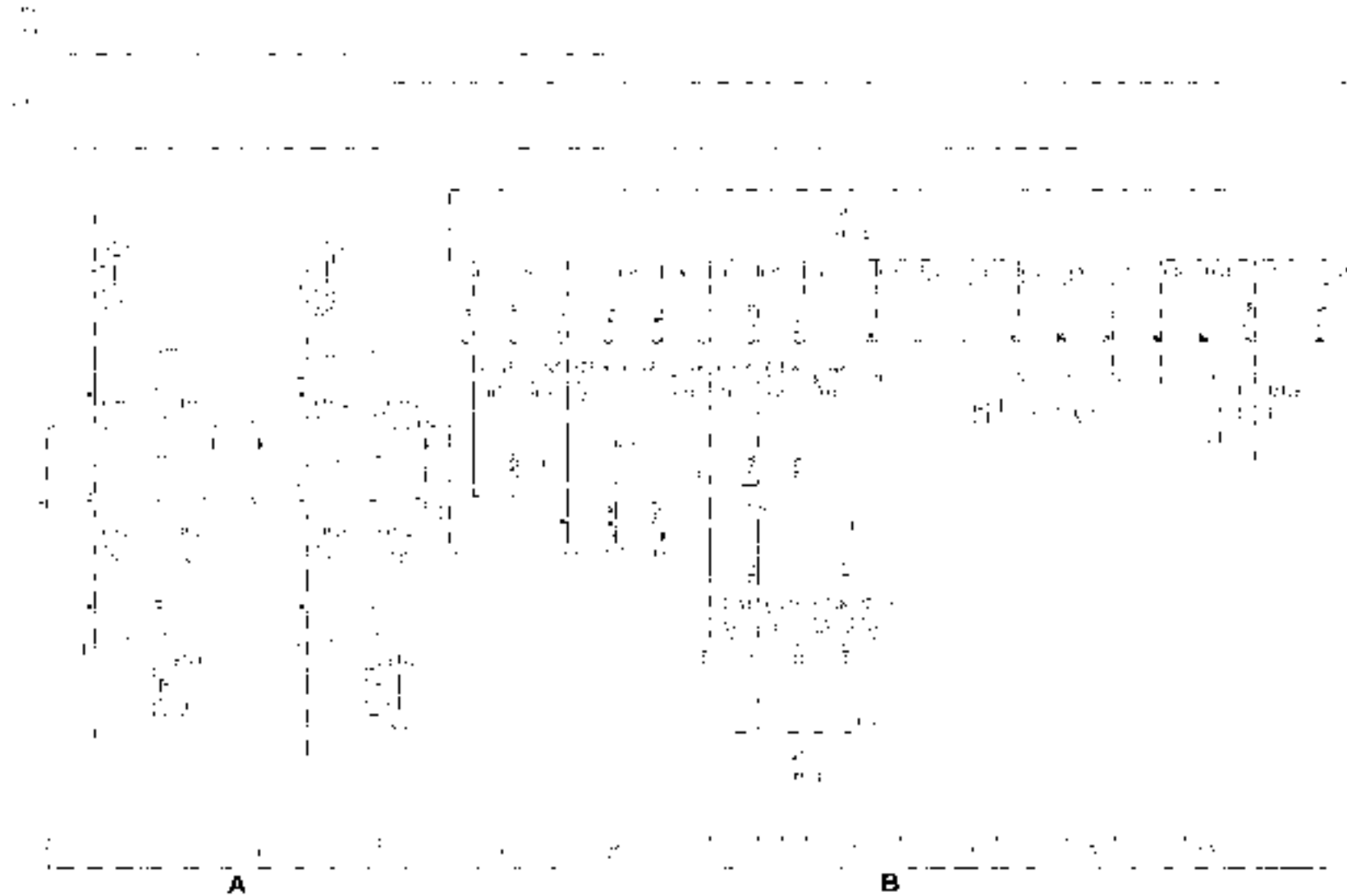
⊖ Front part of frame

⊖ Rear part of frame

⊖ Door left

⊖ Door right





**Radio navigation system 12V with Cullmann phone and CD changer (LL)**

**Legend**

Wiring diagram no. **81.99192.1440** Sheet 1 of 2  
Change status: 05.01

**A = Active aerial**

**B = Radio navigation, CD changer**

**A11X** (255) Central fuse, relay and terminal block  
**A148** (388) Radiocassette player  
**A302** (352) Central computer 2  
**A408** (403) Tachograph  
**A568** (546) CD changer  
**A569** (547) Radio navigation device RNS 3

**B158** (298) Driver's loudspeaker, front right  
**B496** (344) Cab loudspeaker, left, with hands-free telephone

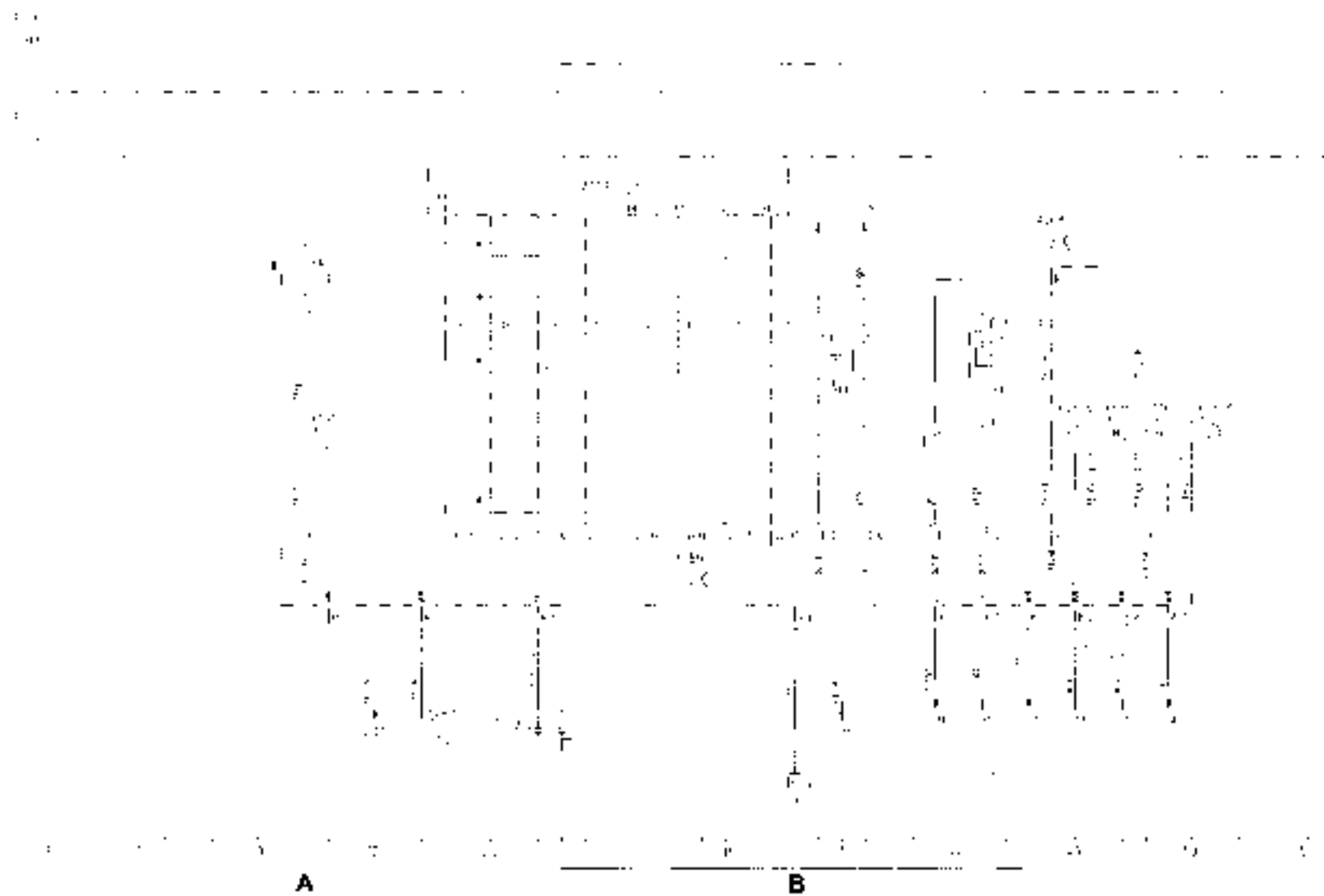
**W177** (171) Combination aerial

**X685** Std. line 16500  
**X1538** Std. cab tachograph  
**X1827** Stvn. reversing beam  
**X1844** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1974** Std. for active aerial  
**X2398** Std. adaptation reversing light  
**X2498** Adaptation mute signal lane guard  
**X2542** (246) Potential distributor, 21-pin line 58003

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | B-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | B-pillar on passenger's side |
| ⊙ | Central electronics area | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. **81-99192-1440** Sheet 1 of 2



**Radio navigation system 12V with Cullmann phone and CD changer (LL)**

**Legend**

Wiring diagram no. **81.99192.1440** Sheet 2 of 2  
Change status: C5 01

**A = Loudspeaker**

































**B = Cullmann telephone**

A100 (255) Central fuse, relay and terminal block  
A155 (182) Voltage transformer 24V/12V  
A302 (352) Central computer 2  
A566 (545) Cellular phone station

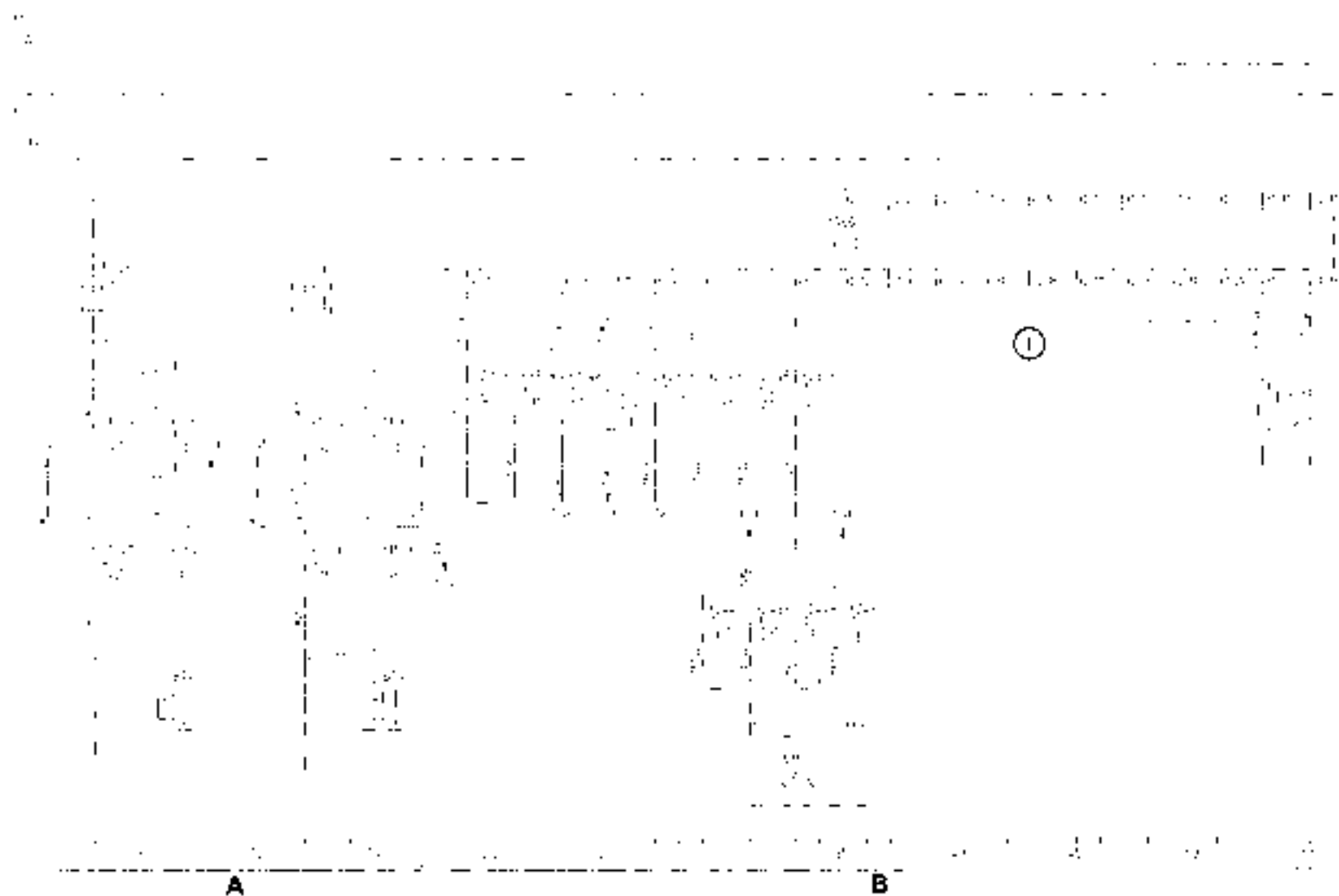
B141 (296) Loudspeaker 1, door left  
B142 (296) Loudspeaker 1, door right  
B143 (297) Loudspeaker 2, door left  
B144 (297) Loudspeaker 2, door right  
B189 (345) Microphone for hands-free telephone

X1546 Std. door, right  
X1547 Std. door, left  
X1863 Std. loudspeaker, left  
X1864 Std. loudspeaker, right  
X2348 Std. telephone  
X2433 Std. adaptation 12V radio  
X2448 Std. adaptation 12V telephone

**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electrics area
-  Control unit racks
-  Rear wall of car
-  Instrument panel
-  Centre part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
-  Mobile phone interface
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

Wiring diagram no. 81.99192.1440 Sheet 2 of 2



**Radio navigation system 12V with Cullmann phone and CD changer (RL)**

**Legend**

Wiring diagram no. **81.99192.1441** Sheet 1 of 2  
Change status: 05.01

**A = Active aerial**

**B = Radio navigation, CD changer**

A100 (255) Central fuse, relay and terminal block  
A148 (308) Radio/cassette player  
A302 (352) Central computer 2  
A408 (403) Tachograph  
A568 (546) CD changer  
A569 (547) Radio navigation device RNS 3

B157 (298) Driver's loudspeaker, front left  
B498 (344) Cab loudspeaker, right, with hand-free telephone

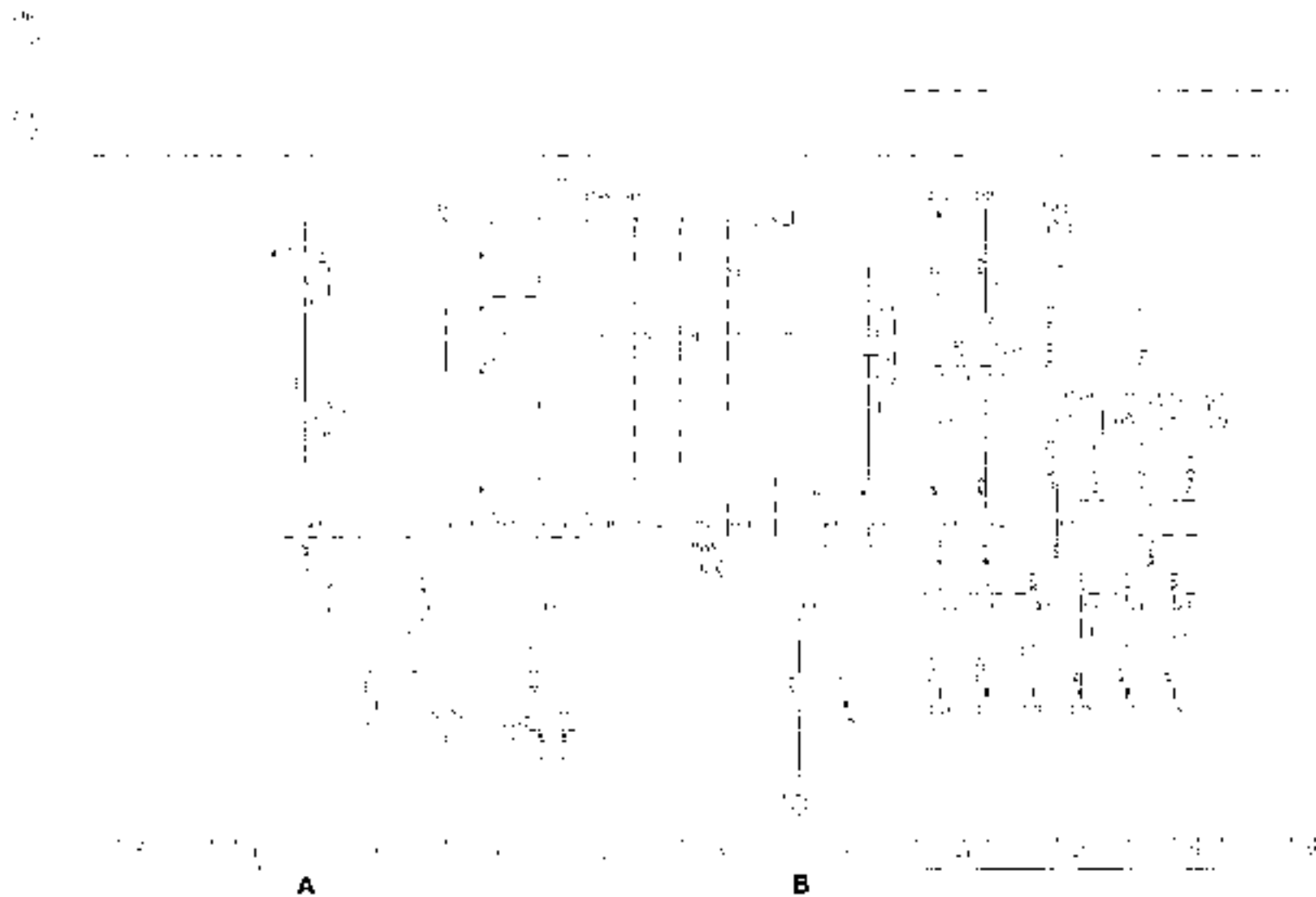
W177 (171) Combination aerial

X085 Std. line 16500  
X1536 Std. cab tachograph  
X1627 Std. reversing beam  
X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block  
X1974 Std. for active aerial  
X2398 Std. adaptation reversing light  
X2496 Adaptation mute signal lane guard  
X2542 (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- ⊖ Tail
- ⊗ Engine
- ⊕ Gearbox
- ⊖ Front
- ⊖ Bumper
- ⊖ Entrance right
- ⊖ Entrance left
- ⊖ Central electrics area
- ⊖ Control unit racks
- ⊖ Rear wall of cab
- ⊖ Instrument panel
- ⊖ Central part
- ⊖ Steering wheel/column
- ⊖ Foot pedals
- ⊖ Front wall, inside left
- ⊖ Front wall, inside right
- ⊖ Driving seat
- ⊖ Passenger seat
- ⊖ Control panel
- ⊖ Battery box
- ⊖ B-pillar on driver's side
- ⊖ A-pillar on driver's side
- ⊖ B-pillar on passenger's side
- ⊖ A-pillar on passenger's side
- ⊖ Ceiling/roof
- ⊖ Front axle
- ⊖ Rear axle
- ⊖ Front part of frame
- ⊖ Rear part of frame
- ⊖ Door left
- ⊖ Door right

Wiring diagram no. 81.99192.1441 Sheet 1 of 2



**Radio navigation system 12V with Cullmann phone and CD changer (RL)**

**Legend**

Wiring diagram no. 81.99192.1441 Sheet 2 of 2  
Charge status: 05.01

**A = Loudspeaker**

**B = Cullmann telephone**

**A100** (255) Central fuse, relay and terminal block  
**A155** (182) Voltage transformer 24V/12V  
**A302** (352) Central computer 2  
**A566** (545) Cellular phone station

**B141** (296) Loudspeaker 1, door left  
**B142** (236) Loudspeaker 1, door right  
**B143** (237) Loudspeaker 2, door left  
**B144** (237) Loudspeaker 2, door right  
**B180** (345) Microphone for hands-free telephone

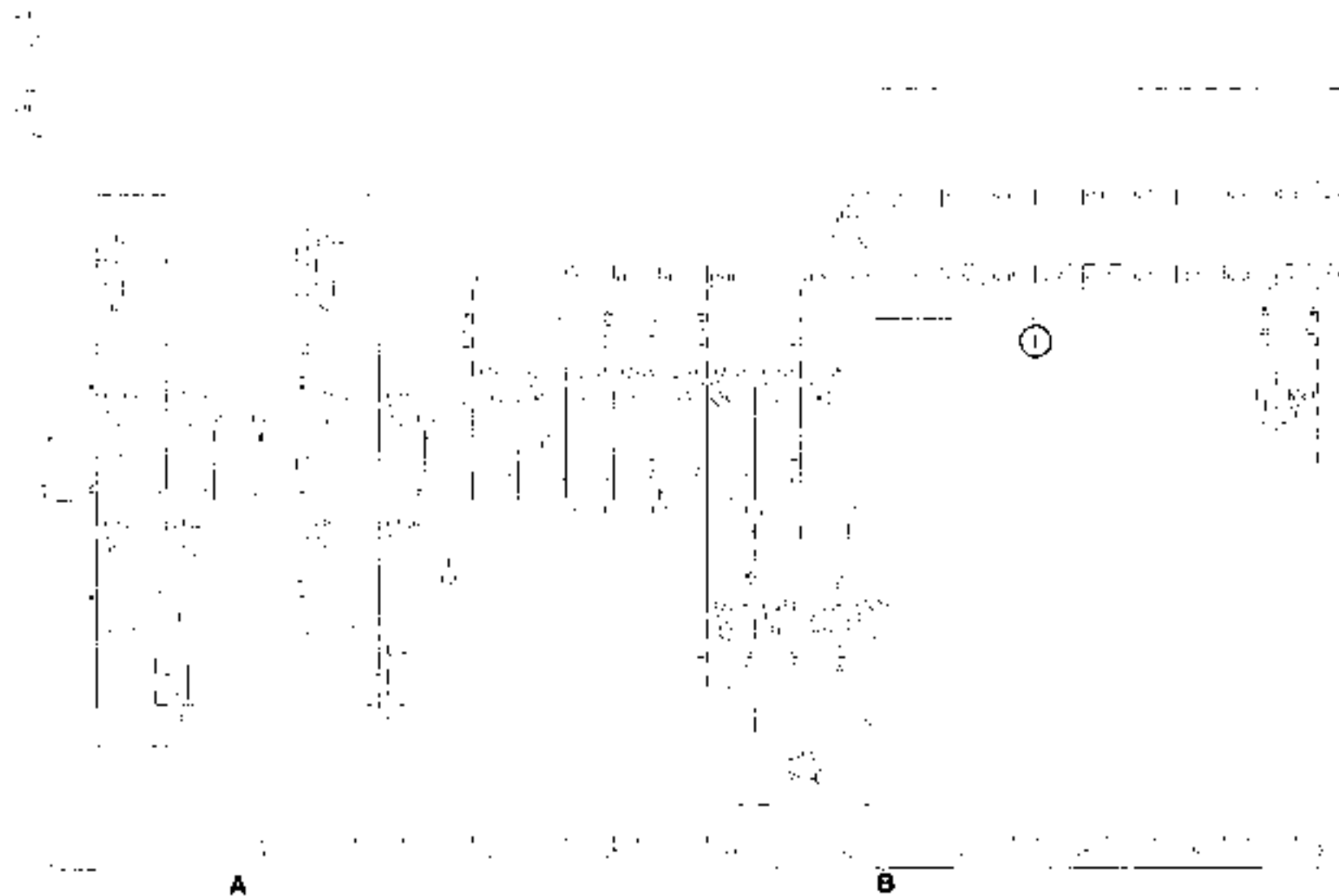
**X1546** Std. door right  
**X1547** Std. door left  
**X1863** Std. loudspeaker, left  
**X1864** Std. loudspeaker, right  
**X2349** Std. telephone  
**X2433** Std. adaptation 12V radio  
**X2449** Std. adaptation 12V telephone

**Marking of mounting positions**

- Ⓐ Tail
- Ⓘ Engine
- Ⓢ Gearbox
- Ⓕ Front
- Ⓖ Bumper
- Ⓜ Entrance right
- Ⓜ Entrance left
- Ⓜ Central electric area
- Ⓜ Control unit racks
- Ⓜ Rear wall of cab
- Ⓜ Instrument panel
- Ⓜ Central part
- Ⓜ Steering wheel/column
- Ⓜ Foot pedals
- Ⓜ Front wall, inside left
- Ⓜ Front wall, inside right
- Ⓜ Mobile phone interface
- Ⓜ Driving seat
- Ⓜ Passenger seat
- Ⓜ Control panel
- Ⓜ Battery box
- Ⓜ B-pillar on driver's side
- Ⓜ A-pillar on driver's side
- Ⓜ B-pillar on passenger's side
- Ⓜ A-pillar on passenger's side
- Ⓜ Ceiling/roof
- Ⓜ Front axle
- Ⓜ Rear axle
- Ⓜ Front part of frame
- Ⓜ Rear part of frame
- Ⓜ Door left
- Ⓜ Door right



Wiring diagram no. 81.99192.1441 Sheet 2 of 2



**Radio navigation system 12V with Nokia phone and CD changer (LL)**

**Legend**
































Wiring diagram no. **B1.99192.1442** Sheet 1 of 2  
Change status: 05/01

**A = Active aerial**

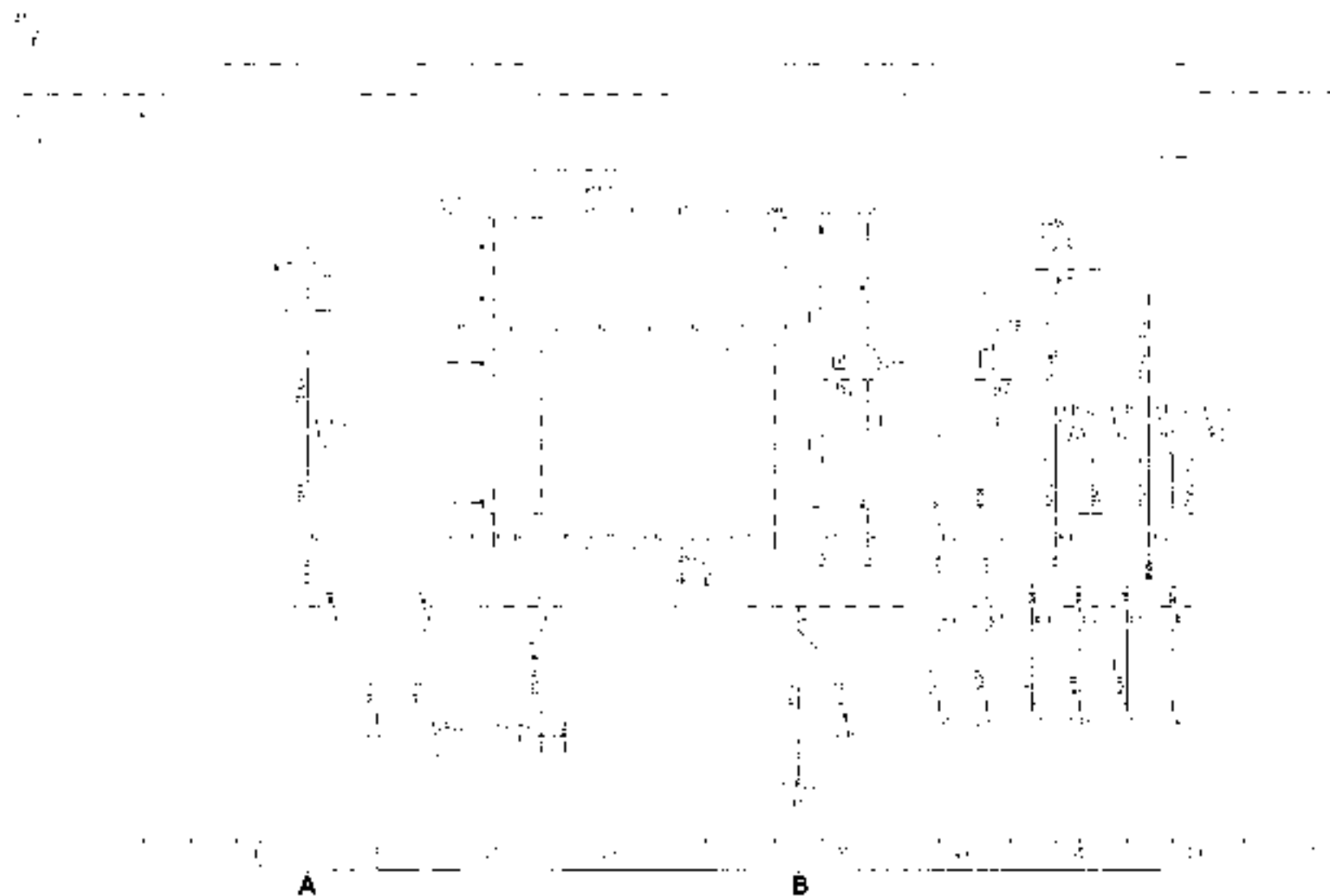
**B = Radio navigation, CD changer**

<b>A110</b>	(255)	Central fuse, relay and terminal block
<b>A14R</b>	(388)	Radio/cassette player
<b>A302</b>	(352)	Central computer 2
<b>A40R</b>	(403)	Tachograph
<b>A56R</b>	(546)	CD changer
<b>A569</b>	(547)	Radio navigation device RNS 3
<b>B15R</b>	(298)	Driver's loudspeaker, front right
<b>B49E</b>	(344)	Cab loudspeaker, left, with hands-free telephone
<b>W177</b>	(171)	Combination aerial
<b>X685</b>		Std. line 16530
<b>X1536</b>		Std. cab tachograph
<b>X1627</b>		Std. reversing beam
<b>X1644</b>		Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X1974</b>		Std. for active aerial
<b>X239R</b>		Std. adaptation reversing light
<b>X243E</b>		Adaptation mute signal line guard
<b>X2542</b>	(246)	Potential distributor, 21 pin line 58000

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electronics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		

Wiring diagram no. 81.99192.1442 Sheet 1 of 2



**Radio navigation system 12V with Nokia phone and CD changer (LL)**

**Legend**

Wiring diagram no. **61.99192.1442** Sheet 2 of 2  
Change status: 00.01

**A = Loudspeaker**  
**B = Nokia telephone**

A1011 (255) Central fuse, relay and terminal block  
A155 (182) Voltage transformer 24V/12V  
A312 (352) Central computer ?  
A566 (539) Cellular phone station

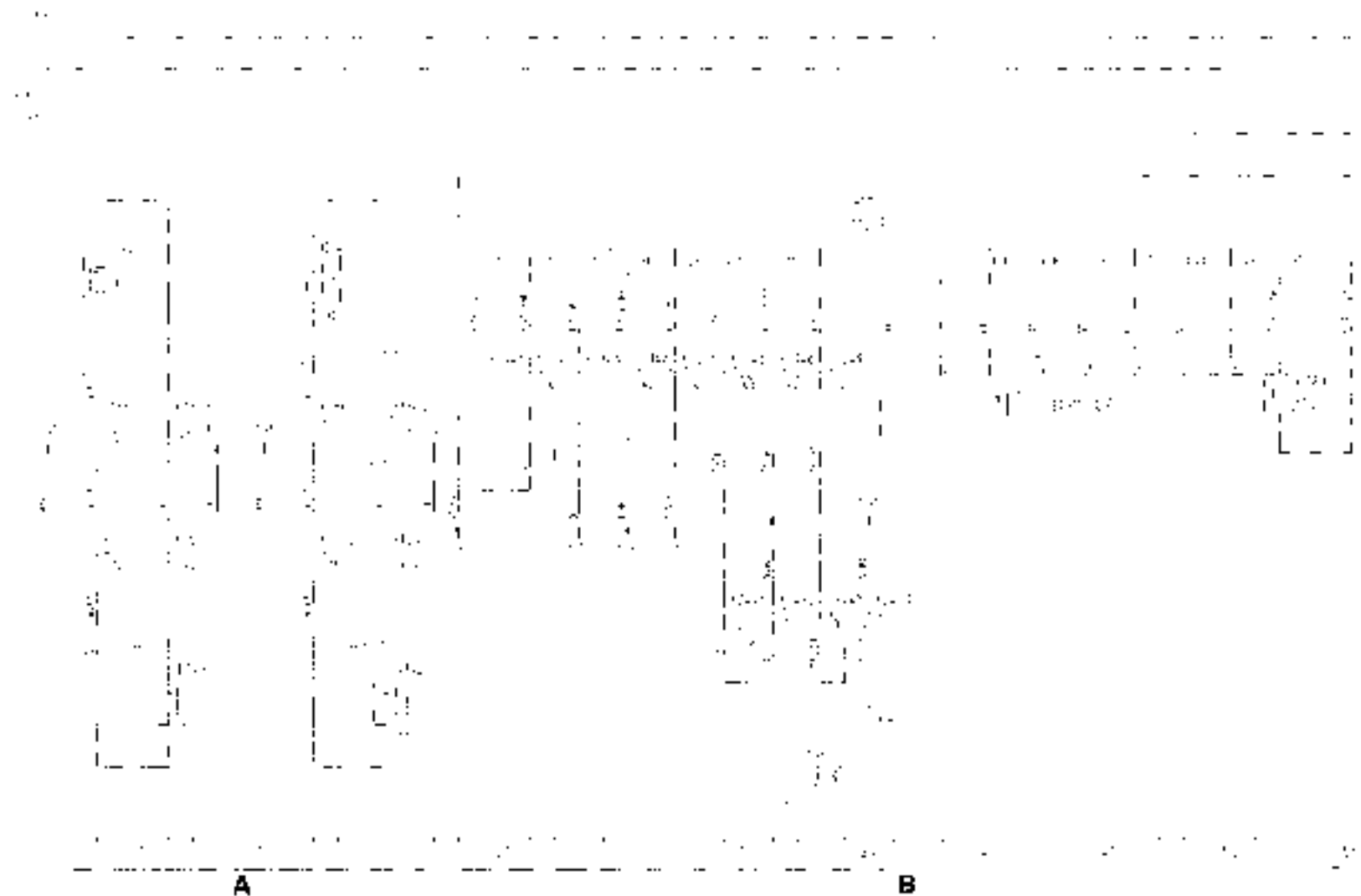
B141 (299) Loudspeaker 1, door left  
B142 (299) Loudspeaker 1, door right  
B143 (297) Loudspeaker 2, door left  
B144 (297) Loudspeaker 2, door right  
B189 (345) Microphone for hands-free telephone  
B497 (345) Telephone receiver

X1546 Std. door right  
X1547 Std. door left  
X1863 Std. loudspeaker, left  
X1864 Std. loudspeaker, right  
X2348 Std. telephone  
X2433 Std. adaptation 12V radio  
X2448 Std. adaptation 12V telephone

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓚ Passenger seat               |
| Ⓒ Gearbox                  | Ⓛ Control panel                |
| Ⓓ Front                    | Ⓜ Battery box                  |
| Ⓔ Bumper                   | Ⓝ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓓ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓛ B-pillar on passenger's side |
| Ⓛ Central electric area    | Ⓛ A-pillar on passenger's side |
| Ⓛ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | Ⓛ Front axle                   |
| Ⓛ Instrument panel         | Ⓛ Rear axle                    |
| Ⓛ Central part             | Ⓛ Front part of frame          |
| Ⓛ Steering wheel/co-urn    | Ⓛ Rear part of frame           |
| Ⓛ Foot pedals              | Ⓛ Door left                    |
| Ⓛ Front wall, inside left  | Ⓛ Door right                   |
| Ⓛ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1442 Sheet 2 of 2



**Radio navigation system 12V with Nokia phone and CD changer (RL)**

**Legend**

Wiring diagram no. **B1.89192.1443** Sheet 1 of 2

Change status: 05.01

**A = Active aerial**

**B = Radio navigation, CD changer**

**A100** (255) Central fuse, relay and terminal block

**A148** (388) Radiocassette player

**A302** (352) Central computer 2

**A408** (463) Tachograph

**A508** (546) CD changer

**A569** (547) Radio navigation device HNS 3

**B157** (298) Driver's loudspeaker, front left

**B498** (344) Cab loudspeaker, right, with hand-free telephone

**W177** (171) Combination aerial

**X685** Std. line 18500

**X1536** Std. cab tachograph

**X1627** Std. reversing beam

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1974** Std. for active aerial

**X2398** Std. adaptation reversing light

**X2496** Adaptation mute signal lane guard

**X2542** (246) Potential distributor, 2-pin line 58000

**Marking of mounting positions**

⊙ Tail

⊙ Engine

⊙ Gearbox

⊙ Front

⊙ Bumper

⊙ Entrance right

⊙ Entrance left

⊙ Central electric area

⊙ Control unit racks

⊙ Rear wall of cab

⊙ Instrument panel

⊙ Central part

⊙ Steering wheel/column

⊙ Foot pedals

⊙ Front wall, inside left

⊙ Front wall, inside right

⊙ Driving seat

⊙ Passenger seat

⊙ Control panel

⊙ Battery box

⊙ B-pillar on driver's side

⊙ A-pillar on driver's side

⊙ B-pillar on passenger's side

⊙ A-pillar on passenger's side

⊙ Ceiling/roof

⊙ Front axle

⊙ Rear axle

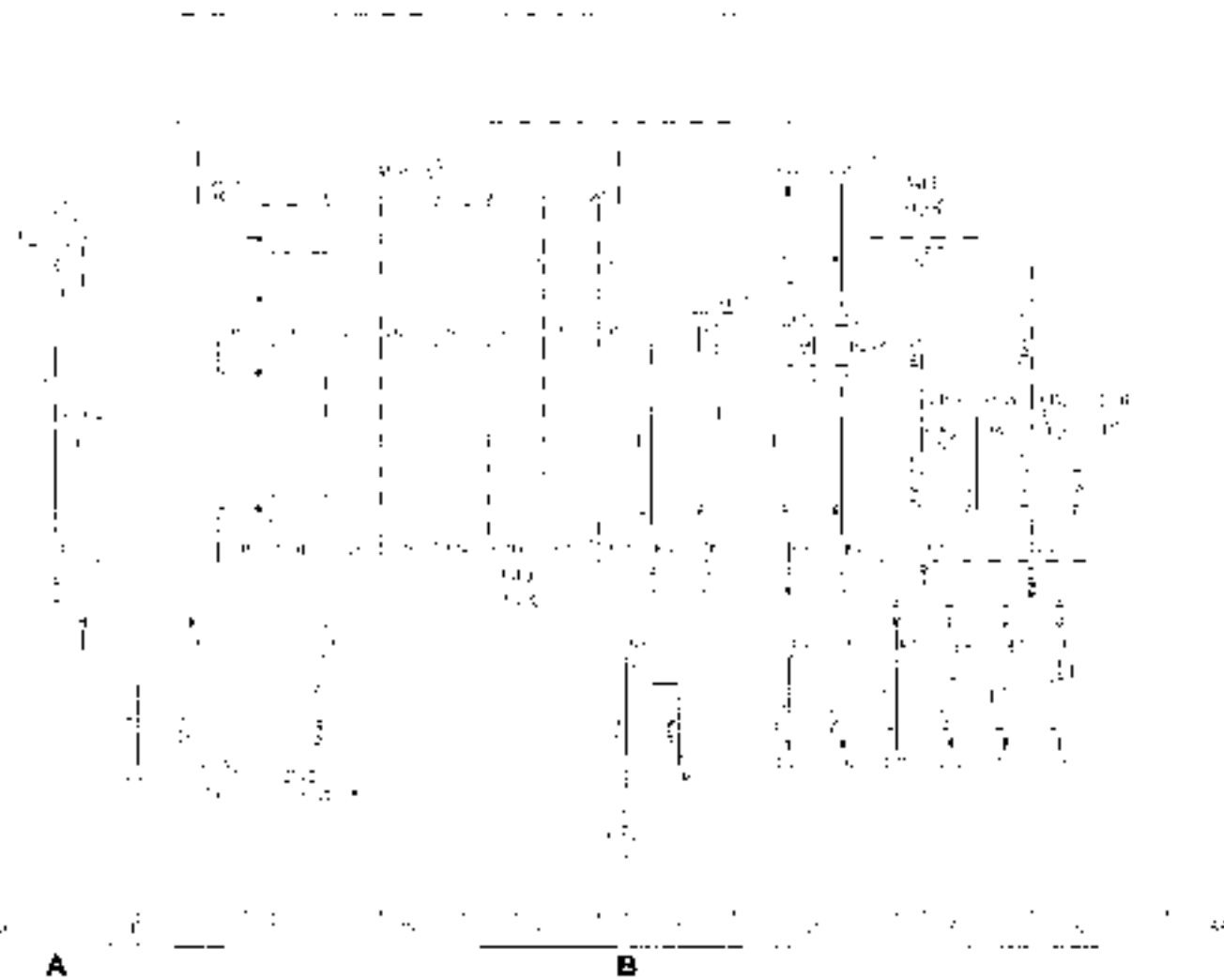
⊙ Front part of frame

⊙ Rear part of frame

⊙ Door left

⊙ Door right

Wiring diagram no. **81.99192.1443** Sheet 1 of 2



**Radio navigation system 12V with Nokia phone and CD changer (RL)**

**Legend**

Wiring diagram no. **81.99192.1443** Sheet: 2 of 2  
Change status: C5 0\*

**A = Loudspeaker**  
**B = Nokia telephone**

**A100** (255) Central fuse, relay and terminal block  
**A155** (182) Voltage transformer 24V/12V  
**A302** (352) Central computer 2  
**A566** (539) Cellular phone station

**B141** (296) Loudspeaker 1, door left  
**B142** (296) Loudspeaker 1, door right  
**B143** (297) Loudspeaker 2, door left  
**B144** (297) Loudspeaker 2, door right  
**B189** (345) Microphone for hands free telephone  
**B497** (346) Telephone receiver

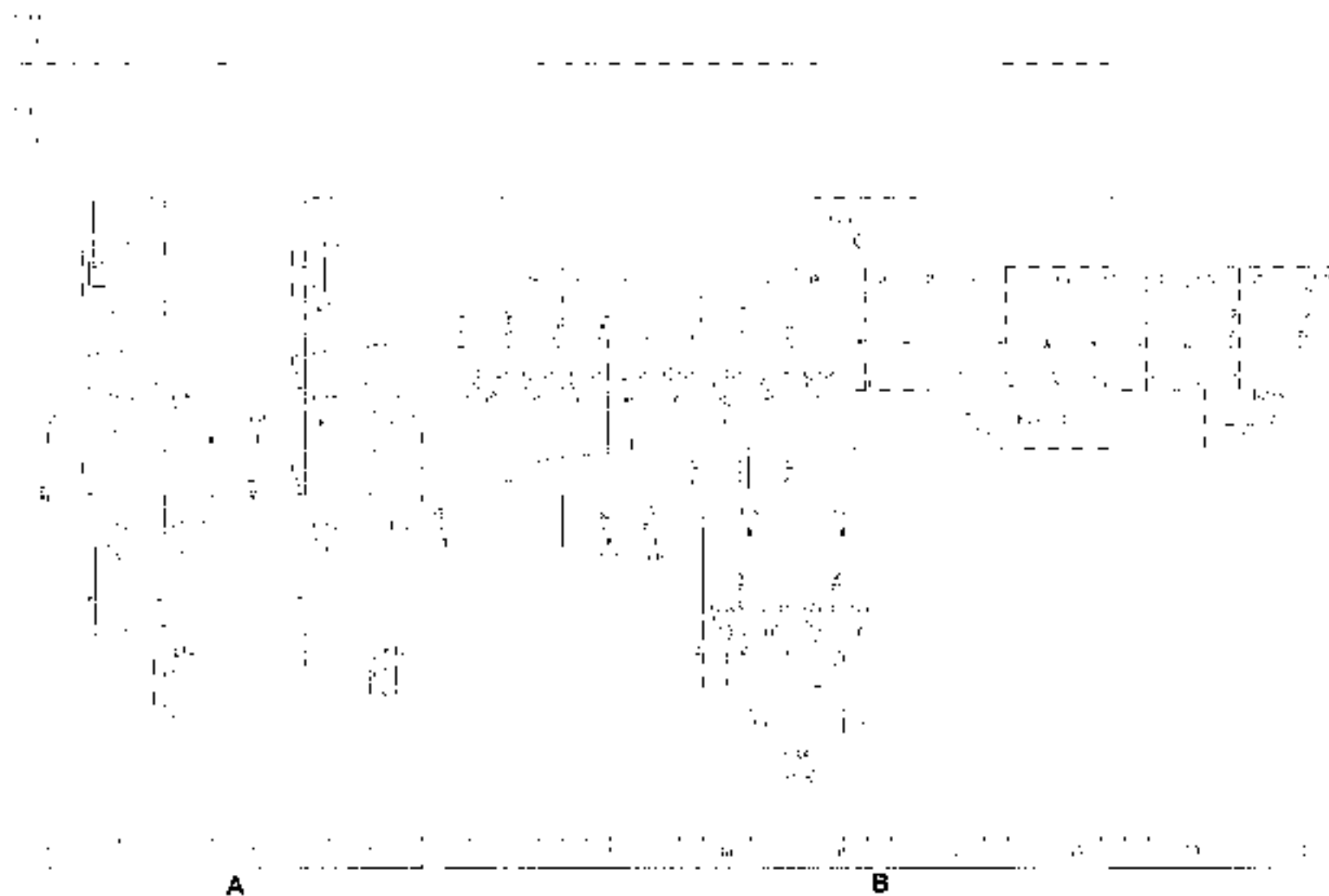
**X1546** Std. door, right  
**X1547** Std. door, left  
**X1963** Std. loudspeaker, left  
**X1964** Std. loudspeaker, right  
**X234B** Std. telephone  
**X2433** Std. adaptation 12V radio  
**X244B** Std. adaptation 12V telephone

**Marking of mounting positions**

- |   |                         |   |                              |
|---|-------------------------|---|------------------------------|
| ⊖ | Tail                    | ⊕ | Driving seat                 |
| ⊕ | Engine                  | ⊕ | Passenger seat               |
| ⊕ | Gearbox                 | ⊕ | Control panel                |
| ⊕ | Front                   | ⊕ | Battery box                  |
| ⊕ | Rumper                  | ⊕ | B-pillar on driver's side    |
| ⊕ | Entrance right          | ⊕ | A-pillar on driver's side    |
| ⊕ | Entrance left           | ⊕ | B-pillar on passenger's side |
| ⊕ | Central electric area   | ⊕ | A-pillar on passenger's side |
| ⊕ | Control unit racks      | ⊕ | Ceiling/front                |
| ⊕ | Rear wall of cab        | ⊕ | Front axle                   |
| ⊕ | Instrument panel        | ⊕ | Rear axle                    |
| ⊕ | Central part            | ⊕ | Front part of frame          |
| ⊕ | Steering wheel/column   | ⊕ | Rear part of frame           |
| ⊕ | Foot pedals             | ⊕ | Door, left                   |
| ⊕ | Front wall inside left  | ⊕ | Door, right                  |
| ⊕ | Front wall inside right |   |                              |



Wiring diagram no. 81.99192.1443 Sheet 2 of 2



**Retarder/inarder, automatic**

**Legend**

Wiring diagram no. **81.99192.1372** Sheet 1 of 1  
 Change status: 05.01

**A = Retarder/inarder, automatic**

- A100 (255) Control fuse, relay and terminal block
- A302 (352) Central computer 2
- A403 (329) Vehicle management computer
  
- S479 (476) Switch, additional retarding brake off

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| Ⓜ | Tail                     | Ⓢ | Driving seat                 |
| Ⓝ | Engine                   | Ⓣ | Passenger seat               |
| Ⓦ | Gearbox                  | Ⓤ | Control panel                |
| Ⓛ | Front                    | Ⓥ | Battery box                  |
| Ⓟ | Bumper                   | Ⓦ | B-pillar on driver's side    |
| Ⓠ | Entrance right           | Ⓧ | A-pillar on driver's side    |
| Ⓡ | Entrance left            | Ⓨ | B-pillar on passenger's side |
| Ⓢ | Central electric area    | Ⓩ | A-pillar on passenger's side |
| Ⓣ | Control unit racks       | ⓐ | Ceiling/roof                 |
| Ⓤ | Rear wall of cab         | ⓑ | Front axle                   |
| Ⓥ | Instrument panel         | ⓓ | Rear axle                    |
| Ⓦ | Central part             | ⓔ | Front part of frame          |
| Ⓧ | Steering wheel/column    | ⓕ | Rear part of frame           |
| Ⓨ | Foot pedals              | ⓖ | Door left                    |
| Ⓩ | Front wall, inside left  | ⓗ | Door right                   |
| ⓐ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.1372 Sheet 1 of 1



**A**

K 90

**Retarder VOITH DIGIPROP (CAN)**

**Legend**

Wiring diagram no. 81.99182.1410 Sheet 1 of 1  
Change status: 05.01

**A = Additional retarding brake pushbutton switch**

**B = Pressure pickup**

**C = Temperature sensor**

**D = Solenoid valve**

**E = Diagnosis**

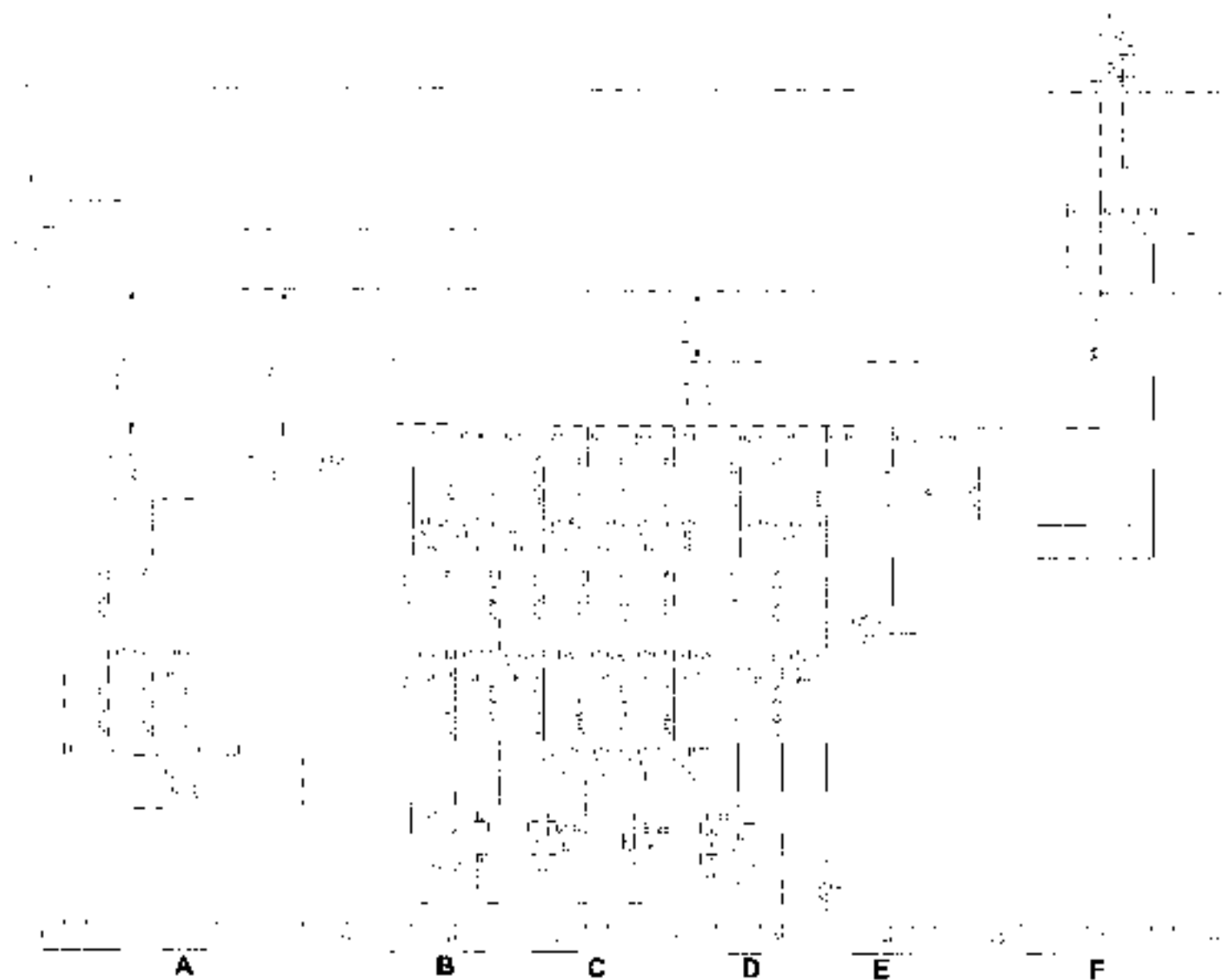
**F = Power supply**

A100	(255)	Central fuse, relay and terminal block
A144	(374)	Control unit, retarder
A302	(352)	Central computer 2
A403	(339)	Vehicle management computer
A407	(342)	Instrumentation
A437	(308)	Additional retarding brake pushbutton switch
B124	(207)	Temperature sensor, retarder (cooling water)
B188	(206)	Temperature pickup, retarder (oil)
B435	(291)	Pressure pickup, retarder, positioning pressure
F152	(101)	Fuse, retarder
H145		Indicator light, retarder
X1540		Std. engine/EDC/transmission I
X1553		Std. engine/EDC/transmission III
X1550		Std. engine/EDC/transmission IV
X1575		Std. temperature sensor, retarder (water, oil)
X1644		Earthing point, cab, adjacent to central fuse, relay and terminal block
X1948		Std. engine/transmission (MP box)
X1949		Std. engine/transmission (MP box)

**Marking of mounting positions**

④	Tail	⑤⑥	Driving seat
⑤	Engine	⑦	Passenger seat
⑥	Gearbox	⑧	Control panel
⑦	Front	⑨	Battery box
⑧	Bumper	⑩	B-pillar on driver's side
⑨	Entrance right	⑪	A-pillar on driver's side
⑩	Entrance left	⑫	B-pillar on passenger's side
⑪	Central electrics area	⑬	A-pillar on passenger's side
⑫	Control unit racks	⑭	Ceiling/roof
⑬	Rear wall of cab	⑮	Front axle
⑭	Instrument panel	⑯	Rear axle
⑮	Central part	⑰	Front part of frame
⑯	Steering wheel/column	⑱	Rear part of frame
⑰	Foot pedals	⑲	Door left
⑱	Front wall, inside left	⑳	Door right
⑲	Front wall, inside right		
X1951			Std. engine/transmission (MP box)
X1969			Std. engine brake switch
X2544 (246)			Potential distributor 21-pin K-line
Y133	(102)		Proportioning valve, retarder

Wiring diagram no. 81.99192.1410 Sheet 1 of 1



**Retarder, hydroretarder (CAN)**

**Legend**

Wiring diagram no. **81.99192.1411** Sheet 1 of 1  
 Change status: 05.01

**A = Additional retarding brake pushbutton switch**

**B = Pressure pickup**

**C = Temperature sensor**

**D = Solenoid valve**

**E = Pressure pickup**

**F = Power supply**

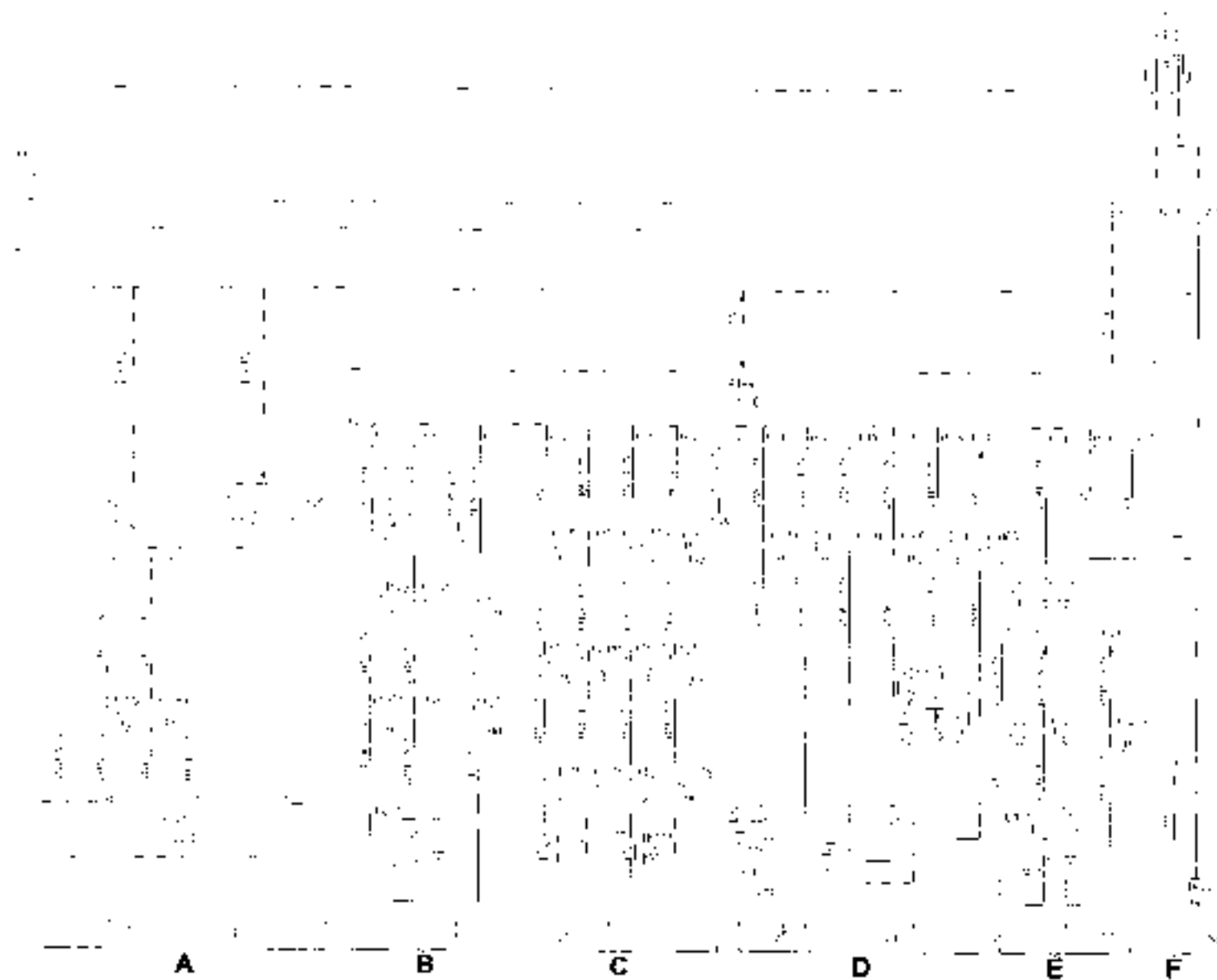
- A100 (255) Central fuse, relay and terminal block
- A144 (507) Control unit, retarder
- A302 (352) Central computer 2
- A403 (333) Vehicle management computer
- A407 (342) Instrumentation
- A437 (398) Additional retarding brake pushbutton switch
  
- B134 (352) Temperature sensor, retarder (cooling water)
- B373 (352) Temperature sensor, retarder (cooling water)
- B435 (291) Pressure pickup, retarder, housing pressure
- B505 (291) Pressure pickup, retarder, positioning pressure
  
- F152 (101) Fuse retarder (terminal 15)
  
- H145 Indicator light, retarder
  
- X1640 Std. engine/EDC/transmission I
- X1651 Std. engine/EDC/transmission II
- X1653 Std. engine/EDC/transmission III
- X1675 Std. temperature sensor, retarder (water, oil)
- X1641 Earthing point, cap. adjacent to central fuse, relay and terminal block
- X1951 Std. engine/transmission (MP box)
- X1969 Std. engine brake switch
- X2016 Std. cab/solenoid valves, right

**Marking of mounting positions**

- ⊖ Tail
- ⊕ Engine
- ⊕ Gearbox
- ⊖ Front
- ⊕ Bumper
- ⊕ Entrance right
- ⊖ Entrance left
- ⊕ Central electric's area
- ⊖ Control unit racks
- ⊕ Rear wall of cab
- ⊖ Instrument panel
- ⊖ Central part
- ⊖ Steering wheel/column
- ⊖ Foot pedals
- ⊕ Front wall, inside left
- ⊕ Front wall, inside right
- ⊕ Driving seat
- ⊕ Passenger seat
- ⊕ Control panel
- ⊖ Battery box
- ⊕ B-pillar on driver's side
- ⊕ A-pillar on driver's side
- ⊖ B-pillar on passenger's side
- ⊕ A-pillar on passenger's side
- ⊖ Ceiling/roof
- ⊕ Front axle
- ⊖ Rear axle
- ⊕ Front part of frame
- ⊕ Rear part of frame
- ⊕ Door left
- ⊕ Door right

- X2188 Std. cable duct, hydroretarder
- X2403 Std. cab/pressure pickup, positioning pressure
- X2514 (246) Potential distributor 21 pin K line
  
- Y212 (126) Solenoid valve, "DvKRetarder"
- Y268 (223) Valve block, retarder

Wiring diagram no. 81.99192-1411 Sheet 1 of 1



Reversing stop

Legend

Wiring diagram no. B1.99192.1409 Sheet 1 of 1  
 Charge status: 05.01

**A = Reversing inhibitor with/without start-stop on engine and frame end**

A100 (255) Central fuse, relay and terminal block  
 A302 (352) Central computer 2  
 A312 (397) Customer-specific control module  
 A403 (339) Vehicle management computer

X679 Stvd. start-stop device  
 X1551 Stvd. engine/EDC/transmission II  
 X1693 Crimper connector, line 60029  
 X1996 Stvd. intermediate speed control interface (FFR)  
 X1997 Stvd. intermediate speed control interface (KSM)  
 X2541 (246) Potential distributor, 21-pin line 31000

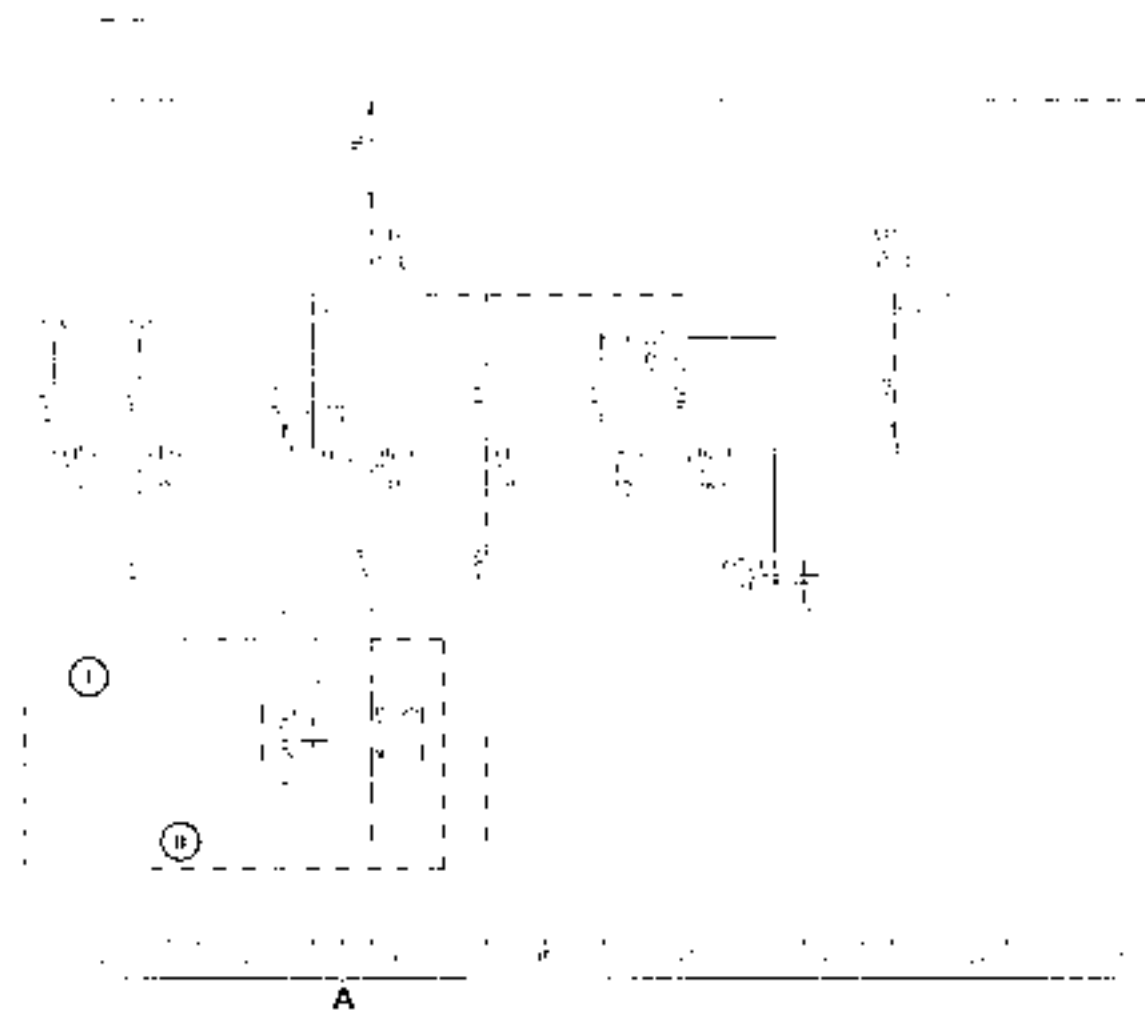
Marking of mounting positions

- |                              |                                |
|------------------------------|--------------------------------|
| ⊖ Tail                       | ⊖ Driving seat                 |
| ⊖ Engine                     | ⊖ Passenger seat               |
| ⊖ Gear-box                   | ⊖ Control panel                |
| ⊖ Front                      | ⊖ Battery box                  |
| ⊖ Bumper                     | ⊖ B-pillar on driver's side    |
| ⊖ Entrance right             | ⊖ A-pillar on driver's side    |
| ⊖ Entrance left              | ⊖ B-pillar on passenger's side |
| ⊖ Central electrics area     | ⊖ A-pillar on passenger's side |
| ⊖ Control unit racks         | ⊖ Ceiling/roof                 |
| ⊖ Rear wall of cab           | ⊖ Front axle                   |
| ⊖ Instrument panel           | ⊖ Rear axle                    |
| ⊖ Control panel              | ⊖ Front part of frame          |
| ⊖ Steering wheel/column      | ⊖ Rear part of frame           |
| ⊖ Foot pedals                | ⊖ Door left                    |
| ⊖ Front wall, inside left    | ⊖ Door right                   |
| ⊖ Front wall, inside right   |                                |
| ⊖ Scope, body manufacturers  |                                |
| ⊖ Earthing from foot contact |                                |



Wiring diagram no. 81.99192.1409 Sheet 1 of 1

1  
2  
3



**All-round marker light 1 on roof**



































**Legend**

Wiring diagram no. **81.99192.1412** Sheet 1 of 1  
 Change status 05.01

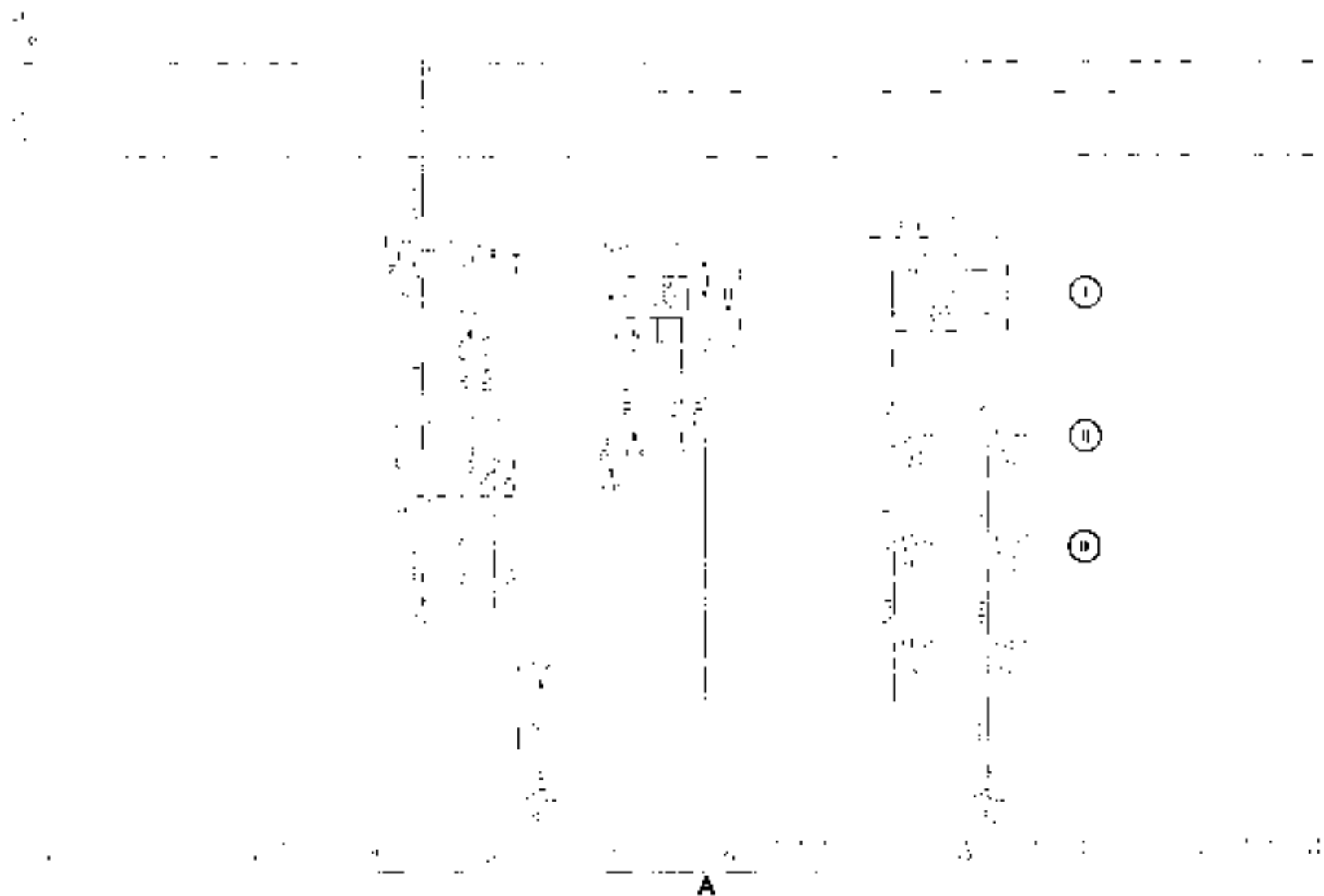
**A = All-round marker light 1 on roof**

- A\*00** (255) Central fuse, relay and terminal block
- A002** (352) Central computer 2
- A496** (516) Control device, all-round marker light
  
- E106** (183) All-round marker light (passenger side)
  
- F188** (118) Fuse, all-round marker light
  
- S227** (554) Switch, all-round marker light
  
- X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block
- X1846** Std. all-round marker light
- X2242** Std. cable duct, all-round marker light, right
- X2244** Std. base/stand, all-round marker light, right
- X2542** (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electrics area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Front pedals
-  Front wall, inside left
-  Front wall, inside right
  
-  All-round marker light, left **E197** or right **E196**
-  All-round marker light, left **X2245**
-  All-round marker light, left **X2243**
  
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

Wiring diagram no. 81.99192.1412 Sheet 1 of 1



**All-round marker light 2 on roof**
































**Legend**

Wiring diagram no. **81.99192.1413** Sheet 1 of 1  
 Change status: 05.01

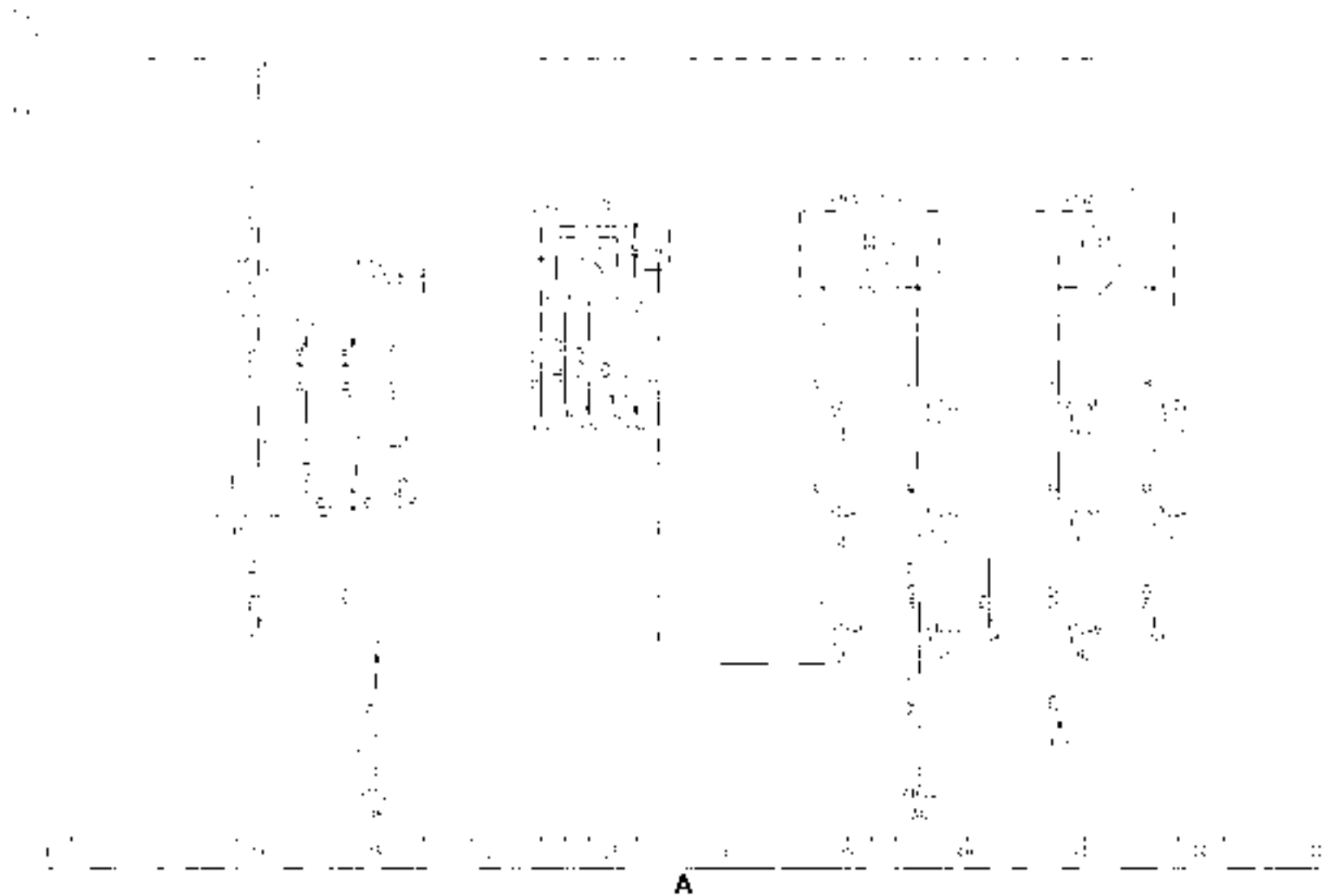
**A = All-round marker lights 2 on roof**

<b>A100</b>	(255) Central fuse, relay and terminal block
<b>A302</b>	(352) Central computer 2
<b>A408</b>	(316) Control device, all-round marker light
<b>E196</b>	(183) All-round marker light (passenger side)
<b>F197</b>	(183) All-round marker light (driver's side)
<b>F188</b>	(118) Fuse, all-round marker light
<b>S227</b>	(557) Switch, all-round marker light
<b>X1544</b>	Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X1846</b>	Stvd. all-round marker light
<b>X2242</b>	Stvd. cable duct, all-round marker light, right
<b>X2243</b>	Stvd. cable duct, all-round marker light, left
<b>X2244</b>	Stvd. base/stand, all-round marker light, right
<b>X2245</b>	Stvd. base/stand, all-round marker light, left
<b>X2542</b>	(246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

 Tail	 Driving seat
 Engine	 Passenger seat
 Gearbox	 Control panel
 Front	 Battery box
 Bumper	 B-pillar on driver's side
 Entrance right	 A-pillar on driver's side
 Entrance left	 B-pillar on passenger's side
 Central electric area	 A-pillar on passenger's side
 Control unit racks	 Ceiling/roof
 Rear wall of cab	 Front axle
 Instrument panel	 Rear axle
 Central part	 Front part of frame
 Steering wheel/column	 Rear part of frame
 Foot pedals	 Door left
 Front wall, inside left	 Door right
 Front wall, inside right	

Wiring diagram no. 81.99192.1413 Sheet 1 of 1



All-round marker light 2 on stand

Legend

Wiring diagram no. 81.98192.1414 Sheet 1 of 1  
Change status: 05.01

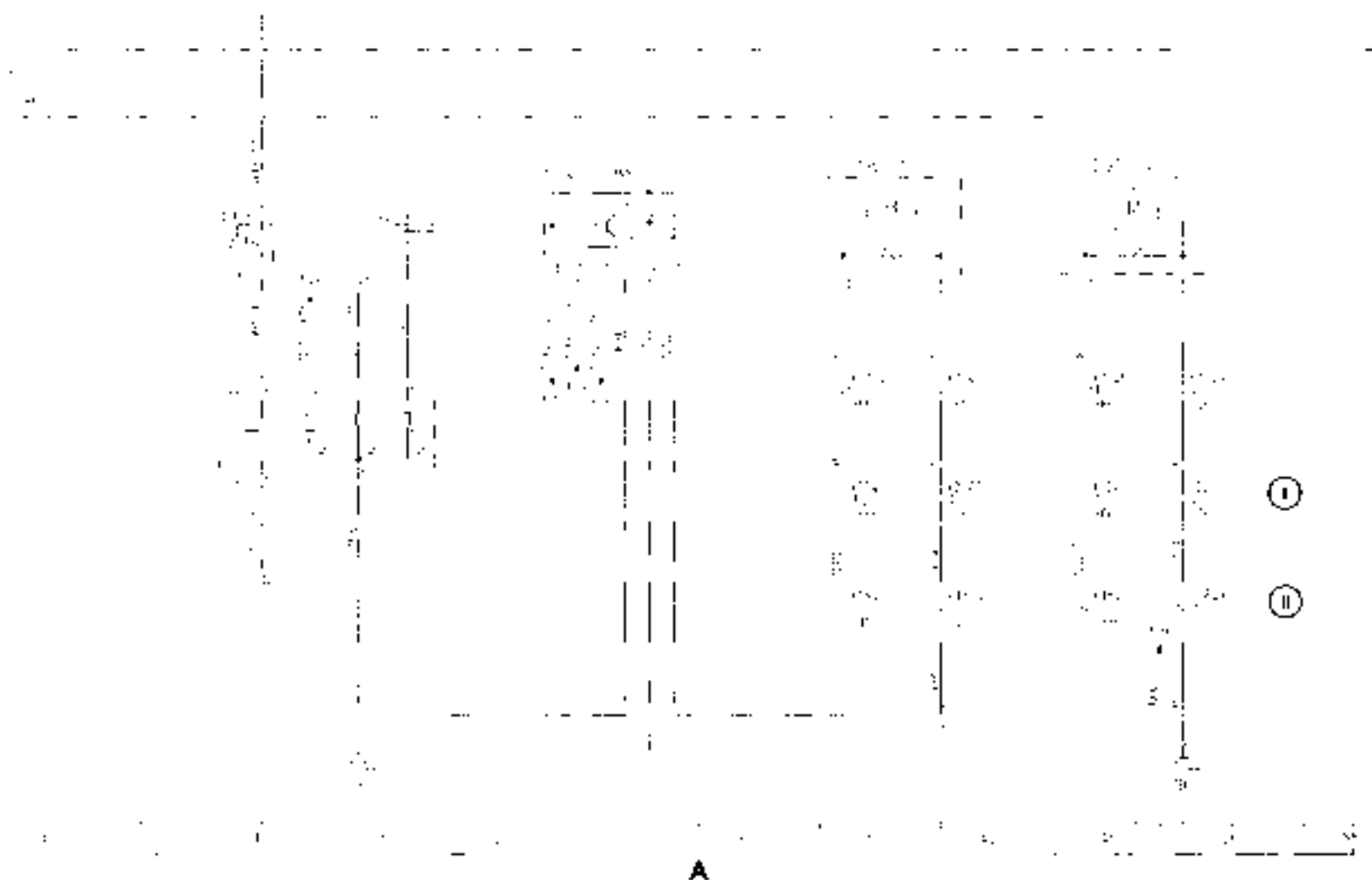
**A = All-round marker lights 2 on stand**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A302</b>	(352)	Central computer ?
<b>A498</b>	(516)	Control device, all-round marker light
<b>E196</b>	(183)	All-round marker light (passenger side)
<b>E197</b>	(183)	All-round marker light (driver's side)
<b>F182</b>	(118)	Fuse, all-round marker light
<b>S227</b>	(557)	Switch, all-round marker light
<b>X1644</b>		Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X1843</b>		Std. all-round marker light, B-pillar, left
<b>X1844</b>		Std. all-round marker light, B-pillar, right
<b>X2242</b>		Std. cable duct, all-round marker light, right
<b>X2243</b>		Std. cable duct, all-round marker light, left
<b>X2244</b>		Std. base/stand, all-round marker light, right
<b>X2245</b>		Std. base/stand, all-round marker light, left
<b>X2542</b>	(246)	Potential distributor, 21-pin line 56000

Marking of mounting positions

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electronics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		
	on the short cab, line 72302 to left and right		
	<b>X1844</b> on RL H1		
	<b>X1843</b> on RL J1		

Wiring diagram no. 81.98192.1414 Sheet 1 of 1



**All-round marker light, left, on stand**

**Legend**

Wiring diagram no. **B1.99192.1416** Sheet 1 of 1  
 Change status: 05/01

**A = All-round marker lights, left, on stand**

- A100 (255) Central fuse, relay and terminal block
- A302 (352) Central computer 2
- A498 (S10) Control device, all-round marker light
  
- E197 (183) All-round marker light (driver's side)
  
- F188 (118) Fuse, all-round marker light
  
- S227 (554) Switch, all-round marker light
  
- X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block
- X1043 Slvd. all-round marker light, B-pillar, left
- X2243 Slvd. cable duct, all-round marker light, left
- X2245 Slvd. base/stand, all-round marker light, left
- X2542 (246) Potential distributor 21-pin line 58010

**Marking of mounting positions**

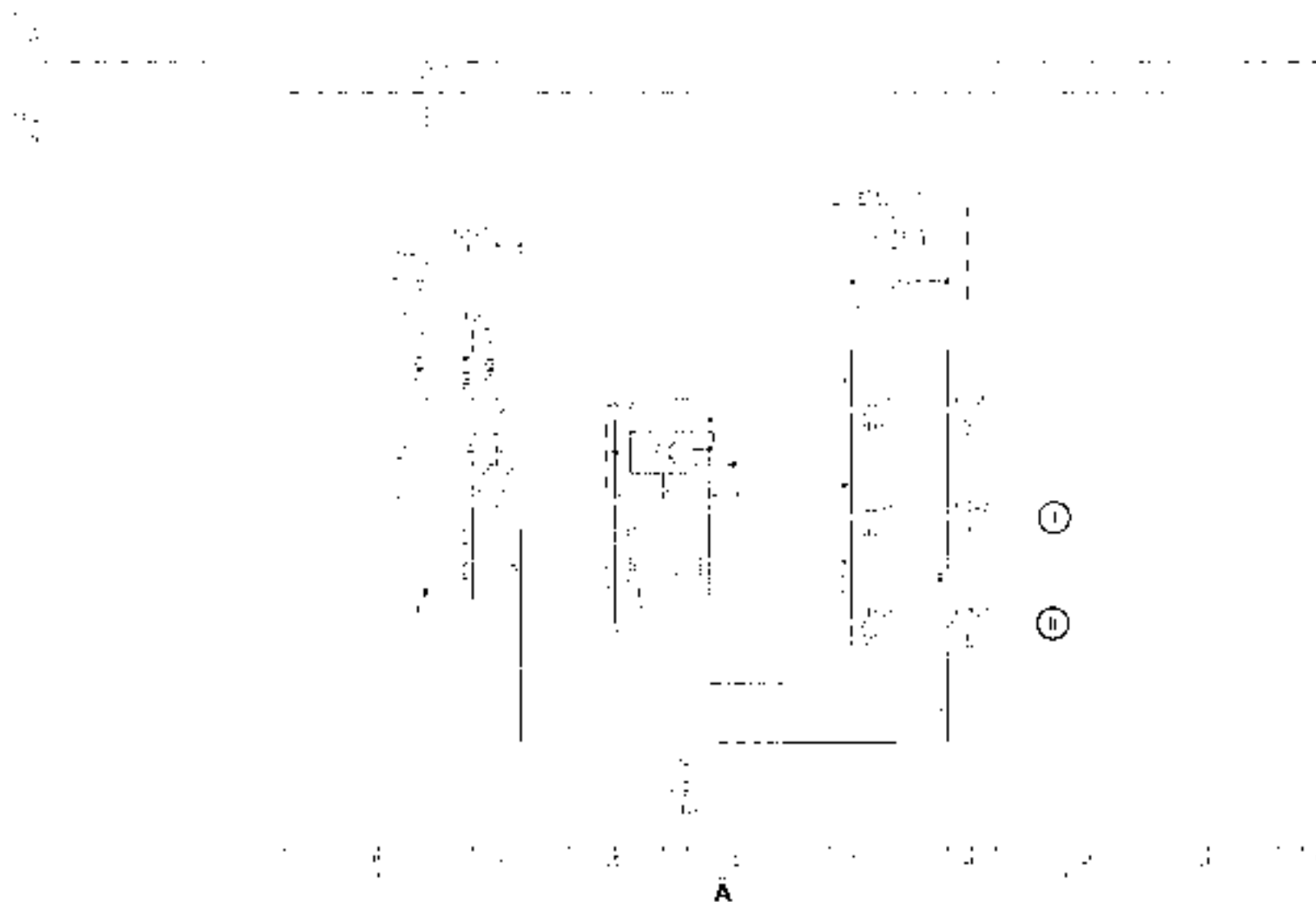
- (A) Tail
- (E) Engine
- (G) Gearbox
- (F) Front
- (B) Bumper
- (E) Entrance right
- (E) Entrance left
- (N) Central electric area
- (C) Control unit racks
- (R) Rear wall of cab
- (I) Instrument panel
- (C) Central part
- (S) Steering wheel/column
- (F) Foot pedals
- (F) Front wall, inside left
- (F) Front wall, inside right
  
- (R) Driving seat
- (L) Passenger seat
- (P) Control panel
- (B) Battery box
- (D) B-pillar on driver's side
- (A) A-pillar on driver's side
- (L) B-pillar on passenger's side
- (A) A-pillar on passenger's side
- (C) Ceiling/roof
- (R) Front axle
- (R) Rear axle
- (F) Front part of frame
- (R) Rear part of frame
- (F) Door left
- (R) Door right

(I) on the short cab, line 72302

(X) **X1643** on RL J1



Wiring diagram no. 81.99192.1416 Sheet 1 of 1



**All-round marker light, right, on stand**

**Legend**

Wiring diagram no. **B1 99192.1415** Sheet 1 of 1  
Change status: 05.01

**A = All-round marker light, right, on stand**

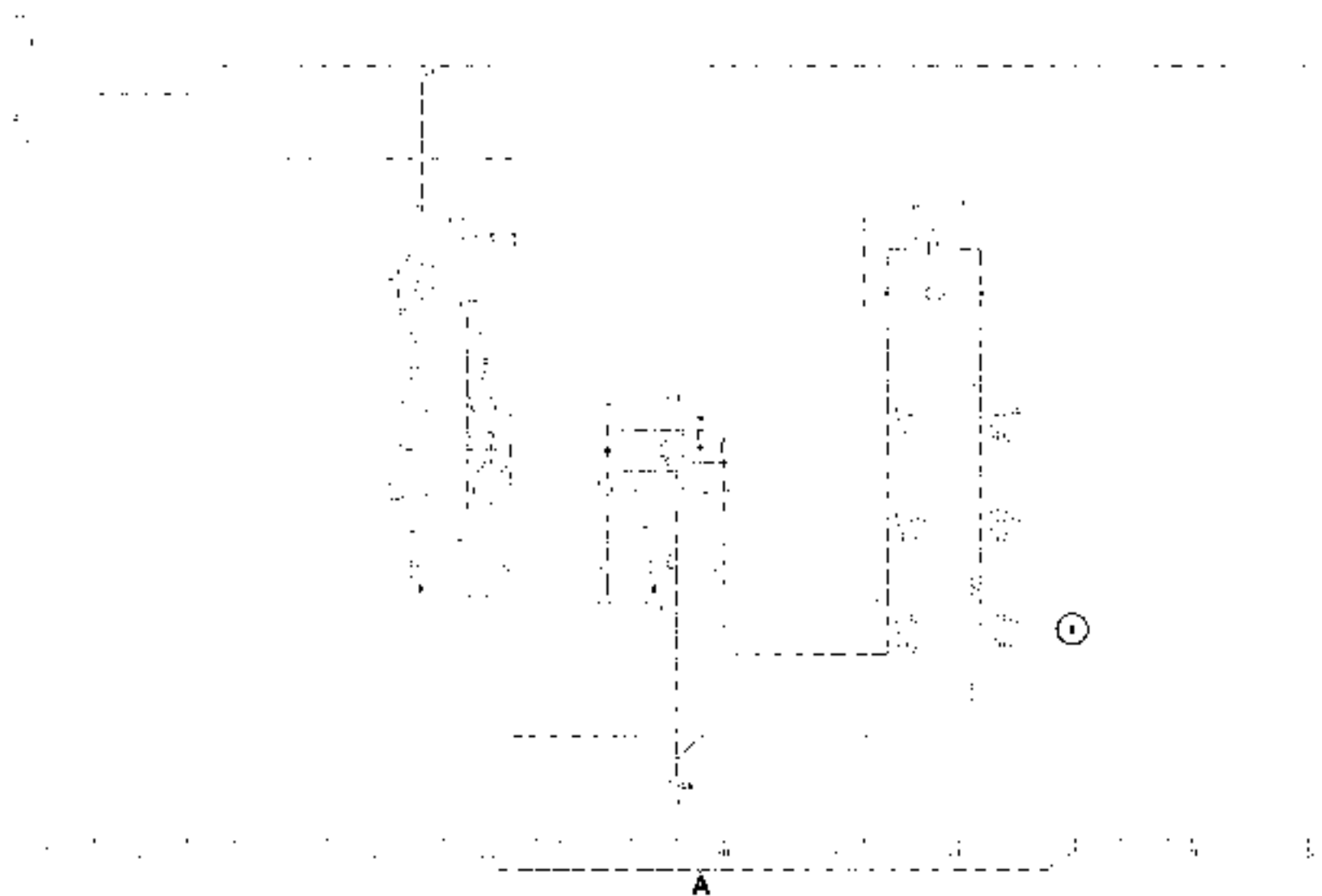
<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A362</b>	(352)	Central computer 2
<b>A498</b>	(516)	Control device, all-round marker light
<b>E196</b>	(183)	All-round marker light (passenger side)
<b>F188</b>	(118)	Fuse, all-round marker light
<b>S227</b>	(554)	Switch, all-round marker light
<b>X1644</b>		Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X1844</b>		Std. all-round marker light, B pillar, right
<b>X2242</b>		Std. cable duct, all-round marker light, right
<b>X2244</b>		Std. base/stand, all-round marker light, right
<b>X2542</b>	(246)	Potential distributor, 21-pin line SAOCO

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electric's area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		

**X1644** on RL H1

Wiring diagram no. 81.99192.1415 Sheet 1 of 1





**Headlight gas discharge with headlight levelling (LL)**

**Legend**

Wiring diagram no. **81.99192.2651** Sheet 1 of 1  
Change status: 04.99

**A = Height sensor, front axle**  
**B = Headlight, left**  
**C = Headlight levelling**  
**D = Headlight, right**

**A100** (255) Central fuse, relay and terminal block  
**A187** (493) Headlights, left  
**A188** (494) Headlights, right  
**A302** (352) Central computer 2

**B509** (311) Height sensor, front axle, left

**E108** Parking light, right  
**E109** Parking light, left  
**E110** Dipped beam, right  
**E111** Dipped beam, left  
**E112** Main beam, right  
**E113** Main beam, left

**F117** (101) Fuse, parking tail light, left  
**F118** (101) Fuse, parking tail light, right

**K116** (187) Relay, parking tail light

**M117** (A493) Actuator motor, headlight levelling, left  
**M118** (A494) Actuator motor, headlight levelling, right

**R109** Positioning potentiometer, headlight levelling

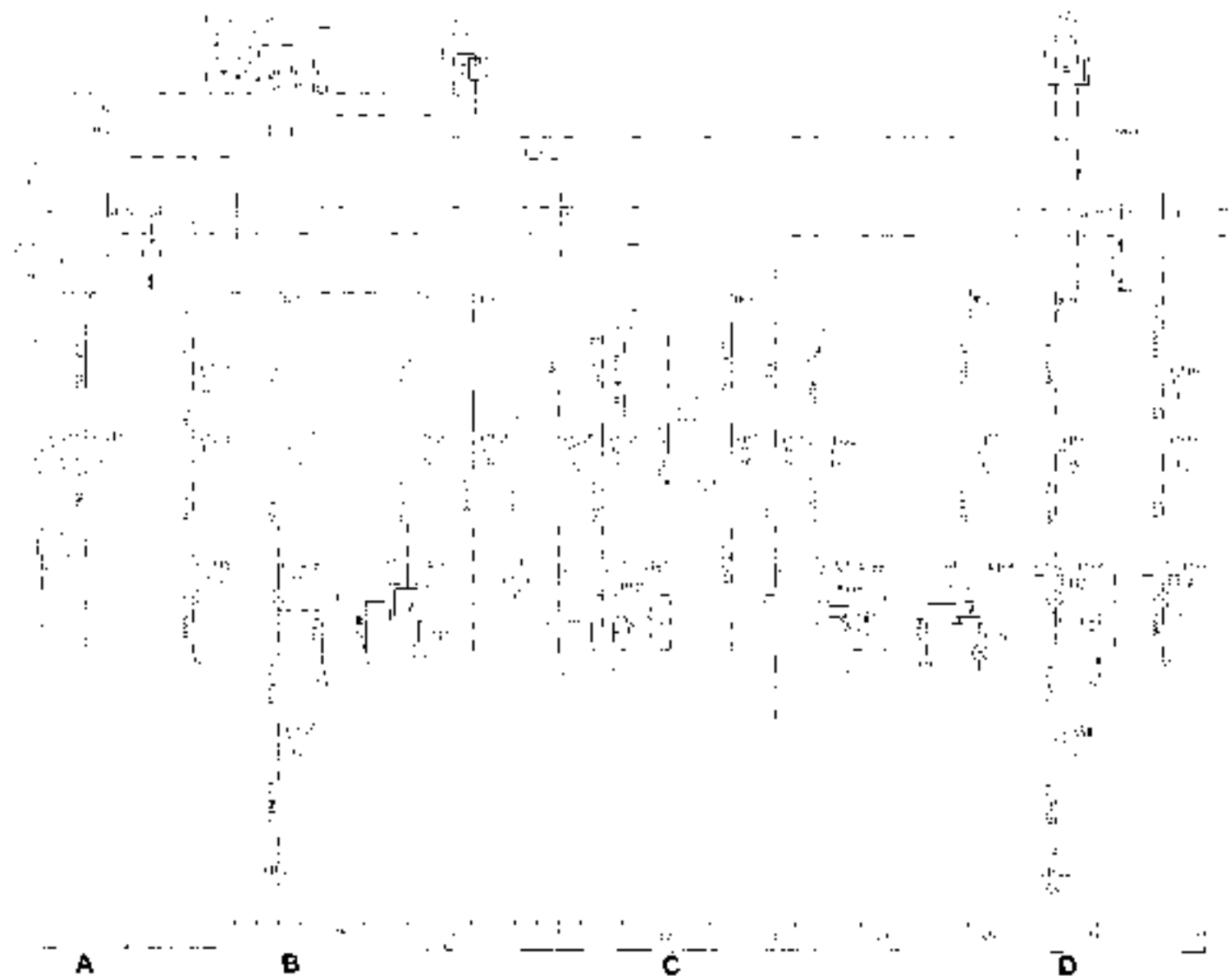
**X1545** Std. front region, left  
**X1550** Std. front region, right  
**X1630** Soldered connector, type 16003  
**X1642** Earthing point, cab, behind instrument panel

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊙ Tail                     | ⊙ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊙ Gearbox                  | ⊙ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Bumper                   | ⊙ D-pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B-pillar on passenger's side |
| ⊙ Central electronics area | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/root                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊙ Central part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Foot pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X2411** Std. height sensor, front axle, left  
**X2506** Std. adaptation, parking light 2

Wiring diagram no. 81.99192.2651 Sheet 1 of 4



**Headlight gas discharge with headlight levelling (RL)**

**Legend**

Wiring diagram no. **81.99192.2653** Sheet 1 of 1  
Change status: 04.99

**A = Height sensor, front axle**

**B = Headlight, left**

**C = Headlight levelling**

**D = Headlight, right**

A100 (255) Central fuse, relay and terminal block

A187 (493) Headlights, left

A188 (494) Headlights, right

A302 (352) Central computer 2

B509 (311) Height sensor, front axle, left

E108 Parking light, right

E109 Parking light, left

E110 Dipped beam, right

E111 Dipped beam, left

E112 Main beam, right

E113 Main beam, left

F117 (101) Fuse, parking tail light, left

F118 (101) Fuse, parking tail light, right

K116 (187) Relay, parking tail light

M117 (A493) Actuator motor, headlight levelling, left

M118 (A494) Actuator motor, headlight levelling, right

R109 Positioning potentiometer, headlight levelling

X1545 Std. front region, left

X1550 Std. front region, right

X1639 Soldered connector, line 16000

X1642 Earthing point, cab, behind instrument panel

**Marking of mounting positions**

⊖ Tail

⊕ Engine

⊕ Gearbox

⊖ Front

⊕ Bumper

⊕ Entrance right

⊕ Entrance left

⊕ Central electronics area

⊕ Control unit racks

⊕ Rear wall of cab

⊖ Instrument panel

⊖ Central part

⊕ Steering wheel/column

⊕ Foot pedals

⊕ Front wall, inside left

⊕ Front wall, inside right

⊕ Driving seat

⊕ Passenger seat

⊕ Control panel

⊕ Battery box

⊕ B-pillar on driver's side

⊕ A-pillar on driver's side

⊕ B-pillar on passenger's side

⊕ A-pillar on passenger's side

⊕ Ceiling/roof

⊕ Front axle

⊕ Rear axle

⊕ Front part of frame

⊕ Rear part of frame

⊕ Door left

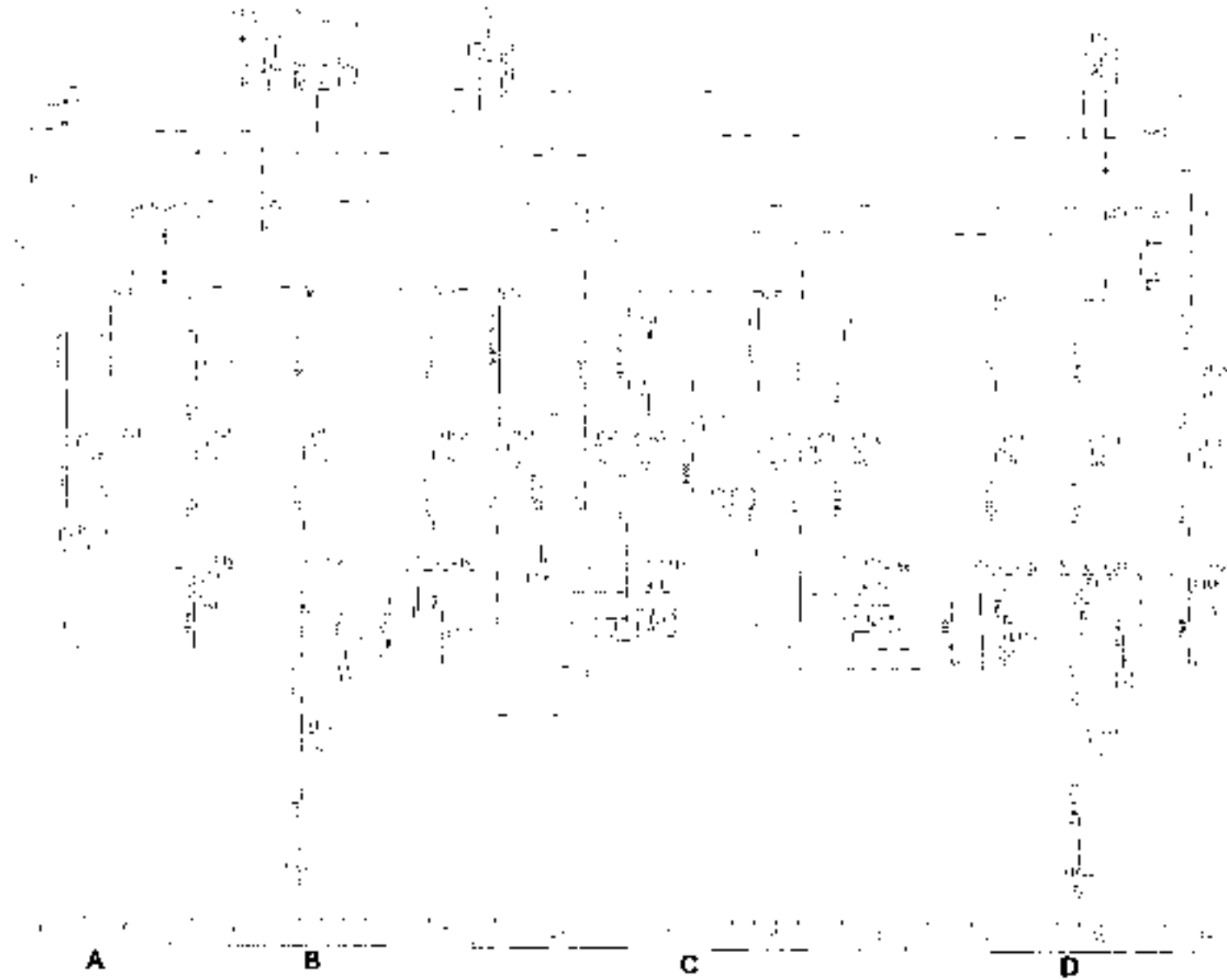
⊕ Door right

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block

X2411 Std. height sensor, front axle, left

X2508 Std. adaptation, parking light 2

Wiring diagram no. 81.99192.2853 Sheet 1 of 1





**Headlight gas discharge without headlight levelling**

**Legend**

Wiring diagram no. **81.98192.2652** Sheet 1 of 1  
 Change status 04/99

**A = Headlight, left**  
**B = Headlight, right**

**A100** (255) Central fuse, relay and terminal block  
**A\*87** (493) Headlights, left  
**A\*88** (494) Headlights, right  
**A302** (352) Central computer 2

**E108** Parking light, right  
**E\*09** Parking light, left  
**E\*10** Dipped beam, right  
**E\*11** Dipped beam, left  
**E\*12** Main beam, right  
**E113** Main beam, left

**F117** (101) Fuse, parking tail light, left  
**F118** (101) Fuse, parking tail light, right

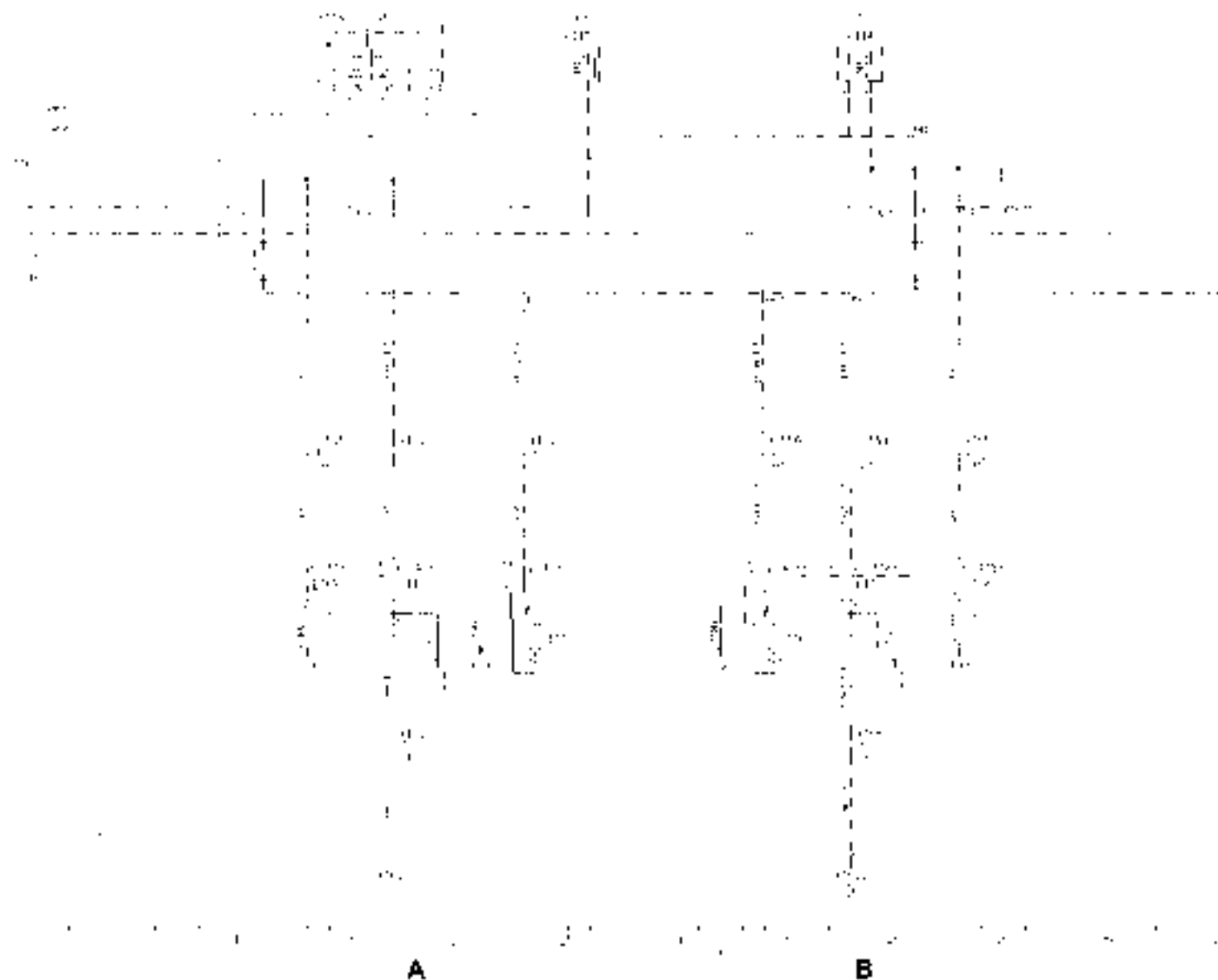
**K116** (187) Relay, parking tail light

**X1545** Std. front region, left  
**X1550** Std. front region, right  
**X1642** Earthing point, cab. behind instrument panel  
**X1644** Earthing point, cab. adjacent to central fuse, relay and terminal block

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓒ Driving seat                 |
| Ⓑ Engine                   | Ⓓ Passenger seat               |
| Ⓒ Gearbox                  | Ⓔ Control panel                |
| Ⓓ Front                    | Ⓕ Battery box                  |
| Ⓔ Bumpet                   | Ⓖ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓗ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓘ B-pillar on passenger's side |
| Ⓗ Central electrics area   | Ⓚ A-pillar on passenger's side |
| Ⓘ Control unit racks       | Ⓛ Ceiling/front                |
| Ⓚ Rear wall of cab         | Ⓜ Front axle                   |
| Ⓛ Instrument panel         | Ⓨ Rear axle                    |
| Ⓜ Central part             | Ⓩ Front part of frame          |
| Ⓨ Steering wheel/column    | ⓐ Rear part of frame           |
| Ⓩ Foot pedals              | ⓑ Door left                    |
| ⓐ Front wall, inside left  | ⓓ Door right                   |
| ⓑ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2652 Sheet 1 of 1



**Headlight cleaning unit (LL)**

**Legend**

Wiring diagram no. 81.99192.1392 Sheet 1 of 1  
Change status: 04.01

**A = Headlight cleaning unit**

A100 (255) Central fuse, relay and terminal block  
A302 (352) Central computer ?  
A407 (342) Instrumentation

H382 Indicator light, level of washing water

M175 (149) Washer pump for headlight cleaning unit

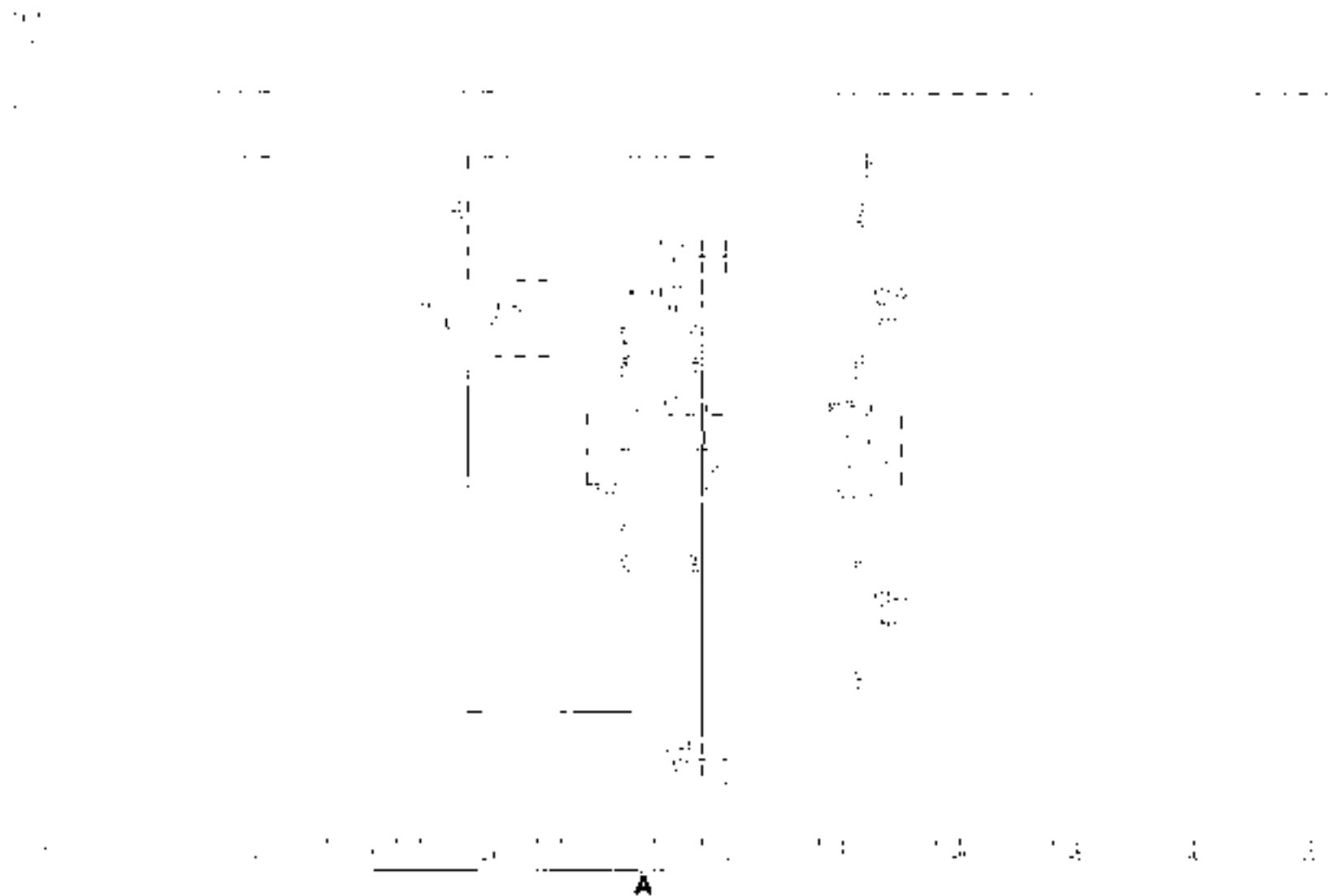
S103 (553) Control switch, headlight cleaning unit

X1545 Std. front relay or, left  
X1757 Soldered connector, line 16000  
X2541 (24E) Potential distributor, 21-pin line 31000  
X2542 (24E) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- |                              |                                   |
|------------------------------|-----------------------------------|
| (A) Tail                     | (3) Driving seat                  |
| (B) Engine                   | (4) Passenger seat                |
| (C) Gearbox                  | (5) Control panel                 |
| (D) Front                    | (6) Battery box                   |
| (E) Bumper                   | (7) B-pillar on driver's side     |
| (F) Entrance right           | (8) A-pillar on driver's side     |
| (G) Entrance left            | (9) B-pillar on passenger's side  |
| (H) Central electric area    | (10) A-pillar on passenger's side |
| (I) Control unit racks       | (11) Ceiling/roof                 |
| (J) Rear wall of cab         | (12) Front axle                   |
| (K) Instrument panel         | (13) Rear axle                    |
| (L) Central part             | (14) Front part of frame          |
| (M) Steering wheel/column    | (15) Rear part of frame           |
| (N) Foot pedals              | (16) Door left                    |
| (O) Front wall, inside left  | (17) Door right                   |
| (P) Front wall, inside right |                                   |

Wiring diagram no. 81.99192.1392 Sheet 1 of 1



**Headlight cleaning unit (RL)**

**Legend**

Wiring diagram no. **81.99192.1393** Sheet 1 of 1  
 Change status: C4 01

**A = Headlight cleaning unit**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A407** (342) Instrumentation

**H332** Indicator light, level of washing water

**M175** (149) Washer pump for headlight cleaning unit

**S193** (553) Control switch, headlight cleaning unit

**X1550** Svd. front region, right

**X1757** Soldered connector, line 16006

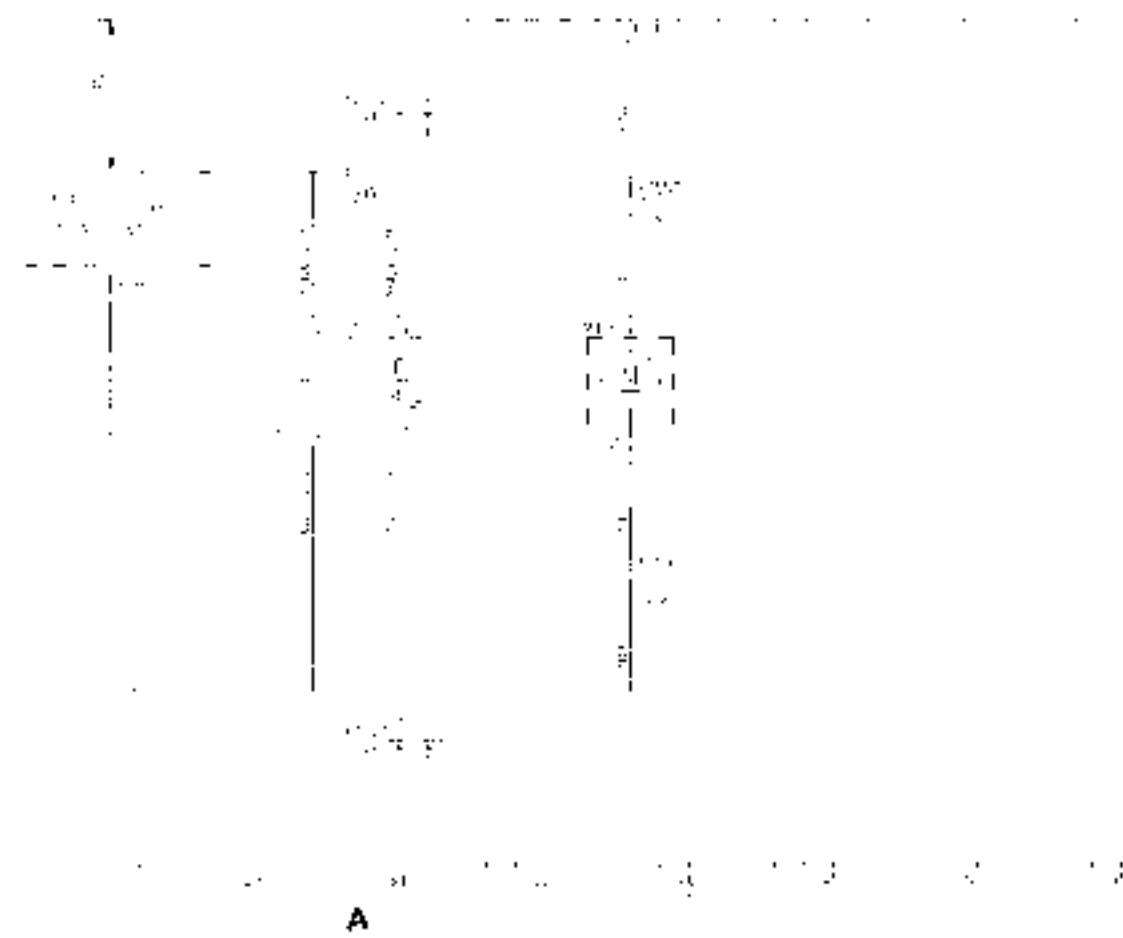
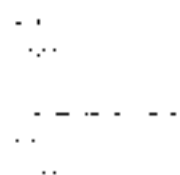
**X2541** (246) Potential distributor, 21-pin line 31060

**X2542** (246) Potential distributor, 21-pin line 58060

**Marking of mounting positions**

- (a) Tail
- (ai) Engine
- (aii) Gearbox
- (f) Front
- (f1) Bumper
- (f2) Entrance right
- (f3) Entrance left
- (f4) Central electrics area
- (f5) Control unit racks
- (f6) Rear wall of cab
- (f7) Instrument panel
- (f8) Central part
- (f9) Steering wheel/column
- (f10) Foot pedals
- (f11) Front wall, inside left
- (f12) Front wall, inside right
- (s) Driving seat
- (p) Passenger seat
- (c) Control panel
- (b) Battery box
- (b1) B-pillar on driver's side
- (b2) A-pillar on driver's side
- (b3) B-pillar on passenger's side
- (b4) A-pillar on passenger's side
- (l) Ceiling/roof
- (a) Front axle
- (r) Rear axle
- (f1) Front part of frame
- (f2) Rear part of frame
- (s1) Door left
- (s2) Door right

Wiring diagram no. 81.99192.1393 Sheet 1 of 1



**Sunroof (INALFA) (LL)**

































**Legend**

Wiring diagram no. **81.99192.1394** Sheet 1 of 1  
Change status: 04.01

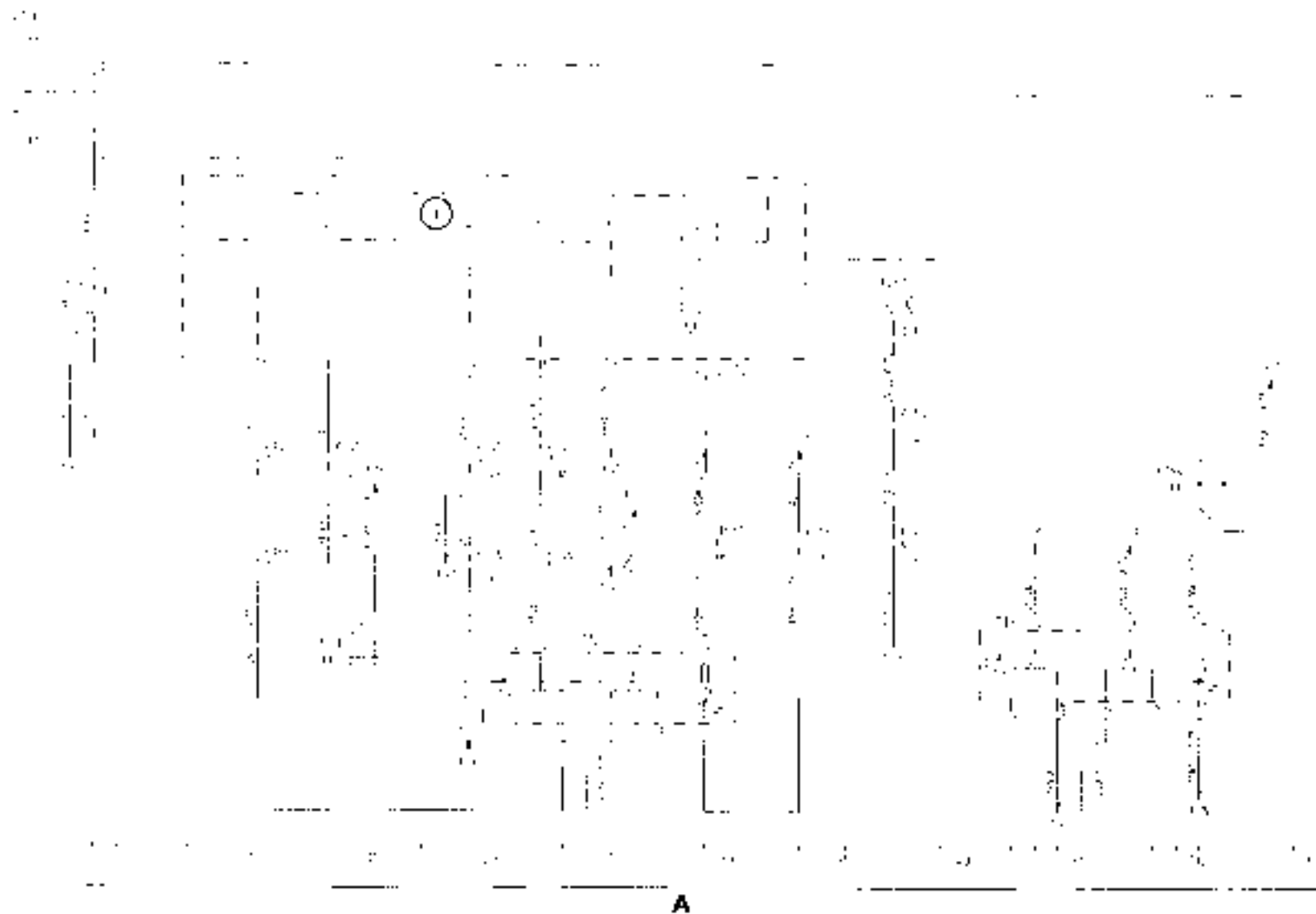
**A = Sunroof**

<b>A100</b>	(255)	Control fuse, relay and terminal block
<b>A302</b>	(352)	Central computer 2
<b>A451</b>	(441)	Door module (driver's side)
<b>A473</b>	(369)	Sunroof
<b>F402</b>	(118)	Fuse, sunroof
<b>S542</b>	(495)	Control switch, sunroof
<b>S713</b>	(495)	Control switch, sunroof
<b>X147</b>		Std. sunroof/roof hatch
<b>X1517</b>		Std. door left
<b>X1567</b>		Std. sunroof
<b>X2541</b>	(246)	Potential distributor, 21-pin line 31000
<b>X2542</b>	(246)	Potential distributor, 21-pin line 58003

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electronics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		
	Sunroof electronics		

Wiring diagram no. 81.99192.1394 Sheet 1 of 1





**Sunroof (INALFA) (RL)**

**Legend**

Wiring diagram no. **81.99192.1395** Sheet: 1 of 1  
 Change status: 04/01

**A = Sunroof**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A452** (441) Door module (driver's side)  
**A471** (369) Sunroof

**F402** (118) Fuse, sunroof

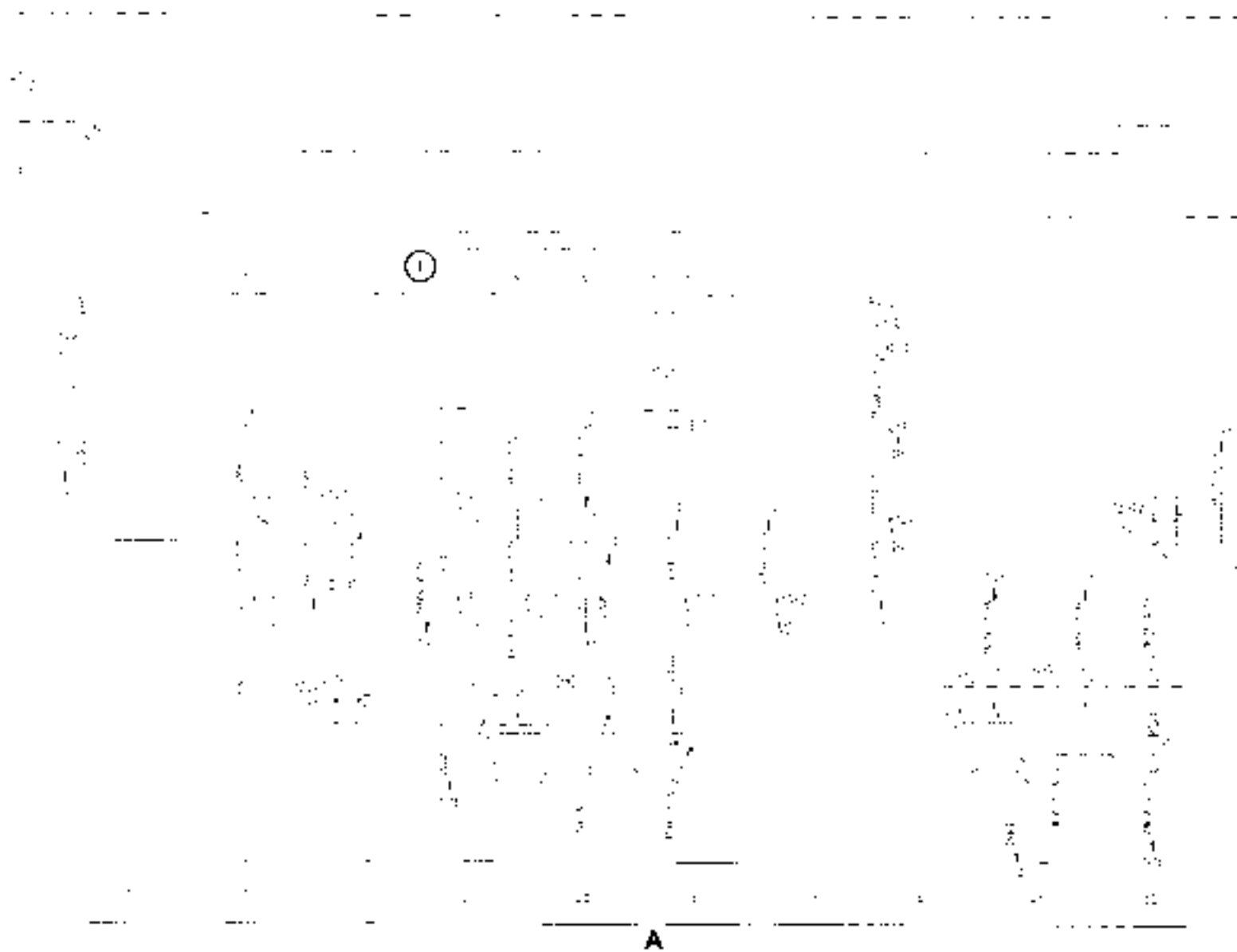
**S542** (495) Control switch, sunroof  
**S713** (495) Control switch, sunroof

**X147** Stvd. sunroof/roof hatch  
**X1546** Stvd. door, right  
**X1587** Stvd. sunroof  
**X2541** (246) Potential distributor, 21-pin line 31000  
**X2542** (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓜ Driving seat                 |
| Ⓑ Engine                   | Ⓝ Passenger seat               |
| Ⓒ Gearbox                  | Ⓞ Control panel                |
| Ⓓ Front                    | Ⓟ Battery box                  |
| Ⓔ Bumper                   | Ⓠ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓡ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓢ B-pillar on passenger's side |
| Ⓗ Central electric area    | Ⓣ A-pillar on passenger's side |
| Ⓘ Central unit racks       | Ⓤ Ceiling, front               |
| Ⓚ Rear wall of car         | Ⓦ Front axle                   |
| Ⓛ Instrument panel         | Ⓧ Rear axle                    |
| Ⓜ Central part             | Ⓨ Front part of frame          |
| Ⓝ Steering wheel/column    | Ⓩ Rear part of frame           |
| Ⓓ Foot pedals              | ⓐ Door left                    |
| Ⓠ Front wall, inside left  | ⓑ Door right                   |
| Ⓡ Front wall, inside right |                                |
| Ⓢ Sunroof electronics      |                                |

Wiring Diagram no. **81.99192.1395** Sheet 1 of 1



A

**Bunk light, top**

**Legend**

Wiring diagram no. 81.99192.1396 Sheet 1 of 1

Change status: 04.01

**A = Bunk light, top**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**E292** (173) Lamp, driver's bunk, top

**X1981** Std. bunk light, top

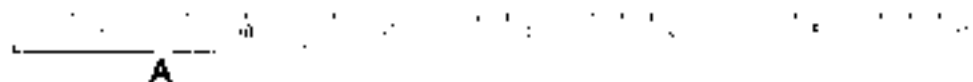
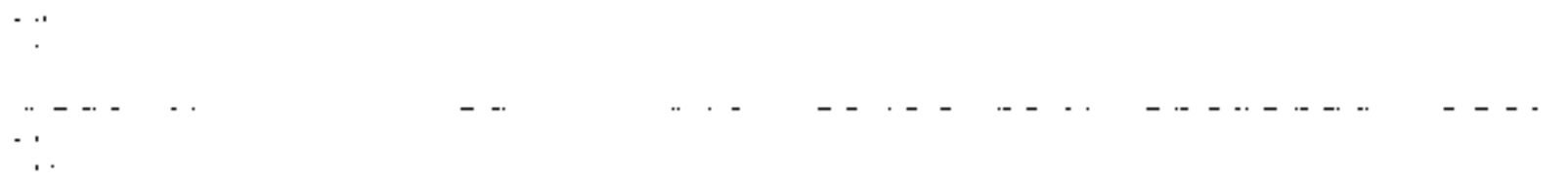
**X2541** (246) Potential distributor, 21-pin line 31300

**X2543** (246) Potential distributor, 21-pin line 30300

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Diving seat                  |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓔ Bumper                   | Ⓙ B-pillar on driver's side    |
| Ⓚ Entrance right           | Ⓚ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓛ B-pillar on passenger's side |
| Ⓛ Central electric area    | Ⓛ A-pillar on passenger's side |
| Ⓛ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | Ⓛ Front axle                   |
| Ⓛ Instrument panel         | Ⓛ Rear axle                    |
| Ⓛ Central part             | Ⓛ Front part of frame          |
| Ⓛ Steering wheel/column    | Ⓛ Rear part of frame           |
| Ⓛ Foot pedals              | Ⓛ Door left                    |
| Ⓛ Front wall, inside left  | Ⓛ Door right                   |
| Ⓛ Front wall, inside right |                                |

Wiring diagram no. 81,99192,1395 Sheet 1 of 1



**Bunk light, bottom (LL)****Legend**Wiring diagram no. ~~81.99192.1397~~ Sheet 1 of 1

Change status: 04.01

**A = Bunk light, bottom**

A103 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

E274 (173) Bunk lamp, bottom

X1573 Std. bunk lighting, bottom

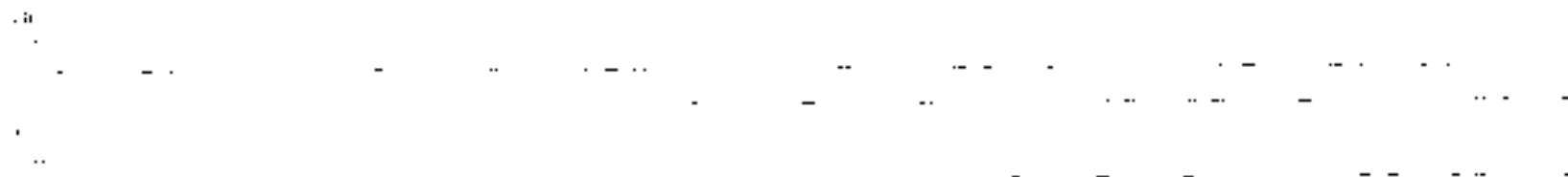
X2511 (246) Potential distributor, 21-pin line 31000

X2513 (246) Potential distributor, 21-pin line 30000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓝ Passenger seat               |
| Ⓒ Gearbox                  | Ⓓ Control panel                |
| Ⓓ Front                    | Ⓖ Battery box                  |
| Ⓚ Bumper                   | Ⓛ B-pillar on driver's side    |
| Ⓛ Entrance light           | Ⓜ A-pillar on driver's side    |
| Ⓜ Entrance left            | Ⓨ B-pillar on passenger's side |
| Ⓨ Central electric area    | Ⓩ A-pillar on passenger's side |
| Ⓩ Control unit racks       | Ⓟ Ceiling/roof                 |
| Ⓟ Rear wall of cab         | Ⓠ Front axle                   |
| Ⓠ Instrument panel         | Ⓡ Rear axle                    |
| Ⓡ Central part             | Ⓢ Front part of frame          |
| Ⓢ Steering wheel/column    | Ⓣ Rear part of frame           |
| Ⓣ Foot pedals              | Ⓤ Door left                    |
| Ⓤ Front wall, inside left  | Ⓥ Door right                   |
| Ⓥ Front wall, inside right |                                |

Wiring diagram no. 81 99192.1397 Sheet 1 of 1



A

**Bunk light, bottom (RL)**

**Legend**

Wiring diagram no. **81.99192.1396** Sheet 1 of 1

Change status: 04.01

**A = Bunk light, bottom**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**E274** (173) Bunk lamp, bottom

**X1573** Std. bunk lighting, bottom

**X2541** (245) Potential distributor, 21-pin line 31000

**X2543** (245) Potential distributor, 21-pin line 30006

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓒ Engine                   | Ⓜ Passenger seat               |
| Ⓔ Gearbox                  | Ⓝ Control panel                |
| Ⓜ Front                    | Ⓝ Battery box                  |
| Ⓜ Bumper                   | Ⓝ B-pillar on driver's side    |
| Ⓜ Entrance right           | Ⓝ A-pillar on driver's side    |
| Ⓜ Entrance left            | Ⓝ B-pillar on passenger's side |
| Ⓜ Central electric area    | Ⓝ A-pillar on passenger's side |
| Ⓜ Control unit racks       | Ⓜ Ceiling/roof                 |
| Ⓜ Rear wall of cab         | Ⓜ Front axle                   |
| Ⓜ Instrument panel         | Ⓜ Rear axle                    |
| Ⓜ Central part             | Ⓜ Front part of frame          |
| Ⓜ Steering wheel/column    | Ⓜ Rear part of frame           |
| Ⓜ Foot pedals              | Ⓜ Door left                    |
| Ⓜ Front wall, inside left  | Ⓜ Door right                   |
| Ⓜ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1398 Sheet 1 of 1



A



Side marker lights (LL)

Legend

Wiring diagram no. 81.99192.2592 Sheet 1 of 1  
Change status 10.99

**A = Side marker lights, left**  
**B = Side marker lights, right**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2

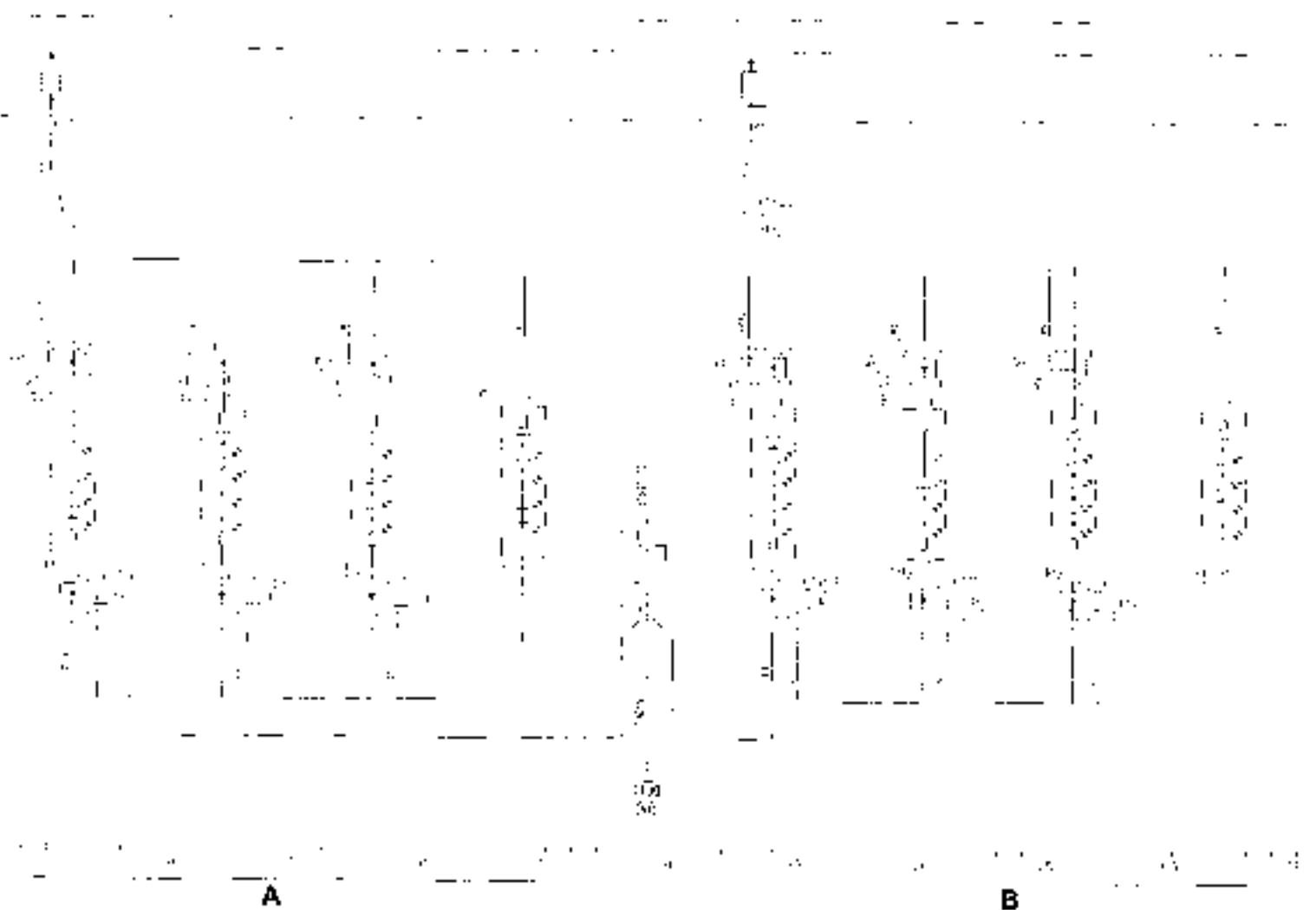
**E213** (193) 1. Side marker light, right  
**E211** (193) 1. Side marking light, left  
**E212** (193) 2. Side marker light, right  
**E213** (193) 2. Side marking light, left  
**E...** (193) Other side marker light with no title  
**E...** (193) Last side marker light with no title

**G101** (113) Battery 2

**X100** Earthing point, engine  
**X1169** (170) 3x coupling for 1st side marker light, right  
**X1170** (170) 3x coupling for 1st side marker light, left  
**X1171** (170) 3x coupling for 2nd side marker light, right  
**X1172** (170) 3x coupling for 2nd side marker light, left  
**X1544** Std. frame III  
**X1557** Std. frame, left  
**X...** (170) Other coupling with no title

Marking of mounting positions

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊗ | Tail                     | ⊗ | Driving seat                 |
| ⊕ | Engine                   | ⊕ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊗ | Bumper                   | ⊗ | B-pillar on driver's side    |
| ⊕ | Entrance right           | ⊕ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊙ | Central electrics area   | ⊙ | A-pillar on passenger's side |
| ⊗ | Control unit racks       | ⊗ | Ceiling/roof                 |
| ⊕ | Rear wall of cab         | ⊕ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊗ | Steering wheel/column    | ⊗ | Rear part of frame           |
| ⊕ | Foot pedals              | ⊕ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |



**Seat heating, driver**

**Legend**

Wiring diagram no. **81.99192.2490** Sheet 1 of 1  
 Change status: 412/10

**A = Sitzheizung Fahrer**

**A100** (255) Central fuse, relay and terminal block  
**A233** (461) Seat, driver's side  
**A302** (352) Central computer 2

**F198** (118) Fuse, seat heating

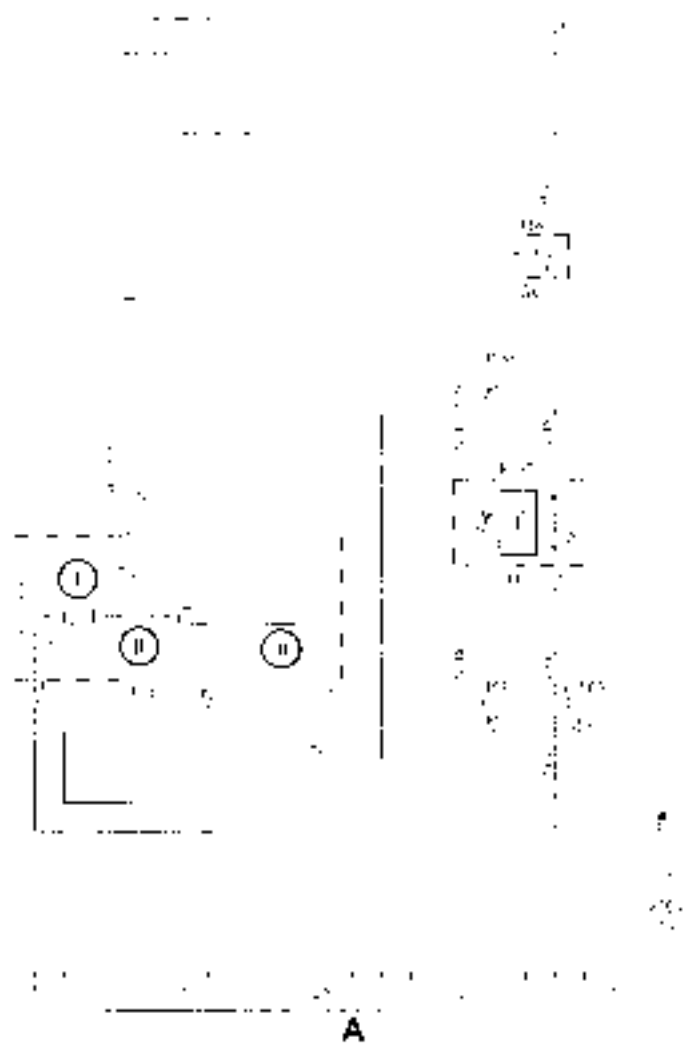
**R135** (142) Potentiometer seat heating, driver

**X1585** (1585) Svd. seat heating, left  
**X1641** (1641) Earthing point, cab. adjacent to central fuse, relay and terminal block

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓒ Tail                     | Ⓔ Driving seat                 |
| Ⓓ Engine                   | Ⓕ Passenger seat               |
| Ⓔ Gearbox                  | Ⓖ Control panel                |
| Ⓛ Front                    | Ⓗ Battery box                  |
| Ⓜ Bumper                   | Ⓜ B-pillar on driver's side    |
| Ⓝ Entrance right           | Ⓝ A-pillar on driver's side    |
| Ⓟ Entrance left            | Ⓟ B-pillar on passenger's side |
| Ⓢ Control electrics area   | Ⓢ A-pillar on passenger's side |
| Ⓣ Control unit racks       | Ⓣ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | Ⓛ Front axle                   |
| Ⓢ Instrument panel         | Ⓢ Rear axle                    |
| Ⓢ Central part             | Ⓢ Front part of frame          |
| Ⓢ Steering wheel/column    | Ⓢ Rear part of frame           |
| Ⓢ Foot pedals              | Ⓢ Door left                    |
| Ⓢ Front wall, inside left  | Ⓢ Door right                   |
| Ⓢ Front wall, inside right |                                |
| Ⓢ Temperature (NTC)        |                                |
| Ⓢ Seat                     |                                |
| Ⓢ Backrest                 |                                |

Wiring diagram no. 61-99192-2494 Sheet 1 of 1



**Seat heating, driver and passenger**

**Legend**

Wiring diagram no. **B1.89192.2493** Sheet 1 of 1

Change status: 02 00

**A = Seat heating, driver**

**B = Seat heating, passenger**

**A100** (255) Central fuse, relay and terminal block

**A232** (461) Seat, passenger side

**A233** (461) Seat, driver's side

**A302** (352) Central computer 2

**F189** (118) Fuse, seat heating

**P135** (143) Potentiometer seat heating, driver

**P136** (143) Potentiometer seat heating, passenger

**X1564** Std. seat heating, right

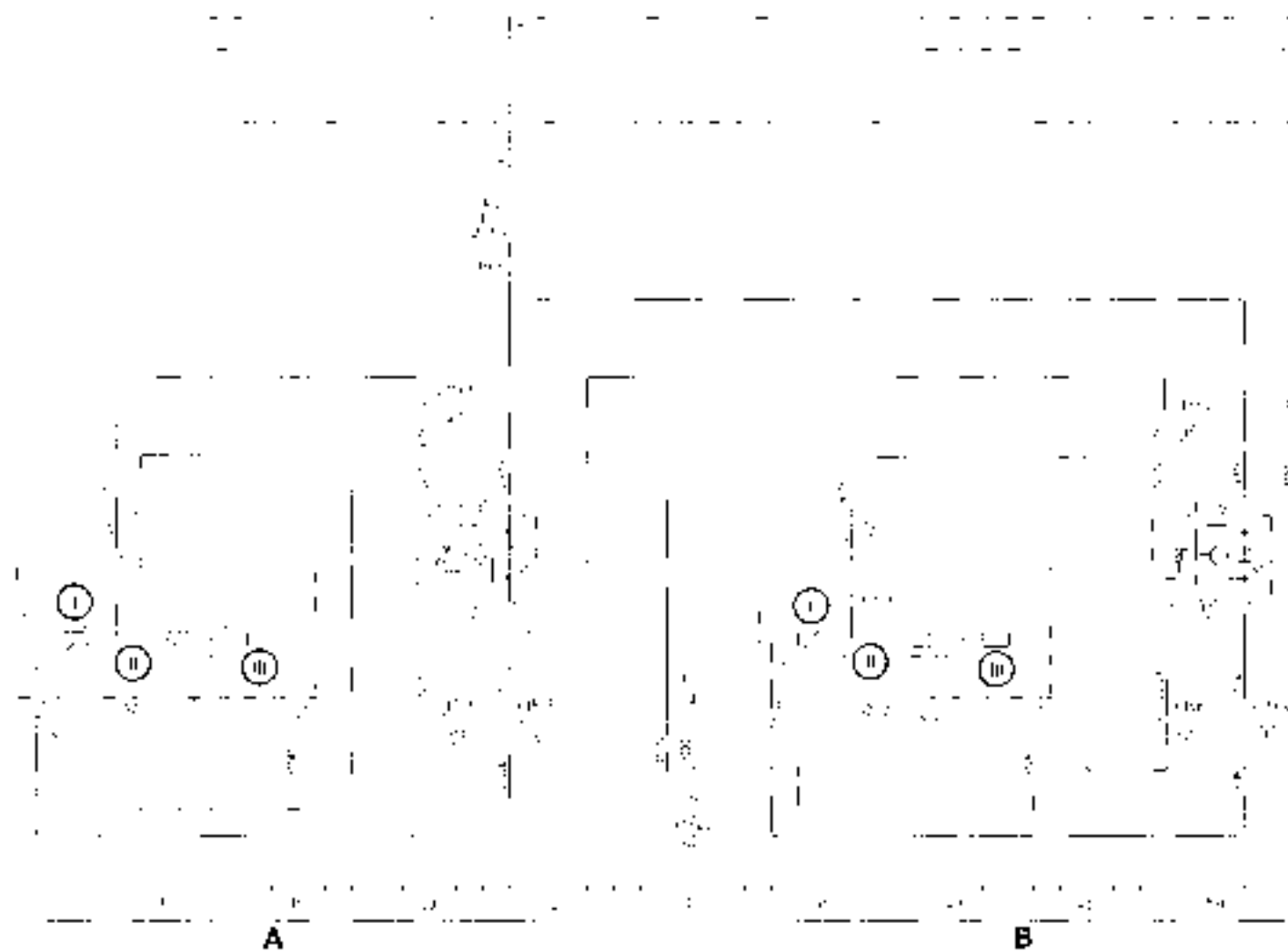
**X1565** Std. seat heating, left

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**Marking of mounting positions**

- Ⓐ Tail
- Ⓔ Engine
- Ⓕ Gearbox
- Ⓖ Front
- Ⓗ Bumper
- Ⓙ Entrance right
- Ⓚ Entrance left
- Ⓛ Central electrics area
- Ⓜ Control unit racks
- Ⓝ Rear wall of cab
- Ⓟ Instrument panel
- Ⓠ Central part
- Ⓢ Steering wheel/column
- Ⓣ Foot pedals
- Ⓤ Front wall, inside left
- Ⓡ Front wall, inside right
- Ⓞ Temperature (NTC)
- Ⓚ Seat
- Ⓡ Backrest
- Ⓐ Driving seat
- Ⓡ Passenger seat
- Ⓢ Control panel
- Ⓣ Battery box
- Ⓜ B-pillar on driver's side
- Ⓡ A-pillar on driver's side
- Ⓚ B-pillar on passenger's side
- Ⓡ A-pillar on passenger's side
- Ⓣ Ceiling/roof
- Ⓡ Front axle
- Ⓚ Rear axle
- Ⓡ Front part of frame
- Ⓚ Rear part of frame
- Ⓡ Door left
- Ⓚ Door right

Wiring diagram no. 81.99192.2493 Sheet 1 of 1



**Seat adjustment, electric (driver)**

**Legend**

Wiring diagram no. **81.99192.1493** Sheet 1 of 1  
Change status: 05.01

**A = Seat adjustment, electric, driver**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A487** (393) Electrically adjustable driving seat

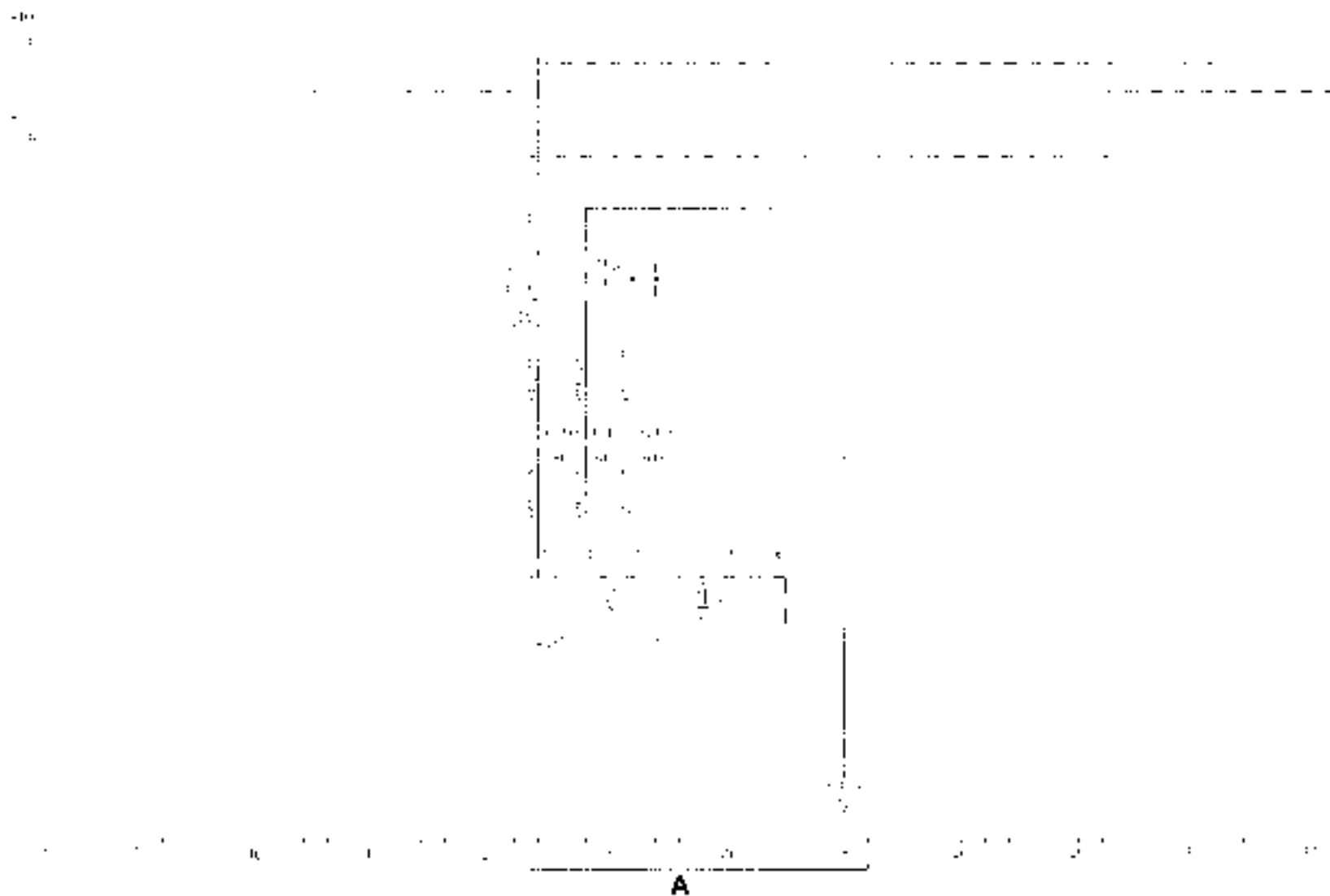
**F274** (129) Fuse, seat adjustment

**X1641** Earthing point, cab, adjacent to central fuse, relay and terminal block  
**X1993** Svd. seat adjustment - right  
**X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊖ Tail                     | ⊖ Driving seat                 |
| ⊕ Engine                   | ⊖ Passenger seat               |
| ⊖ Gearbox                  | ⊖ Control panel                |
| ⊖ Front                    | ⊖ Battery box                  |
| ⊖ Bumper                   | ⊖ B-pillar on driver's side    |
| ⊖ Entrance right           | ⊖ A-pillar on driver's side    |
| ⊖ Entrance left            | ⊖ B-pillar on passenger's side |
| ⊖ Central electrics area   | ⊖ A-pillar on passenger's side |
| ⊖ Control unit racks       | ⊖ Ceiling/roof                 |
| ⊖ Rear wall of cab         | ⊖ Front axle                   |
| ⊖ Instrument panel         | ⊖ Rear axle                    |
| ⊖ Central part             | ⊖ Front part of frame          |
| ⊖ Steering wheel/column    | ⊖ Rear part of frame           |
| ⊖ Foot pedals              | ⊖ Door left                    |
| ⊖ Front wall, inside left  | ⊖ Door right                   |
| ⊖ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1483 Sheet 1 of 1





**Seat adjustment, electric (passenger)**

**Legend**

Wiring diagram no. **81.99192.1484** Sheet 1 of 1

Change status: 05.01

**A = Seat adjustment, electric, passenger**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A486** (394) Electrically adjustable passenger seat

**F425** (129) Fuse, seat adjustment, right

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

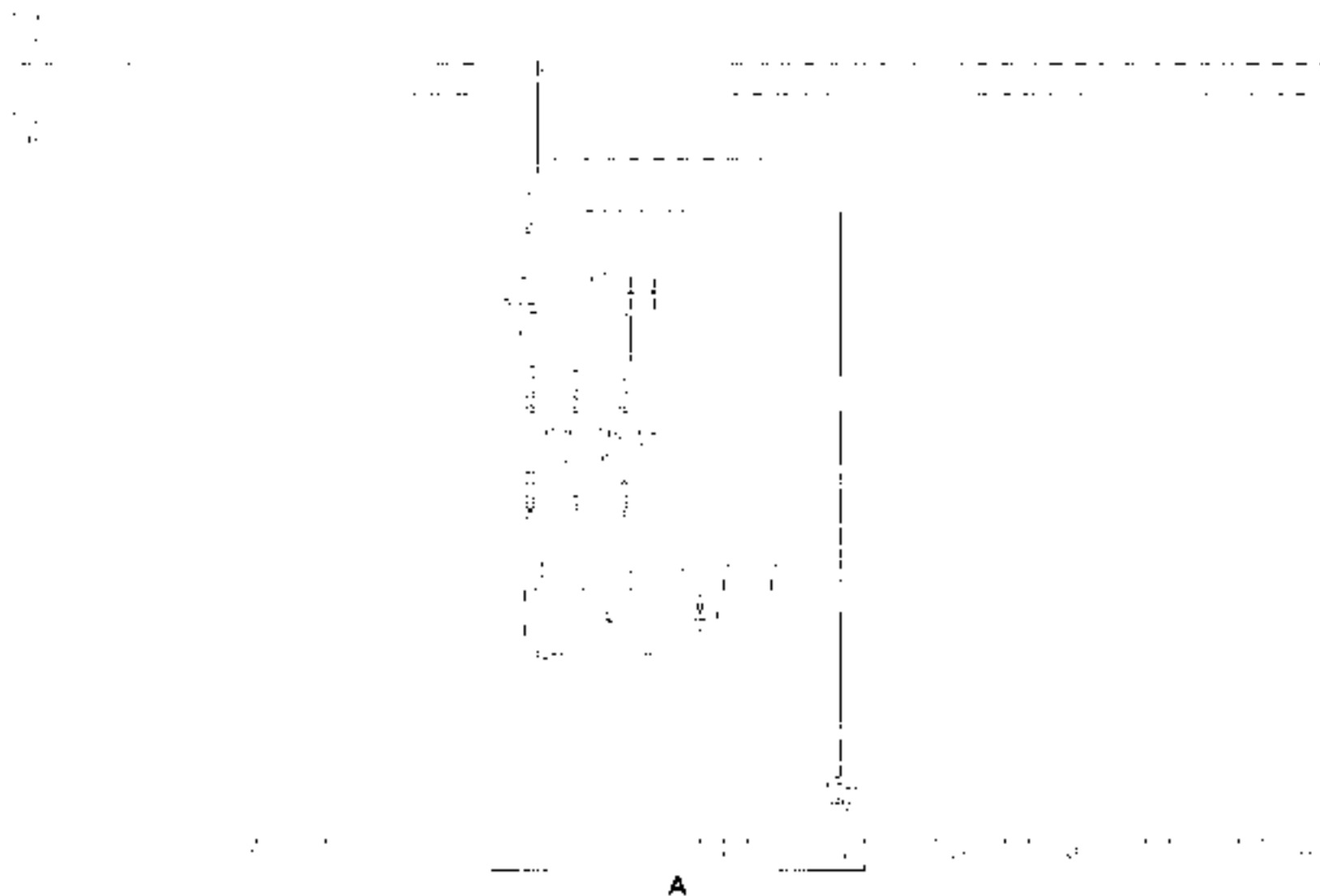
**X1932** Std. seat adjustment, right

**X2544** (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊖ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | B-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊖ | Central electronics area | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/roof                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.1484 Sheet 1 of 1



**Sunblind, electric**

**Legend**

Wiring diagram no. 81.99192.1399 Sheet 1 of 1  
Change status: 04.01

**A** = Sunblind, electric, driver

**B** = Sunblind, electric, passenger

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**F426** (118) Fuse, sunblind

**M124** (154) Sunblind, electri. actuated, right

**M125** (154) Sunblind, electri. actuated, left

**S233** (574) Control switch, sunblind driver, driver's side

**S234** (574) Control switch, sunblind passenger, passenger's side

**X1994** Stvd. sunblind, right

**X1995** Stvd. sunblind, left

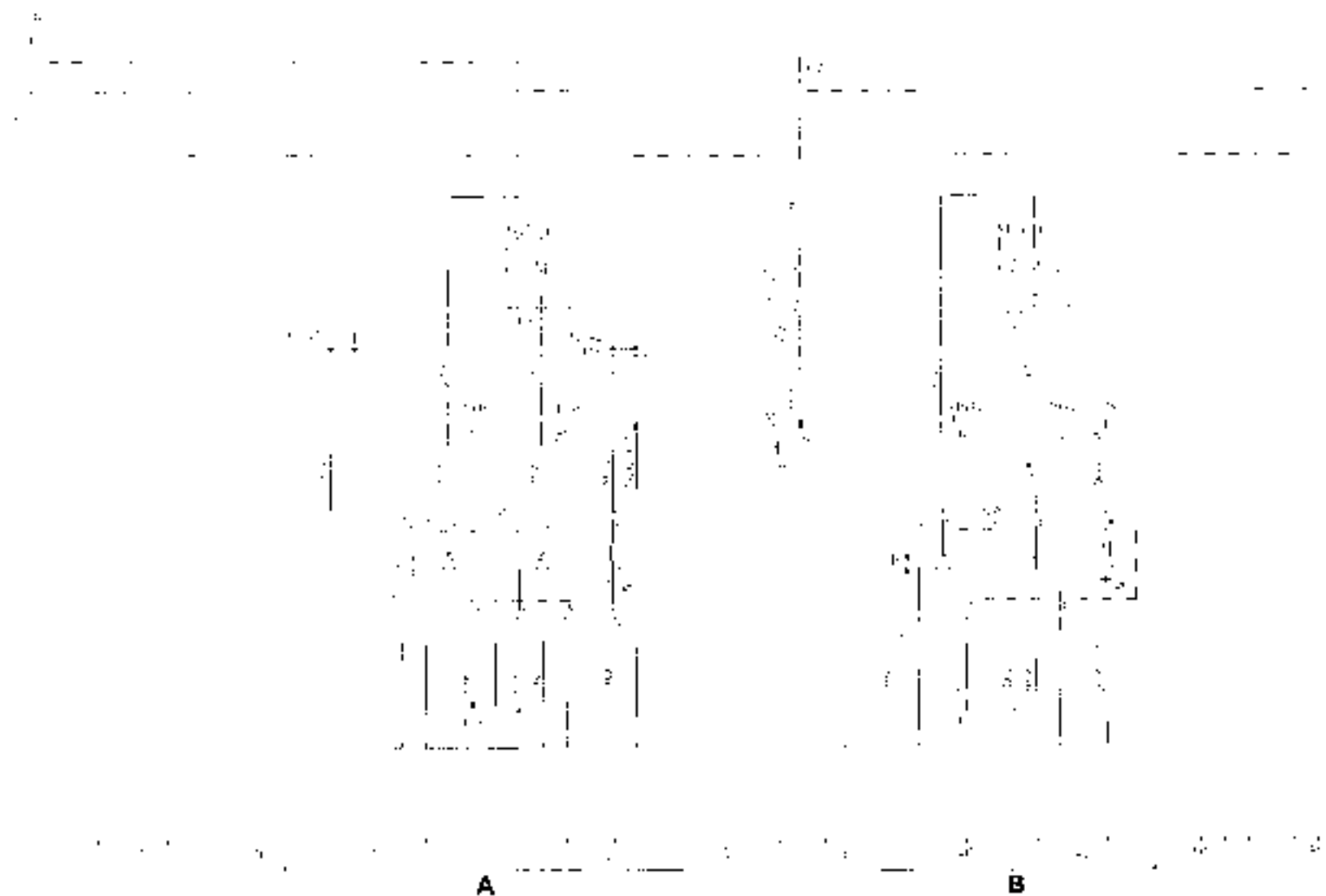
**X2541** (246) Potential distributor, 21-pin line 31000

**X2542** (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊖ Tail                     | ⊕ Driving seat                 |
| ⊖ Engine                   | ⊕ Passenger seat               |
| ⊖ Gearbox                  | ⊕ Control panel                |
| ⊖ Front                    | ⊕ Battery box                  |
| ⊖ Bumper                   | ⊕ B-pillar on driver's side    |
| ⊖ Entrance right           | ⊕ A-pillar on driver's side    |
| ⊖ Entrance left            | ⊕ B-pillar on passenger's side |
| ⊖ Central electronics area | ⊕ A-pillar on passenger's side |
| ⊖ Control unit racks       | ⊕ Ceiling/roof                 |
| ⊖ Rear wall of cab         | ⊕ Front axle                   |
| ⊖ Instrument panel         | ⊕ Rear axle                    |
| ⊖ Central part             | ⊕ Front part of frame          |
| ⊖ Steering wheel/column    | ⊕ Rear part of frame           |
| ⊖ Floor pedals             | ⊕ Door left                    |
| ⊖ Front wall, inside left  | ⊕ Door right                   |
| ⊖ Front wall, inside right |                                |

Wiring diagram no. ~~81.99192.1390~~ Sheet 1 of 1



**Voltage limiter**

**Legend**

Wiring diagram no. **81.99192.2850** Sheet 1 of 1  
 Change status: 08 IXI

**A = Voltage limiter**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A408** (403) Tachograph

**G100** (113) Battery 1  
**G101** (115) Battery 2

**T105** (116) Voltage limiter, tachograph

**X100** Earthing point, engine  
**X2047** Std. tachograph  
**X2071** Std. voltage limiter

**Marking of mounting positions**

- ⊖ Tail
- ⊖ Engine
- ⊖ Gearbox
- ⊖ Front
- ⊖ Bumper
- ⊖ Entrance right
- ⊖ Entrance left
- ⊖ Central electric area
- ⊖ Control unit racks
- ⊖ Rear wall of cab
- ⊖ Instrument panel
- ⊖ Central part
- ⊖ Steering wheel/column
- ⊖ Foot pedals
- ⊖ Front wall, inside left
- ⊖ Front wall, inside right
- ⊖ Driving seat
- ⊖ Passenger seat
- ⊖ Control panel
- ⊖ Battery box
- ⊖ B-pillar on driver's side
- ⊖ A-pillar on driver's side
- ⊖ B-pillar on passenger's side
- ⊖ A-pillar on passenger's side
- ⊖ Ceiling/roof
- ⊖ Front axle
- ⊖ Rear axle
- ⊖ Front part of frame
- ⊖ Rear part of frame
- ⊖ Door left
- ⊖ Door right
- ⓪ Output
- ⓪ Input

**START-STOP device on engine**

**Legend**

Wiring diagram no. **81.99192.1401** Sheet 1 of 1  
 Change status 05 01

**A = Start-stop device on engine**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A401** (100) Vehicle management computer  
**A435** (338) EDC control unit

**B493** (276) Pressure switch, parking brake switch start-stop external

**K266** (280) Relay, parking brake (on start-stop device)

**Q101** (110) Steering wheel lock

**S560** (580) Control switch, engine start (MP box)

**S581** (590) Control switch, engine stop (MP box)

**X669** Std. start inhibitor

**X1551** Std. engine/EDC/transmission II

**X1693** Crimped connector, line 6002B

**X1966** Std. ignition lock

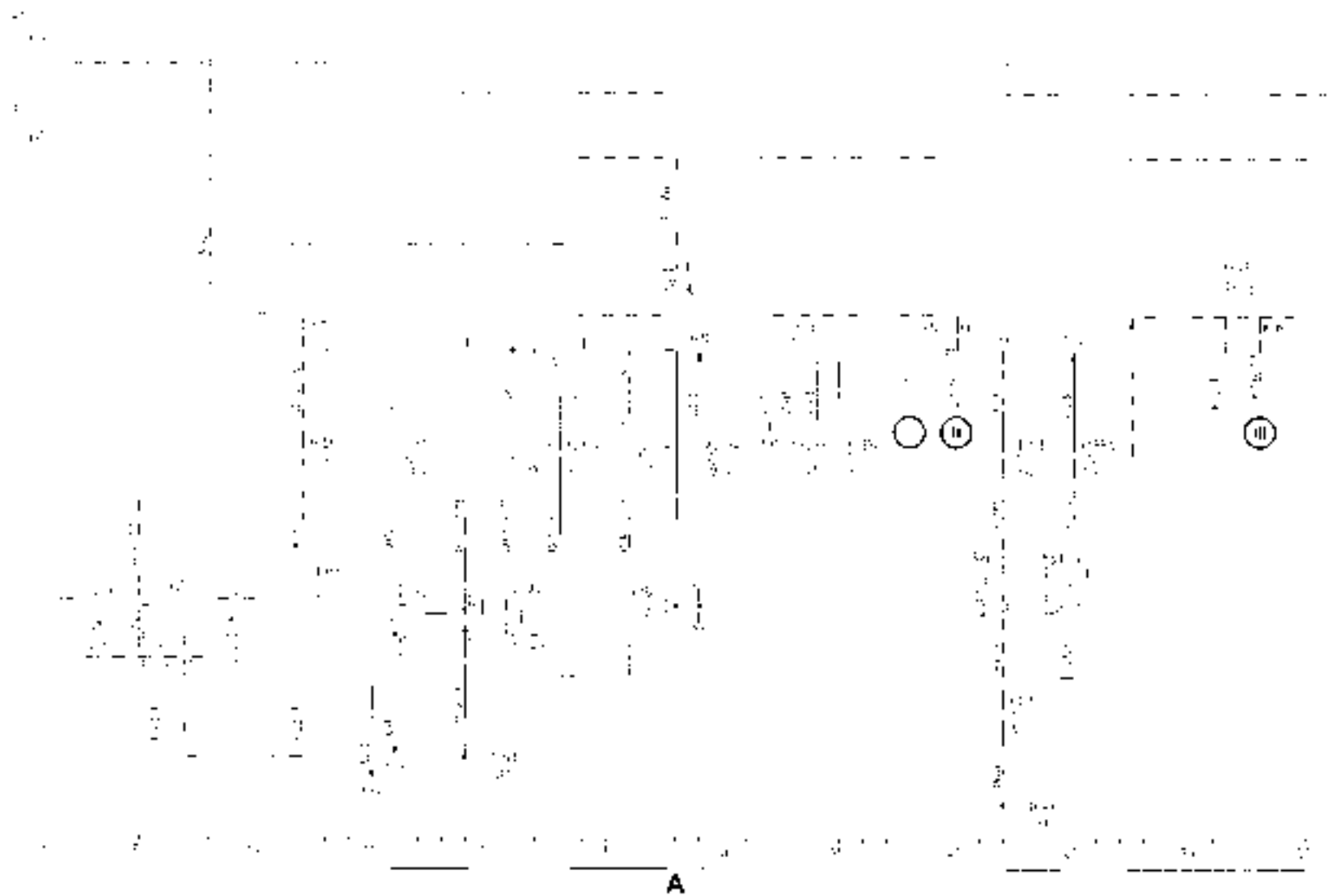
**X2334** Std. start-stop device

**X2541** (246) Potential distributor, 21-pin line 31000

**Marking of mounting positions**

- Ⓐ Tail
- Ⓔ Engine
- Ⓜ Gearbox
- Ⓝ Front
- Ⓢ Bumper
- Ⓡ Entrance right
- Ⓣ Entrance left
- Ⓝ Central electric area
- Ⓡ Control unit racks
- Ⓜ Rear wall of cab
- Ⓝ Instrument panel
- Ⓝ Central part
- Ⓡ Steering wheel/column
- Ⓡ Foot pedals
- Ⓡ Front wall, inside left
- Ⓡ Front wall, inside right
- Ⓡ Vehicle immobiliser
- Ⓡ Transmission, neutral
- Ⓡ Starting motor, terminal 50
- Ⓡ Driving seat
- Ⓡ Passenger seat
- Ⓡ Control panel
- Ⓡ Battery box
- Ⓡ B-pillar on driver's side
- Ⓡ A-pillar on driver's side
- Ⓡ B-pillar on passenger's side
- Ⓡ A-pillar on passenger's side
- Ⓡ Ceiling/roof
- Ⓡ Front axle
- Ⓡ Rear axle
- Ⓡ Front part of frame
- Ⓡ Rear part of frame
- Ⓡ Door left
- Ⓡ Door right

Wiring diagram no. 81.99192.1401 Sheet 1 of 1



**START-STOP device at end of frame**

**Legend**

Wiring diagram no. 81.99192.1402 Sheet 1 of 1

Change status: 09.01

**A = Start-stop device on frame end**

A\*08 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

A403 (339) Vehicle management computer

A435 (339) EDC control unit

B490 (276) Pressure switch, parking brake switch start-stop external

K266 (280) Relay, parking brake (on start-stop device)

Q101 (110) Steering wheel lock

S202 Control switch, engine start (superstructure)

S203 Control switch, engine stop (superstructure)

X669 Std. start inhibitor

X679 Std. start-stop device

X\*551 Std. engine/EDC/transmission II

X\*643 Crimped connector, line 60028

X\*966 Std. ignition lock

X2541 (246) Potential distributor, 21-pin line 31000

**Marking of mounting positions**

② Tail

Ⓞ Engine

Ⓞ Gearbox

Ⓞ Front

Ⓞ Bumper

Ⓞ Entrance right

Ⓞ Entrance left

Ⓞ Central electrics area

Ⓞ Control unit racks

Ⓞ Rear wall of cab

Ⓞ Instrument panel

Ⓞ Central part

Ⓞ Steering wheel/column

Ⓞ Foot pedals

Ⓞ Front wall, inside left

Ⓞ Front wall, inside right

① Vehicle immobiliser

① Transmission, neutral

① Starting motor, terminal 50

Ⓞ Driving seat

Ⓞ Passenger seat

Ⓞ Control panel

Ⓞ Battery box

Ⓞ B-pillar on driver's side

Ⓞ A-pillar on driver's side

Ⓞ B-pillar on passenger's side

Ⓞ A-pillar on passenger's side

Ⓞ Ceiling/rail

Ⓞ Front axle

Ⓞ Rear axle

Ⓞ Front part of frame

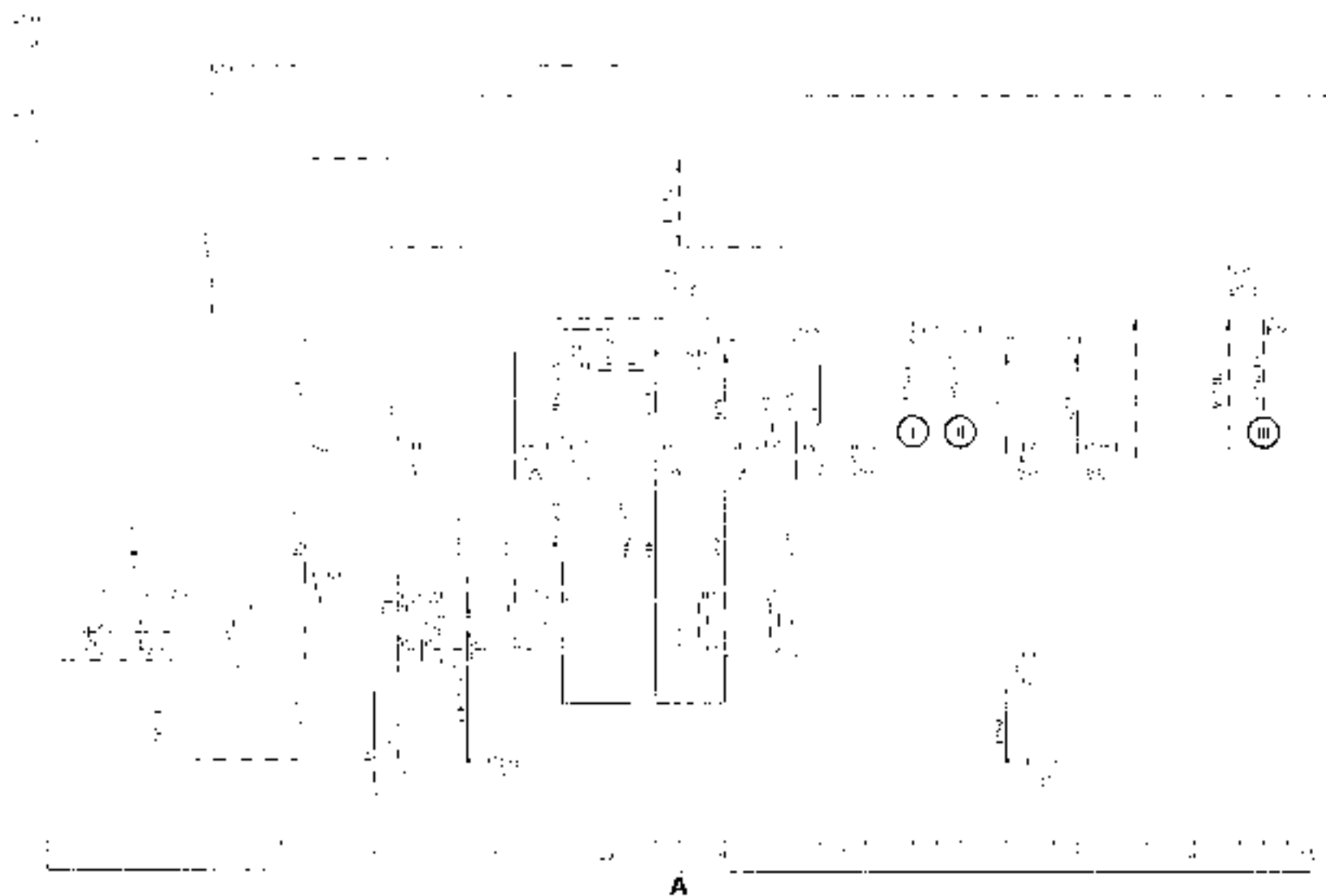
Ⓞ Rear part of frame

Ⓞ Door left

Ⓞ Door right



Wiring diagram no. 81.99192.1402 Sheet 1 of 1



**START-STOP device on engine and end of frame**



































**Legend**

Wiring diagram no. **81.99192.1403** Sheet 1 of 1  
Change status: 05.01

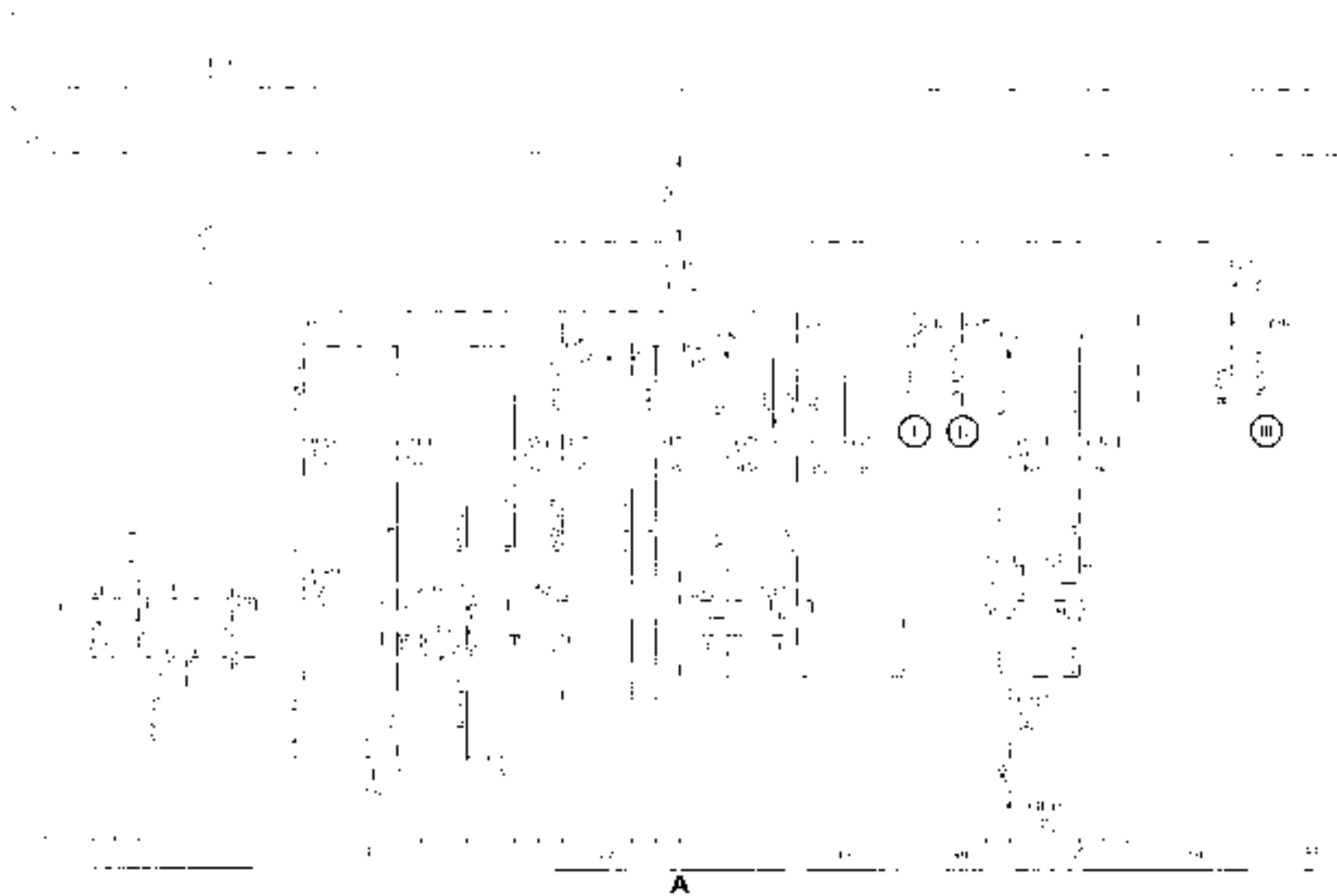
**A = Start-stop device on engine and frame end**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A30P</b>	(352)	Central computer 2
<b>A403</b>	(330)	Vehicle management computer
<b>A43E</b>	(338)	EDC control unit
<b>B490</b>	(276)	Pressure switch, parking brake switch start-stop external
<b>K266</b>	(280)	Relay, parking brake (on start stop device)
<b>Q1J1</b>	(110)	Steering wheel lock
<b>S202</b>		Control switch, engine start (superstructure)
<b>S203</b>		Control switch, engine stop (superstructure)
<b>S580</b>	(580)	Control switch, engine start (MP box)
<b>S58*</b>	(580)	Control switch, engine stop (MP box)
<b>X669</b>		Std. start inhibitor
<b>X679</b>		Std. start-stop device
<b>X1551</b>		Std. engine-EDC/transmission II
<b>X1593</b>		Crimped connector, line 60028
<b>X1966</b>		Std. ignition lock
<b>X2541</b>	(246)	Potential distributor, 21-pin line 31000

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electrics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		
	Vehicle immobiliser		
	Transmission, neutral		
	Starting motor, terminal 60		

Wiring diagram no. 81.99192.1403 Sheet 1 of 1



Locker lighting, rear left (LL)

Legend

Wiring diagram no. **81.99192.2489** Sheet 1 of 1  
 Change status: 12.99

**A = Locker lighting, rear left**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**E281** (170) Locker lighting, rear left

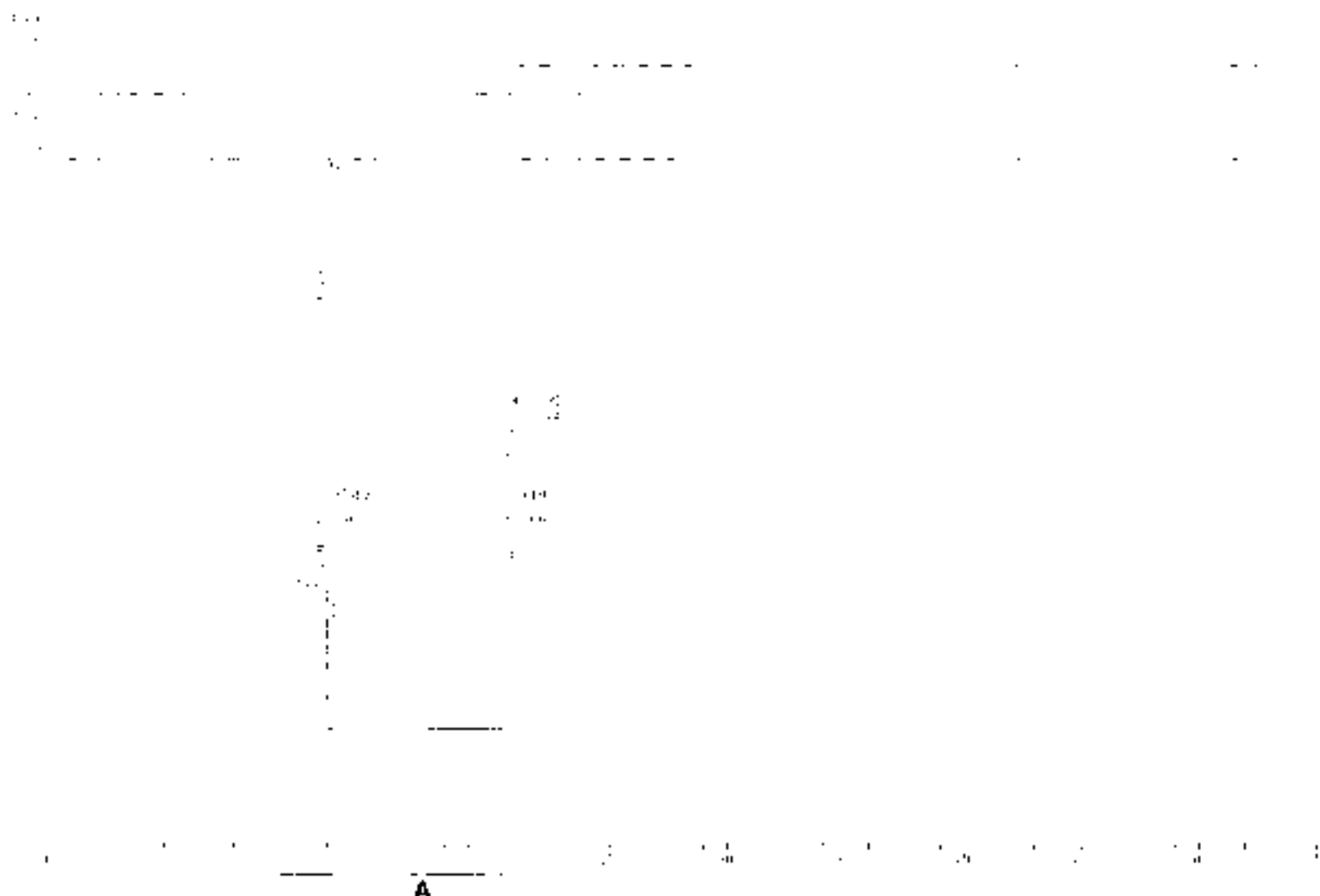
**X1569** Std. locker lighting, left

**X1R27** Crimped connector, line 3100C

Marking of mounting positions

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓔ Bumper                   | Ⓙ B-pillar on driver's side    |
| Ⓚ Entrance right           | Ⓚ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓛ B-pillar on passenger's side |
| Ⓜ Central electric area    | Ⓜ A-pillar on passenger's side |
| Ⓝ Control unit racks       | Ⓝ Ceiling/roof                 |
| Ⓖ Rear wall of cab         | Ⓙ Front axle                   |
| Ⓕ Instrument panel         | Ⓚ Rear axle                    |
| Ⓙ Central part             | Ⓛ Front part of frame          |
| Ⓛ Steering wheel/co. urn   | Ⓜ Rear part of frame           |
| Ⓚ Foot pedals              | Ⓛ Door left                    |
| Ⓛ Front wall, inside left  | Ⓜ Door right                   |
| Ⓜ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2489 Sheet 1 of 1



**Locker lighting, rear left (RL)**

**Legend**

Wiring diagram no. **81.99192.2411** Sheet **1** of **1**  
 Change status: 12.99

**A = Locker lighting, rear left**

**A10C** (255) Central fuse, relay and terminal block

**ASC2** (352) Central computer 2

**E2B1** (~70) Locker lighting, rear left

**X1569** Stvo. locker illumination, left

**X1B27** Crimped connector, line 31000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓜ Engine                   | Ⓛ Passenger seat               |
| Ⓝ Gearbox                  | Ⓜ Control panel                |
| Ⓛ Front                    | Ⓝ Battery box                  |
| Ⓜ Bumper                   | Ⓛ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓜ A-pillar on driver's side    |
| Ⓜ Entrance left            | Ⓛ B-pillar on passenger's side |
| Ⓛ Central electrics area   | Ⓜ A-pillar on passenger's side |
| Ⓜ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | Ⓜ Front axle                   |
| Ⓜ Instrument panel         | Ⓛ Rear axle                    |
| Ⓛ Central part             | Ⓜ Front part of frame          |
| Ⓜ Steering wheel/column    | Ⓛ Rear part of frame           |
| Ⓜ Foot pedals              | Ⓛ Door left                    |
| Ⓜ Front wall, inside left  | Ⓜ Door right                   |
| Ⓜ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2411 Sheet: 1 of 1



**Locker lighting, rear right (LL)****Legend**

Wiring diagram no. **81.99192.2490** Sheet 1 of 1  
 Change status: 12.90

**A = Locker lighting, rear left**

**A100** (255) Central f.u.c., relay and terminal block  
**A302** (352) Central computer 2

**E280** (170) Locker lighting, rear right

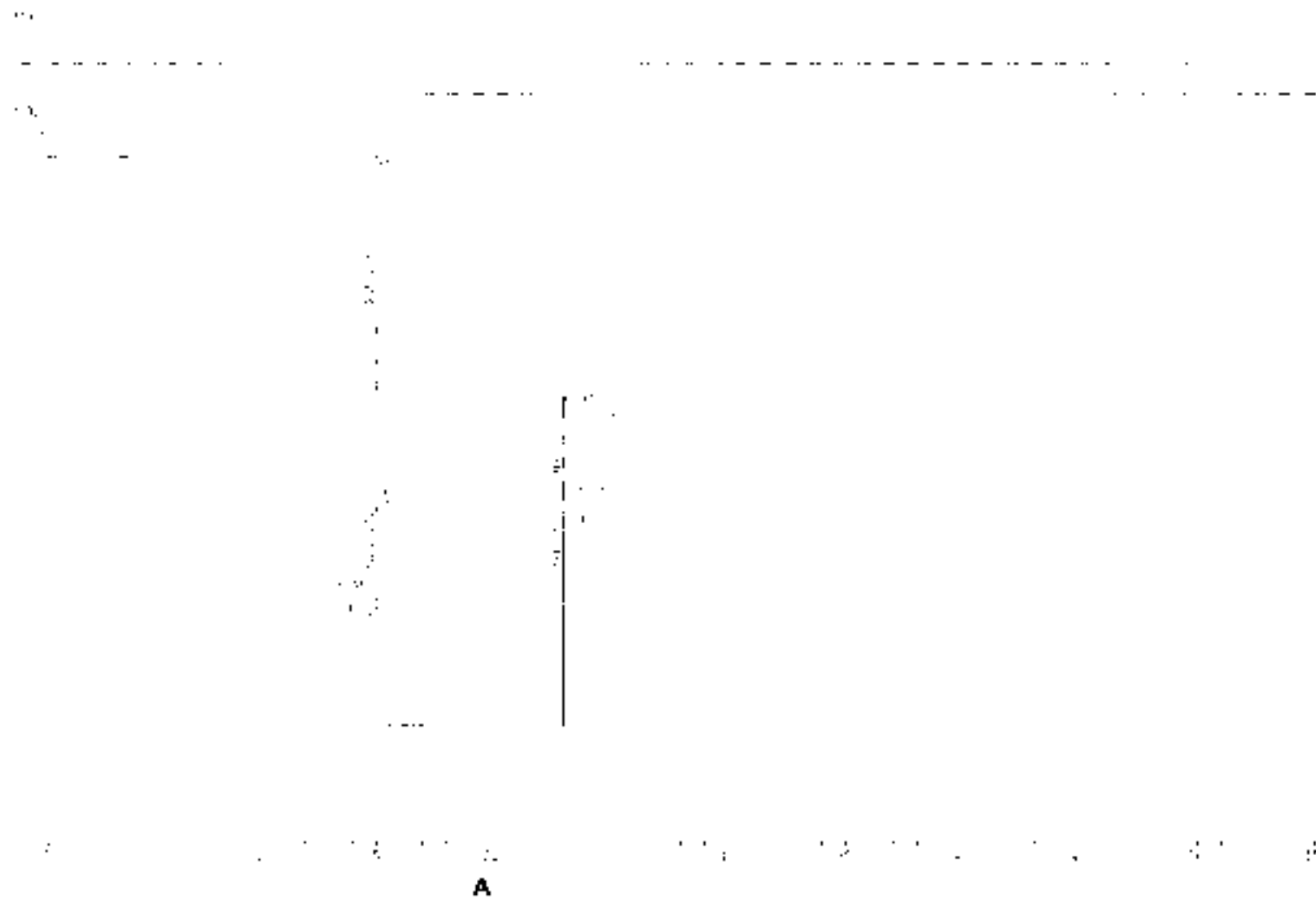
**X1570** Std. locker lighting, right  
**X1829** Crimped connector, line 31000

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓚ Passenger seat               |
| Ⓒ Gearbox                  | Ⓛ Control panel                |
| Ⓓ Front                    | Ⓜ Battery box                  |
| Ⓔ Bumper                   | Ⓝ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓓ A-pillar on driver's side    |
| Ⓛ Entrance left            | Ⓓ B-pillar on passenger's side |
| Ⓛ Central electrics area   | Ⓓ A-pillar on passenger's side |
| Ⓛ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓛ Rear wall of cab         | Ⓛ Front axle                   |
| Ⓛ Instrument panel         | Ⓛ Rear axle                    |
| Ⓛ Central part             | Ⓛ Front part of frame          |
| Ⓛ Steering wheel/column    | Ⓛ Rear part of frame           |
| Ⓛ Foot pedals              | Ⓛ Door left                    |
| Ⓛ Front wall, inside left  | Ⓛ Door right                   |
| Ⓛ Front wall, inside right |                                |



Wiring diagram no. 01.99192.2490 Sheet 1 of 1



**Locker lighting, rear right (RL)**

**Legend**

Wiring diagram no. **81.99192.2412** Sheet 1 of 1  
 Change status 12.99

**A = Locker lighting, rear left**

**A100** (255) Central fuse, relay and terminal block  
**A102** (352) Central computer 2

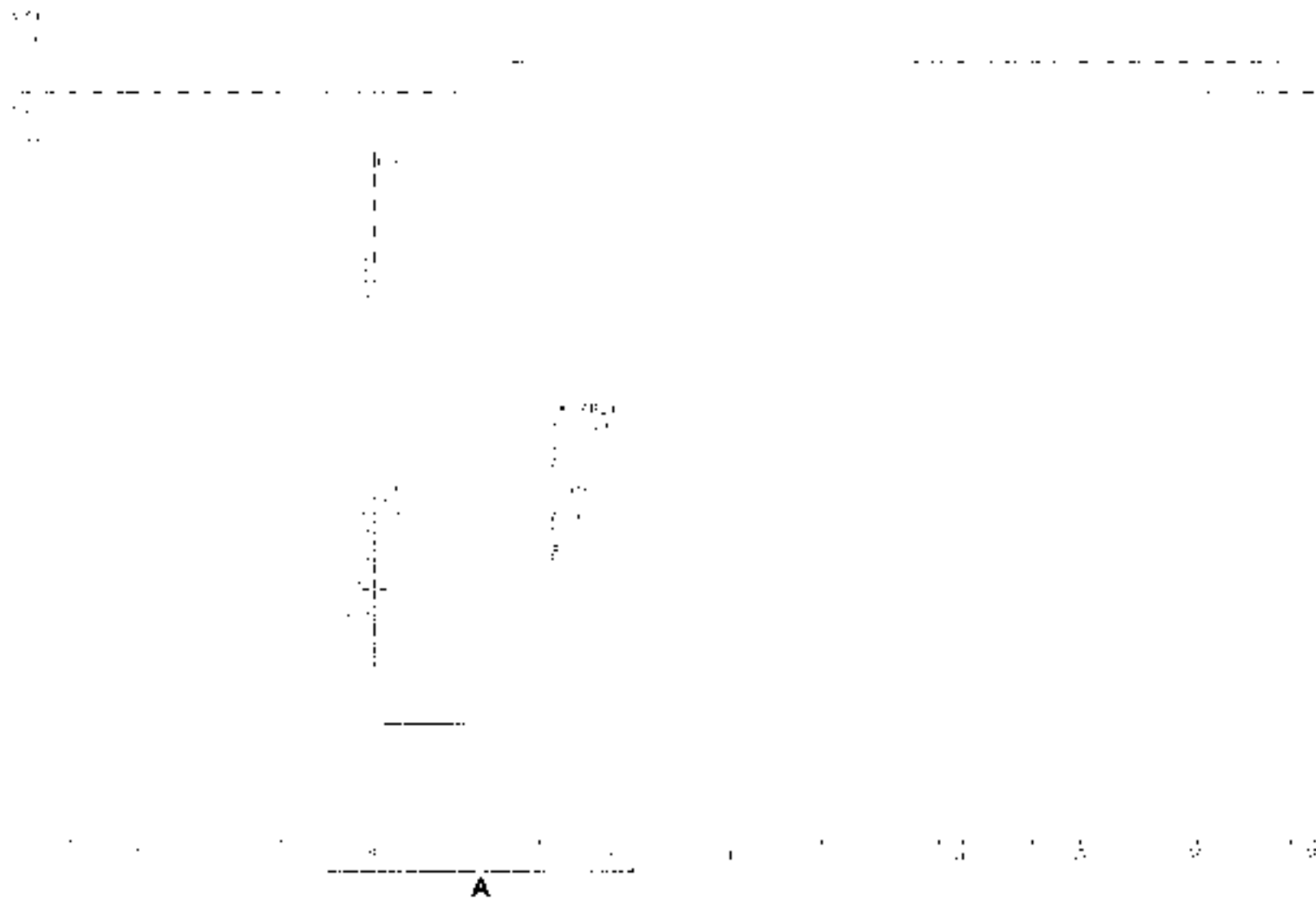
**E280** (1170) Locker lighting, rear right

**X1570** Std. locker lighting, right  
**X1829** Crimped connector, line 31003

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓒ Driving seat                 |
| Ⓑ Engine                   | Ⓓ Passenger seat               |
| Ⓒ Gearbox                  | Ⓔ Control panel                |
| Ⓓ Front                    | Ⓕ Battery box                  |
| Ⓔ Bumper                   | Ⓖ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓗ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓙ B-pillar on passenger's side |
| Ⓗ Central electrics area   | Ⓚ A-pillar on passenger's side |
| Ⓙ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓚ Rear wall of cab         | Ⓜ Front axle                   |
| Ⓛ Instrument panel         | Ⓨ Rear axle                    |
| Ⓜ Central part             | Ⓩ Front part of frame          |
| Ⓨ Steering wheel/column    | ⓐ Rear part of frame           |
| Ⓩ Foot pedals              | ⓑ Door left                    |
| ⓐ Front wall, inside left  | ⓓ Door right                   |
| ⓑ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2412 Sheet 1 of 1



**Locker lighting, top (left, middle) (LL)**

**Legend**

Wiring diagram no. **81.99192.1404** Sheet 1 of 1  
 Change status C5 01

**A = Locker lighting, top (left, middle)**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2

**E277** (177) Locker lighting, top left  
**E278** (177) Locker lighting, top centre

**X1568** Std. locker lighting, top  
**X2541** (246) Potential distributor, 21-pin line 31000  
**X2543** (246) Potential distributor, 21-pin line 30066

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓡ Driving seat                 |
| Ⓜ Engine                   | Ⓢ Passenger seat               |
| Ⓝ Gearbox                  | Ⓣ Control panel                |
| Ⓞ Front                    | Ⓤ Battery box                  |
| Ⓟ Bumper                   | Ⓥ B-pillar on driver's side    |
| Ⓠ Entrance right           | Ⓦ A-pillar on driver's side    |
| Ⓡ Entrance left            | Ⓧ B-pillar on passenger's side |
| Ⓢ Central electrics area   | Ⓨ A-pillar on passenger's side |
| Ⓣ Control unit racks       | Ⓩ Ceiling/roof                 |
| Ⓤ Rear wall of cab         | ⓐ Front axle                   |
| Ⓥ Instrument panel         | ⓑ Rear axle                    |
| Ⓦ Central part             | ⓓ Front part of frame          |
| Ⓧ Steering wheel/column    | ⓔ Rear part of frame           |
| Ⓨ Fuel pedals              | ⓕ Door left                    |
| Ⓩ Front wall, inside left  | ⓖ Door right                   |
| ⓐ Front wall, inside right |                                |

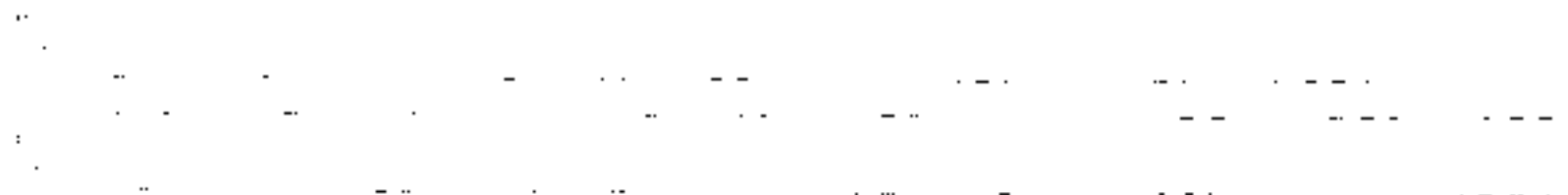


Fig. 1. 100.0



**A**

**Locker lighting, top (left, middle) (RL)**

**Legend**

Wiring diagram no. 81.99192.1405 Sheet 1 of 1  
Change status: 05.01

**A = Locker lighting, top (left, middle)**

A100 (255) Central fuse, relay and terminal block  
A302 (352) Central computer 2

E277 (177) Locker lighting, top left  
E279 (177) Locker lighting, top centre

X1568 Std. locker lighting, top  
X2541 (246) Potentia distributor, 21-pin line 31300  
X2543 (246) Potentia distributor, 21-pin line 30300

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓐ Driving seat                 |
| Ⓑ Engine                   | Ⓑ Passenger seat               |
| Ⓒ Gearbox                  | Ⓒ Control panel                |
| Ⓓ Front                    | Ⓓ Battery box                  |
| Ⓔ Bumper                   | Ⓔ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓕ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓖ B-pillar on passenger's side |
| Ⓗ Central electrics area   | Ⓗ A-pillar on passenger's side |
| Ⓙ Control unit racks       | Ⓙ Ceiling/front                |
| Ⓚ Rear wall of cab         | Ⓚ Front axle                   |
| Ⓛ Instrument panel         | Ⓛ Rear axle                    |
| Ⓜ Central part             | Ⓜ Front part of frame          |
| Ⓨ Steering wheel/column    | Ⓨ Rear part of frame           |
| Ⓩ Foot pedals              | Ⓩ Door left                    |
| ⓐ Front wall, inside left  | ⓐ Door right                   |
| ⓑ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1405 Sheet 1 of 1



A

**Locker lighting, top (left, middle, right) (LL)**

**Legend**

Wiring diagram no. ~~81,99192.1406~~ Sheet 1 of 1  
 Change status 05.01

**A = Locker lighting, top (left, middle, right)**

**A100** (255) Central fuse, relay and terminal block  
**A332** (352) Central computer 2

**E277** (177) Locker lighting, top left  
**E278** (177) Locker lighting, top right  
**E279** (177) Locker lighting, top centre

**X1568** Std. locker lighting, top  
**X2541** (246) Potentia distributor 21-pin line 31000  
**X2543** (246) Potentia distributor 21-pin line 30006

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊖ Tail                     | ⊖ Driving seat                 |
| ⊖ Engine                   | ⊖ Passenger seat               |
| ⊖ Gearbox                  | ⊖ Control panel                |
| ⊖ Front                    | ⊖ Battery box                  |
| ⊖ Bumper                   | ⊖ B-pillar on driver's side    |
| ⊖ Entrance right           | ⊖ A pillar on driver's side    |
| ⊖ Entrance left            | ⊖ B-pillar on passenger's side |
| ⊖ Central electrics area   | ⊖ A-pillar on passenger's side |
| ⊖ Control unit racks       | ⊖ Ceiling/roof                 |
| ⊖ Rear wall of cab         | ⊖ Front axle                   |
| ⊖ Instrument panel         | ⊖ Rear axle                    |
| ⊖ Central part             | ⊖ Front part of frame          |
| ⊖ Steering wheel/column    | ⊖ Rear part of frame           |
| ⊖ Foot pedals              | ⊖ Door left                    |
| ⊖ Front wall, inside left  | ⊖ Door right                   |
| ⊖ Front wall, inside right |                                |



Wiring diagram no. 81.98192.1406 Sheet 1 of 1



**Locker lighting, top (left, middle, right) (RL)**

**Legend**

Wiring diagram no. **81.90192.1407** Sheet 1 of 1  
Change status: 05.01

**A = Locker lighting, top (left, middle, right)**

- A100** (255) Central fuse, relay and terminal boxes  
**A302** (352) Central computer 2
- E277** (177) Locker lighting, top left  
**E278** (177) Locker lighting, top right  
**E279** (177) Locker lighting, top centre
- X156E** Std. locker lighting, top  
**X2541** (243) Potential distributor, 21-pin line 31000  
**X2542** (243) Potential distributor, 21-pin line 30000

**Marking of mounting positions**

- |                             |                                |
|-----------------------------|--------------------------------|
| Ⓐ Tail                      | Ⓜ Driving seat                 |
| Ⓑ Engine                    | Ⓝ Passenger seat               |
| Ⓒ Gearbox                   | Ⓞ Control panel                |
| Ⓓ Front                     | Ⓟ Battery box                  |
| Ⓔ Bumper                    | Ⓠ B-pillar on driver's side    |
| Ⓕ Entrance right            | Ⓡ A-pillar on driver's side    |
| Ⓖ Entrance left             | Ⓢ B-pillar on passenger's side |
| ⒼⓈ Central electric area    | Ⓣ A pillar on passenger's side |
| ⒼⓉ Control unit racks       | Ⓤ Ceiling/roof                 |
| ⒼⓊ Rear wall of cab         | Ⓡ Front axle                   |
| ⒼⓇ Instrument panel         | Ⓢ Rear axle                    |
| ⒼⓈ Central part             | Ⓣ Front part of frame          |
| ⒼⓉ Steering wheel/column    | Ⓤ Rear part of frame           |
| ⒼⓊ Foot pedals              | Ⓡ Door left                    |
| ⒼⓇ Front wall, inside left  | Ⓢ Door right                   |
| ⒼⓈ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1407 Sheet 1 of 1



**12V socket**
































**Legend**

Wiring diagram no. **81.99192.2569** Sheet 1 of 1  
 Change status: 10.99

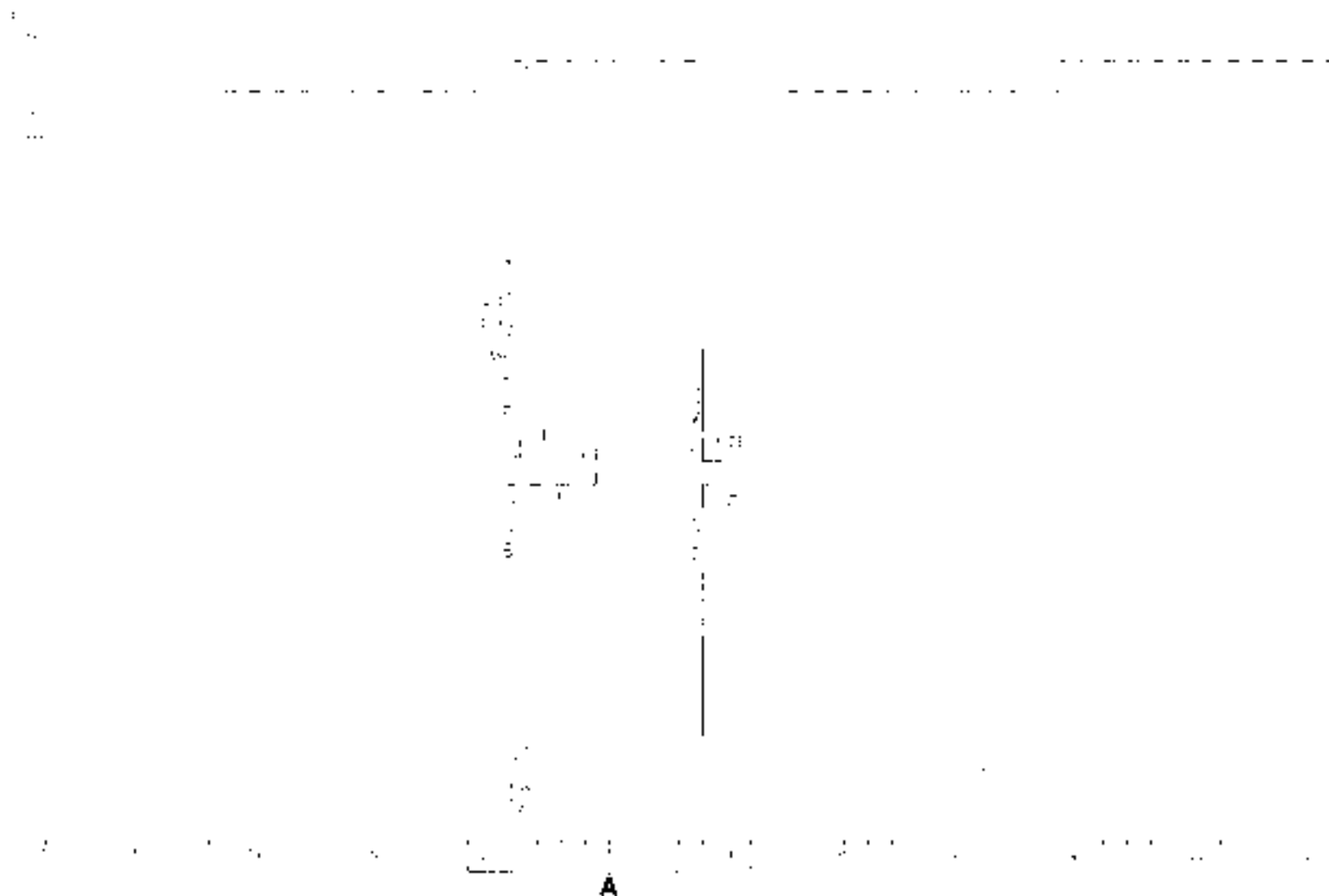
**A = 12V socket**

- A110** (255) Central fuse, relay and terminal block
- A302** (357) Central computer ?
- F216** (129) Fuse, voltage transformer for 12V socket
- T106** (137) Voltage transformer for 12V/24V 15A socket
- X723** (136) 12V socket
- X1644** Earthing point, cab. adjacent to central fuse, relay and terminal block

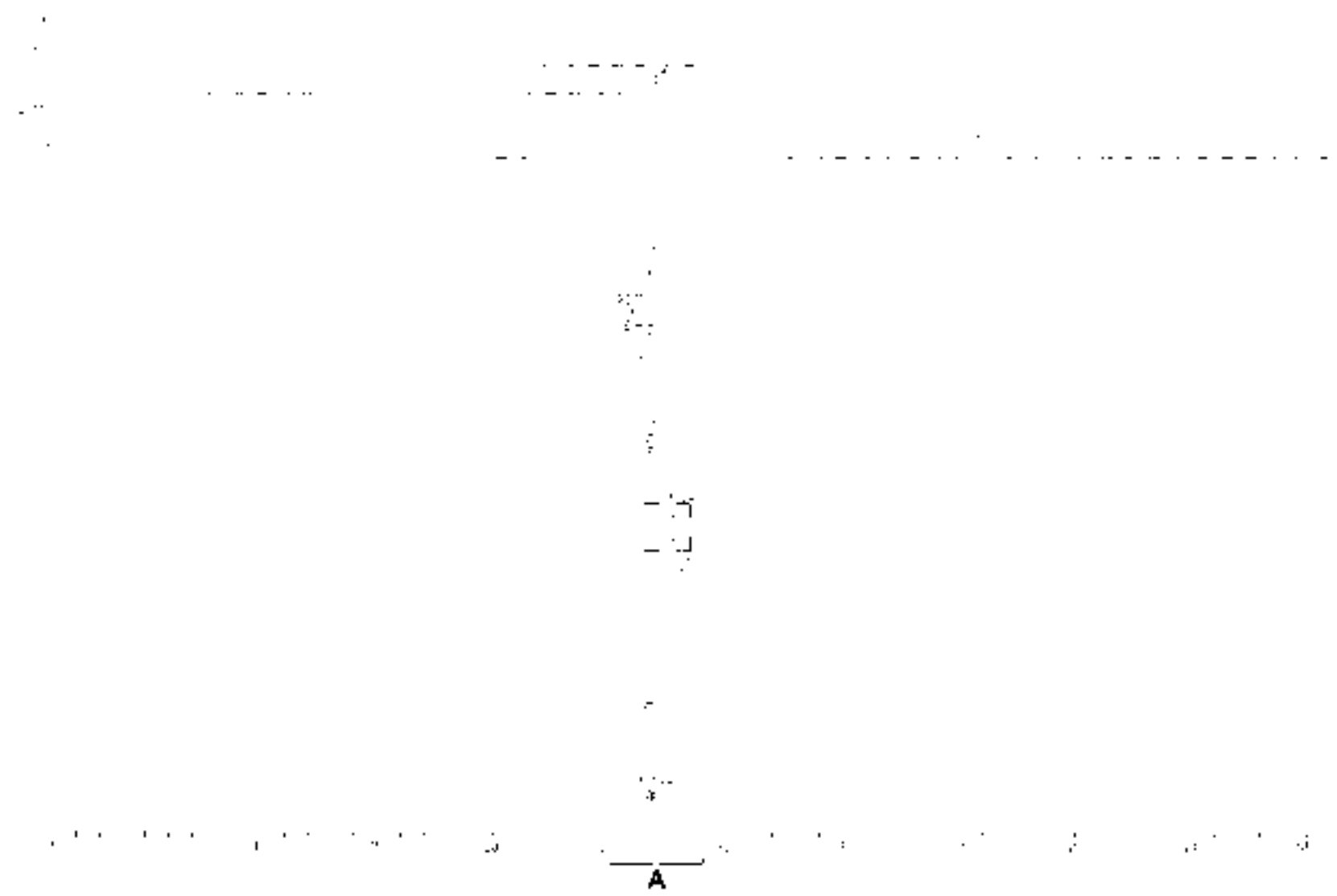
**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electrics area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

Wiring diagram no. 81.99182.2569 Sheet 1 of 1



Wiring diagram no. **81.99192.2570** Sheet 1 of 1



Socket 24V in wiring trough

Legend

Wiring diagram no. **81.99192.2796** Sheet 1 of 1  
 Change status: 05.06

**A = Socket 24V in wiring trough (engine)**

F355 (132) Main fuse (terminal 30-2)

X1914 Threaded bolt M6 (MP box)

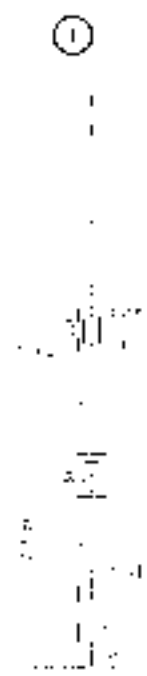
X1941 (219) 24V socket (MP box)

Marking of mounting positions

- ⊗ Tail
- ⊙ Engine
- ⊕ Gearbox
- ⊖ Front
- ⊗ Dumpor
- ⊙ Entrance right
- ⊕ Entrance left
- ⊖ Central electrics area
- ⊗ Control unit racks
- ⊙ Rear wall of cab
- ⊕ Instrument panel
- ⊖ Central part
- ⊗ Steering wheel/column
- ⊙ Foot pedals
- ⊕ Front wall, inside left
- ⊖ Front wall, inside right
- Wiring trough, engine
- ⊗ Driving seat
- ⊙ Passenger seat
- ⊕ Control panel
- ⊖ Battery box
- ⊗ B-pillar on driver's side
- ⊙ A-pillar on driver's side
- ⊕ B pillar on passenger's side
- ⊖ A-pillar on passenger's side
- ⊗ Ceiling/roof
- ⊙ Front axle
- ⊕ Rear axle
- ⊖ Front part of frame
- ⊗ Rear part of frame
- ⊙ Door left
- ⊕ Door right

Wiring diagram no. 81.99192.2796 Sheet 1 of 1

4.



A



**Socket, tanker**

**Legend**

Wiring diagram no. 81.99192.2655 Sheet 1 of 1

Change status: 04.09

**A = Socket, 13-pin, tanker**

**A130** (255) Central fuse relay and terminal block

**A302** (352) Central computer 2

**G101** (113) Battery 2

**X797** (207) Socket, tanker

**X1540** Std. frame 1

**X1586** Std. connection for trailer lighting socket 1

**X1587** Std. connection for trailer lighting socket 2

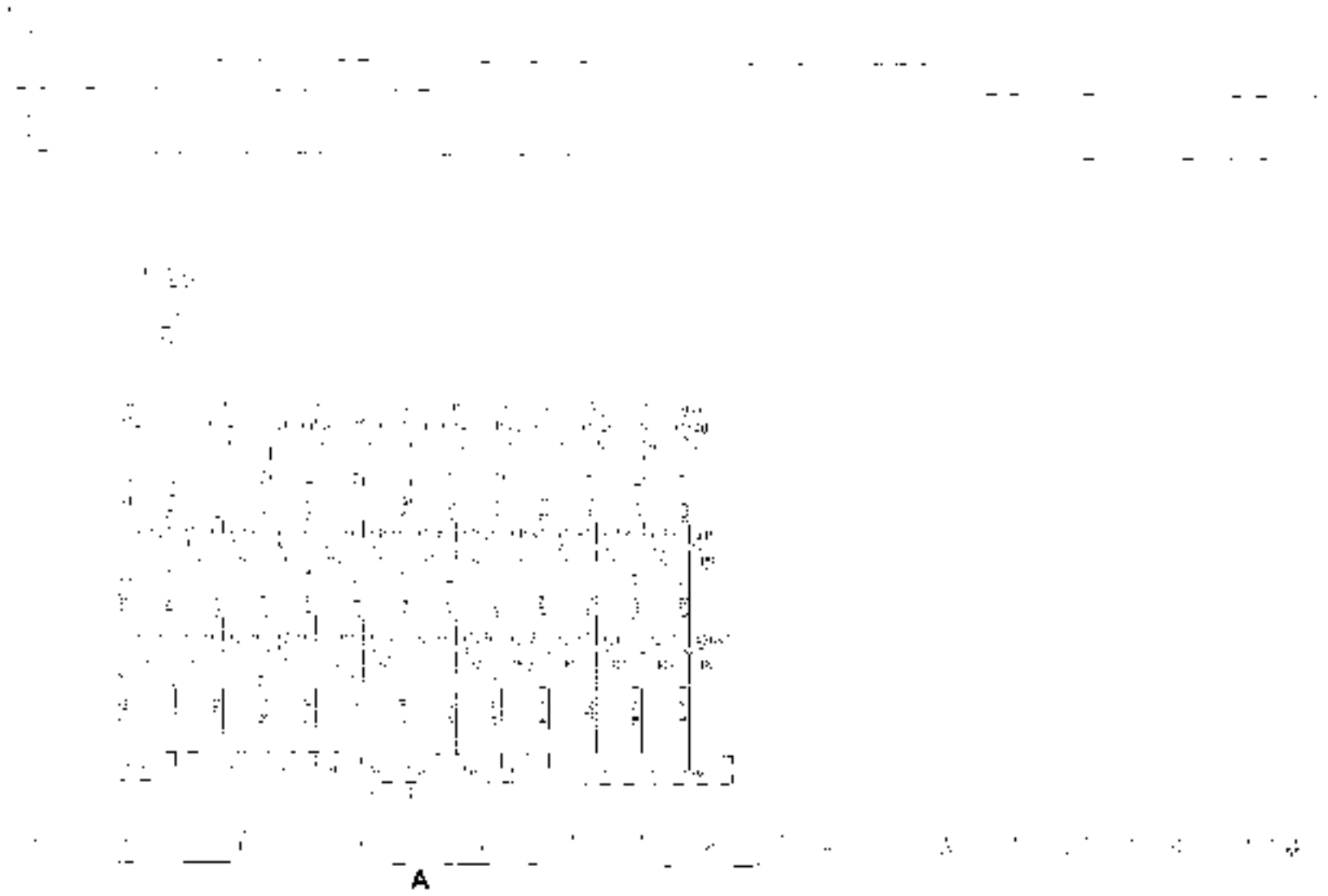
**X2086** Std. adapter cable socket, tanker

**X2087** Std. adapter cable socket, tanker

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊖ | Engine                   | ⊖ | Passenger seat               |
| ⊖ | Gearbox                  | ⊖ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊖ | R-pillar on driver's side    |
| ⊖ | Entrance right           | ⊖ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | R-pillar on passenger's side |
| ⊖ | Central electrics area   | ⊖ | A-pillar on passenger's side |
| ⊖ | Control unit racks       | ⊖ | Ceiling/rail                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊖ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊖ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2655 Sheet 1 of 1





**Cullmann phone with radio 24V MAN-Sound (LL)**

**Legend**

Wiring diagram no. **91.99192.2871** Sheet 1 of 2

Change status: 10.00

**A = Active aerial**

**B = Radio**

**C = Amplifier**

**A101** (255) Central fuse, relay and terminal block

**A148** (574) Radio/cassette player

**A302** (352) Central computer ?

**B158** (298) Driver's loudspeaker, front right

**B496** (344) Cab loudspeaker, left, with hand-free telephone

**N106** (127) Audio amplifier

**W177** (172) Combination aerial

**X1639** Soldered connector, line 16000

**X1643** Soldered connector, line 58300

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1974** Stud. for active aerial

**X2459** Stud. adaptation mute signal

**X2496** Adaptation mute signal lane guard

**X2543** (246) Potential distributor, 21-pin line 30006

**Marking of mounting positions**

⊖ Tail

⊕ Engine

⊕ Gearbox

⊕ Front

⊕ Humper

⊕ Entrance right

⊕ Entrance left

⊕ Central electric area

⊕ Control unit racks

⊕ Rear wall of cab

⊕ Instrument panel

⊕ Central part

⊕ Steering wheel/column

⊕ Foot pedals

⊕ Front wall, inside left

⊕ Front wall, inside right

⊕ Driving seat

⊕ Passenger seat

⊕ Control panel

⊕ Battery box

⊕ B-pillar on driver's side

⊕ A-pillar on driver's side

⊕ B-pillar on passenger's side

⊕ A-pillar on passenger's side

⊕ Ceiling/roof

⊕ Front axle

⊕ Rear axle

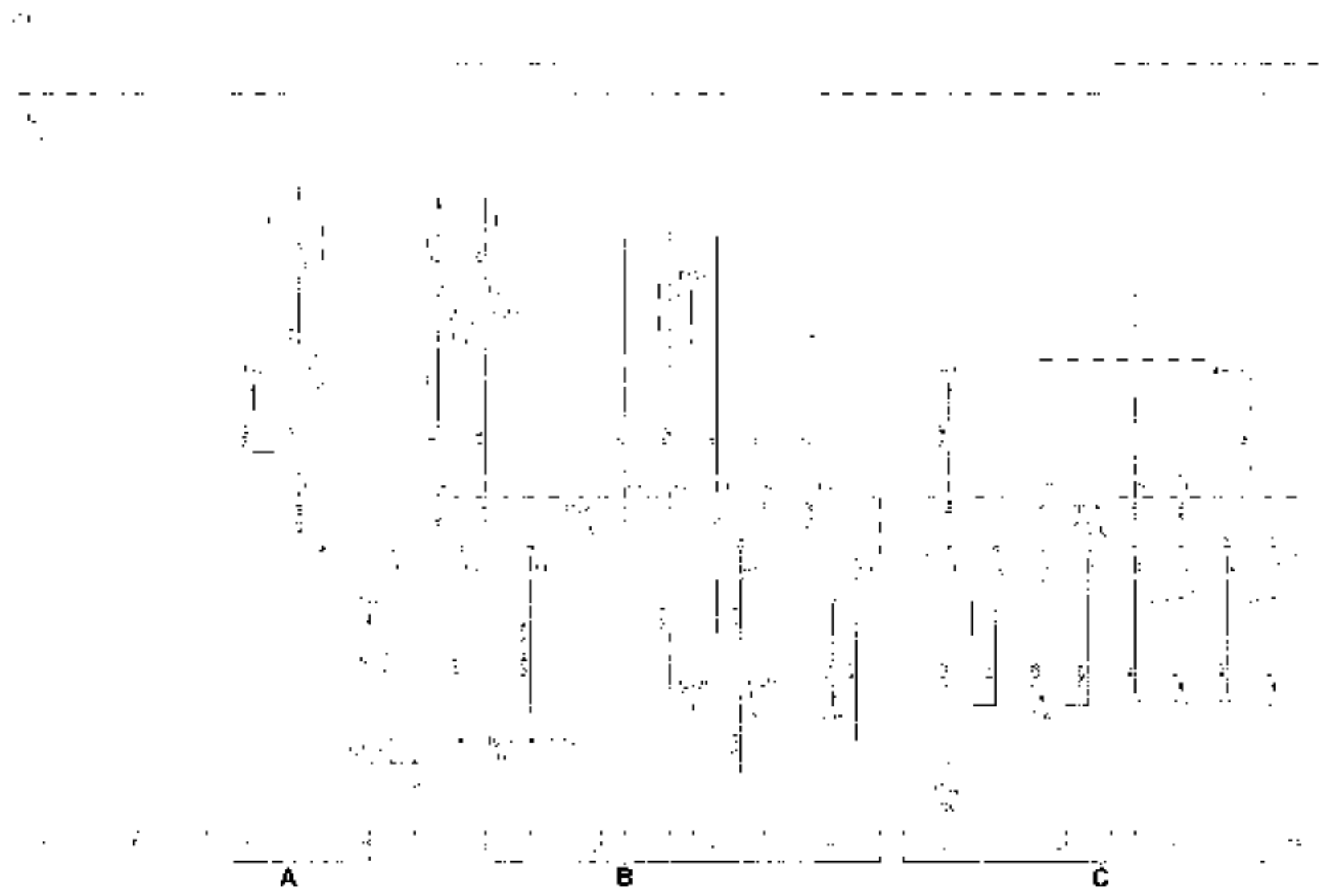
⊕ Front part of frame

⊕ Rear part of frame

⊕ Door left

⊕ Door right

Wiring diagram no. 81.99192.2871 Sheet 1 of 2



**Cullmann phone with radio 24V MAN-Sound (LL)**

**Legend**

Wiring diagram no. **81.99192.2871** Sheet 2 of 2

Change status: 10.00

**A = Loudspeaker**

**B = Cullmann telephone box**

**A100** (255) Central fuse, relay and terminal block

**A155** (182) Voltage transformer 24V/12V

**A302** (352) Central computer 2

**A566** (545) Cellular phone station

**B141** (206) Loudspeaker 1, door left

**B142** (296) Loudspeaker 1, door right

**B143** (297) Loudspeaker 2, door left

**B144** (297) Loudspeaker 2, door right

**B183** (345) Microphone for hands-free telephone

**X1546** Stvc. door, right

**X1547** Stvc. door, left

**X1863** Stvc. loudspeaker, left

**X1864** Stvc. loudspeaker, right

**X2348** Stvc. telephone

**X2372** Stvc. supply to CD changer

**X2448** Stvc. adaptation 12V telephone

**Marking of mounting positions**

Ⓐ Tail

Ⓔ Engine

Ⓕ Gearbox

Ⓖ Front

Ⓗ Bumper

Ⓜ Entrance right

Ⓝ Entrance left

Ⓢ Central electric area

Ⓚ Control unit racks

Ⓛ Rear wall of cab

Ⓜ Instrument panel

Ⓢ Central part

Ⓢ Steering wheel/column

Ⓛ Foot pedals

Ⓢ Front wall, inside left

Ⓢ Front wall, inside right

Ⓢ Mobile phone interface

Ⓢ CD changer

Ⓢ Driving seat

Ⓢ Passenger seat

Ⓢ Control panel

Ⓢ Battery box

Ⓢ B-pillar on driver's side

Ⓢ A-pillar on driver's side

Ⓢ B-pillar on passenger's side

Ⓢ A-pillar on passenger's side

Ⓢ Ceiling/roof

Ⓢ Front axle

Ⓢ Rear axle

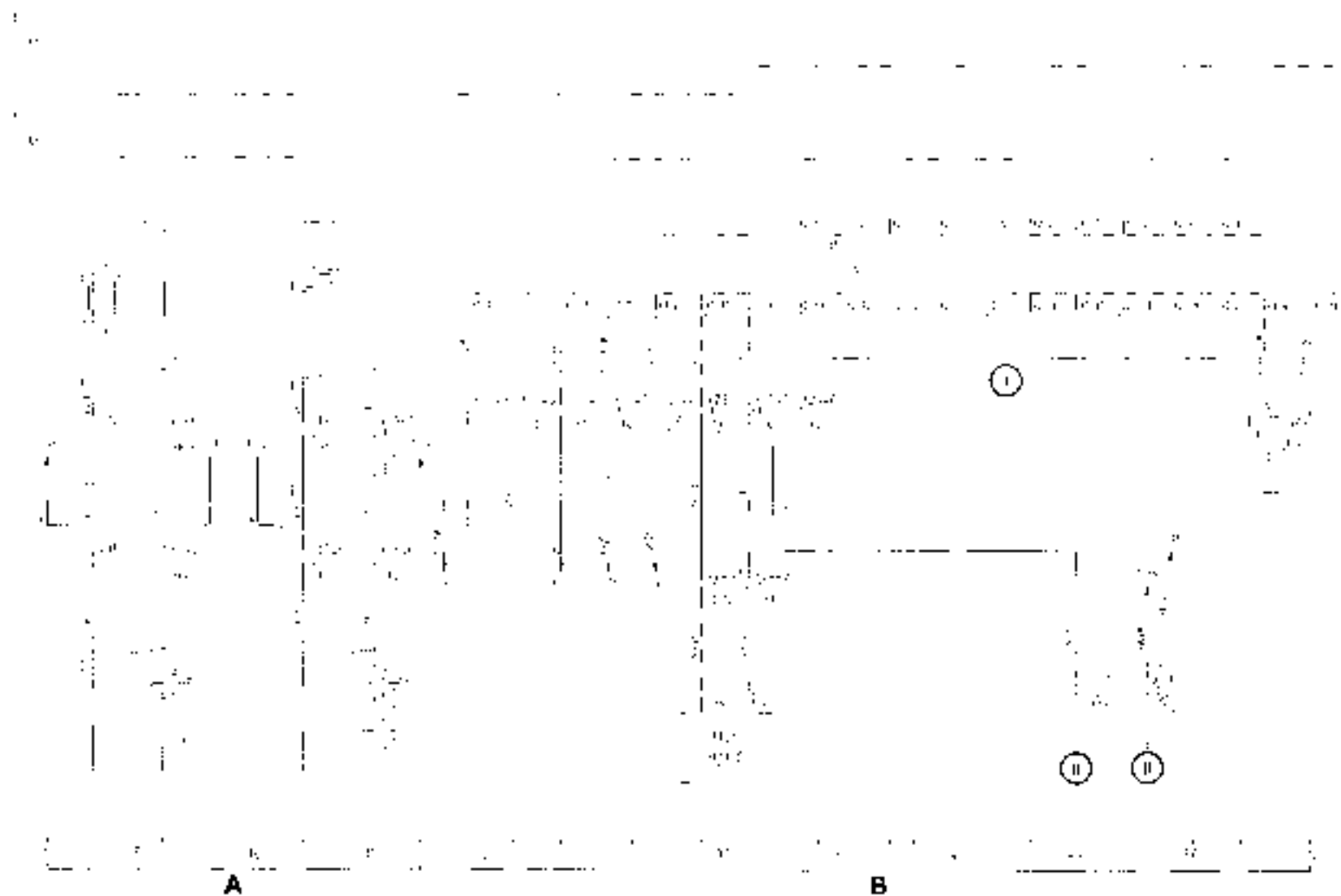
Ⓢ Front part of frame

Ⓢ Rear part of frame

Ⓢ Door left

Ⓢ Door right

Wiring diagram no. 81.99192.2871 Sheet 2 of 2



**Cullmann phone with radio 24V MAN-Sound (RL)**

**Legend**

Wiring diagram no. **81.99192.2672** Sheet 1 of 2

Change status: 10.00

**A = Active aerial**

**B = Radio**

**C = Amplifier**

**A100** (256) Central fuse, relay and terminal block

**A148** (574) Radio/cassette player

**A202** (352) Central computer 2

**B157** (296) Driver's loudspeaker, front left

**B496** (344) Cab loudspeaker, right, with hand-free telephone

**N106** (127) Audio amplifier

**W177** (172) Combination aerial

**X1638** Soldered connector, line 16000

**X1643** Soldered connector, line 56300

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1974** Stvo. for active aerial

**X2459** Stvo. adaptation mute signal

**X2496** Adaptation mute signal line guard

**X2543** (246) Potential distributor, 21-pin line 30006

**Marking of mounting positions**

Ⓐ Tail

Ⓔ Engine

Ⓜ Gearbox

Ⓢ Front

Ⓡ Bumper

Ⓡ Entrance right

Ⓡ Entrance left

Ⓡ Central electronics area

Ⓡ Control unit racks

Ⓡ Rear wall of cab

Ⓡ Instrument panel

Ⓡ Central part

Ⓡ Steering wheel/column

Ⓡ Foot pedals

Ⓡ Front wall, inside left

Ⓡ Front wall, inside right

Ⓡ Driving seat

Ⓡ Passenger seat

Ⓡ Control panel

Ⓡ Battery box

Ⓡ B-pillar on driver's side

Ⓡ A-pillar on driver's side

Ⓡ B-pillar on passenger's side

Ⓡ A-pillar on passenger's side

Ⓡ Ceiling/front

Ⓡ Front axle

Ⓡ Rear axle

Ⓡ Front part of frame

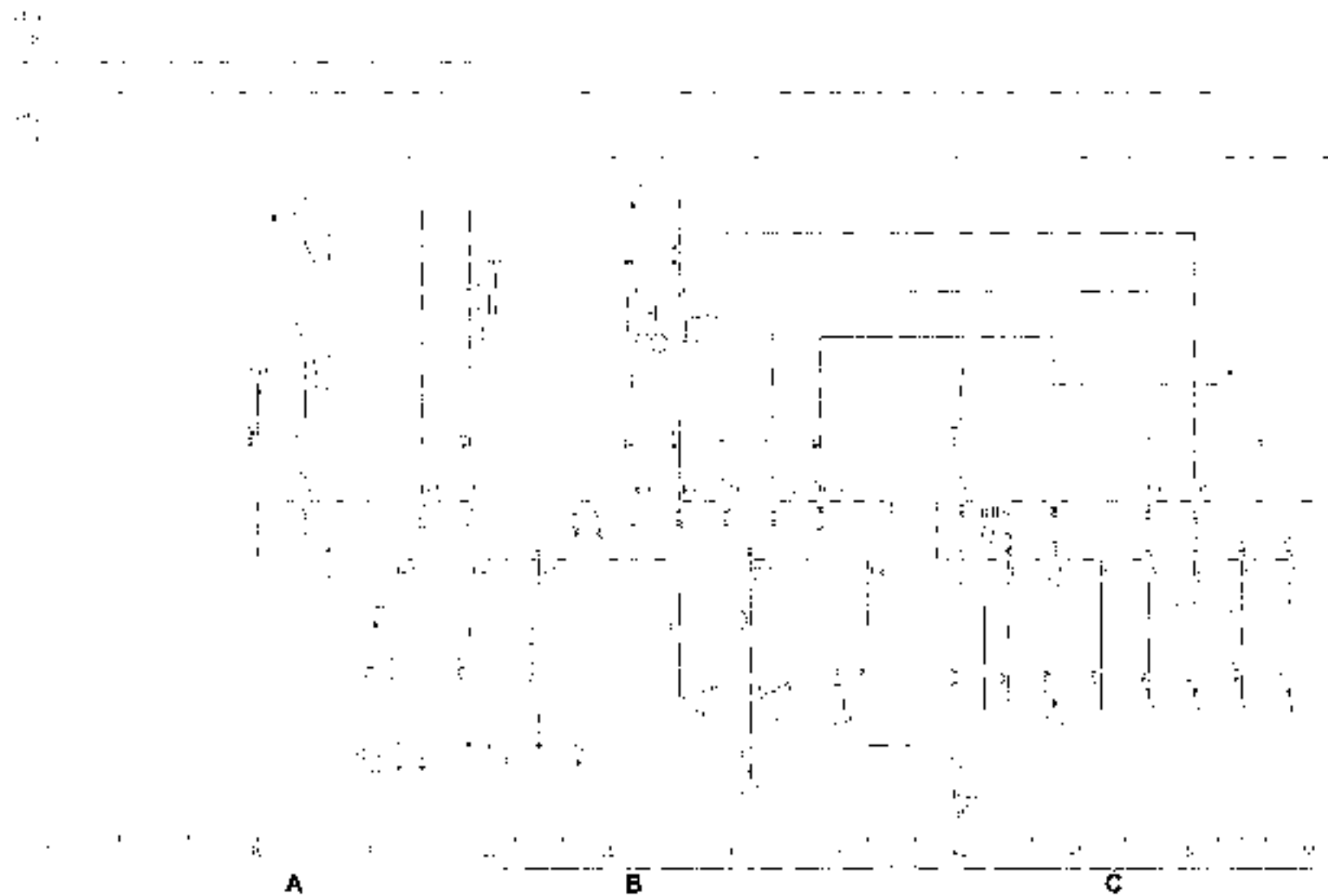
Ⓡ Rear part of frame

Ⓡ Door left

Ⓡ Door right



Wiring diagram no. 81.99192.2872 Sheet 1 of 2



**Cullmann phone with radio 24V MAN-Sound (RL)**

**Legend**

Wiring diagram no. **81.99192.2872** Sheet: 2 of 2  
 Change status: 10/00

**A = Loudspeaker**

**B = Cullmann telephone box**

**A100** (255) Central fuse, relay and terminal block  
**A155** (182) Voltage transformer 24V/12V  
**A302** (352) Central computer 2  
**A560** (545) Cellular phone station

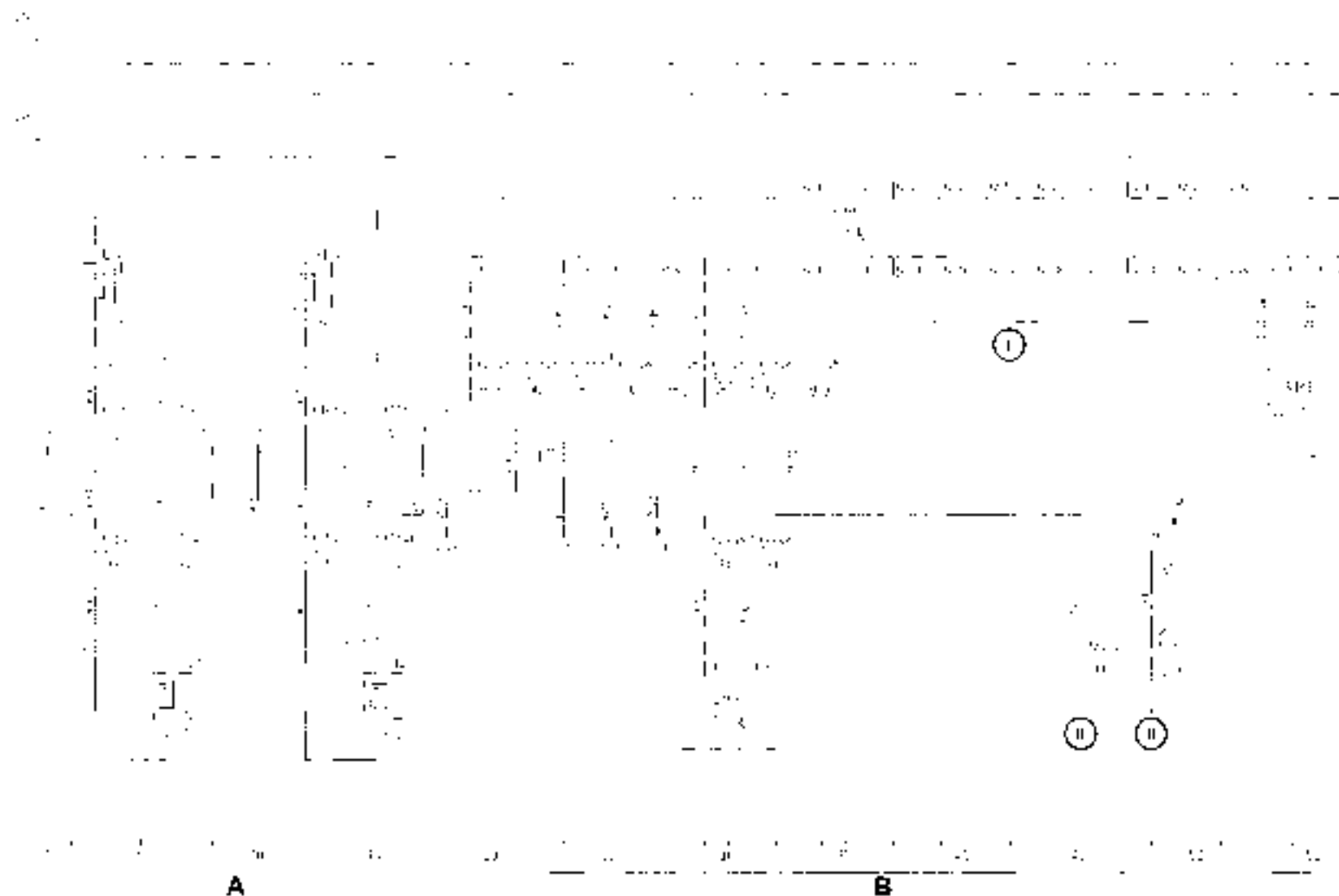
**B141** (296) Loudspeaker 1, door left  
**B142** (296) Loudspeaker 1, door right  
**B143** (297) Loudspeaker 2, door left  
**B144** (297) Loudspeaker 2, door right  
**B190** (345) Microphone for hands-free telephone

**X1546** Std. door right  
**X1547** Std. door left  
**X1863** Std. loudspeaker, left  
**X1864** Std. loudspeaker, right  
**X2348** Std. telephone  
**X2372** Std. supply to CD changer  
**X244H** Std. adaptation 12V telephone

**Marking of mounting positions**

- ⊖ Tail
- ⊖ Engine
- ⊖ Gearbox
- ⊖ Front
- ⊖ Bumper
- ⊖ Entrance right
- ⊖ Entrance left
- ⊖ Central electrics area
- ⊖ Control unit racks
- ⊖ Rear wall of cab
- ⊖ Instrument panel
- ⊖ Central part
- ⊖ Steering wheel/column
- ⊖ Foot pedals
- ⊖ Front wall, inside left
- ⊖ Front wall, inside right
- ⊖ Mobile phone interface
- ⊖ CD changer
- ⊖ Driving seat
- ⊖ Passenger seat
- ⊖ Control panel
- ⊖ Battery box
- ⊖ B-pillar on driver's side
- ⊖ A-pillar on driver's side
- ⊖ B-pillar on passenger's side
- ⊖ A-pillar on passenger's side
- ⊖ Ceiling/roof
- ⊖ Front axle
- ⊖ Rear axle
- ⊖ Front part of frame
- ⊖ Rear part of frame
- ⊖ Door left
- ⊖ Door right

Wiring diagram no. 61.99192.2872 Sheet 2 of 2



**Cullmann phone with radio 24V and CD changer MAN-Sound (LL)**

**Legend**

Wiring diagram no. 81.99192.1447 Sheet 1 of 2

Change status 05.01

**A = Active aerial, radio, CD changer**

**B = Amplifier**

**A100** {255} Central fuse, relay and terminal block

**A148** {388} Radio-cassette player

**A302** {352} Central computer 2

**A568** {546} CD changer

**B158** {208} Drivers loudspeaker, front right

**B496** {314} Cab loudspeaker, left, with hand free telephone

**M106** {173} Audio amplifier

**W177** {172} Combination aerial

**X1639** Soldered connector, line 16000

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1974** Stud for active aerial

**X2372** Stud supply to CD changer

**X2459** Stud adaptation mute signal

**X2496** Adaptation mute signal and guard

**X2542** {246} Potential distributor, 21-pin line 58000

**X2543** {246} Potential distributor, 21-pin line 30006

**Marking of mounting positions**

⊖ Tail

⊕ Engine

⊕ Gearbox

⊖ Front

⊖ Bumper

⊖ Entrance right

⊖ Entrance left

⊖ Central electric area

⊖ Control unit racks

⊖ Rear wall of cab

⊖ Instrument panel

⊖ Central part

⊖ Steering wheel/column

⊖ Foot pedals

⊖ Front wall, inside left

⊖ Front wall, inside right

⊖ Driving seat

⊖ Passenger seat

⊖ Control panel

⊖ Battery box

⊖ B-pillar on driver's side

⊖ A-pillar on driver's side

⊖ R-pillar on passenger's side

⊖ A-pillar on passenger's side

⊖ Ceiling/front

⊖ Front axle

⊖ Rear axle

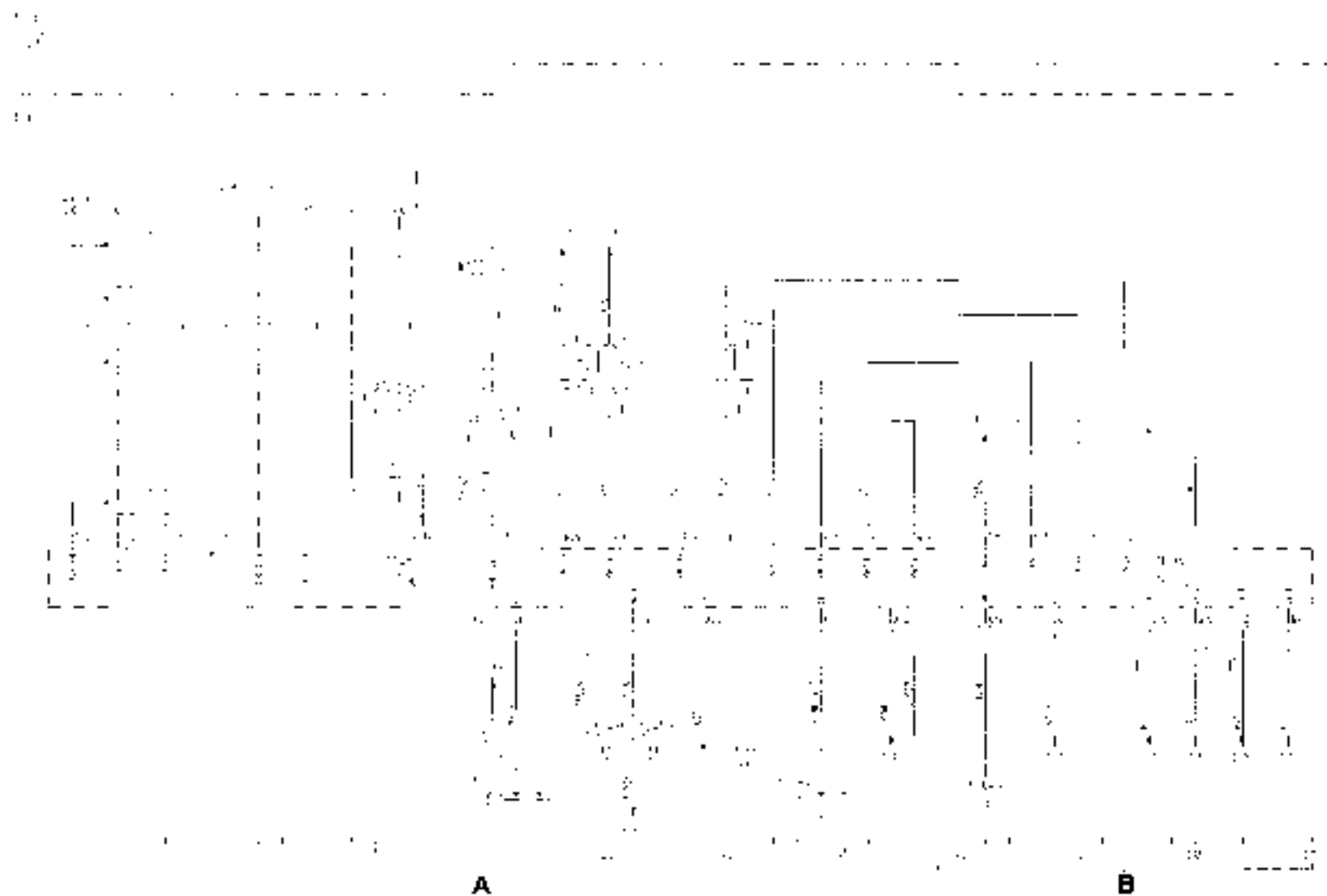
⊖ Front part of frame

⊖ Rear part of frame

⊖ Door left

⊖ Door right

Wiring diagram no. **B1.99192.1447** Sheet 1 of 2



**Cullmann phone with radio 24V and CD changer MAN-Sound (LL)**

**Legend**

Wiring diagram no. **81,99192.1447** Sheet 2 of 2  
 Change status: 05/01

**A = Loudspeaker**

































**B = Cullmann telephone box**

**A100** (255) Central fuse, relay and terminal block  
**A155** (187) Voltage transformer 24V/12V  
**A302** (352) Central computer 2  
**A566** (545) Cellular phone station

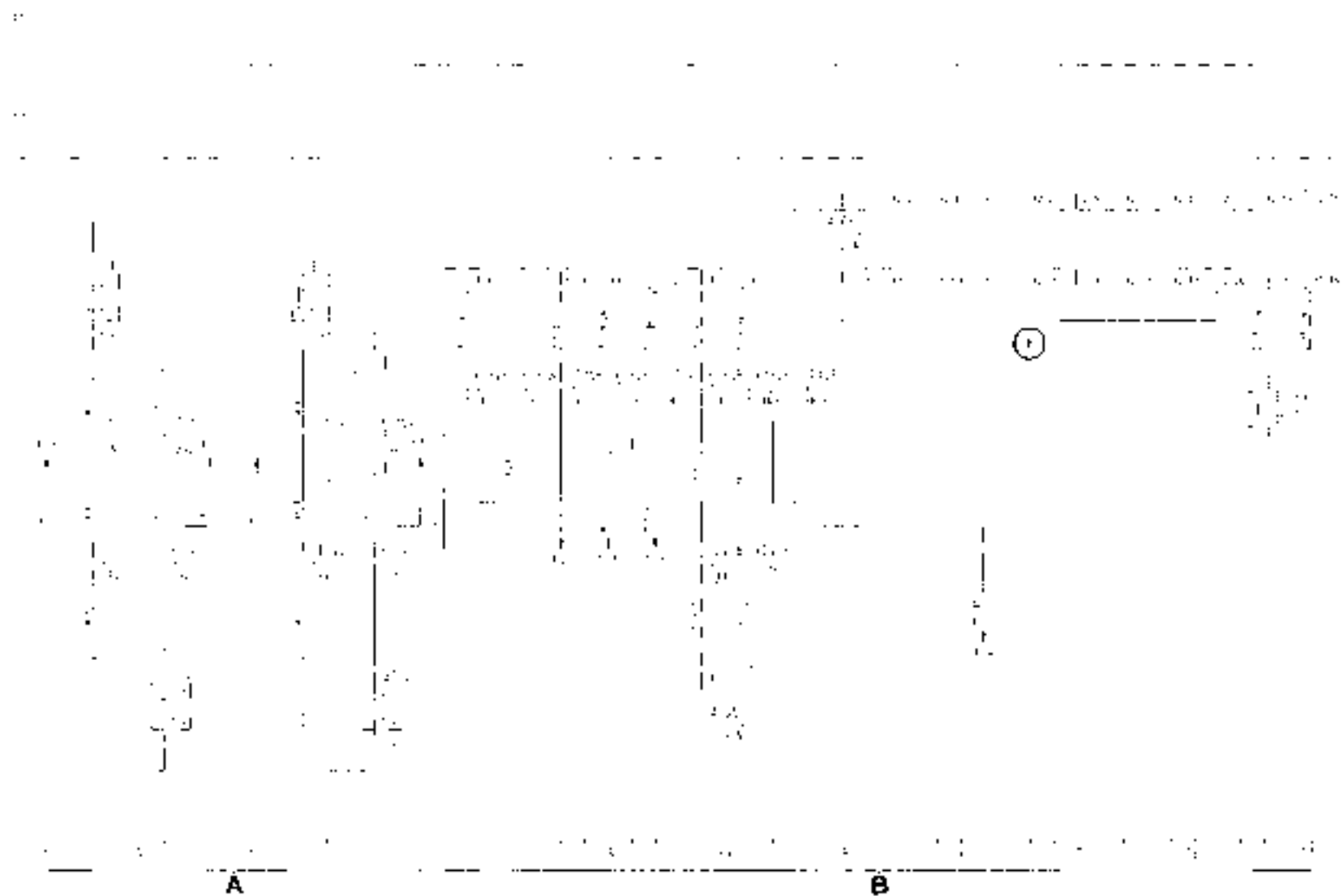
**B141** (296) Loudspeaker 1 - door left  
**B142** (296) Loudspeaker 1 - door right  
**B143** (297) Loudspeaker 2 - door left  
**B144** (297) Loudspeaker 2 - door right  
**B189** (345) Microphone for hands-free telephone

**X1546** Std. door, right  
**X1547** Std. door, left  
**X1863** Std. loudspeaker, left  
**X1864** Std. loudspeaker, right  
**X2348** Std. telephone  
**X2440** Std. adaptation 12V telephone

**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electrics area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
-  Mobile phone interface
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

Wiring diagram no. 81.99192.1447 Sheet 2 of 2



**Cullmann phone with radio 24V and CD changer MAN-Sound (RL)**

**Legend**

Wiring diagram no. **81.99192.2678** Sheet **1** of **2**

Change status: 10.00

**A = Radio, CD changer, active aerial**

**B = Amplifier**

**A100** (255) Central fuse, relay and terminal block

**A148** (574) Radio/cassette player

**A302** (552) Central computer 2

**A568** (546) CD changer

**B157** (208) Driver's loudspeaker, front left

**B198** (341) Cab loudspeaker, right, with hand-free telephone

**N106** (127) Audio amplifier

**W177** (172) Combination aerial

**X1639** Soldered connector, line 16000

**X1642** Soldered connector, line 68300

**X1641** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1974** Stud. for active aerial

**X2372** Stud. supply to CD changer

**X2459** Stud. adaptation mute signal

**X2496** Adaptation mute signal lane guard

**X2543** (246) Potential distributor, 21-pin line 30306

**Marking of mounting positions**

⊖ Tail

⊖ Engine

⊖ Gearbox

⊖ Front

⊖ Bumper

⊖ Entrance right

⊖ Entrance left

⊖ Central electrics area

⊖ Control unit racks

⊖ Rear wall of cab

⊖ Instrument panel

⊖ Central part

⊖ Steering wheel/column

⊖ Foot pedals

⊖ Front wall, inside left

⊖ Front wall, inside right

⊖ Driving seat

⊖ Passenger seat

⊖ Control panel

⊖ Battery box

⊖ B-pillar on driver's side

⊖ A-pillar on driver's side

⊖ B-pillar on passenger's side

⊖ A-pillar on passenger's side

⊖ Ceiling/roof

⊖ Front axle

⊖ Rear axle

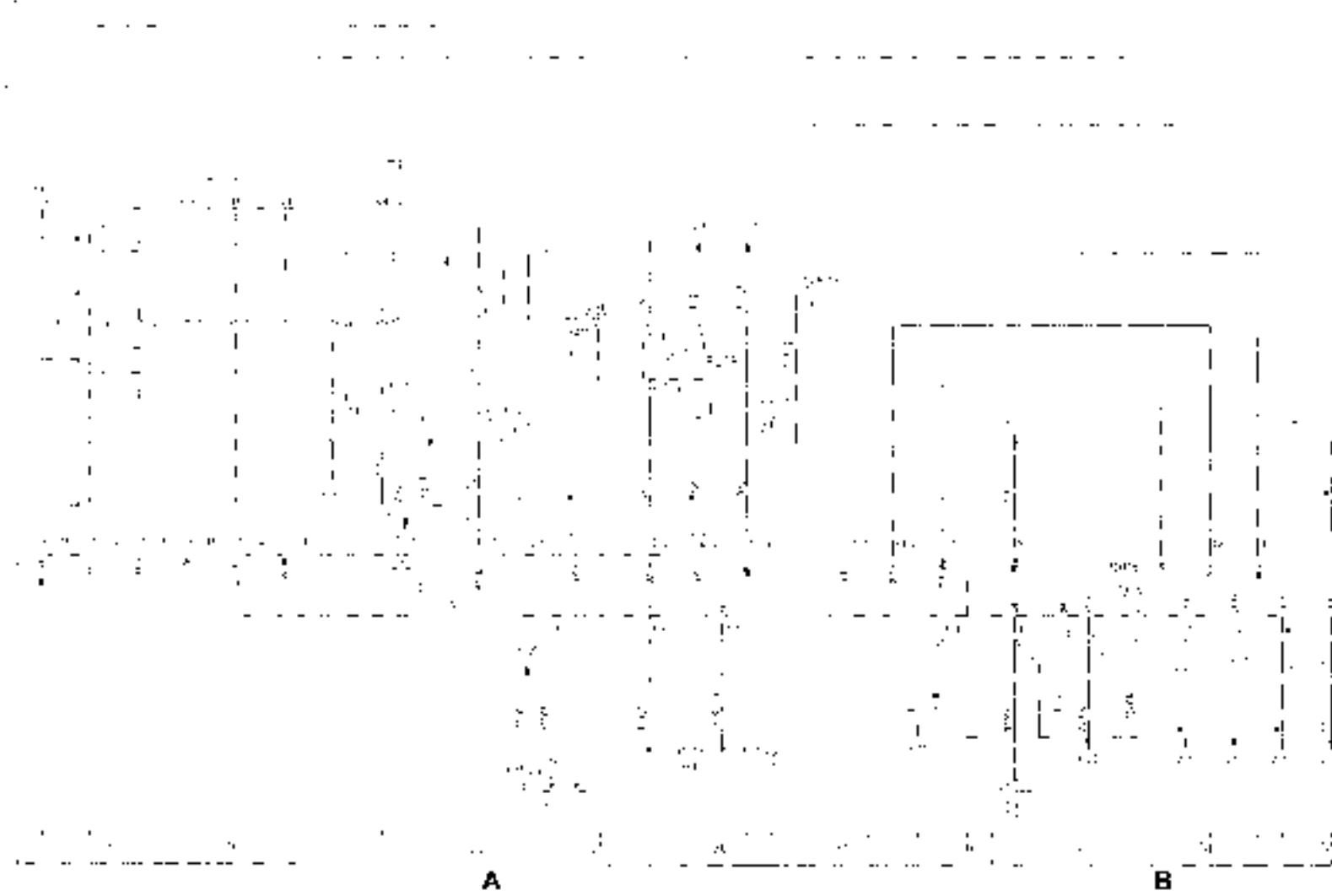
⊖ Front part of frame

⊖ Rear part of frame

⊖ Door left

⊖ Door right





**Cullmann phone with radio 24V and CD changer MAN-Sound (RL)**

**Legend**

Wiring diagram no. **81.99192.2878** Sheet 2 of 2

Change status: 10.00

**A = Loudspeaker**

**B = Cullmann telephone box**

**A100** (255) Central fuse, relay and terminal block

**A155** (182) Voltage transformer 24V/12V

**A302** (352) Central computer 2

**A566** (515) Cellular phone station

**B141** (296) Loudspeaker 1, door left

**B142** (296) Loudspeaker 1, door right

**B143** (297) Loudspeaker 2, door left

**B144** (297) Loudspeaker 2, door right

**B189** (345) Microphone for hands-free telephone

**X1546** Std. door right

**X1547** Std. door left

**X1663** Std. loudspeaker, left

**X1664** Std. loudspeaker, right

**X2348** Std. telephone

**X2448** Std. adaptation 12V telephone

**Marking of mounting positions**

(A) Tail

(E) Engine

(G) Gearbox

(F) Front

(B) Bumper

(R) Entrance right

(L) Entrance left

(C) Central electrics area

(U) Control unit racks

(H) Rear wall of cab

(I) Instrument panel

(J) Central part

(K) Steering wheel/column

(M) Foot pedals

(N) Front wall, inside left

(O) Front wall, inside right

(P) Mobile phone interface

(S) Driving seat

(T) Passenger seat

(R) Control panel

(G) Battery box

(I) B-pillar on driver's side

(L) A-pillar on driver's side

(J) B-pillar on passenger's side

(K) A-pillar on passenger's side

(L) Ceiling/roof

(N) Front axle

(P) Rear axle

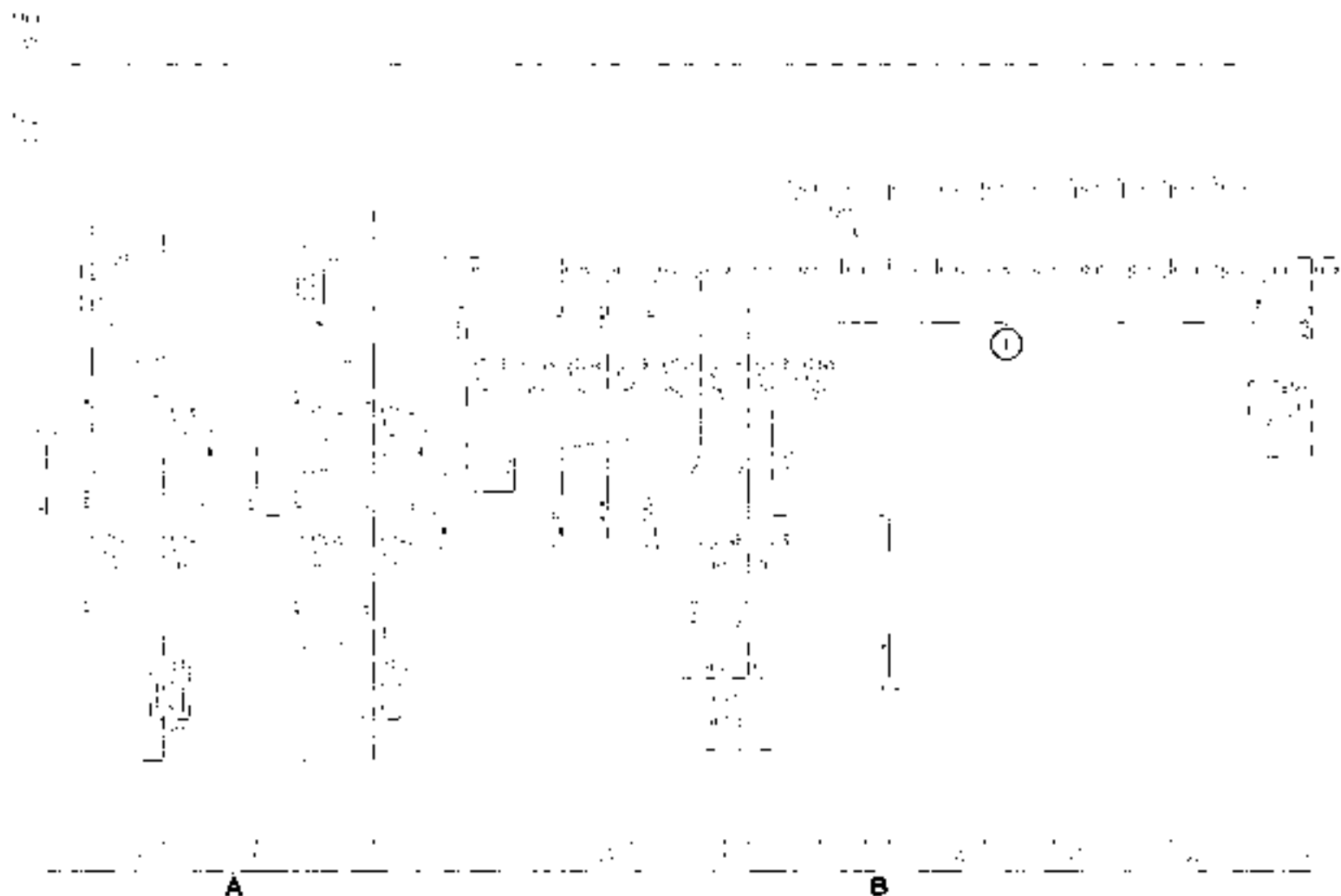
(T) Front part of frame

(R) Rear part of frame

(S) Door left

(T) Door right

Wiring diagram no. 81.99192.2878 Sheet 2 of 2



**Nokla phone with radio 24V MAN-Sound (LL)**

**Legend**

Wiring diagram no. **B1.99192.2B73** Sheet 1 of 2

Change status: 131 (X)

**A = Active aerial**

**B = Radio**

**C = Amplifier**

**A100** (255) Central fuse, relay and terminal block

**A146** (574) Radio/cassette player

**A302** (352) Central computer 2

**B15B** (296) Driver's loudspeaker, front right

**B49C** (344) Cab loudspeaker, left, with hand-free telephone

**N500** (177) Audio amplifier

**W177** (172) Combination aerial

**X1639** Soldered connector, line 16000

**X1640** Soldered connector, line 58300

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1974** Stud, for active aerial

**X2459** Stud, adaptation mute signal

**X2496** Adaptation mute signal lane guard

**X2543** (246) Potential distributor, 21-pin line 30006

**Marking of mounting positions**

⊙ Tail

⊙ Engine

⊙ Gearbox

⊙ Front

⊙ Bumper

⊙ Entrance right

⊙ Entrance left

⊙ Central electric area

⊙ Control unit racks

⊙ Rear wall of cab

⊙ Instrument panel

⊙ Central pan

⊙ Steering wheel/column

⊙ Foot pedals

⊙ Front wall, inside left

⊙ Front wall, inside right

⊙ Driving seat

⊙ Passenger seat

⊙ Control panel

⊙ Battery box

⊙ B-pillar on driver's side

⊙ A-pillar on driver's side

⊙ B-pillar on passenger's side

⊙ A-pillar on passenger's side

⊙ Ceiling/roof

⊙ Front axle

⊙ Rear axle

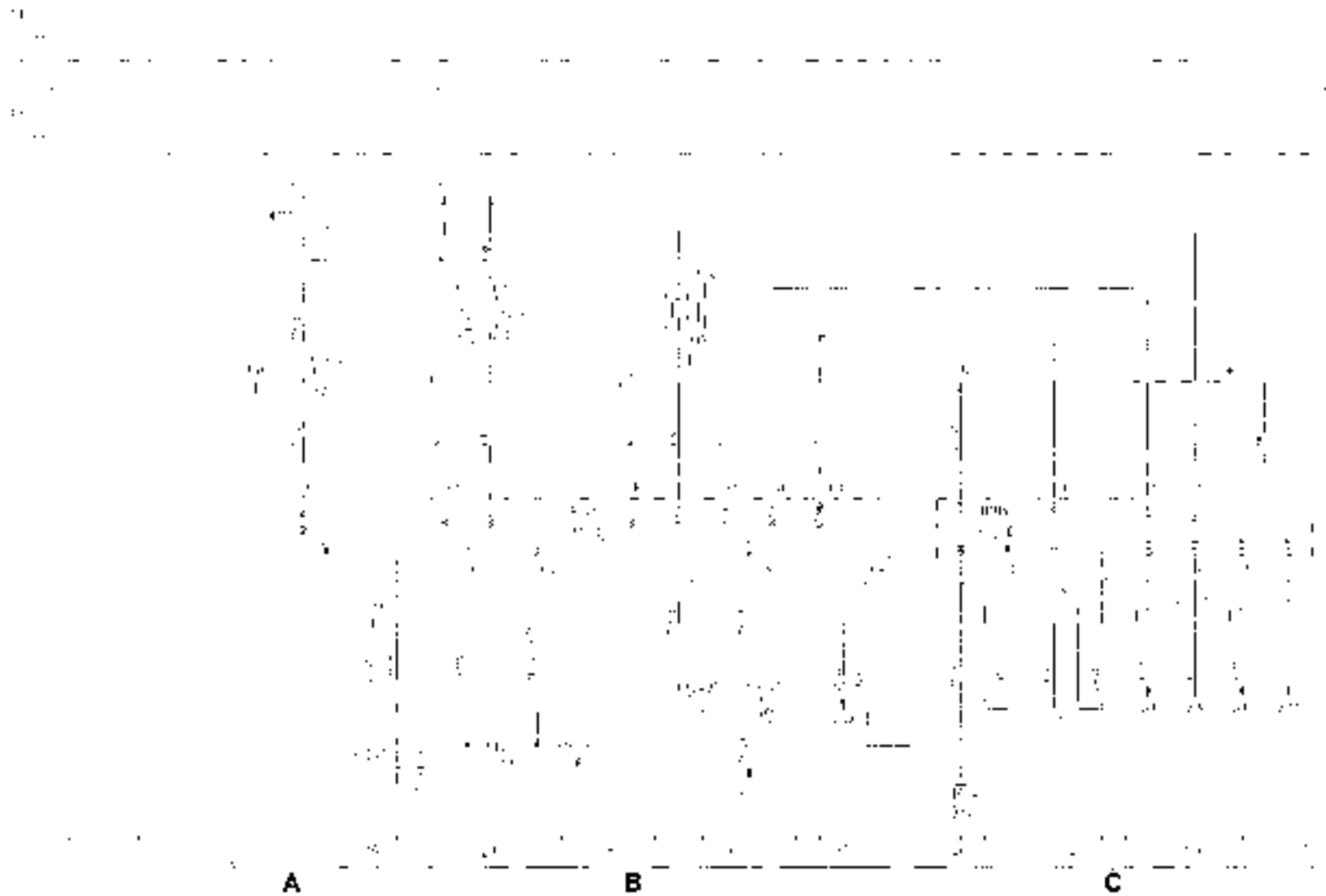
⊙ Front part of frame

⊙ Rear part of frame

⊙ Door left

⊙ Door right

Wiring diagram no. 81.99192.2673 Sheet 1 of 2



**Nokia phone with radio 24V MAN-Sound (LL)**

**Legend**

Wiring diagram no. **81.99192.2873** Sheet 2 of 2

Change status: 10/00

**A = Loudspeaker**

**B = Nokia telephone**

A100 (255) Central fuse, relay and terminal block

A155 (182) Voltage transformer 24V/12V

A302 (352) Central computer 2

A366 (539) Cellular phone station

B141 (296) Loudspeaker 1, door left

B142 (296) Loudspeaker 1, door right

B143 (297) Loudspeaker 2, door left

B144 (297) Loudspeaker 2, door right

B169 (345) Microphone for hands-free telephone

B497 (346) Telephone receiver

X1546 Stvd. door right

X1547 Stvd. door left

X1863 Stvd. loudspeaker, left

X1864 Stvd. loudspeaker, right

X2348 Stvd. telephone

X2372 Stvd. supply to CD changer

X2446 Stvd. TB# (terminal 15)

X2448 Stvd. adaptation 12V telephone

**Marking of mounting positions**

(X) Tail

(E) Engine

(G) Gearbox

(F) Front

(B) Bumper

(R) Entrance right

(L) Entrance left

(C) Central electric area

(U) Control unit racks

(H) Hour wall of cab

(I) Instrument panel

(P) Central part

(S) Steering wheel/column

(D) Foot pedals

(Y) Front wall, inside left

(Z) Front wall, inside right

(CD) CD changer

(5) Driving seat

(6) Passenger seat

(7) Control panel

(8) Battery box

(9) B-pillar on driver's side

(10) A-pillar on driver's side

(11) B-pillar on passenger's side

(12) A-pillar on passenger's side

(13) Ceiling/roof

(14) Front axle

(15) Rear axle

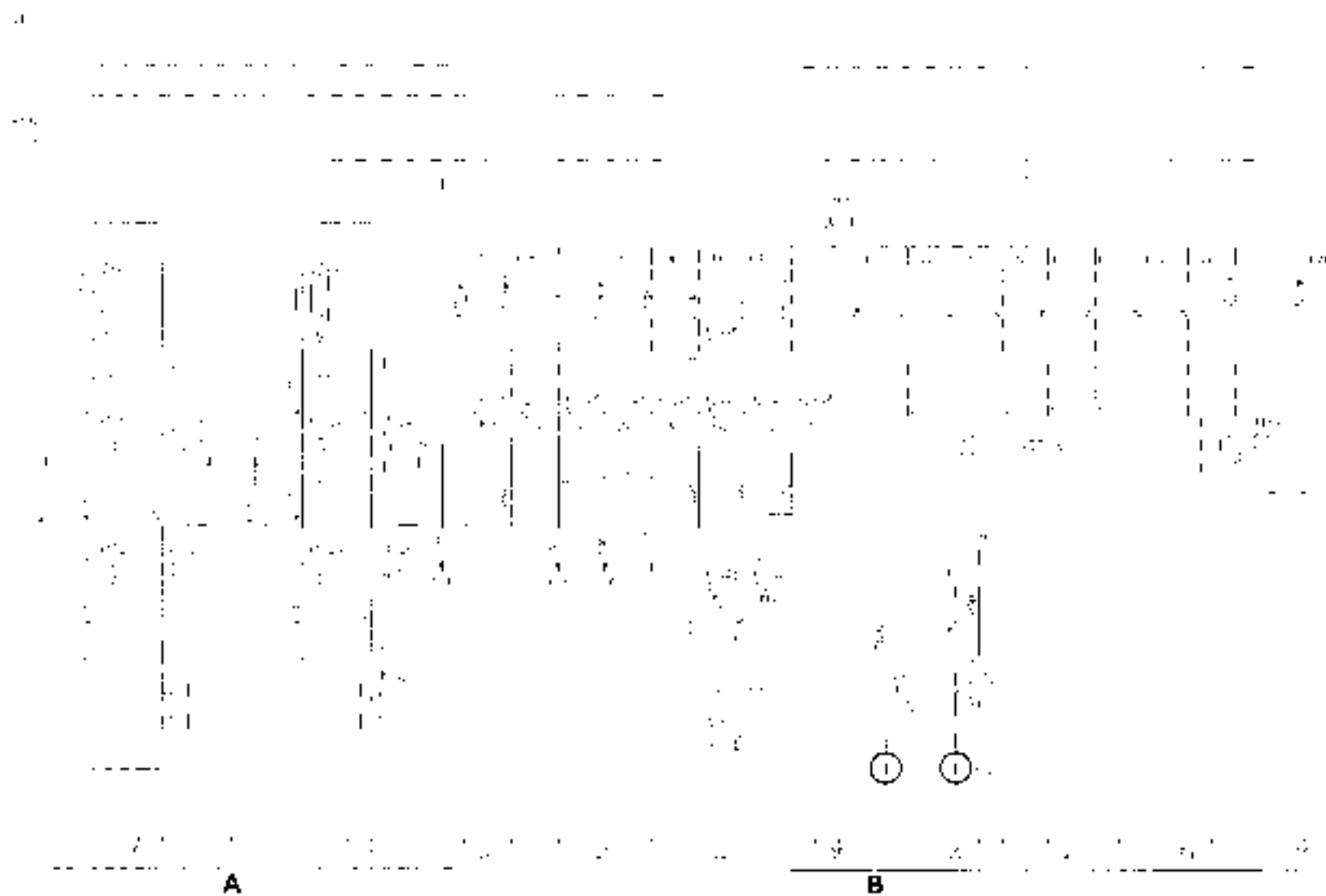
(16) Front part of frame

(17) Rear part of frame

(18) Door left

(19) Door right

Wiring diagram no. 81.99192.2873 Sheet 2 of 2



**Nokia phone with radio 24V MAN-Sound (RL)**

**Legend**

Wiring diagram no. **81.99192.2874** Sheet 1 of 2

Change status: 10/00

**A = Active aerial**

**B = Radio**

**C = Amplifier**

A100 (1255) Central fuse, relay and terminal block

A148 (1574) Radio/cassette player

A302 (1352) Central computer 2

B157 (298) Drivers budspøker, front left

B498 (344) Cab loudspeaker, right, with hand-free telephone

N106 (1127) Audio amplifier

W177 (172) Combination aerial

X1639 Soldered connector, line 16L00

X1643 Soldered connector, line 53300

X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block

X1874 Stvd. for active aerial

X2459 Stvd. adaptation mute signal

X2496 Adaptation mute signal lane guard

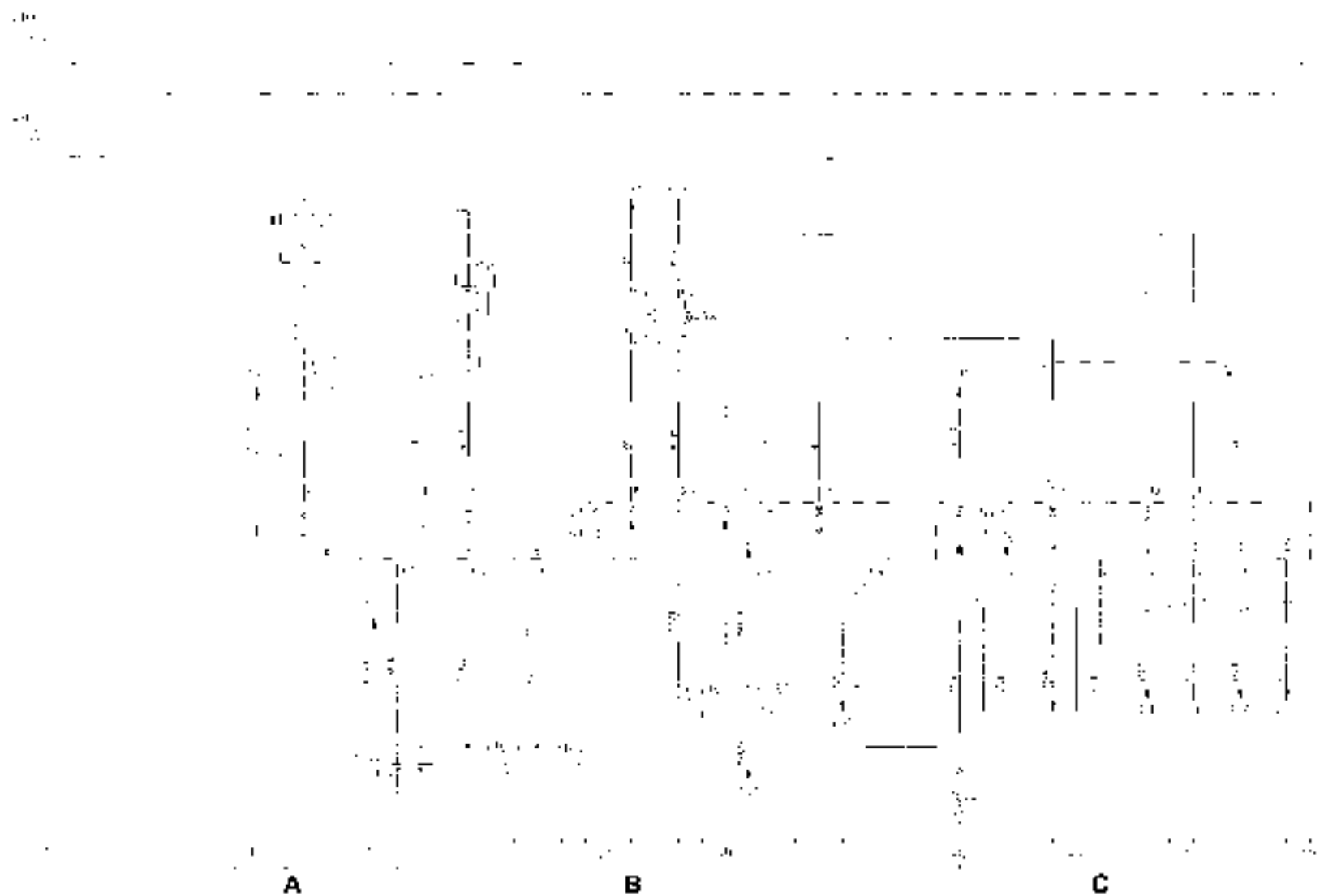
X2543 (246) Potential distributor, 21-pin line 90006

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊗ | Tail                     | ⊗ | Driving seat                 |
| ⊗ | Engine                   | ⊗ | Passenger seat               |
| ⊗ | Gearbox                  | ⊗ | Control panel                |
| ⊗ | Front                    | ⊗ | Battery box                  |
| ⊗ | Bumper                   | ⊗ | B-pillar on driver's side    |
| ⊗ | Entrance right           | ⊗ | A-pillar on driver's side    |
| ⊗ | Entrance left            | ⊗ | B-pillar on passenger's side |
| ⊗ | Central electrics area   | ⊗ | A-pillar on passenger's side |
| ⊗ | Control unit racks       | ⊗ | Ceiling/roof                 |
| ⊗ | Rear wall of cab         | ⊗ | Front axle                   |
| ⊗ | Instrument panel         | ⊗ | Rear axle                    |
| ⊗ | Central part             | ⊗ | Front part of frame          |
| ⊗ | Steering wheel/column    | ⊗ | Rear part of frame           |
| ⊗ | Foot pedals              | ⊗ | Door left                    |
| ⊗ | Front wall, inside left  | ⊗ | Door right                   |
| ⊗ | Front wall, inside right |   |                              |



Wiring diagram no. 81.99192.2674 Sheet 1 of 2



**Nokia phone with radio 24V MAN-Sound (RL)**

































**Legend**

Wiring diagram no. **81.99192.2874** Sheet 2 of 2  
 Change status: 13.00

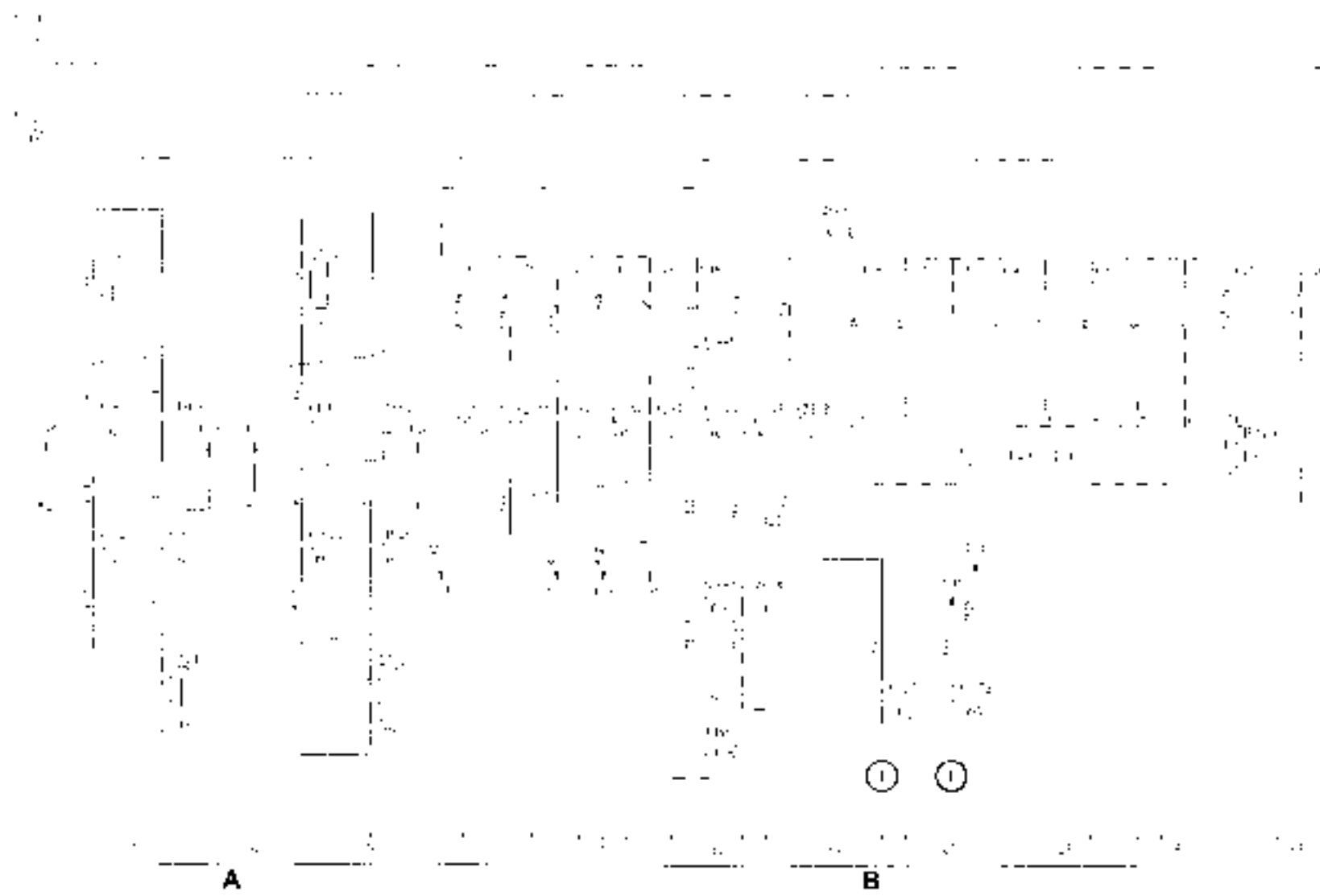
**A = Loudspeaker**  
**B = Nokia telephone**

A*00	(255)	Central fuse, relay and terminal block
A155	(182)	Voltage transformer
A302	(352)	Central computer 2
A566	(539)	Cellular phone station
B*41	(296)	Loudspeaker 1, door left
B142	(296)	Loudspeaker 1, door right
B143	(297)	Loudspeaker 2, door left
B144	(297)	Loudspeaker 2, door right
B189	(345)	Microphone for hands-free telephone
B497	(346)	Telephone receiver
X154E		Std. door, right
X1547		Std. door, left
X1863		Std. loudspeaker, left
X1864		Std. loudspeaker, right
X2348		Std. telephone
X2372		Std. supply to CD changer
X2446		Std. TBM (terminal 15)
X2446		Std. adaptation 12V telephone

**Marking of mounting positions**

- |  |  |
|--|--|
|  Tail                     |  Driving seat                 |
|  Engine                   |  Passenger seat               |
|  Gearbox                  |  Control panel                |
|  Front                    |  Battery box                  |
|  Bumper                   |  B-pillar on driver's side    |
|  Entrance right           |  A-pillar on driver's side    |
|  Entrance left            |  B-pillar on passenger's side |
|  Central electric area    |  A-pillar on passenger's side |
|  Control unit racks       |  Ceiling/roof                 |
|  Rear wall of cab         |  Front axle                   |
|  Instrument panel         |  Rear axle                    |
|  Central part             |  Front part of frame          |
|  Steering wheel/column    |  Rear part of frame           |
|  Foot pedals              |  Door left                    |
|  Front wall, inside left  |  Door right                   |
|  Front wall, inside right |  |
|  |  |
|  CD changer              |  |

Wiring diagram no. B1.99192.2874 Sheet 2 of 2



**Nokia phone with radio 24V and CD changer MAN-Sound (LL)**

**Legend**

Wiring diagram no. **81.99192.2875** Sheet 1 of 2

Change status: 10.00

**A = Radio, CD changer, active aerial**

**B = Amplifier**

**A100** (255) Central fuse, relay and terminal block

**A149** (574) Rad. of cassette player

**A302** (352) Central computer 2

**A568** (546) CD changer

**B153** (298) Driver's loudspeaker, front right

**B496** (344) Cab. loudspeaker, left, with hand-free telephone

**N106** (127) Audio amplifier

**W177** (172) Combination aerial

**X1633** Soldered connector, line 16000

**X1643** Soldered connector, line 58300

**X1644** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1974** Stvd. for active aerial

**X2372** Stvc. supply to CD changer

**X2459** Stvc. adaptation mute signal

**X2496** Adaptation mute signal lane guard

**X2543** (246) Potential distributor, 21-pin line 33006

**Marking of mounting positions**

⊖ Tail

⊖ Engine

⊖ Gearbox

⊖ Front

⊖ Bumper

⊖ Entrance right

⊖ Entrance left

⊖ Central electrics area

⊖ Control unit racks

⊖ Rear wall of cab

⊖ Instrument panel

⊖ Central part

⊖ Steering wheel/column

⊖ Foot pedals

⊖ Front wall, inside left

⊖ Front wall, inside right

⊖ Driving seat

⊖ Passenger seat

⊖ Control panel

⊖ Battery box

⊖ B-pillar on driver's side

⊖ A-pillar on driver's side

⊖ B-pillar on passenger's side

⊖ A-pillar on passenger's side

⊖ Ceiling/roof

⊖ Front axle

⊖ Rear axle

⊖ Front part of frame

⊖ Rear part of frame

⊖ Door left

⊖ Door right



**Nokia phone with radio 24V and CD changer MAN-Sound (LL)**

**Legend**

Wiring diagram no. 81.99192.2875 Sheet 2 of 2  
 Charge status: 10.00

**A = Loudspeaker**

**B = Nokia telephone**

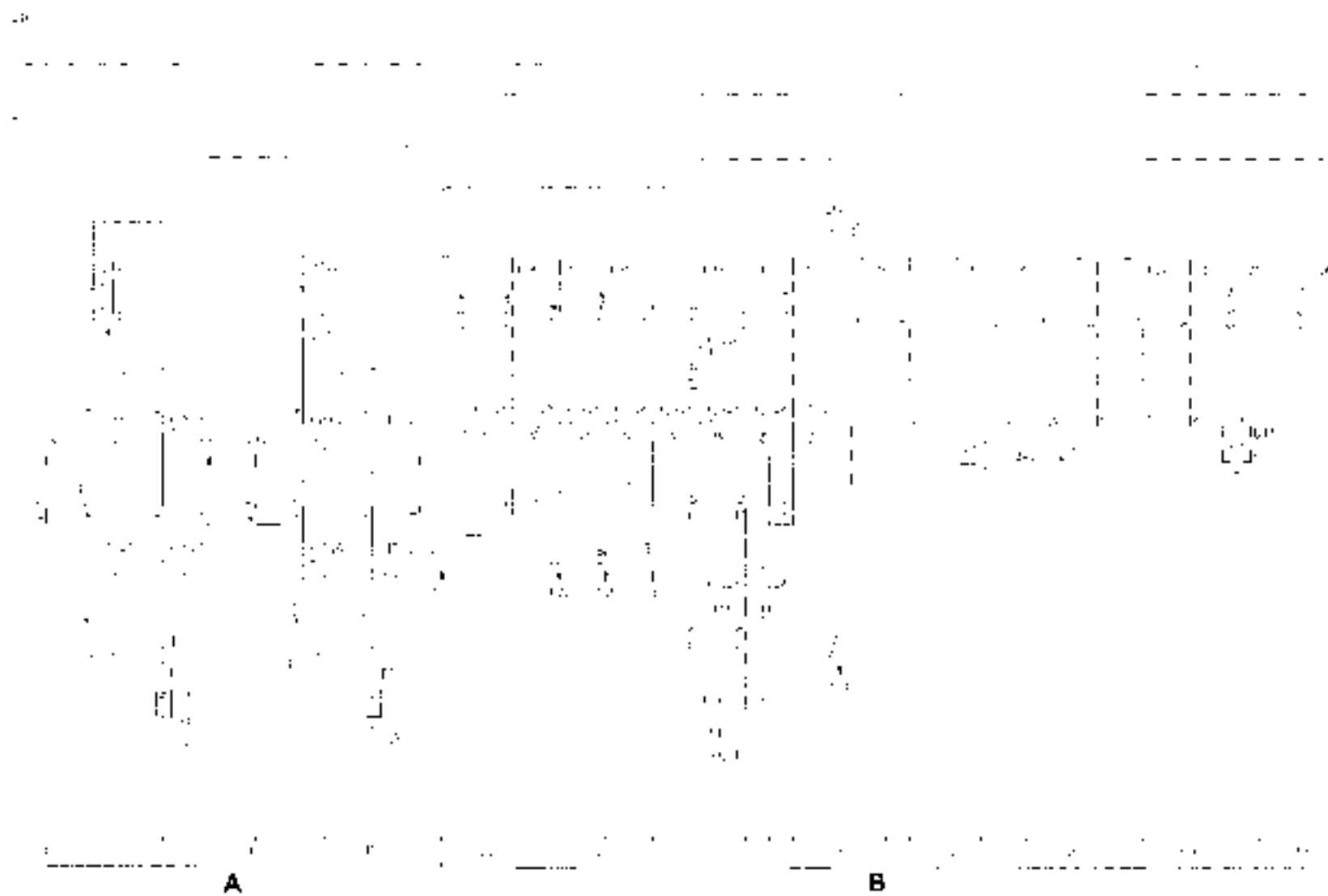
A100 (255) Central fuse, relay and terminal block  
 A155 (182) Voltage transformer 24V/12V  
 A302 (352) Central computer 2  
 A568 (539) Cellular phone station

B141 (296) Loudspeaker 1, door left  
 B142 (296) Loudspeaker 1, door right  
 B143 (297) Loudspeaker 2, door left  
 B144 (297) Loudspeaker 2, door right  
 B189 (345) Microphone for hands-free telephone  
 B497 (345) Telephone receiver

X1546 Std. door right  
 X1547 Std. door left  
 X1863 Std. loudspeaker, left  
 X1864 Std. loudspeaker, right  
 X2348 Std. telephone  
 X2446 Std. TBM (terminal 15)  
 X2448 Std. adaptor for 12V telephone

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓕ Passenger seat               |
| Ⓒ Gearbox                  | Ⓖ Control panel                |
| Ⓓ Front                    | Ⓗ Battery box                  |
| Ⓔ Bumper                   | Ⓘ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓚ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓛ B-pillar on passenger's side |
| Ⓗ Central electrics area   | Ⓜ A-pillar on passenger's side |
| Ⓘ Control unit racks       | Ⓝ Ceiling/front                |
| Ⓚ Rear wall of cab         | Ⓞ Front axle                   |
| Ⓛ Instrument panel         | Ⓟ Rear axle                    |
| Ⓜ Central part             | Ⓠ Front part of frame          |
| Ⓝ Steering wheel-column    | Ⓡ Rear part of frame           |
| Ⓞ Foot pedals              | Ⓢ Door left                    |
| Ⓟ Front wall, ins de left  | Ⓣ Door right                   |
| Ⓠ Front wall, ins de right |                                |



**Nokia phone with radio 24V and CD changer MAN-Sound (RL)**

**Legend**

Wiring diagram no. 81.99192.2876 Sheet 1 of 2

Change status: 11/01

**A = Radio, CD changer, active aerial**

**B = Amplifier**

**A103** (255) Central fuse, relay and terminal block

**A148** (574) Radio/cassette player

**A312** (352) Central computer 2

**A568** (546) CD changer

**B157** (298) Driver's loudspeaker, front left

**B408** (344) Cab loudspeaker, right, with hand-free telephone

**N106** (127) Audio amplifier

**W177** (172) Combination aerial

**X1639** Soldered connector, line 10000

**X1613** Soldered connector, line 59300

**X1614** Earthing point, cab, adjacent to central fuse, relay and terminal block

**X1974** Stvd. for active aerial

**X2372** Stvd. supply to CD changer

**X2459** Stvd. adaptation mute signal

**X2496** Adaptation mute signal lane guard

**X2543** (246) Potential distributor, 21-pin, line 30006

**Marking of mounting positions**

⊙ Tail

⊙ Engine

⊙ Gearbox

⊙ Front

⊙ Bumper

⊙ Entrance right

⊙ Entrance left

⊙ Central electronics area

⊙ Control unit racks

⊙ Rear wall of cab

⊙ Instrument panel

⊙ Central part

⊙ Steering wheel/column

⊙ Foot pedals

⊙ Front wall, inside left

⊙ Front wall, inside right

⊙ Driving seat

⊙ Passenger seat

⊙ Control panel

⊙ Battery box

⊙ B-pillar on driver's side

⊙ A-pillar on driver's side

⊙ B-pillar on passenger's side

⊙ A-pillar on passenger's side

⊙ Ceiling/roof

⊙ Front axle

⊙ Rear axle

⊙ Front part of frame

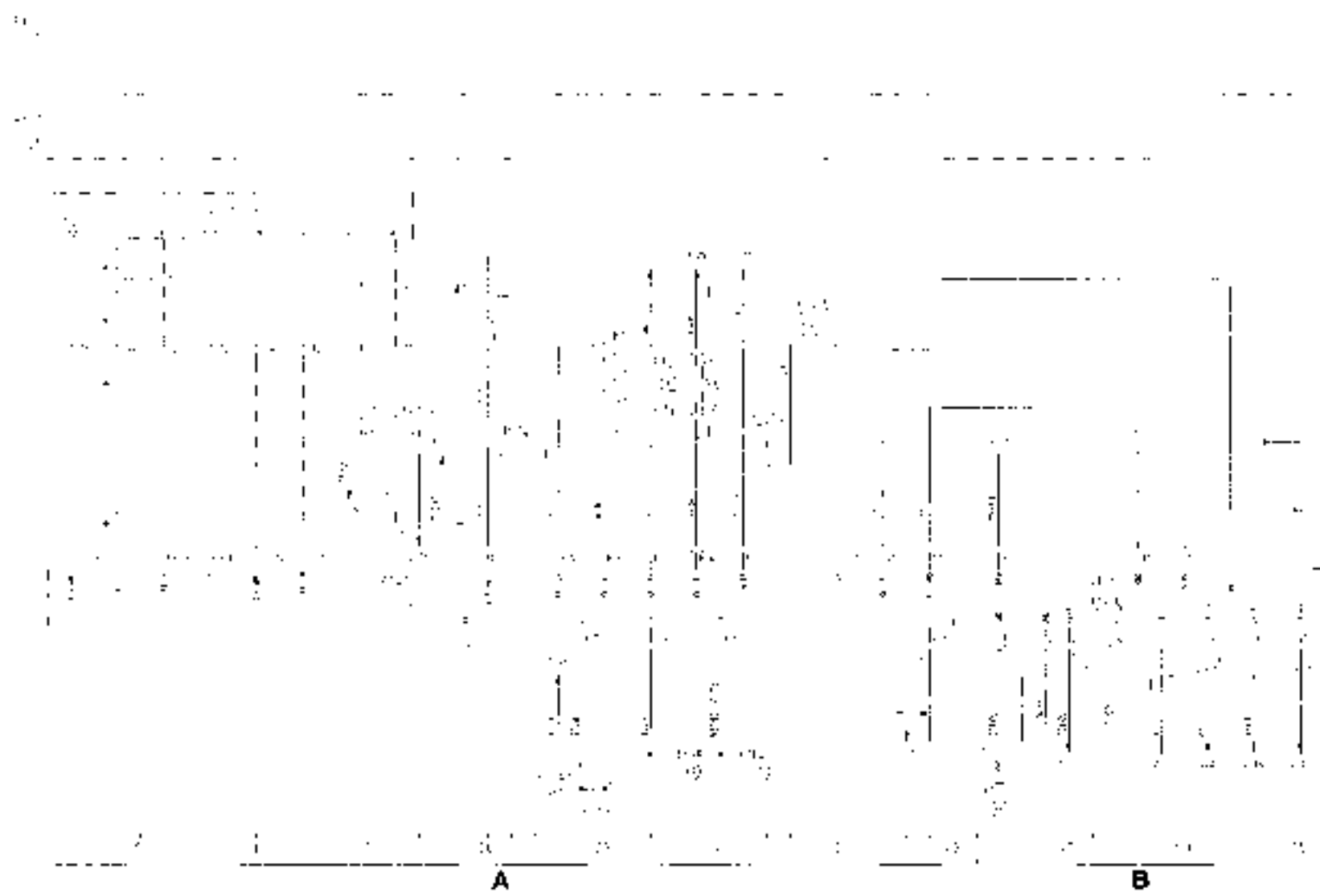
⊙ Rear part of frame

⊙ Door left

⊙ Door right



Wiring diagram no. **81.99192.2876** Sheet 1 of 2



**Nokia phone with radio 24V and CD changer MAN-Sound (RL)**

**Legend**

Wiring diagram no. 81.99192.2876 Sheet 2 of 2

Change status: 15.00

**A = Loudspeaker**

**B = Nokia telephone**

A100 (255) Central fuse, relay and terminal block  
 A155 (182) Voltage transformer 24V/12V  
 A302 (352) Central computer 2  
 A506 (539) Cellular phone station

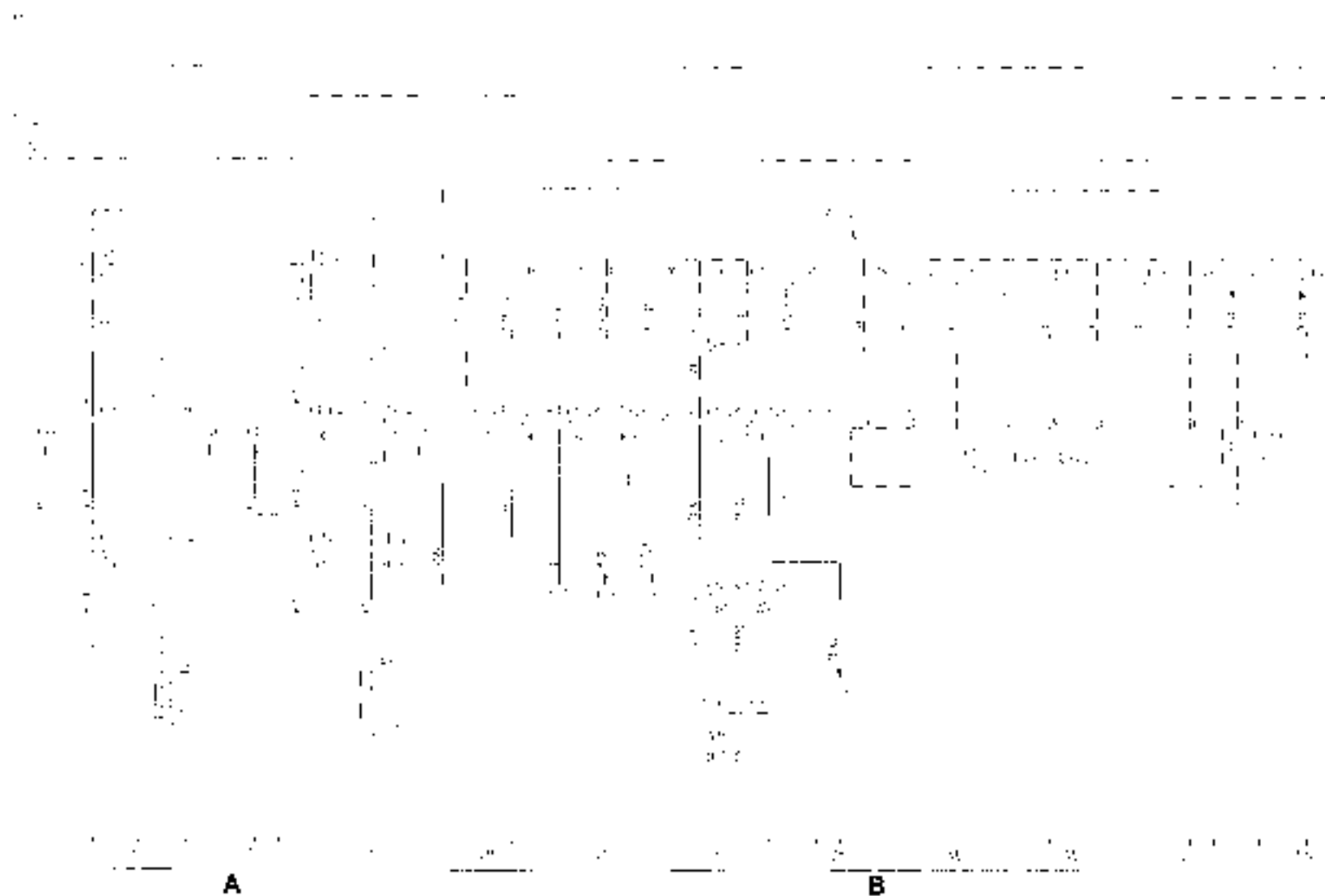
B141 (296) Loudspeaker 1, door left  
 B142 (296) Loudspeaker 1, door right  
 B143 (297) Loudspeaker 2, door left  
 B144 (297) Loudspeaker 2, door right  
 B189 (345) Microphone for hands-free telephone  
 B497 (346) Telephone receiver

X1546 Stvc. door right  
 X1547 Stvc. door left  
 X1863 Stvc. loudspeaker, left  
 X1864 Stvc. loudspeaker, right  
 X2348 Stvc. telephone  
 X2446 Stvc. TBM (terminal 15)  
 X2448 Stvc. adaptation 12V telephone

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊖ | Tail                     | ⊖ | Driving seat                 |
| ⊕ | Engine                   | ⊖ | Passenger seat               |
| ⊕ | Gearbox                  | ⊕ | Control panel                |
| ⊖ | Front                    | ⊖ | Battery box                  |
| ⊖ | Bumper                   | ⊕ | R-pillar on driver's side    |
| ⊖ | Entrance right           | ⊕ | A-pillar on driver's side    |
| ⊖ | Entrance left            | ⊖ | B-pillar on passenger's side |
| ⊕ | Central electronics area | ⊕ | A-pillar on passenger's side |
| ⊕ | Control unit racks       | ⊖ | Ceiling/rail                 |
| ⊖ | Rear wall of cab         | ⊖ | Front axle                   |
| ⊖ | Instrument panel         | ⊖ | Rear axle                    |
| ⊖ | Central part             | ⊕ | Front part of frame          |
| ⊖ | Steering wheel/column    | ⊖ | Rear part of frame           |
| ⊕ | Foot pedals              | ⊖ | Door left                    |
| ⊖ | Front wall, inside left  | ⊖ | Door right                   |
| ⊖ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2876 Sheet 2 of 2



**Door module (LL)**

**Legend**

Wiring diagram no. **81.99192.2989** Sheet **1** of 5  
Change status: 03.01

**A** = Central locking, driver's door

**A** = Window lift, driver's door

A100 (255) Central fuse relay and terminal block  
A302 (352) Central computer 2  
A451 (441) Door module (driver's side)  
A452 (443) Window lift (driver side)  
A465 (453) Door lock (driver's side)

S519 (522) Lock nut switch, driver's side  
S527 (525) Control switch, window lift, left

X1547 Stvd. door, left  
X1703 Stvd. switch sunroof

**Pin assignment A451:**

X2/18 Central locking, lock latch switch E  
X2/17 Central locking, lock nut switch E  
X2/16 Central locking, lock nut switch A  
X2/9 Central locking, actuator element locked/unlocked  
X2/10 Central locking, actuator element locked/unlocked  
X2/8 Central locking, actuator element locked/unlocked  
X2/7 Central locking, engine, actuator element -  
X2/1 Central locking, engine, actuator element -  
X1/13 Window lift, hall sensor 2 signal  
X1/14 Window lift, hall sensor 1 signal  
X1/15 Window lift, hall sensor 1/2 +  
X1/16 Window lift, hall sensor 1/2 -  
X1/7 Window lift, engine +  
X1/1 Window lift, engine -  
X2/14 Close window lift  
X2/13 Open window lift

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓒ Driving seat                 |
| Ⓑ Engine                   | Ⓓ Passenger seat               |
| Ⓒ Gearbox                  | Ⓔ Control panel                |
| Ⓓ Front                    | Ⓕ Battery box                  |
| Ⓔ Bumper                   | Ⓖ B pillar on driver's side    |
| Ⓕ Entrance right           | Ⓗ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓙ B pillar on passenger's side |
| Ⓗ Central electric area    | Ⓚ A-pillar on passenger's side |
| Ⓙ Control unit racks       | Ⓛ Ceiling/roof                 |
| Ⓚ Rear wall of cab         | Ⓜ Front axle                   |
| Ⓛ Instrument panel         | Ⓨ Rear axle                    |
| Ⓜ Central part             | Ⓩ Front part of frame          |
| Ⓨ Steering wheel/column    | ⓐ Rear part of frame           |
| Ⓩ Foot pedals              | ⓑ Door left                    |
| ⓐ Front wall, inside left  | ⓓ Door right                   |
| ⓑ Front wall, inside right |                                |

Ⓛ Locking

Ⓛ Unlocking

Wiring diagram no. **B1.99192.2989** Sheet: 1 of 5



**Door module (LL)**

**Legend**

Wiring diagram no. **81.99192.2989** Sheet 2 of 5  
 Change status: 03/01

**A = Sunroof**

**B = Mirror adjustment/mirror heating, driver's door**

**C = Diagnosis**

**D = Power supply, driver's door**

**E = CAN**

































**A100** (255) Central fuse, relay and terminal block  
**A157** (440) Main mirror (driver)  
**A251** (447) Wide-angle mirror (driver)  
**A253** (445) Curb mirror (driver)  
**A302** (352) Central computer 2  
**A451** (441) Door module (driver's side)

**X117** Std: sunroof/roof hatch  
**X1547** Std: door left  
**X1583** Std: main and wide-angle mirror, left  
**X1585** Std: curb mirror, left  
**X2544** (246) Potential distributor 21-pin K-line

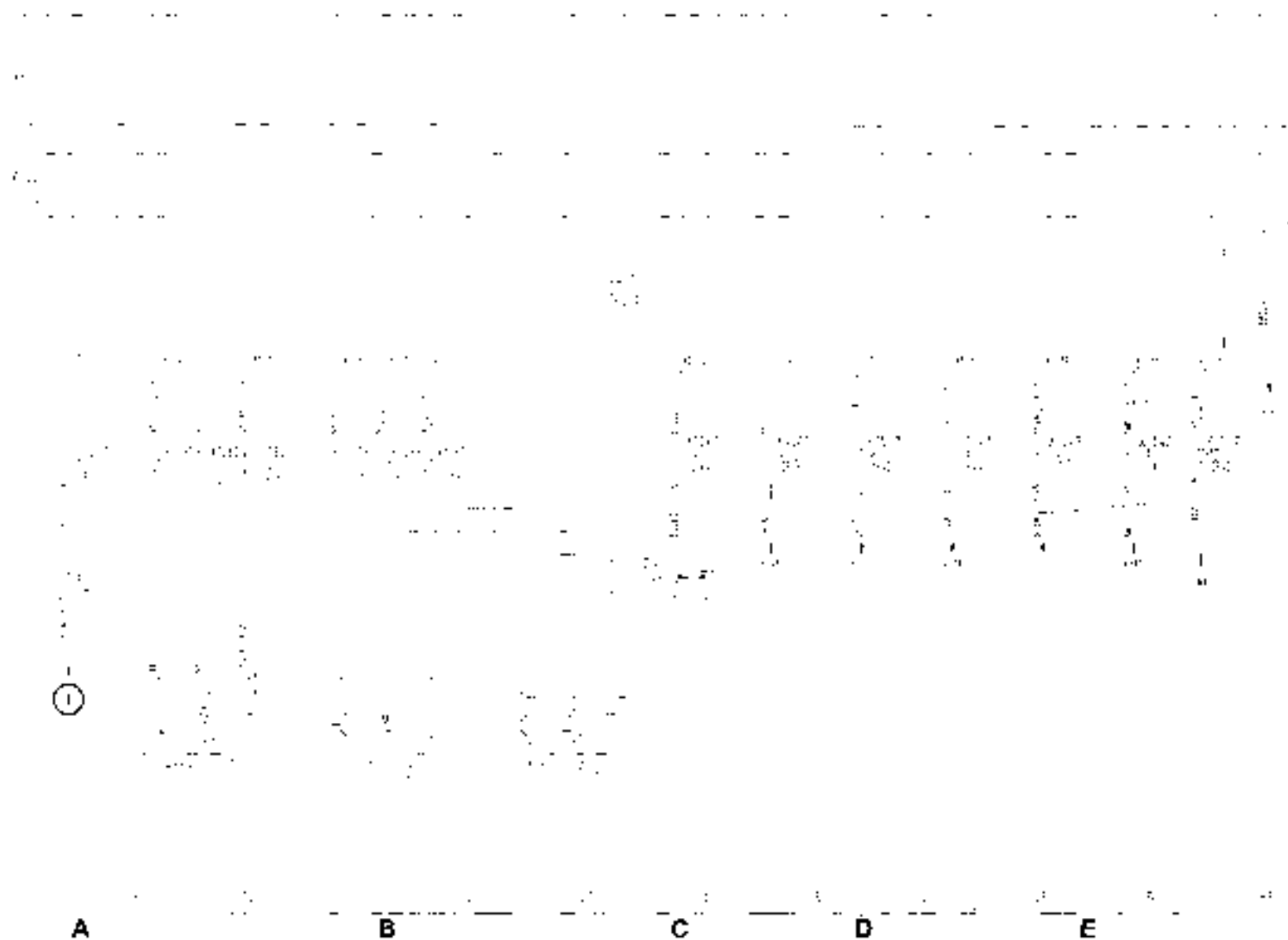
**Pin assignment A451:**

**X2/15** Sunroof  
**X1/6** Curb mirror + terminal 30  
**X1/12** Curb mirror, earth  
**X1/7/8** Curb mirror, serial  
**X1/5** Main and wide-angle mirror + terminal 30  
**X1/11** Main and wide-angle mirror, earth  
**X1/9** Main and wide-angle mirror, serial  
**X2/12** K-line  
**X1/4** Power supply +15 (serial)  
**X1/2** Power supply +30 (cab + central locking)  
**X1/8** Earth, load  
**X1/17** CAN low  
**X1/18** CAN high  
**X2/5** Alarm system

**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electrics area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
-  Sunroof
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

Wiring diagram no. ~~81.99192.2989~~ Sheet 2 of 5



**Door module (LL)**

**Legend**

Wiring diagram no. 81.99192.2989 Sheet 3 of 5

Change status: 03.01

**A = Central locking, passenger door**

**B = Window lift, passenger door**

A100 (255) Central fuse, relay and terminal block  
 A302 (352) Central computer 2  
 A452 (440) Door module (passenger side)  
 A454 (444) Window lift (passenger side)  
 A466 (454) Door lock (passenger side)

SE18 (522) Lock nut switch, passenger side  
 SE26 (525) Control switch, window lift, right

X1546 Stvd. door, right  
 X1733 Stvd. switch sunroof  
 X2547 (246) Potential distributor 21-pin line 58001

**Pin assignment A452:**

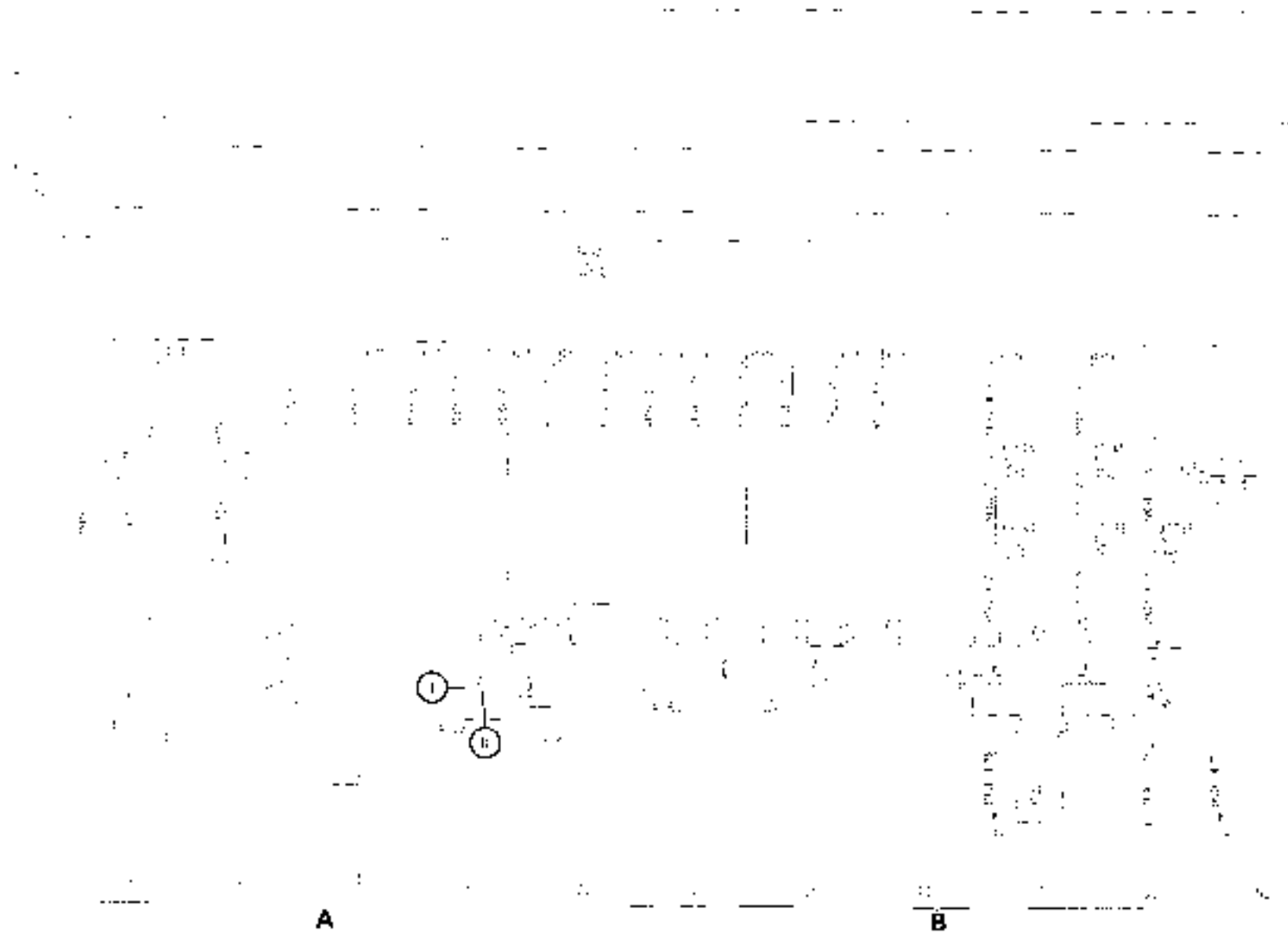
X2/8 Central locking, lock latch switch E  
 X2/7 Central locking, lock nut switch E  
 X2/16 Central locking, lock nut switch A  
 X2/9 Central locking, actuator element locked/unlocked  
 X2/10 Central locking, actuator element locked/unlocked  
 X2/8 Central locking, actuator element locked/unlocked  
 X2/7 Central locking, engine, actuator element +  
 X2/1 Central locking, engine, actuator element -  
 X1/13 Window lift, hall sensor 2 signal  
 X1/14 Window lift, hall sensor 1 signal  
 X1/15 Window lift, hall sensor 1/2 +  
 X1/16 Window lift, hall sensor 1/? -  
 X1/7 Window lift, engine +  
 X1/1 Window lift, engine -  
 X2/14 Close window lift  
 X2/13 Open window lift

**Marking of mounting positions**

- (A) Tail
- (E) Engine
- (G) Gearbox
- (F) Front
- (B) Bumper
- (R) Entrance right
- (L) Entrance left
- (C) Central electronics area
- (U) Control unit racks
- (W) Rear wall of cab
- (I) Instrument panel
- (M) Central part
- (S) Steering wheel/column
- (P) Foot pedals
- (D) Front wall, inside left
- (D) Front wall, inside right
- (D) Driving seat
- (P) Passenger seat
- (C) Control panel
- (B) Battery box
- (D) B-pillar on driver's side
- (D) A-pillar on driver's side
- (D) B-pillar on passenger's side
- (D) A-pillar on passenger's side
- (I) Ceiling/roof
- (M) Front axle
- (R) Rear axle
- (D) Front part of frame
- (D) Rear part of frame
- (D) Door left
- (D) Door right

- (I) Locking
- (II) Unlocking





**Door module (LL)**

**Legend**

Wiring diagram no. **81.99192-2989** Sheet 4 of 5  
 Change status: 03.01

**A = Mirror adjustment/mirror heating, passenger side**

**B = Power supply, passenger door**

**C = CAN**

**A100** (255) Central fuse, relay and terminal block  
**A150** (450) Main mirror (passenger)  
**A252** (448) Wide-angle mirror (passenger)  
**A254** (446) Curb mirror (passenger)  
**A302** (352) Central computer 2  
**A452** (440) Door module (passenger side)

**V645** (117) Diode group, door module  
**V646** Diode, waking ZBR

**X1546** Slvd. door, right  
**X1582** Slvd. main and wide-angle mirror, right  
**X1584** Slvd. curb mirror, right

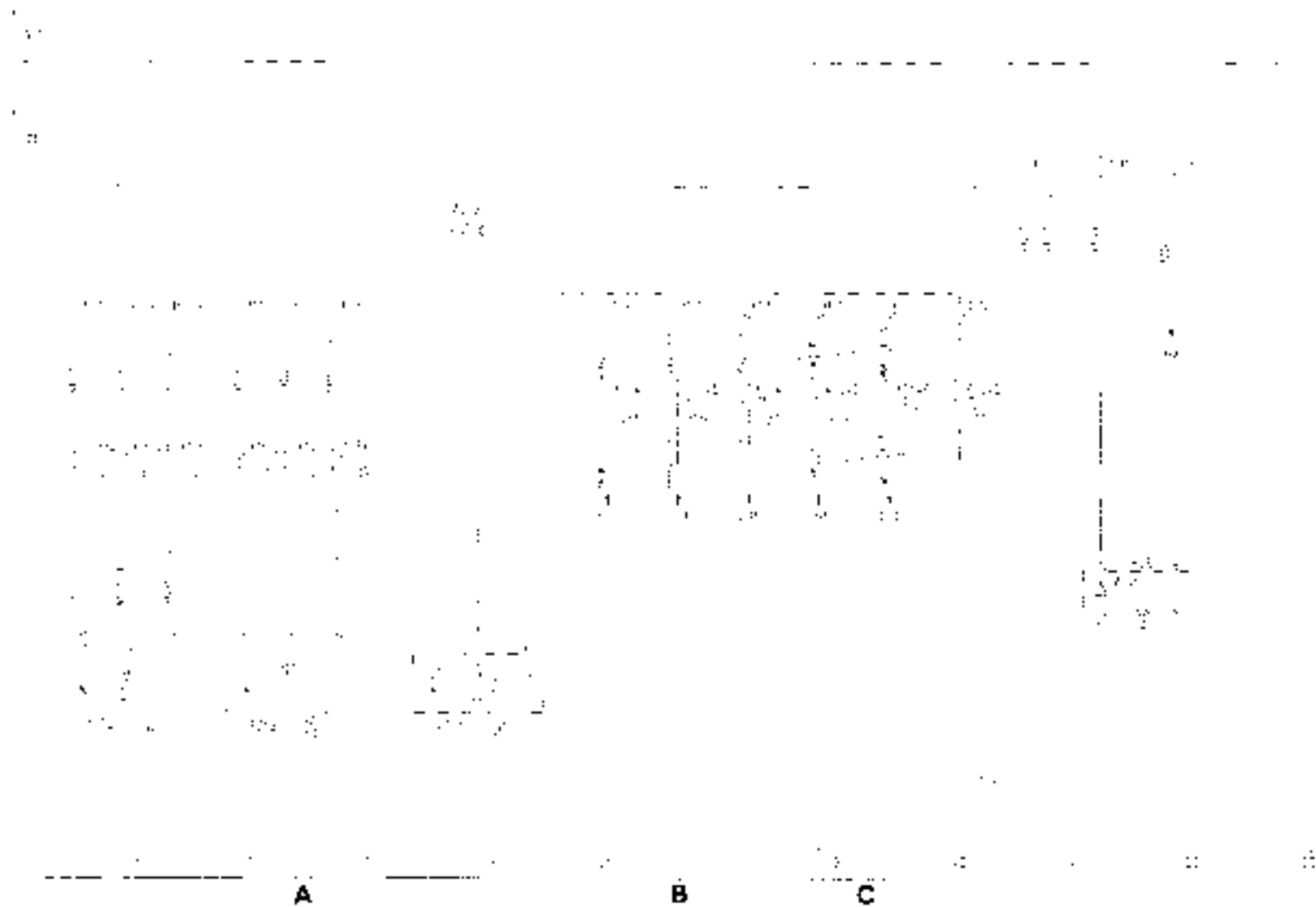
**Pin assignment A452:**

**X1/6** Curb mirror + terminal 30  
**X1/12** Curb mirror, earth  
**X1/10** Curb mirror, serial  
**X1/5** Main and wide-angle mirror + terminal 30  
**X1/11** Main and wide-angle mirror, earth  
**X1/9** Main and wide-angle mirror, serial  
**X1/4** Power supply +15 (mirror)  
**X1/2** Power supply +30 (cab + central locking)  
**X1/8** Earth, load  
**X1/17** CAN low  
**X1/18** CAN high  
**X2/15** Central vehicle computer, hazard warning light

**Marking of mounting positions**

- |                              |                                  |
|------------------------------|----------------------------------|
| (A) Tail                     | (G) Driving seat                 |
| (B) Engine                   | (H) Passenger seat               |
| (C) Gearbox                  | (I) Control panel                |
| (D) Front                    | (J) Battery box                  |
| (E) Bumper                   | (K) B-pillar on driver's side    |
| (F) Entrance right           | (L) A-pillar on driver's side    |
| (G) Entrance left            | (M) B-pillar on passenger's side |
| (H) Central electronics area | (N) A-pillar on passenger's side |
| (I) Control unit racks       | (O) Ceiling/roof                 |
| (J) Rear wall of cab         | (P) Front axle                   |
| (K) Instrument panel         | (Q) Rear axle                    |
| (L) Central part             | (R) Front part of frame          |
| (M) Steering wheel/column    | (S) Rear part of frame           |
| (N) Front pedals             | (T) Door left                    |
| (O) Front wall, inside left  | (U) Door right                   |
| (P) Front wall, inside right |                                  |

Wiring diagram no. 81.99192.2889 Sheet 4 of 5



**Door module (LL)**

**Legend**

Wiring diagram no. **81.99192.2989** Sheet 5 of 5  
 Change status: 02.01

**A = Supply voltage**

**A100** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer ?

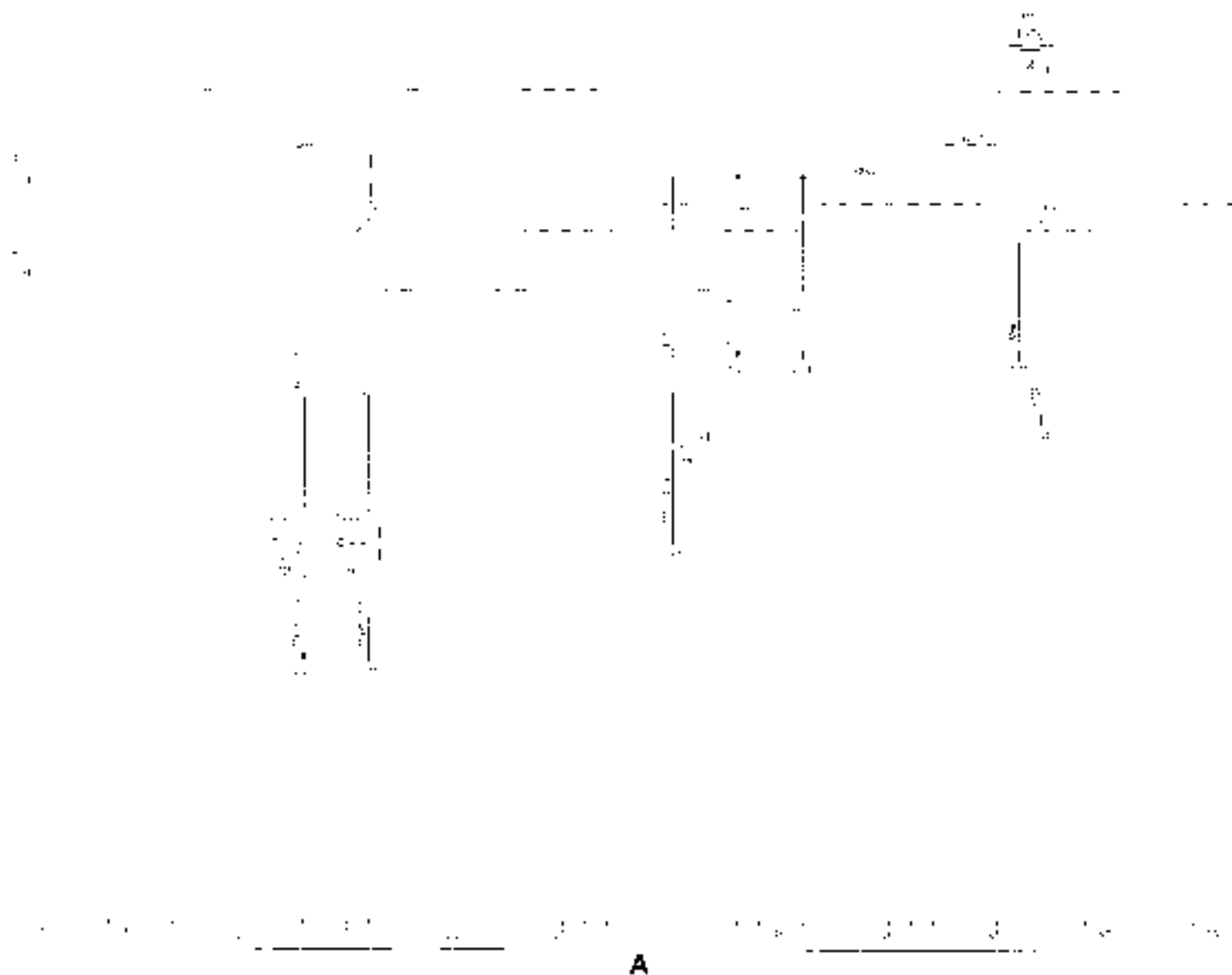
**F376** (101) Fuse, cab interior (terminal 15)  
**F382** (130) Fuse, door module (terminal 15)  
**F383** (130) Fuse, door module (terminal 30)

**X1733** Stvd. switch sunroof

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | ⊙ | Driving seat                 |
| ⊙ | Engine                   | ⊙ | Passenger seat               |
| ⊙ | Gearbox                  | ⊙ | Control panel                |
| ⊙ | Front                    | ⊙ | Battery box                  |
| ⊙ | Bumper                   | ⊙ | D-pillar on driver's side    |
| ⊙ | Entrance right           | ⊙ | A-pillar on driver's side    |
| ⊙ | Entrance left            | ⊙ | D-pillar on passenger's side |
| ⊙ | Central electrics area   | ⊙ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | ⊙ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | ⊙ | Front axle                   |
| ⊙ | Instrument panel         | ⊙ | Rear axle                    |
| ⊙ | Central part             | ⊙ | Front part of frame          |
| ⊙ | Steering wheel/column    | ⊙ | Rear part of frame           |
| ⊙ | Foot pedals              | ⊙ | Door left                    |
| ⊙ | Front wall, inside left  | ⊙ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.2989 Sheet 5 of 5



**Door module (RL)**

**Legend**

Wiring diagram no. **81.99192.2990** Sheet 1 of 5  
 Change status: 03/01

**A = Central locking, passenger door**

**B = Window lift, passenger door**

A100 (255) Central fuse, relay and terminal block  
 A302 (352) Central computer?  
 A451 (440) Door module (passenger side)  
 A453 (443) Window lift (passenger side)  
 A465 (453) Door lock (passenger side)

S519 (522) Lock nut switch, left  
 S527 (525) Control switch, window lift, left

X1547 Stvd. door, left  
 X1733 Stvd. switch sunroof

**Pin assignment A451:**

X2/18 Central locking, lock latch switch E  
 X2/17 Central locking, lock nut switch E  
 X2/16 Central locking, lock nut switch A  
 X2/9 Central locking, actuator element locked/unlocked  
 X2/10 Central locking, actuator element locked/unlocked  
 X2/8 Central locking, actuator element locked/unlocked  
 X2/7 Central locking, engine, actuator element +  
 X2/1 Central locking, engine, actuator element -  
 X1/13 Window lift, hall sensor 2 signal  
 X1/14 Window lift, hall sensor 1 signal  
 X1/15 Window lift, hall sensor 1/2 +  
 X1/16 Window lift, hall sensor 1/2 -  
 X1/7 Window lift, engine +  
 X1/1 Window lift, engine -  
 X2/14 Close window lift  
 X2/13 Open window lift

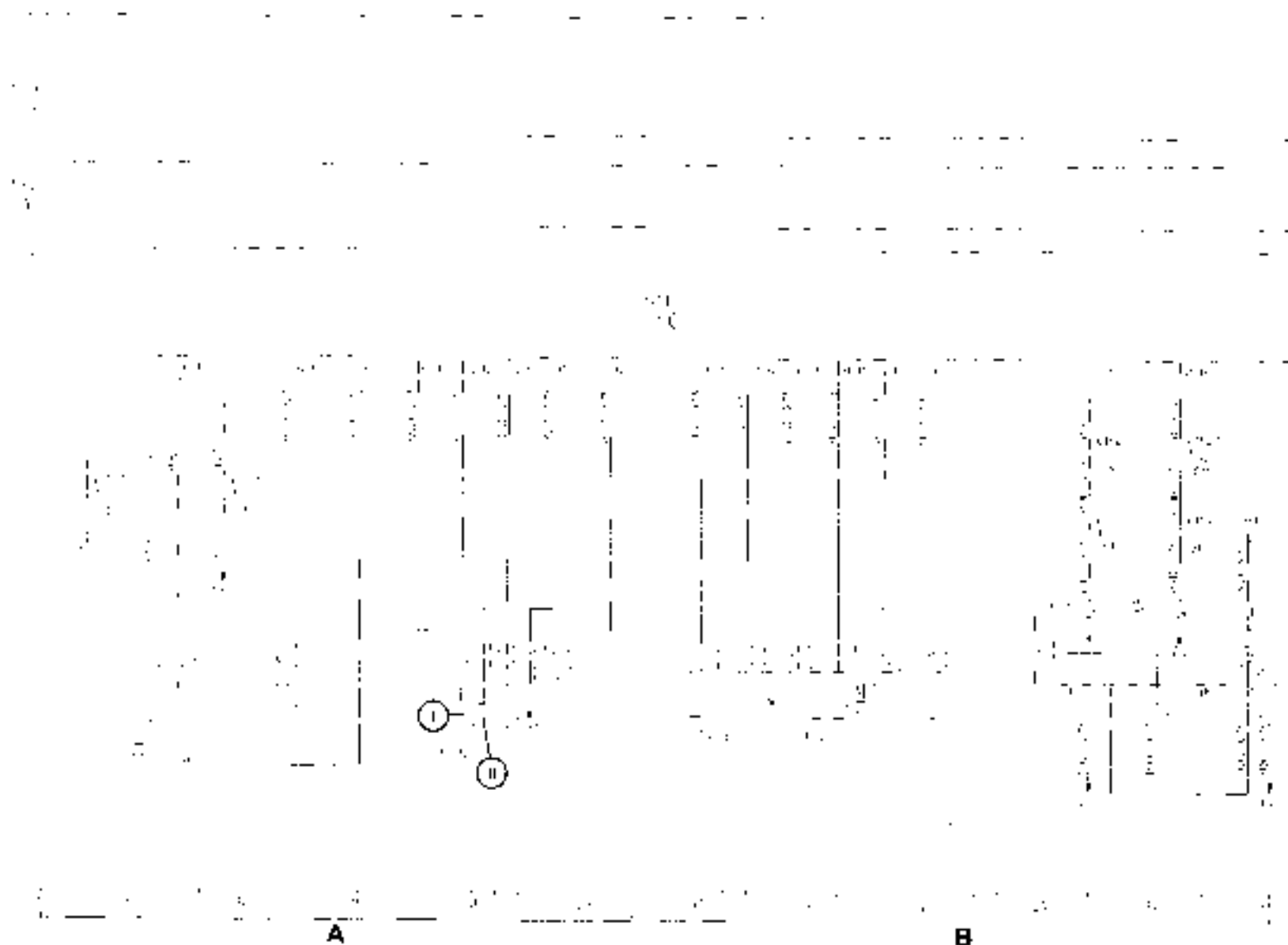
**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓒ Driving seat                 |
| Ⓔ Engine                   | Ⓓ Passenger seat               |
| Ⓕ Gearbox                  | Ⓔ Control panel                |
| Ⓖ Front                    | Ⓖ Battery box                  |
| Ⓗ Bumper                   | Ⓖ B-pillar on driver's side    |
| Ⓒ Entrance right           | Ⓒ A-pillar on driver's side    |
| Ⓒ Entrance left            | Ⓒ B-pillar on passenger's side |
| Ⓒ Central electric area    | Ⓒ A pillar on passenger's side |
| Ⓒ Control unit racks       | Ⓒ Ceiling/rail                 |
| Ⓒ Rear wall of cab         | Ⓒ Front axle                   |
| Ⓒ Instrument panel         | Ⓒ Rear axle                    |
| Ⓒ Central part             | Ⓒ Front part of frame          |
| Ⓒ Steering wheel/column    | Ⓒ Rear part of frame           |
| Ⓒ Foot pedals              | Ⓒ Door left                    |
| Ⓒ Front wall, inside left  | Ⓒ Door right                   |
| Ⓒ Front wall, inside right |                                |

Ⓒ Locking

Ⓒ Unlocking

Wiring diagram no. B1.99192.2990 Sheet 1 of 5



**Door module (RL)**

**Legend**

Wiring diagram no. **81.99192.2990** Sheet 2 of 5  
 Change status: 03.01

**A = Mirror adjustment/mirror heating, passenger door**

**B = Power supply, passenger door**

**C = CAN**

A100 (255) Central fuse, relay and terminal block  
 A157 (249) Main mirror (passenger side)  
 A251 (247) Wide-angle mirror (passenger side)  
 A253 (245) Curb mirror (passenger side)  
 A302 (352) Central computer 2  
 A451 (440) Door module (passenger side)

V645 (117) Diode group, door module  
 V646 Diode, warning ZBR

X1547 Srvd door, left  
 X1583 Srvd main and wide-angle mirror, left  
 X1585 Srvd curb mirror, left

**Pin assignment A451:**

X1/6 Curb mirror + terminal 30  
 X1/12 Curb mirror, earth  
 X1/11 Curb mirror, serial  
 X1/5 Main and wide-angle mirror - terminal 30  
 X1/1 Main and wide-angle mirror, earth  
 X1/9 Main and wide-angle mirror, serial  
 X1/4 Power supply +15 (mirror)  
 X1/2 Power supply +30 (cab - central locking)  
 X1/8 Earth, load  
 X1/7 CAN low  
 X1/16 CAN high  
 X2/15 Central vehicle computer, hazard warning light

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊙ Tail                     | ⊙ Driving seat                 |
| ⊙ Engine                   | ⊙ Passenger seat               |
| ⊙ Gearbox                  | ⊙ Control panel                |
| ⊙ Front                    | ⊙ Battery box                  |
| ⊙ Bumper                   | ⊙ B-pillar on driver's side    |
| ⊙ Entrance right           | ⊙ A-pillar on driver's side    |
| ⊙ Entrance left            | ⊙ B-pillar on passenger's side |
| ⊙ Central electric area    | ⊙ A-pillar on passenger's side |
| ⊙ Control unit racks       | ⊙ Ceiling/roof                 |
| ⊙ Rear wall of cab         | ⊙ Front axle                   |
| ⊙ Instrument panel         | ⊙ Rear axle                    |
| ⊙ Central part             | ⊙ Front part of frame          |
| ⊙ Steering wheel/column    | ⊙ Rear part of frame           |
| ⊙ Foot pedals              | ⊙ Door left                    |
| ⊙ Front wall, inside left  | ⊙ Door right                   |
| ⊙ Front wall, inside right |                                |



Wiring diagram no. **81.99192.2990** Sheet **2** of 5



**Door module (RL)**

**Legend**

Wiring diagram no. **B1.99192.2990** Sheet 3 of 5

Change status: 03 07

**A = Central locking, driver's door**

**A = Window lift, driver's door**

A100 (255) Central fuse, relay and terminal block  
 A302 (352) Central computer 2  
 A452 (441) Door module (driver's side)  
 A454 (443) Window lift (driver side)  
 A466 (454) Door lock (driver's side)

S518 (522) Lock nut switch, driver's door  
 S526 (525) Control switch, window lift, right

X1546 Stvd. door, right  
 X1733 Stvd. switch element  
 X2542 (246) Potential distributor, 21-pin line 540:0

**Pin assignment A451:**

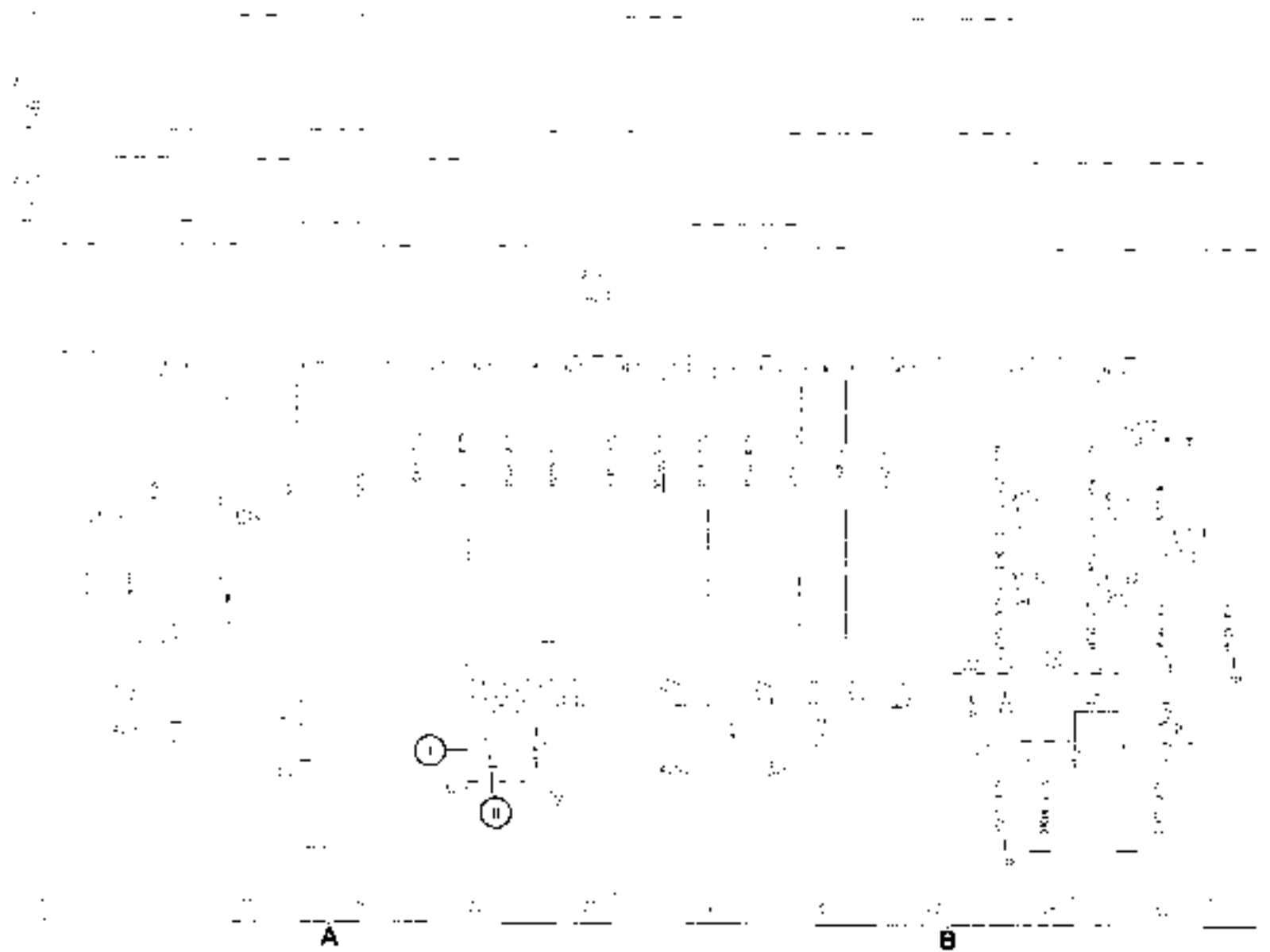
X2:18 Central locking, lock latch switch E  
 X2:17 Central locking, lock nut switch E  
 X2:16 Central locking, lock nut switch A  
 X2:9 Central locking, actuator element locked/unlocked  
 X2:10 Central locking, actuator element locked/unlocked  
 X2:8 Central locking, actuator element locked/unlocked  
 X2:7 Central locking, engine, actuator element +  
 X2:1 Central locking, engine, actuator element -  
 X1:13 Window lift, hall sensor 2 signal  
 X1:14 Window lift, hall sensor 1 signal  
 X1:15 Window lift, hall sensor 1:2 +  
 X1:16 Window lift, hall sensor 1:2 -  
 X1:7 Window lift, engine +  
 X1:1 Window lift, engine -  
 X2:14 Close window lift  
 X2:13 Open window lift

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓜ Driving seat                 |
| Ⓔ Engine                   | Ⓝ Passenger seat               |
| Ⓜ Gearbox                  | Ⓞ Control panel                |
| Ⓝ Front                    | Ⓟ Battery box                  |
| Ⓞ Rumper                   | Ⓠ B-pillar on driver's side    |
| Ⓟ Entrance right           | Ⓡ A-pillar on driver's side    |
| Ⓠ Entrance left            | Ⓢ B-pillar on passenger's side |
| Ⓡ Control electrics area   | Ⓣ A-pillar on passenger's side |
| Ⓢ Control unit racks       | Ⓤ Ceiling/roof                 |
| Ⓣ Rear wall of cab         | ⓖ Front axle                   |
| Ⓤ Instrument panel         | ⓗ Rear axle                    |
| ⓖ Central part             | ⓘ Front part of frame          |
| ⓗ Steering wheel/column    | ⓙ Rear part of frame           |
| ⓘ Foot pedals              | ⓚ Door left                    |
| ⓙ Front wall, inside left  | ⓛ Door right                   |
| ⓚ Front wall, inside right |                                |

○ Locking

Ⓛ Unlocking



**Door module (RL)**

**Legend**

Wiring diagram no. **81.99192.2990** Sheet 4 of 5  
 Change status: 03.01

**A = Mirror adjustment/mirror heating, driver's door**

**B = Power supply, driver's door**

**C = CAN**

**D = Sunroof**

**E = Diagnosis**

A100 (255) Central fuse, relay and terminal block  
 A157 (450) Main mirror (driver)  
 A252 (448) Wide-angle mirror (driver)  
 A254 (446) Curb mirror (driver)  
 A302 (352) Central computer 2  
 A452 (441) Door module (driver's side)

X147 Std. sunroof/roof hatch  
 X1546 Std. door right  
 X1582 Std. main and wide-angle mirror, right  
 X1584 Std. curb mirror, right  
 X2544 (246) Potential distributor 21-pin K-line

**Pin assignment A452:**

X1:6 Curb mirror + terminal 30  
 X1:12 Curb mirror, earth  
 X1:10 Curb mirror, serial  
 X1:5 Main and wide-angle mirror + terminal 30  
 X1:11 Main and wide-angle mirror, earth  
 X1:9 Main and wide-angle mirror, serial  
 X1:4 Power supply +15 (serial)  
 X1:2 Power supply +30 (cab + central locking)  
 X1:8 Earth, load  
 X1:17 CAN low  
 X1:18 CAN high  
 X2:15 Sunroof  
 X2:12 K-line  
 X2:5 Alarm system

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| ⊖ Tail                     | ⊕ Driving seat                 |
| ⊕ Engine                   | ⊕ Passenger seat               |
| ⊕ Gearbox                  | ⊕ Control panel                |
| ⊖ Front                    | ⊕ Battery box                  |
| ⊕ Bumper                   | ⊕ B-pillar on driver's side    |
| ⊕ Entrance right           | ⊕ A-pillar on driver's side    |
| ⊕ Entrance left            | ⊖ B-pillar on passenger's side |
| ⊕ Central electric area    | ⊕ A-pillar on passenger's side |
| ⊕ Control unit racks       | ⊖ Ceiling/roof                 |
| ⊕ Rear wall of cab         | ⊖ Front axle                   |
| ⊕ Instrument panel         | ⊖ Rear axle                    |
| ⊖ Central part             | ⊕ Front part of frame          |
| ⊕ Steering wheel/column    | ⊕ Rear part of frame           |
| ⊕ Foot pedals              | ⊖ Door left                    |
| ⊕ Front wall, inside left  | ⊕ Door right                   |
| ⊕ Front wall, inside right |                                |
| ⊕ Sunroof                  |                                |

Wiring diagram no. **B1.99192.2990** Sheet 4 of 5



**Door module (RL)**

**Legend**

Wiring diagram no. **81.99192.2990** Sheet 5 of 5  
 Change status: 1E3411

**A = Supply voltage**

**A100** {255} Central fuse, relay and terminal block  
**A302** {352} Central computer 2

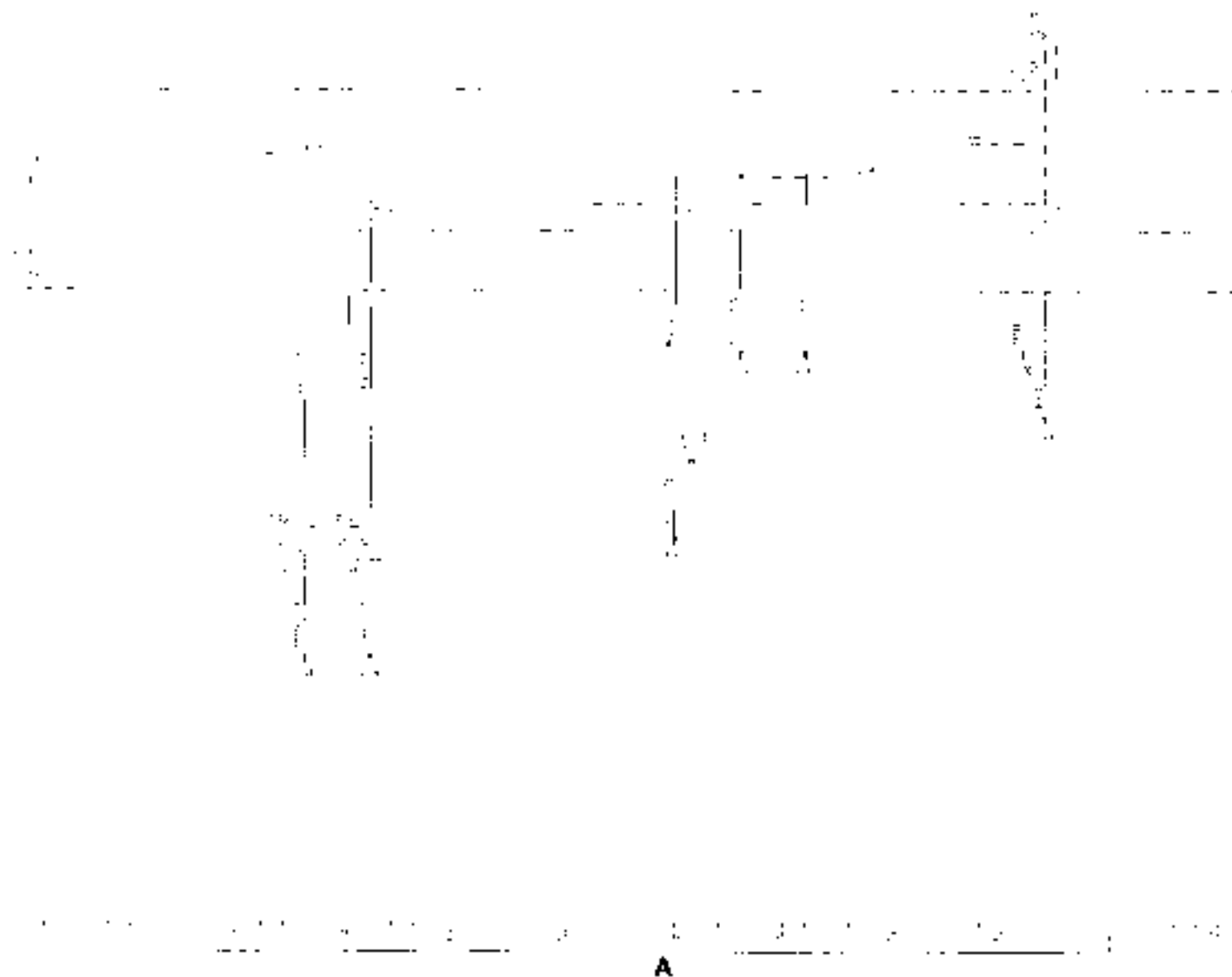
**F376** {101} Fuse, cab interior (terminal 15)  
**F382** {130} Fuse, door module (terminal 15)  
**F303** {130} Fuse, door module (terminal 30)

**X1733-** Stvd. switch sunroof

**Marking of mounting positions**

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓔ Driving seat                 |
| Ⓑ Engine                   | Ⓚ Passenger seat               |
| Ⓒ Gearbox                  | Ⓛ Control panel                |
| Ⓓ Front                    | Ⓜ Battery box                  |
| Ⓚ Bumper                   | Ⓝ B-pillar on driver's side    |
| Ⓛ Entrance right           | Ⓞ A-pillar on driver's side    |
| Ⓜ Entrance left            | Ⓟ B-pillar on passenger's side |
| Ⓝ Central electric area    | Ⓠ A-pillar on passenger's side |
| Ⓞ Control unit racks       | Ⓡ Ceiling/front                |
| Ⓟ Rear wall of cab         | Ⓢ Front axle                   |
| Ⓠ Instrument panel         | Ⓣ Rear axle                    |
| Ⓡ Central part             | Ⓤ Front part of frame          |
| Ⓢ Steering wheel/column    | Ⓥ Rear part of frame           |
| Ⓣ Foot pedals              | Ⓦ Door left                    |
| Ⓤ Front wall, inside left  | Ⓧ Door right                   |
| Ⓥ Front wall, inside right |                                |

Wiring diagram no. 81.99192.2990 Sheet 5 of 5







**Preparation for cooling superstructure (tractor vehicle)**
































**Legend**

Wiring diagram no. 81.99192.1469 Sheet 1 of 2  
Change status: 05.01

**A = Preparation for cooling, superstructure**

<b>A130</b>	(255)	Central fuse, relay and terminal block
<b>A302</b>	(252)	Central computer 2
<b>A403</b>	(239)	Vehicle management computer
<b>F558</b>	(129)	Fuse, cooling superstructure
<b>H408</b>	(155)	Indicator light block, cooling, superstructure, tractor vehicle
<b>H410</b>	(104)	Indicator light, cooling, superstructure, tractor vehicle
<b>H412</b>	(104)	Indicator light, cooling, superstructure, defrost, tractor vehicle
<b>K863</b>	(203)	Relay I, cooling, superstructure, tractor vehicle
<b>K870</b>	(283)	Relay II, cooling, superstructure, tractor vehicle
<b>K871</b>	(291)	Relay, start inhibitor for cooling superstructure
<b>K896</b>	(280)	Relay ZDH/cooling superstructure
<b>S764</b>	(676)	Switch, cooling, superstructure, tractor vehicle
<b>S765</b>	(676)	Control switch, cooling, superstructure, defrost, tractor vehicle
<b>X689</b>		Std. start inhibitor
<b>X1734</b>		Soldered connector, line 59104
<b>X1737</b>		Soldered connector, line 16006
<b>X1996</b>		Std. intermediate speed control interface (FFR)
<b>X2491</b>		Std. ZDH/cooling superstructure
<b>X2500</b>	(203)	Relay base K869, K870
<b>X2541</b>	(246)	Potential distributor, 21-pin line 31000
<b>X2542</b>	(246)	Potential distributor, 21-pin line 58000

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electronics area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		

Wiring diagram no. 81.99192.1489 Sheet 1 of 2



A

**Preparation cooling superstructure (tractor vehicle)**

**Legend**

Wiring diagram no. **81.99192.1469** Sheet 2 of 2

Change status: 05.01

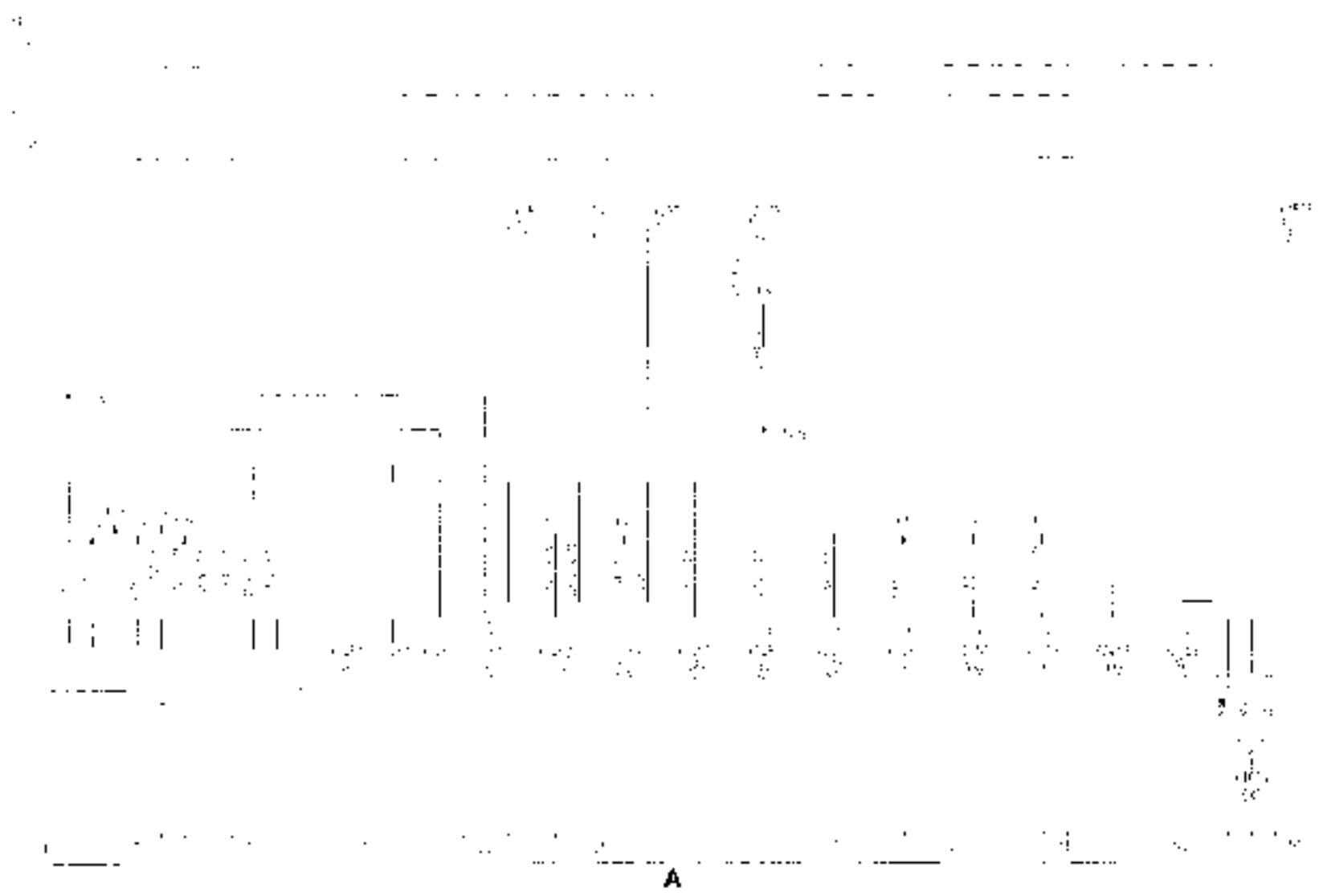
**A = Preparation, cooling, superstructure**

A* (X)	(255)	Central fuse, relay and terminal block
A30P	(35P)	Central computer 2
A578		Cooling superstructure
X1643		Cumaxd connector, line 56100
X1644		Earthing point, cab, adjacent to central fuse, relay and terminal block
X2451		Std. cooling superstructure
X2452		Std. cooling superstructure
X2453		Std. cooling superstructure
X2575		Std. cooling superstructure
X2577	(221)	Crimped connector, line 23530

**Marking of mounting positions**

(A)	Tail	(R)	Driving seat
(E)	Engine	(P)	Passenger seat
(G)	Gearbox	(PA)	Control panel
(F)	Front	(B)	Battery box
(B)	Bumper	(D)	B-pillar on driver's side
(R)	Entrance right	(A)	A-pillar on driver's side
(L)	Entrance left	(L)	B-pillar on passenger's side
(U)	Central electric area	(P)	A-pillar on passenger's side
(C)	Control unit racks	(C)	Ceiling/roof
(W)	Rear wall of cab	(F)	Front axle
(I)	Instrument panel	(R)	Rear axle
(C)	Central part	(F)	Front part of frame
(S)	Steering wheel/column	(R)	Rear part of frame
(P)	Foot pedals	(D)	Door left
(F)	Front wall, inside left	(S)	Door right
(R)	Front wall, inside right		

Wiring diagram no. 61.99192.1469 Sheet 2 of 2



**Preparation cooling superstructure (tractor vehicle, trailer)**

**Legend**

Wiring diagram no. **81.99192.1468** Sheet 1 of 3  
 Change status: 05.01

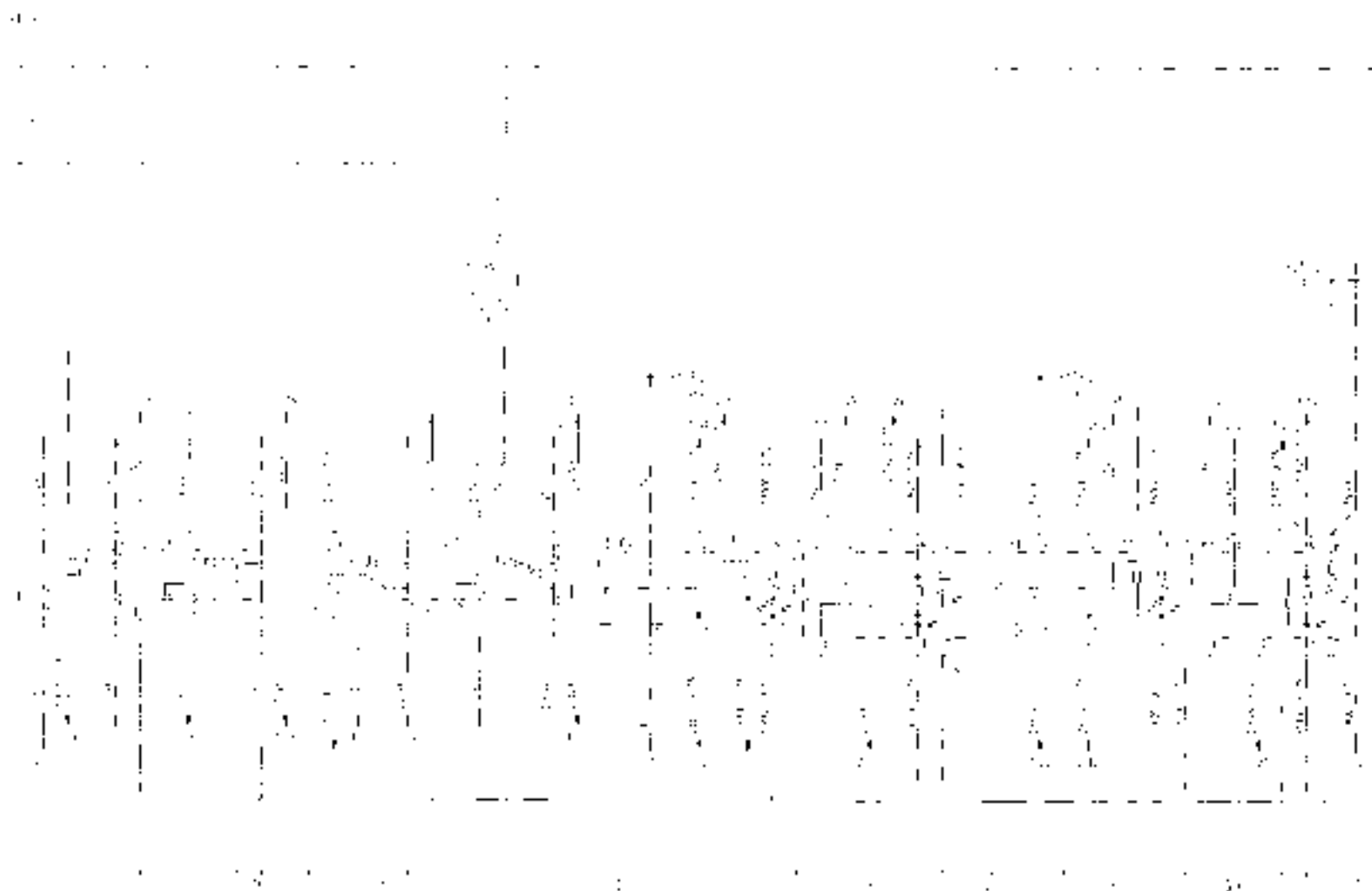
**A = Preparation, cooling, superstructure**

A100	(253)	Control fuse, relay and terminal block
A302	(352)	Central computer 2
F558	(129)	Fuse, cooling superstructure
K869	(283)	Relay I, cooling, superstructure, tractor vehicle
K870	(283)	Relay II, cooling, superstructure, tractor vehicle
K893	(283)	Relay I, cooling, superstructure, trailer
K894	(283)	Relay II, cooling, superstructure, trailer
S764	(676)	Switch, cooling, superstructure, tractor vehicle
S765	(678)	Control switch, cooling, superstructure, defrost, tractor vehicle
S766	(677)	Switch, cooling, superstructure, trailer
S767	(679)	Control switch, cooling, superstructure, defrost, trailer
X1754		Soldered connector, line 58104
X2519	(203)	Relay base K869, K870
X2510	(203)	Relay base K893, K894
X2542	(246)	Potential distributor, 24-pin line 58000

**Marking of mounting positions**

⊖	Tail	⊖	Driving seat
⊕	Engine	⊖	Passenger seat
⊖	Gearbox	⊖	Control panel
⊖	Front	⊖	Battery box
⊖	Bumper	⊖	B-pillar on driver's side
⊖	Entrance right	⊖	A-pillar on driver's side
⊖	Entrance left	⊖	B-pillar on passenger's side
⊖	Central electricals area	⊖	A-pillar on passenger's side
⊖	Control unit racks	⊖	Ceiling/roof
⊖	Rear wall of cab	⊖	Front axle
⊖	Instrument panel	⊖	Rear axle
⊖	Control panel	⊖	Front part of frame
⊖	Steering wheel/column	⊖	Rear part of frame
⊖	Foot pedals	⊖	Door left
⊖	Front wall, inside left	⊖	Door right
⊖	Front wall, inside right		

Wiring diagram no. 81.99192.1468 Sheet 1 of 3



A

Preparation cooling superstructure (tractor vehicle, trailer)

Legend

Wiring diagram no. 81.99192.1488 Sheet 2 of 3

Change status: 05.01

**A = Preparation, cooling, superstructure**

A100 (255) Central fuse, relay and terminal block  
 A302 (352) Central computer 2  
 A578 Cooling superstructure

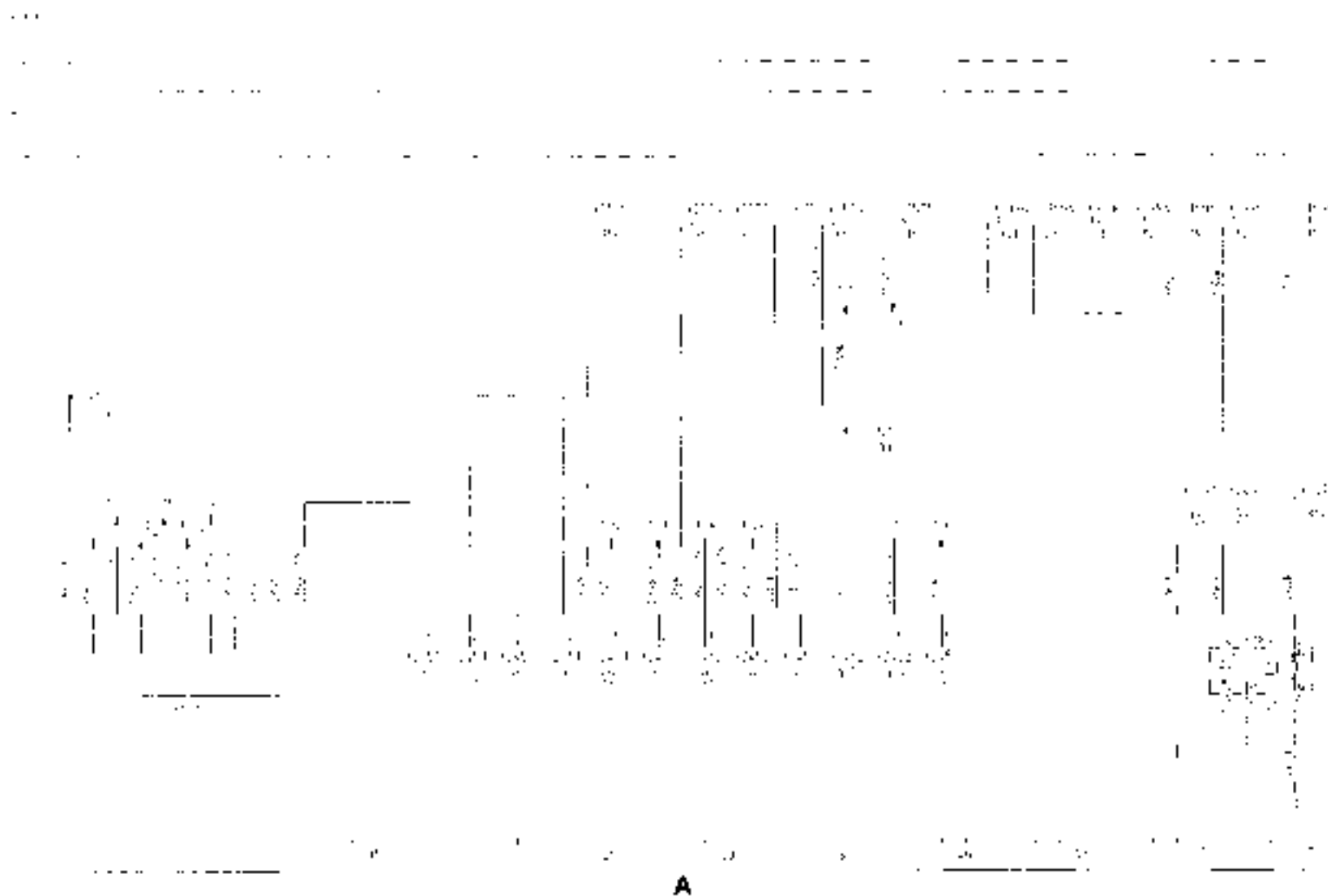
K888 (281) Relay ZDR/cooling superstructure

X1643 Crimped connector, line 50300  
 X1996 Stvd. intermediate speed control interface (FFR)  
 X2451 Stvd. cooling superstructure  
 X2452 Stvd. cooling superstructure  
 X2491 Stvd. ZDR/cooling superstructure  
 X2575 Stvd. cooling superstructure  
 X2577 (221) Crimped connector, line 23550

Marking of mounting positions

- |                            |                                |
|----------------------------|--------------------------------|
| Ⓐ Tail                     | Ⓓ Driving seat                 |
| Ⓑ Engine                   | Ⓔ Passenger seat               |
| Ⓒ Gearbox                  | Ⓕ Control panel                |
| Ⓓ Front                    | Ⓖ Battery box                  |
| Ⓔ Bumper                   | Ⓗ B-pillar on driver's side    |
| Ⓕ Entrance right           | Ⓖ A-pillar on driver's side    |
| Ⓖ Entrance left            | Ⓗ B-pillar on passenger's side |
| Ⓖ Central electric area    | Ⓖ A-pillar on passenger's side |
| Ⓖ Control unit racks       | Ⓖ Ceiling/roof                 |
| Ⓖ Rear wall of cab         | Ⓖ Front axle                   |
| Ⓖ Instrument panel         | Ⓖ Rear axle                    |
| Ⓖ Central part             | Ⓖ Front part of frame          |
| Ⓖ Steering wheel/column    | Ⓖ Rear part of frame           |
| Ⓖ Foot pedals              | Ⓖ Door left                    |
| Ⓖ Front wall, inside left  | Ⓖ Door right                   |
| Ⓖ Front wall, inside right |                                |

Wiring diagram no. 81.99192.1468 Sheet 2 of 3





**Preparation cooling superstructure (tractor vehicle, trailer)**

**Legend**
































Wiring diagram no. **81.99192.1468** Sheet 3 of 3

Change status: 0E.01

**A = Preparation, cooling, superstructure**

<b>A100</b>	(255) Central fuse, relay and terminal block
<b>A302</b>	(352) Central computer 2
<b>A403</b>	(339) Vehicle management computer
<b>H408</b>	(155) Indicator light block, cooling, superstructure, tractor vehicle
<b>H409</b>	(155) Indicator light block, cooling, superstructure, trailer
<b>H410</b>	(104) Indicator light, cooling, superstructure, tractor vehicle
<b>H411</b>	(104) Indicator light, cooling, superstructure, trailer
<b>H412</b>	(104) Indicator light, cooling, superstructure, defrost, tractor vehicle
<b>H413</b>	(104) Indicator light, cooling, superstructure, defrost, trailer
<b>K871</b>	(281) Relay, start inhibitor for cooling superstructure
<b>V779</b>	(117) Diode group, ZDR/cooling superstructure
<b>V780</b>	Diode, ZDR/cooling superstructure, tractor vehicle
<b>V781</b>	Diode, ZDR/cooling superstructure, trailer
<b>X669</b>	Std. start inhibitor
<b>X1644</b>	Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X1757</b>	Soldered connector, line 16006
<b>X2453</b>	Std. cooling superstructure
<b>X2460</b>	(221) Crimped connector, line 20540
<b>X2541</b>	(246) Potential distributor, 21-pin line 31000
<b>X2576</b>	Std. cooling superstructure

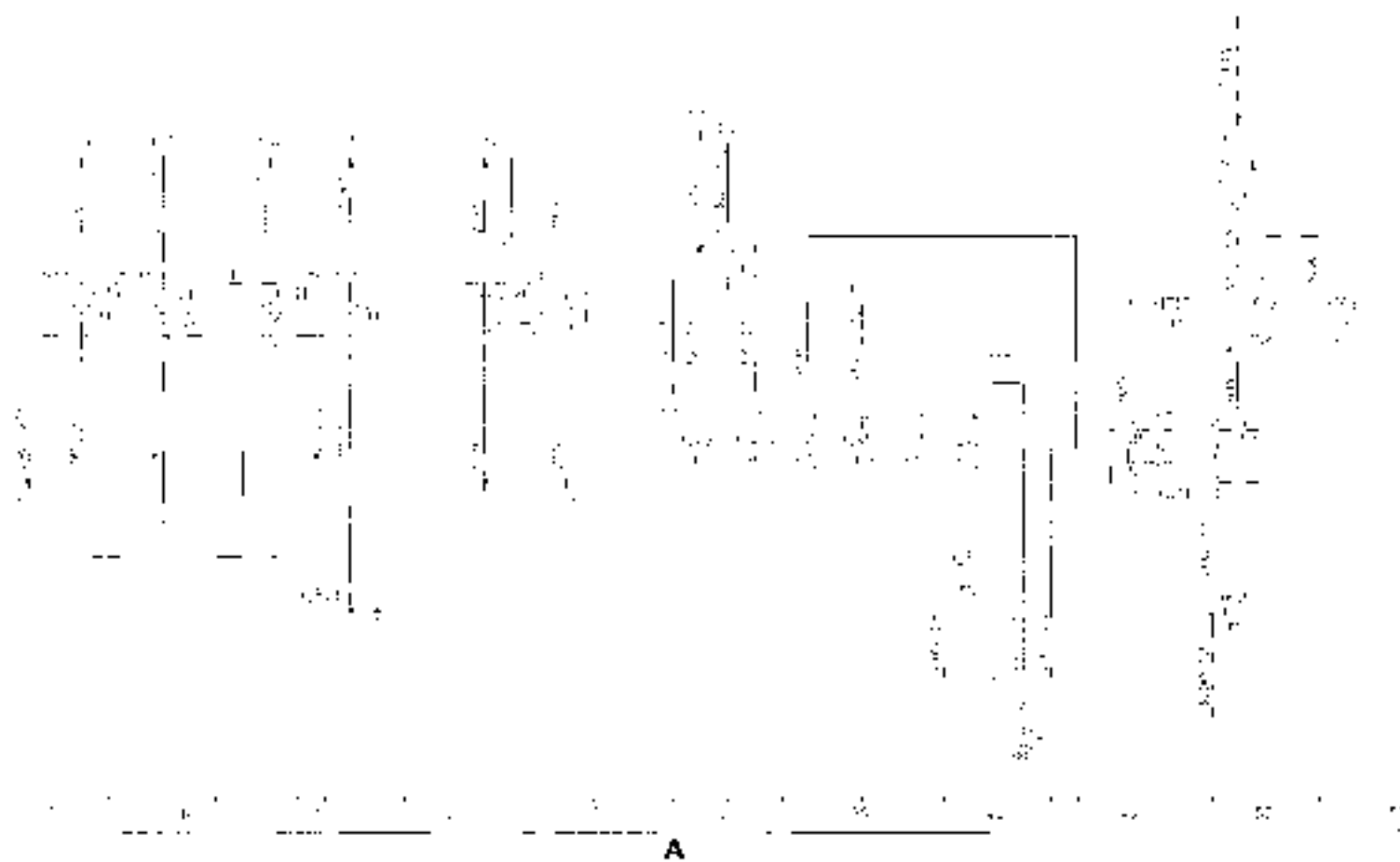
**Marking of mounting positions**

 Tail	 Driving seat
 Engine	 Passenger seat
 Gearbox	 Control panel
 Front	 Battery box
 Rumper	 B-pillar on driver's side
 Entrance right	 A-pillar on driver's side
 Entrance left	 B-pillar on passenger's side
 Central electric area	 A-pillar on passenger's side
 Control unit racks	 Ceiling/roof
 Rear wall of cab	 Front axle
 Instrument panel	 Rear axle
 Central part	 Front part of frame
 Steering wheel/column	 Rear part of frame
 Foot pedals	 Door left
 Front wall, inside left	 Door right
 Front wall, inside right	

Wiring diagram no. 81.99192.1468 Sheet 3 of 3

100

101



**Preparation LSVA (performance-related heavy traffic levy)**

**Legend**

Wiring diagram no. **81.99192.1464** Sheet 1 of 1

Change status: 05.01

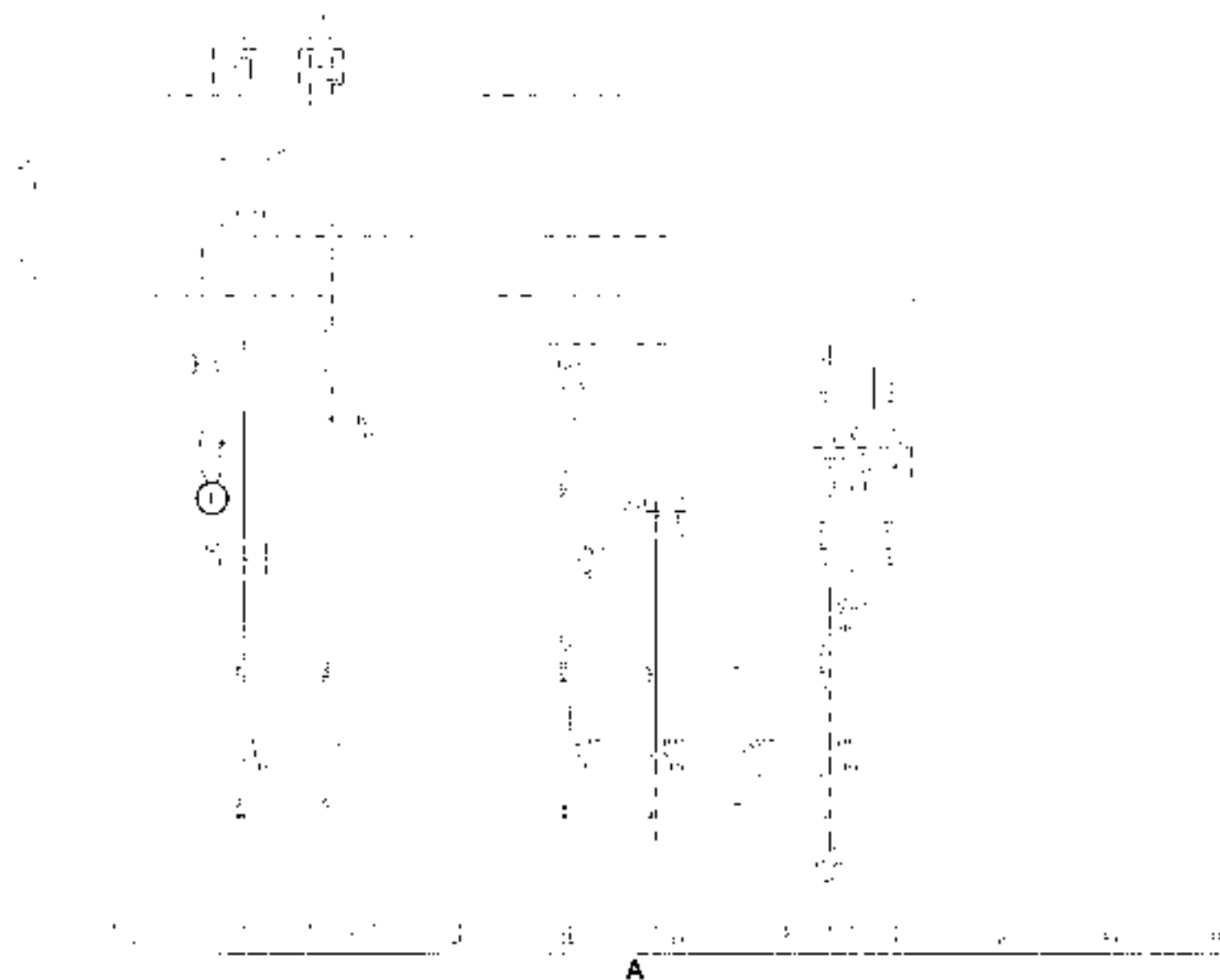
**A = Preparation for LSVA**

A100	(255)	Central fuse, relay and terminal block
A302	(352)	Central computer 2
A408	(403)	Tachograph
A557		LSVA recording device
F128	(101)	Fuse, permanent consumer
F376	(101)	Fuse, cab interior (terminal 15)
V712	(117)	Diode group, load detection, trailer
V716		Diode, load detection, trailer
V717		Diode, load detection, trailer
X1536		Std. cab tachograph
X1540		Std. frame I
X1586		Std. connection to trailer lighting socket 1
X1639		Soldered connector, line 16000
X2328		Std. 2-pin adaptation trailer light
X2541	(246)	Potential distributor, 21-pin line 31000
X2543	(246)	Potential distributor, 21-pin line 30008

**Marking of mounting positions**

(a)	Tail	(1)	Driving seat
(b)	Engine	(2)	Passenger seat
(c)	Gearbox	(3)	Control panel
(d)	Front	(4)	Battery box
(e)	Bumper	(5)	B-pillar on driver's side
(f)	Entrance right	(6)	A-pillar on driver's side
(g)	Entrance left	(7)	B-pillar on passenger's side
(h)	Central electrics area	(8)	A-pillar on passenger's side
(i)	Control unit racks	(9)	Ceiling/roof
(j)	Rear wall of cab	(10)	Front axle
(k)	Instrument panel	(11)	Rear axle
(l)	Control panel	(12)	Front part of frame
(m)	Steering wheel/column	(13)	Rear part of frame
(n)	Foot pedals	(14)	Door left
(o)	Front wall, inside left	(15)	Door right
(p)	Front wall, inside right		
(1)	Battery 1		

Wiring diagram no. 81.99192.1464 Sheet 1 of 1



**Preparation trailing axle control, semitrailer**

**Legend**

Wiring diagram no. 81.99192.1455 Sheet 1 of 1  
Change status: 05.01

**A = Preparation trailing axle control, semitrailer**

A100 (2E5) Central fuse, relay and terminal block  
A302 (3E2) Central computer 2

F201 (118) Fuse, trailing axle control, semitrailer

S250 (543) Switch, raise trailing axle  
S251 (544) Traction help control switch

X549 Std. trailing axle control, semitrailer  
X2541 (244) Potential distributor, 21-pin line 31000  
X2542 (246) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- ⊖ Tail
- ⊕ Engine
- ⊕ Gearbox
- ⊖ Front
- ⊖ Dumper
- ⊕ Entrance right
- ⊖ Entrance left
- ⊕ Central electronics area
- ⊕ Control unit racks
- ⊕ Rear wall of cab
- ⊖ Instrument panel
- ⊕ Central part
- ⊖ Steering wheel/column
- ⊕ Foot pedals
- ⊕ Front wall, inside left
- ⊕ Front wall, inside right
- ⊖ Roll up cables behind cab
- ⊕ Driving seat
- ⊕ Passenger seat
- ⊕ Control panel
- ⊕ Battery box
- ⊕ B-pillar on driver's side
- ⊕ A-pillar on driver's side
- ⊖ B-pillar on passenger's side
- ⊕ A-pillar on passenger's side
- ⊖ Ceiling/roof
- ⊖ Front axle
- ⊖ Rear axle
- ⊕ Front part of frame
- ⊕ Rear part of frame
- ⊕ Door left
- ⊕ Door right

Wiring diagram no. 81.99192.1465 Sheet 1 of 1



A

**Preparation, central lubrication**

**Legend**

Wiring diagram no. **B1.89192.1466** Sheet 1 of 1  
 Change status: 05.01

**A = Central lubrication**

**A\*00** (255) Central fuse, relay and terminal block  
**A302** (352) Central computer 2  
**A407** (342) Instrumentation

**H116** Indicator light, central lubrication

**M131** (147) Central lubrication pump

**S407** (556) Control switch, intermediate lubrication

**X718** Std. cab central lubrication

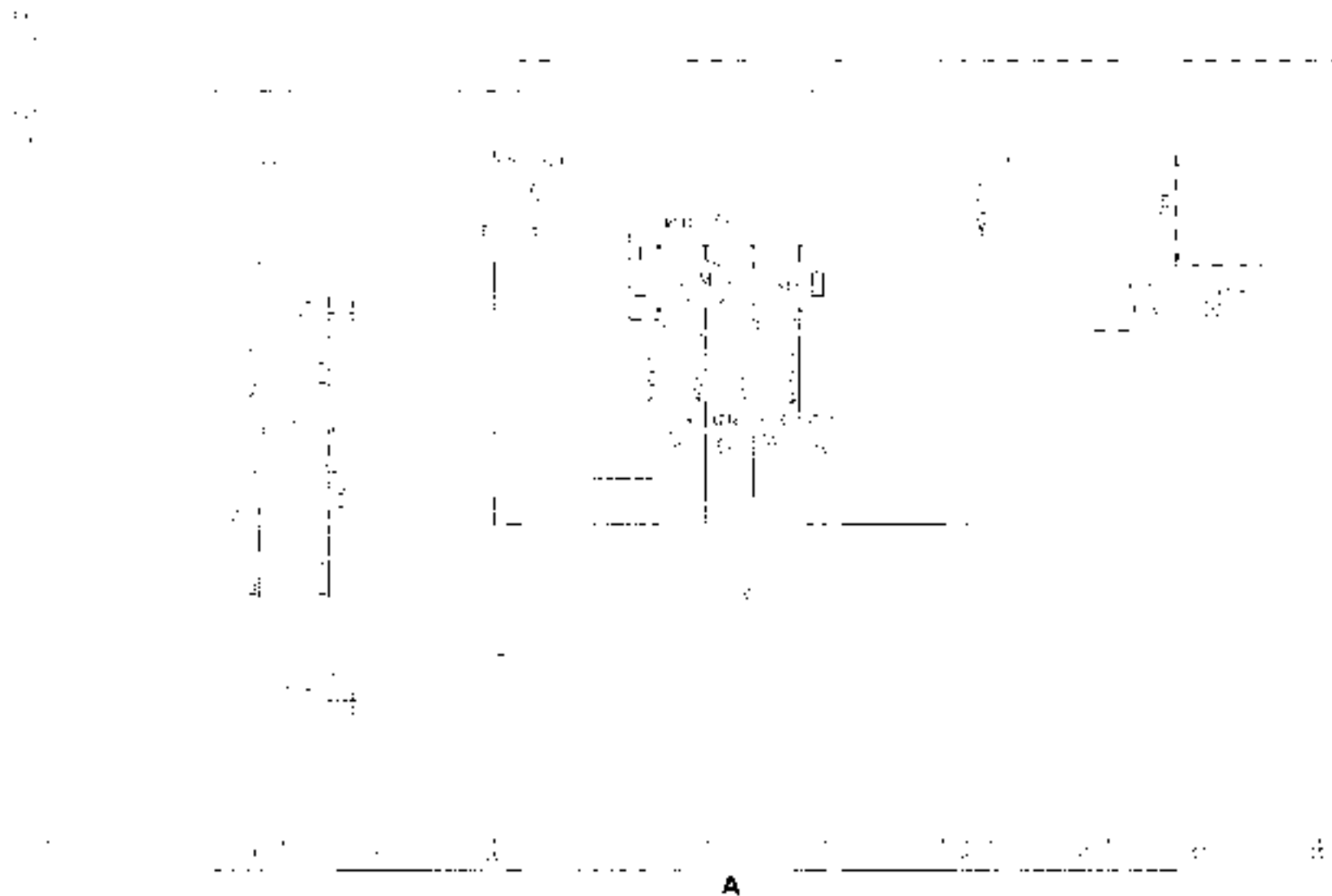
**X2541** (245) Potential distributor, 21-p n line 31000

**X2542** (245) Potential distributor, 21-p n line 58000

**Marking of mounting positions**

- ⊙ Tail
- ⊙ Engine
- ⊙ Gearbox
- ⊙ Front
- ⊙ Bumper
- ⊙ Entrance right
- ⊙ Entrance left
- ⊙ Central electrics area
- ⊙ Control unit racks
- ⊙ Rear wall of cab
- ⊙ Instrument panel
- ⊙ Central part
- ⊙ Steering wheel/column
- ⊙ Foot pedals
- ⊙ Front wall, inside left
- ⊙ Front wall, inside right
- ⊙ Driving seat
- ⊙ Passenger seat
- ⊙ Control panel
- ⊙ Battery box
- ⊙ B-pillar on driver's side
- ⊙ A-pillar on driver's side
- ⊙ B-pillar on passenger's side
- ⊙ A-pillar on passenger's side
- ⊙ Ceiling/roof
- ⊙ Front axle
- ⊙ Rear axle
- ⊙ Front part of frame
- ⊙ Rear part of frame
- ⊙ Door left
- ⊙ Door right

Wiring diagram no. **B1.99192.1466** Sheet 1 of 1







**Vehicle immobiliser**

**Legend**

Wiring diagram no. **81.99192.2476** Sheet **1** of **1**

Change status: 11/00

**A = Vehicle immobiliser**

**A100** (255) Central fuse, relay and terminal block

**A302** (352) Central computer 2

**A403** (339) Vehicle management computer

**A477** (371) Electronics, vehicle immobiliser

**Q101** (110) Steering wheel lock

**X669** Shvd. start inhibitor

**X1629** Soldered connector, line 16300

**X1642** Earthing point, cab. behind instrument panel

**X19E6** Shvd. ignition lock

**X1971** Shvd. vehicle immobiliser

**Marking of mounting positions**

Ⓐ Tail

Ⓔ Engine

Ⓕ Gearbox

Ⓖ Front

Ⓗ Bumper

Ⓘ Entrance right

Ⓚ Entrance left

Ⓛ Central electric area

Ⓜ Control unit racks

Ⓝ Rear wall of cab

Ⓞ Instrument panel

Ⓟ Central part

Ⓠ Steering wheel/column

Ⓡ Foot pedals

Ⓢ Front wall, inside left

Ⓣ Front wall, inside right

Ⓤ Driving seat

Ⓡ Passenger seat

Ⓢ Control panel

Ⓣ Battery box

Ⓤ B-pillar on driver's side

Ⓡ A-pillar on driver's side

Ⓢ B-pillar on passenger's side

Ⓣ A-pillar on passenger's side

Ⓤ Ceiling/roof

Ⓡ Front axle

Ⓢ Rear axle

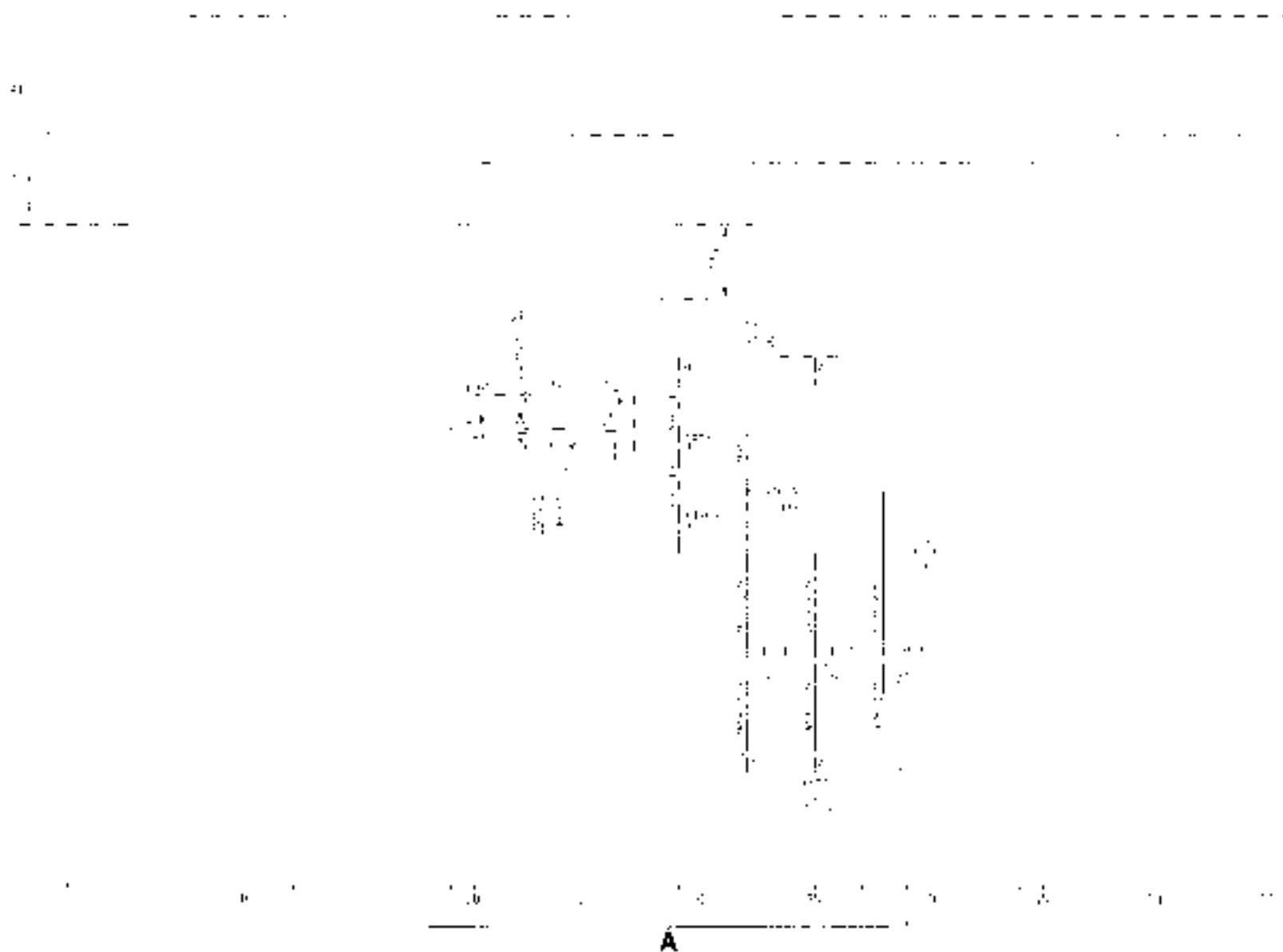
Ⓣ Front part of frame

Ⓤ Rear part of frame

Ⓡ Door left

Ⓢ Door right

Wiring diagram no. **81.99192.2476** Sheet 1 of 1





**Central lubrication**

**Legend**

Wiring diagram no. 81.99192.1467 Sheet 1 of 1  
 Change status: 05.01

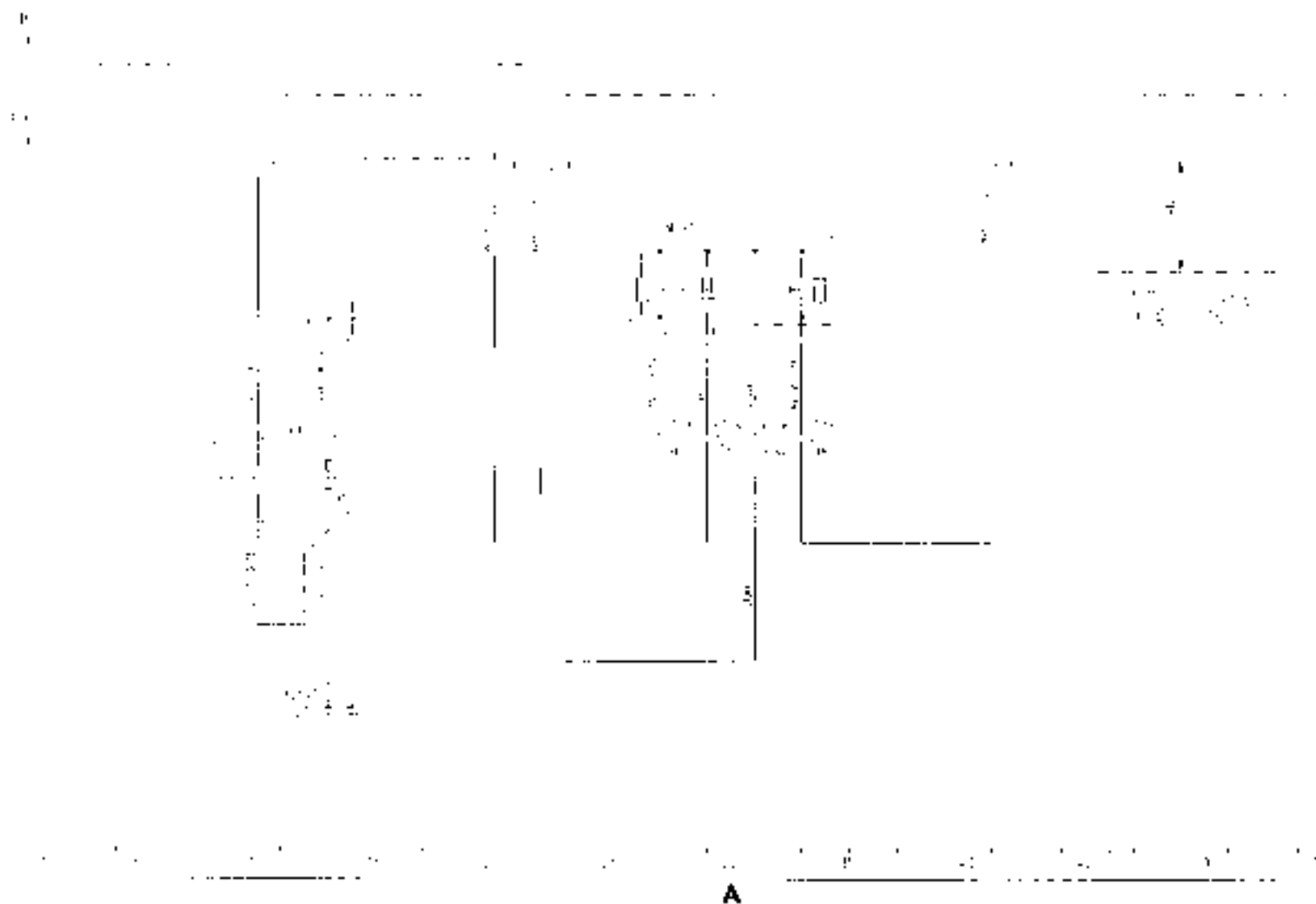
**A = Central lubrication**

- A100 (255) Central fuse, relay and terminal block
- A302 (352) Central computer 2
- A407 (342) Instrumentation
  
- H116 Indicator light, central lubrication
  
- M131 (147) Central lubrication pump
  
- S407 (556) Control switch, intermediate lubrication
  
- X71A Std. cab – central lubrication
- X2541 (24E) Potential distributor, 21-pin line 31000
- X2542 (24E) Potential distributor, 21-pin line 58000

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| ⊙ | Tail                     | Ⓜ | Driving seat                 |
| ⊙ | Engine                   | Ⓝ | Passenger seat               |
| ⊙ | Gearbox                  | Ⓞ | Control panel                |
| ⊙ | Front                    | Ⓟ | Battery box                  |
| ⊙ | Bumper                   | Ⓠ | D pillar on driver's side    |
| ⊙ | Entrance right           | Ⓡ | A-pillar on driver's side    |
| ⊙ | Entrance left            | Ⓢ | B pillar on passenger's side |
| ⊙ | Central electronics area | Ⓣ | A-pillar on passenger's side |
| ⊙ | Control unit racks       | Ⓤ | Ceiling/roof                 |
| ⊙ | Rear wall of cab         | Ⓥ | Front axle                   |
| ⊙ | Instrument panel         | Ⓦ | Rear axle                    |
| ⊙ | Central part             | Ⓧ | Front part of frame          |
| ⊙ | Steering wheel/column    | Ⓨ | Rear part of frame           |
| ⊙ | Foot pedals              | Ⓩ | Door left                    |
| ⊙ | Front wall, inside left  | ⓐ | Door right                   |
| ⊙ | Front wall, inside right |   |                              |

Wiring diagram no. 81.99192.1467 Sheet: 1 of 1



## Supplementary heating D1LCC/D3LCC with TRS

## Legend

Wiring diagram no. 81.99192.1472 Sheet 1 of 1

Change status: 05.01

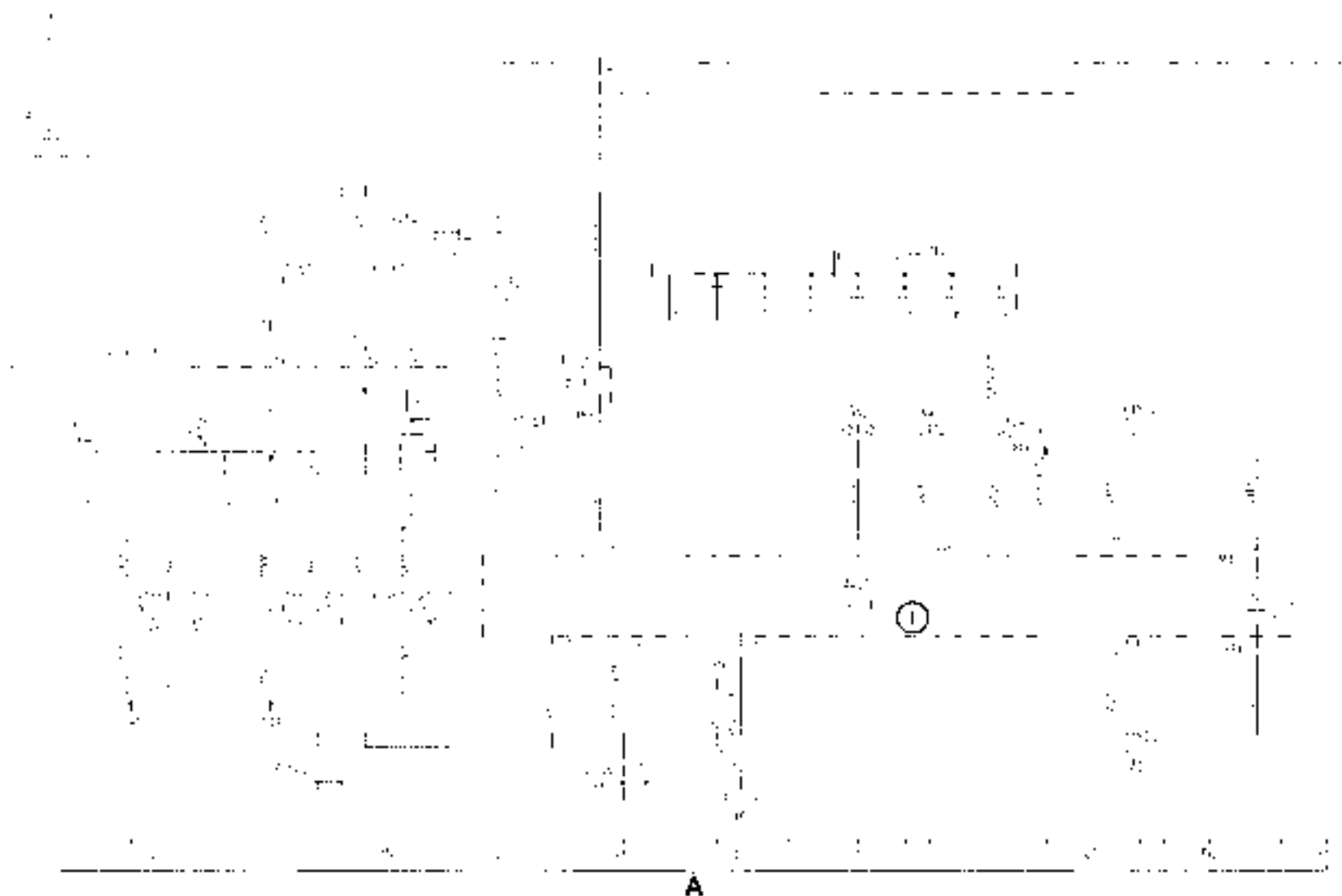
## A = Supplementary heating Eberspächer D1LCC/D3LCC with TRS

A110	(255)	Central fuse, relay and terminal block
A290	(379)	Keypad for supplementary heating (clock/thermostat)
A302	(352)	Central computer 2
A483	(380)	Scope of delivery: supplementary hot-air heating
F185	(120)	Fuse, supplementary heating
M120	(152)	Metering pump, supplementary heating
V188	(120)	Diode group, 8 times, for battery emergency shutdown switch
X646		Std. supplementary heating, battery main switch, electrical
X1644		Earthing point, cab, adjacent to central fuse, relay and terminal block
X1824		Std. cab, metering pump, supplementary heating
X1861		Std. cab keypad, supplementary heating
X2182		Std. TRS shutdown, air heating
X2542	(246)	Potential distributor 21-pin line 58000
X2543	(246)	Potential distributor 21-pin line 30006
X2544	(246)	Potential distributor 21-pin K-line

## Marking of mounting positions

(T)	Tail	(D)	Driving seat
(E)	Engine	(P)	Passenger seat
(G)	Gearbox	(C)	Control panel
(F)	Front	(B)	Battery box
(B)	Bumper	(D)	B-pillar on driver's side
(E)	Entrance right	(A)	A-pillar on driver's side
(E)	Entrance left	(D)	B-pillar on passenger's side
(C)	Central electrical area	(A)	A-pillar on passenger's side
(C)	Control unit racks	(D)	Ceiling/moof
(R)	Rear wall of cab	(F)	Front axle
(I)	Instrument panel	(R)	Rear axle
(C)	Central part	(F)	Front part of frame
(S)	Steering wheel/column	(R)	Rear part of frame
(F)	Foot pedals	(L)	Door left
(F)	Front wall inside left	(R)	Door right
(F)	Front wall inside right		
(S)	Scope of delivery from Eberspächer		

Wiring diagram no. **81.99192.1472** Sheet 1 of 1





**Supplementary heating D1LCC/D3LCC without TRS**

**Legend**


































Wiring diagram no. **81.99192.1471** Sheet 1 of 1

Change status: 05.01

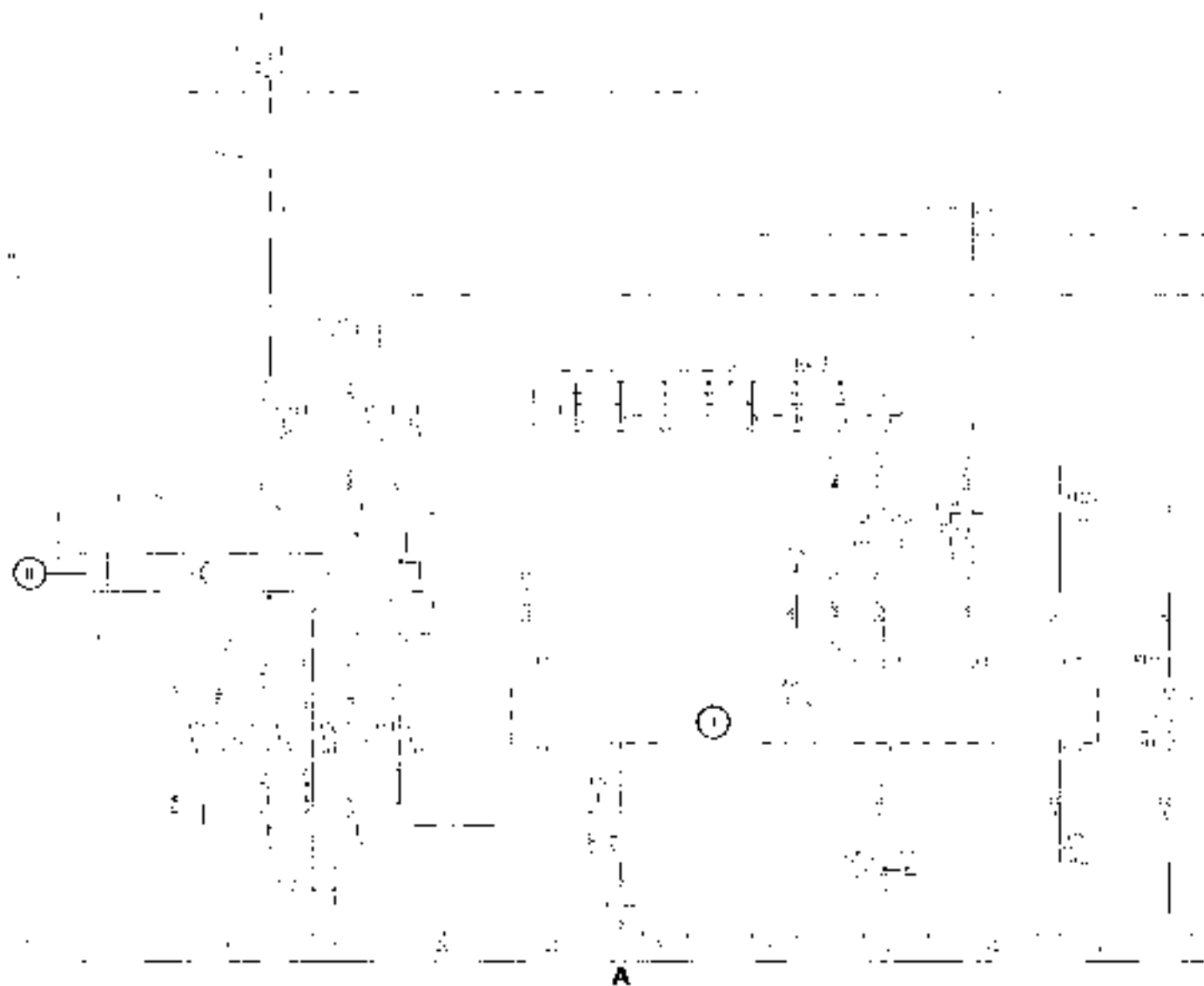
**A = Supplementary heating Eberspächer D1LCC/D3LCC without TRS**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A290</b>	(379)	Keypad for supplementary heating (clock/thermostat)
<b>A302</b>	(352)	Central computer ?
<b>A483</b>	(380)	Scope of delivery: supplementary hot-air heating
<b>F185</b>	(129)	Fuse, supplementary heating
<b>F376</b>	(101)	Fuse, cab interior (terminal 15)
<b>M123</b>	(152)	Metering pump, supplementary heating
<b>V188</b>	(120)	Diode group, 8 times, for battery emergency shutdown switch
<b>X545</b>		Stvc. supplementary heating: battery main switch electrical
<b>X1644</b>		Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X1824</b>		Stvc. cab. metering pump, supplementary heating
<b>X1861</b>		Stvc. cab keypad, supplementary heating
<b>X2542</b>	(246)	Potential distributor, 21-pin line 58003
<b>X2543</b>	(246)	Potential distributor, 21-pin line 30005
<b>X2544</b>	(246)	Potential distributor 21-pin K-line

**Marking of mounting positions**

 Front	 Driving seat
 Engine	 Passenger seat
 Gearbox	 Control panel
 Front	 Battery box
 Bumper	 B-pillar on driver's side
 Entrance right	 A-pillar on driver's side
 Entrance left	 B-pillar on passenger's side
 Central electronics area	 A-pillar on passenger's side
 Control unit racks	 Coil on roof
 Rear wall of cab	 Front axle
 Instrument panel	 Rear axle
 Central part	 Front part of frame
 Steering wheel/turning	 Rear part of frame
 Foot pedals	 Door left
 Front wall, inside left	 Door right
 Front wall, inside right	
 Scope of delivery from Eberspächer	
 LCD clock	

Wiring diagram no. 81.99192.1471 Sheet 1 of 1



**Supplementary heating D5W with TRS**

**Legend**

Wiring diagram no. **81.99192.1478** Sheet 1 of 1  
 Change status 05.01

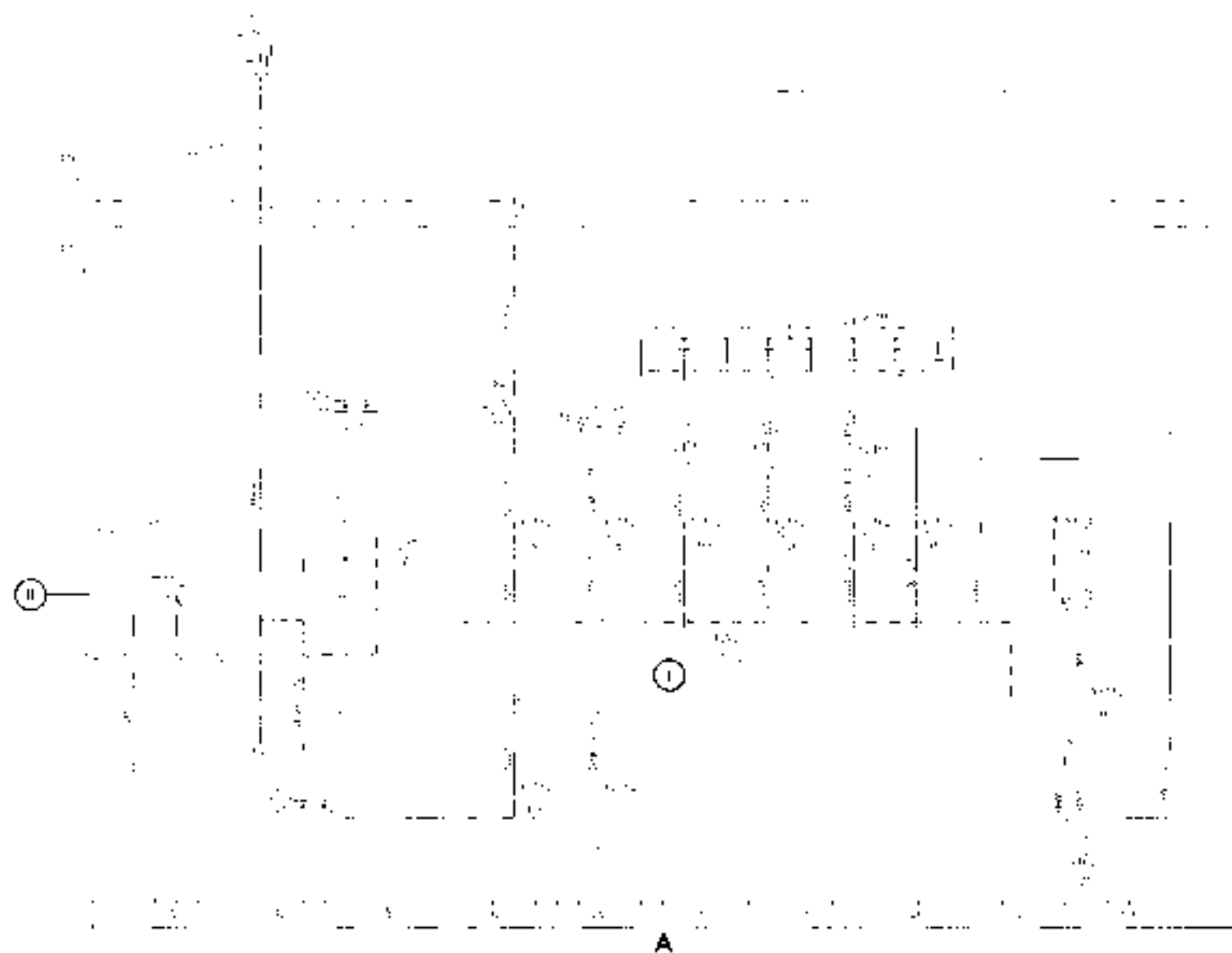
**A = Supplementary heating D5W with TRS**

- A100 (253) Central fuse, relay and terminal block
- A302 (352) Central computer 2
- A494 (510) Auxiliary water heating
- A625 (508) Keypad, supplementary water heating
  
- F284 (129) Fuse, supplementary heating
- F376 (131) Fuse, cab interior (terminal 15)
  
- M130 (153) Metering pump 2, supplementary heating
  
- V1H8 (120) Diode group, 8 times, for battery emergency shutdown switch
  
- X1644 Earthing point, cab, adjacent to central fuse, relay and terminal block
- X2170 Std. TRS shutdown, water heating
- X2184 Std. cab – supplementary water heater
- X2185 Std. supplementary water heating – battery isolator switch
- X2542 (246) Potential distributor, 21-pin line 58000
- X2543 (246) Potential distributor, 21-pin line 30006
- X2544 (246) Potential distributor 21-pin K-line

**Marking of mounting positions**

- (T) Tail
- (E) Engine
- (G) Gearbox
- (F) Front
- (D) Dumper
- (R) Entrance right
- (L) Entrance left
- (CE) Central electrics area
- (CU) Control unit racks
- (RW) Rear wall of cab
- (IP) Instrument panel
- (CP) Central part
- (SW) Steering wheel/column
- (FP) Foot pedals
- (FWL) Front wall, inside left
- (FWR) Front wall, inside right
  
- (S) Scope of delivery from Eberspacher
- (C) LCD clock
  
- (DS) Driving seat
- (PS) Passenger seat
- (CP) Control panel
- (BB) Battery box
- (BP) B-pillar on driver's side
- (AP) A-pillar on driver's side
- (BP) B-pillar on passenger's side
- (AP) A-pillar on passenger's side
- (CR) Ceiling/rail
- (FA) Front axle
- (RA) Rear axle
- (FF) Front part of frame
- (RF) Rear part of frame
- (DL) Door left
- (DR) Door right

Wiring diagram no. 81.99192.1478 Sheet 1 of 1



**Supplementary heating D5W without TRS**


































**Legend**

Wiring diagram no. 01.99192.1477 Sheet 1 of 1  
Change status: 05.01

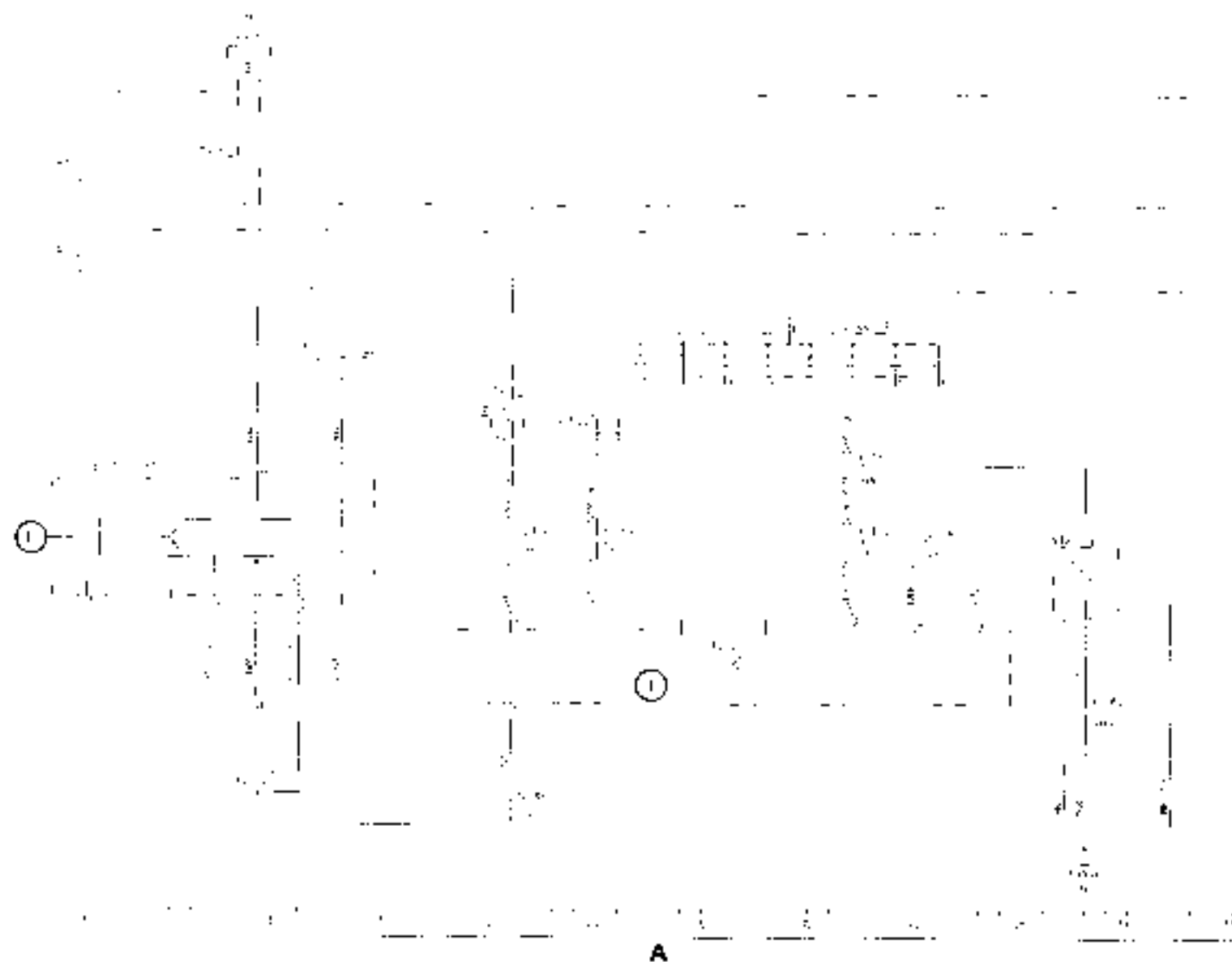
**A = Supplementary heating D5W without TRS**

<b>A100</b>	(265)	Central fuse, relay and terminal block
<b>A302</b>	(352)	Central computer 2
<b>A491</b>	(510)	Auxiliary water heating
<b>A625</b>	(509)	Keypad, supplementary water heating
<b>F284</b>	(129)	Fuse, supplementary heating
<b>F376</b>	(101)	Fuse, cab interior (terminal 15)
<b>M180</b>	(153)	Metering pump 2, supplementary heating
<b>V188</b>	(123)	Diode group, 8 lines, for battery emergency shutdown switch
<b>X1644</b>		Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X2184</b>		Std. cab – supplementary water heater
<b>X2185</b>		Std. supplementary water heating – battery isolator switch
<b>X2542</b>	(246)	Potential distributor, 21-pin line 58006
<b>X2543</b>	(246)	Potential distributor, 21-pin line 30006
<b>X2544</b>	(246)	Potential distributor 21-pin K-line

**Marking of mounting positions**

	Tail		Driving seat
	Engine		Passenger seat
	Gearbox		Control panel
	Front		Battery box
	Bumper		B-pillar on driver's side
	Entrance right		A-pillar on driver's side
	Entrance left		B-pillar on passenger's side
	Central electric area		A-pillar on passenger's side
	Control unit racks		Ceiling/roof
	Rear wall of cab		Front axle
	Instrument panel		Rear axle
	Central part		Front part of frame
	Steering wheel/column		Rear part of frame
	Foot pedals		Door left
	Front wall, inside left		Door right
	Front wall, inside right		
	Scope of delivery from Eberspächer		
	LCD clock		

Wiring diagram no. 81.99192.1477 Sheet 1 of 1



**Supplementary heating Thermo 50 with TRS**


































**Legend**

Wiring diagram no. 81.99192.1476 Sheet 1 of 1  
Change status: 05/01

**A = Supplementary heating Thermo 50 with TRS**

A100	(255)	Central fuse, relay and terminal block
A302	(352)	Central computer 2
A404	(510)	Auxiliary water heating
A625	(509)	Keyboard, supplementary water heating
F264	(129)	Fuse, supplementary heating
F376	(101)	Fuse, cab interior (terminal 15)
M180	(153)	Metering pump 2, supplementary heating
V188	(120)	Diode group, 8 times, for battery emergency shutdown switch
X1644		Earthing point, cab, adjacent to central fuse, relay and terminal block
X2170		Stvd, TRS shutdown, water heating
X2184		Stvd, cab – supplementary water heater
X2185		Stvd, supplementary water heating – battery isolator switch
X2642	(246)	Potential distributor, 21-pin line 58000
X2643	(246)	Potential distributor, 21-pin line 30005
X2644	(246)	Potential distributor 21-pin K-line

**Marking of mounting positions**

 Tail	 Driving seat
 Engine	 Passenger seat
 Gearbox	 Control panel
 Front	 Battery box
 Bumper	 B-pillar on driver's side
 Entrance right	 A-pillar on driver's side
 Entrance left	 B-pillar on passenger's side
 Central electrics area	 A-pillar on passenger's side
 Control unit racks	 Ceiling/roof
 Rear wall of cab	 Front axle
 Instrument panel	 Rear axle
 Central part	 Front part of frame
 Steering wheel/column	 Rear part of frame
 Foot pedals	 Door left
 Front wall, inside left	 Door right
 Front wall, inside right	
 Scope of delivery, Webasto	
 LCI) clock	

Wiring diagram no. **B1.09192.1476** Sheet 1 of 1





**Supplementary heating Thermo 50 without TRS**


































**Legend**

Wiring diagram no. **B1.99192.1475** Sheet 1 of 1  
 Change status: 05/01

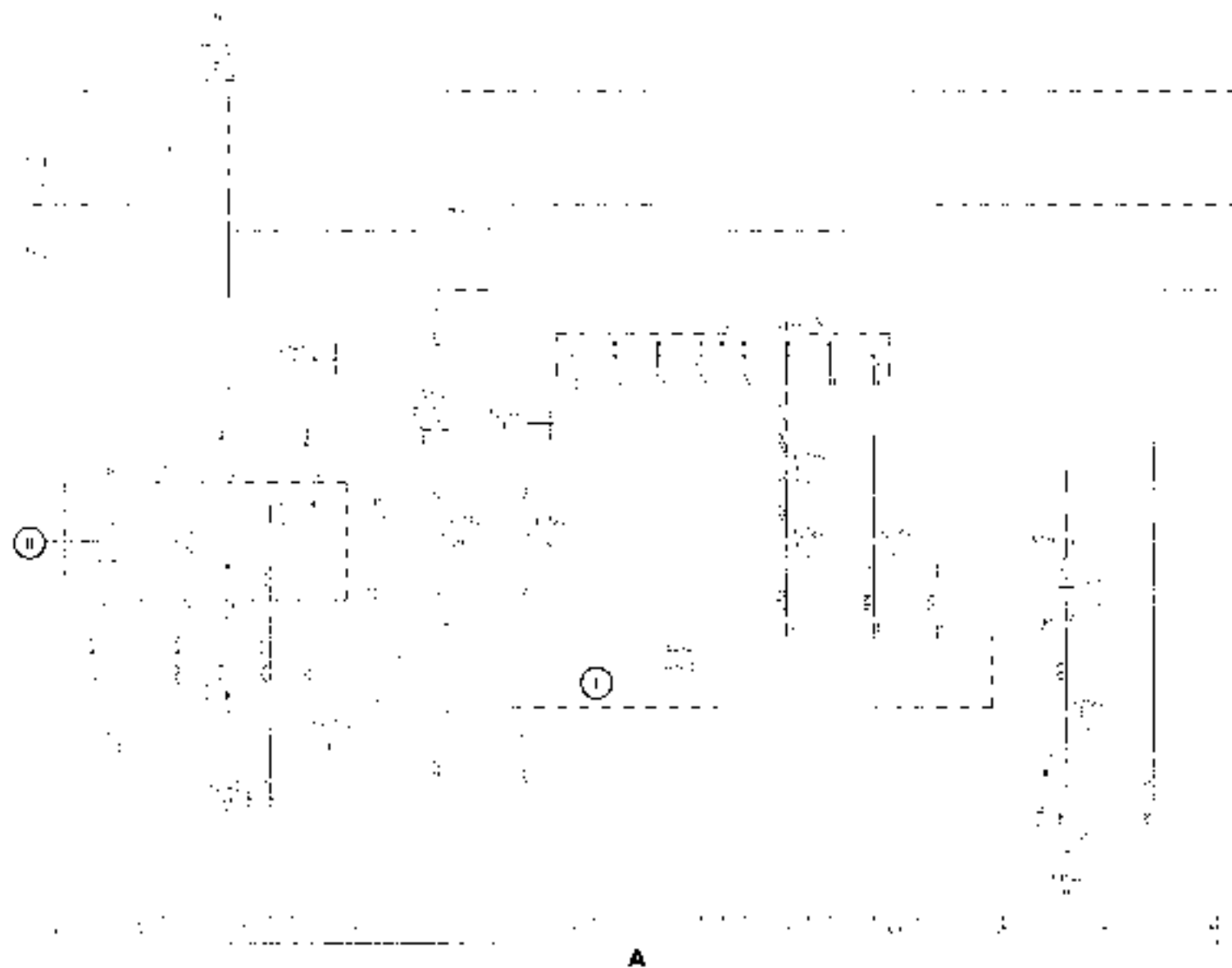
**A = Supplementary heating Thermo 50 without TRS**

- A100** (255) Central fuse, relay and terminal block
- A302** (352) Central computer 2
- A494** (510) Auxiliary water heating
- A625** (519) Keypad, supplementary water heating
  
- F284** (129) Fuse, supplementary heating
- F376** (131) Fuse, cab interior (terminal 15)
  
- M180** (158) Metering pump 2, supplementary heating
  
- V188** (120) Diode group, 8 times, for battery emergency shutdown switch
  
- X1044** Earthing point, cab, adjacent to central fuse, relay and terminal block
- X2184** Std. cab, supplementary water heater
- X2185** Std. supplementary water heating – battery isolator switch
- X2542** (246) Potential distributor, 21-pin line 58000
- X2543** (246) Potential distributor, 21-pin line 30006
- X2544** (246) Potential distributor, 21-pin K-line

**Marking of mounting positions**

-  Tail
-  Engine
-  Gearbox
-  Front
-  Bumper
-  Entrance right
-  Entrance left
-  Central electric area
-  Control unit racks
-  Rear wall of cab
-  Instrument panel
-  Central part
-  Steering wheel/column
-  Foot pedals
-  Front wall, inside left
-  Front wall, inside right
  
-  Scope of delivery, Webasto
-  LCD clock
  
-  Driving seat
-  Passenger seat
-  Control panel
-  Battery box
-  B-pillar on driver's side
-  A-pillar on driver's side
-  B-pillar on passenger's side
-  A-pillar on passenger's side
-  Ceiling/roof
-  Front axle
-  Rear axle
-  Front part of frame
-  Rear part of frame
-  Door left
-  Door right

Wiring diagram no. 81.99192.1475 Sheet 1 of 1



Supplementary heating, TRS shutdown

Legend

Wiring diagram no. 81.99192.2621 Sheet 1 of 1

Change status: 07.99

A = Supplementary heating, TRS shutdown

A100 (255) Central fuse, relay and terminal block

A302 (352) Central computer 2

K678 (283) Relay, supplementary heating, TRS shutdown

K679 (283) Relay, supplementary heating, TRS shutdown

V200 Diode, power take-off 1

V201 Diode, power take-off 2

V202 (117) Diode group V200, V201

X1552 Stryd power take-off II/TRS heating

X1554 Stryd power take-off II/TRS heating

X1644 Earthing point, cab, adjacent to central fuse relay and terminal block

X1754 Crimped connector, line 591U4

X1984 (203) Relay base K678, K679

X2170 Stryd TRS shutdown, water heating

X2182 Stryd TRS shutdown, hot-air heating

Marking of mounting positions

Ⓐ Tail

Ⓐ Engine

Ⓐ Gearbox

Ⓐ Front

Ⓐ Bumper

Ⓐ Entrance right

Ⓐ Entrance left

Ⓐ Central electric area

Ⓐ Control unit racks

Ⓐ Rear wall of cab

Ⓐ Instrument panel

Ⓐ Central part

Ⓐ Steering wheel/column

Ⓐ Foot pedals

Ⓐ Front wall, inside left

Ⓐ Front wall, inside right

Ⓐ Power take-off 1

Ⓐ Power take-off 2

Ⓐ Driving seat

Ⓐ Passenger seat

Ⓐ Control panel

Ⓐ Battery box

Ⓐ B-pillar on driver's side

Ⓐ A-pillar on driver's side

Ⓐ B-pillar on passenger's side

Ⓐ A-pillar on passenger's side

Ⓐ Ceiling/roof

Ⓐ Front axle

Ⓐ Rear axle

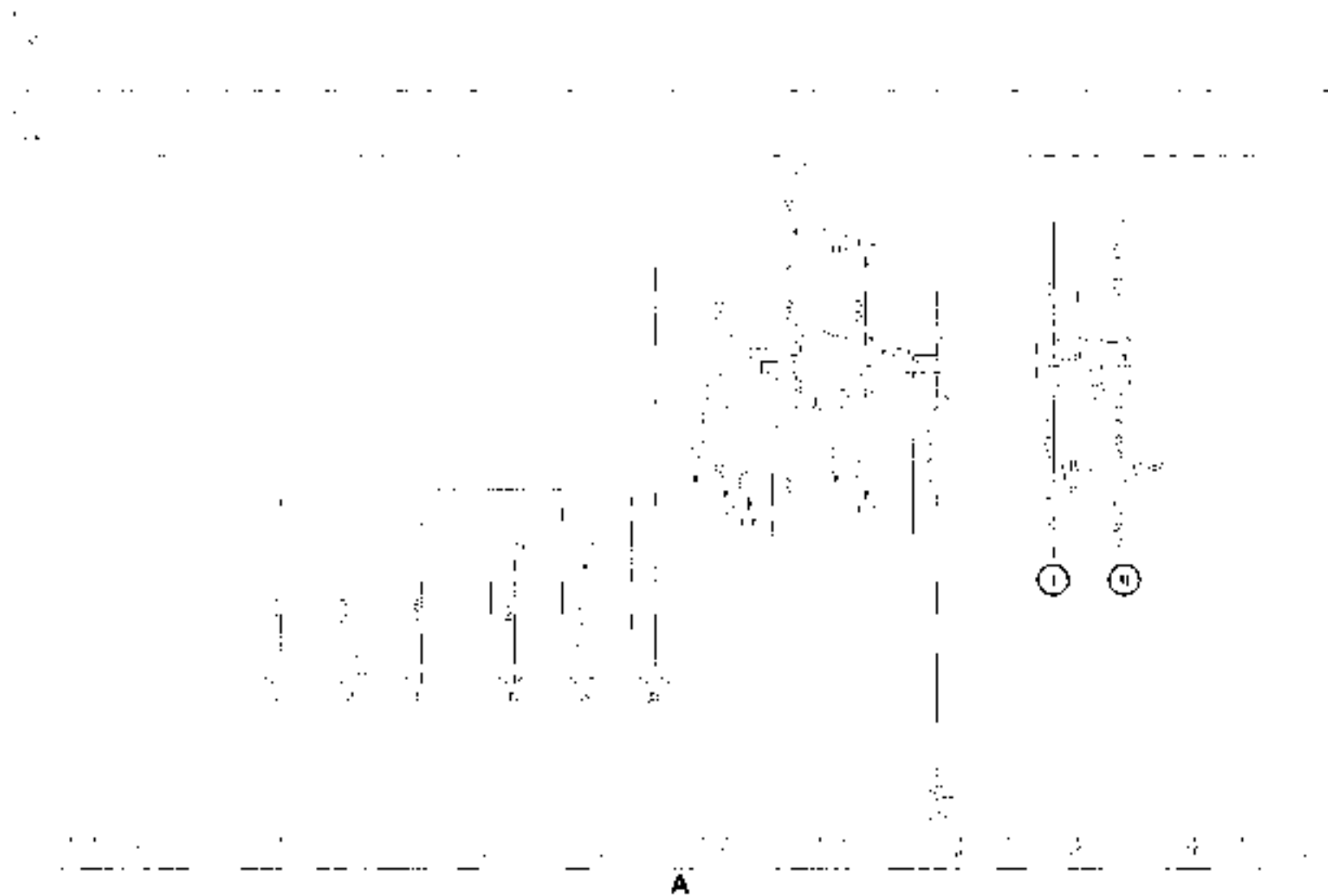
Ⓐ Front part of frame

Ⓐ Rear part of frame

Ⓐ Door left

Ⓐ Door right

Wiring diagram no. 81.99192.2521 Sheet 1 of 1



**Supplementary heating Truma E24-2 with TRS**

**Legend**

Wiring diagram no. **81.99192.1480** Sheet 1 of 1

Change status: 06.01

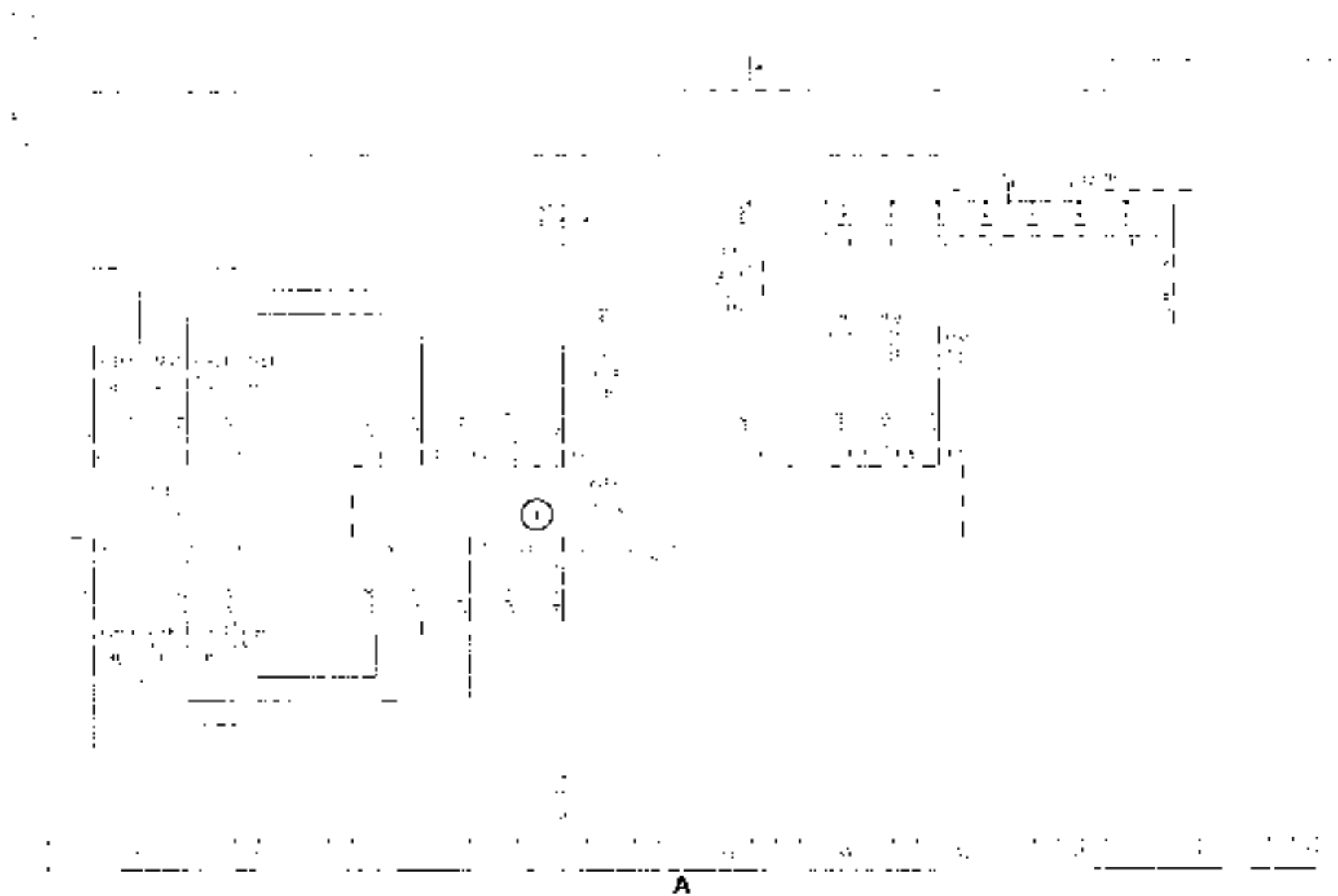
**A = Supplementary heating Truma E24-2 with TRS**

<b>A103</b>	(255)	Central fuse, relay and terminal block
<b>A200</b>	(305)	Keypad for supplementary heating (clock/thermostat)
<b>A302</b>	(352)	Central computer 2
<b>A409</b>	(306)	Supplementary gas heating
<b>F185</b>	(172)	Fuse, supplementary heating
<b>V188</b>	(120)	Diode group, 3 times, for battery emergency shutdown switch
<b>X546</b>		Std. supplementary heating, main battery switch (electric)
<b>X1644</b>		Earthing point, cab, adjacent to central fuse, relay and terminal block
<b>X1861</b>		Std. cab keypad, supplementary heating
<b>X2182</b>		Std. TRS shutdown, hot-air heating
<b>X2543</b>	(246)	Potential distributor, 21-p-n line 30006

**Marking of mounting positions**

- |   |                          |   |                              |
|---|--------------------------|---|------------------------------|
| Ⓐ | Tail                     | Ⓓ | Driving seat                 |
| Ⓑ | Engine                   | Ⓔ | Passenger seat               |
| Ⓒ | Gearbox                  | Ⓚ | Control panel                |
| Ⓓ | Front                    | Ⓛ | Battery box                  |
| Ⓔ | Bumper                   | Ⓜ | B-pillar on driver's side    |
| Ⓚ | Entrance right           | Ⓨ | A-pillar on driver's side    |
| Ⓛ | Entrance left            | Ⓩ | B-pillar on passenger's side |
| Ⓜ | Central electric area    | ⓐ | A-pillar on passenger's side |
| Ⓨ | Control unit racks       | ⓑ | Ceiling/roof                 |
| Ⓩ | Rear wall of cab         | ⓓ | Front axle                   |
| ⓐ | Instrument panel         | ⓔ | Rear axle                    |
| ⓑ | Central part             | ⓕ | Front part of frame          |
| ⓓ | Steering wheel/column    | ⓖ | Rear part of frame           |
| ⓔ | Foot pedals              | ⓗ | Door left                    |
| ⓕ | Front wall, inside left  | ⓘ | Door right                   |
| ⓖ | Front wall, inside right |   |                              |
| ⓗ |                          |   |                              |
| ⓘ | Scope of delivery, Truma |   |                              |

Wiring diagram no. 81.99192.1480 Sheet 1 of 1



Supplementary heating Truma E24-2 without TRS

Legend

Wiring diagram no. 81.99192.1479 Sheet 1 of 1  
Change status: 05.01

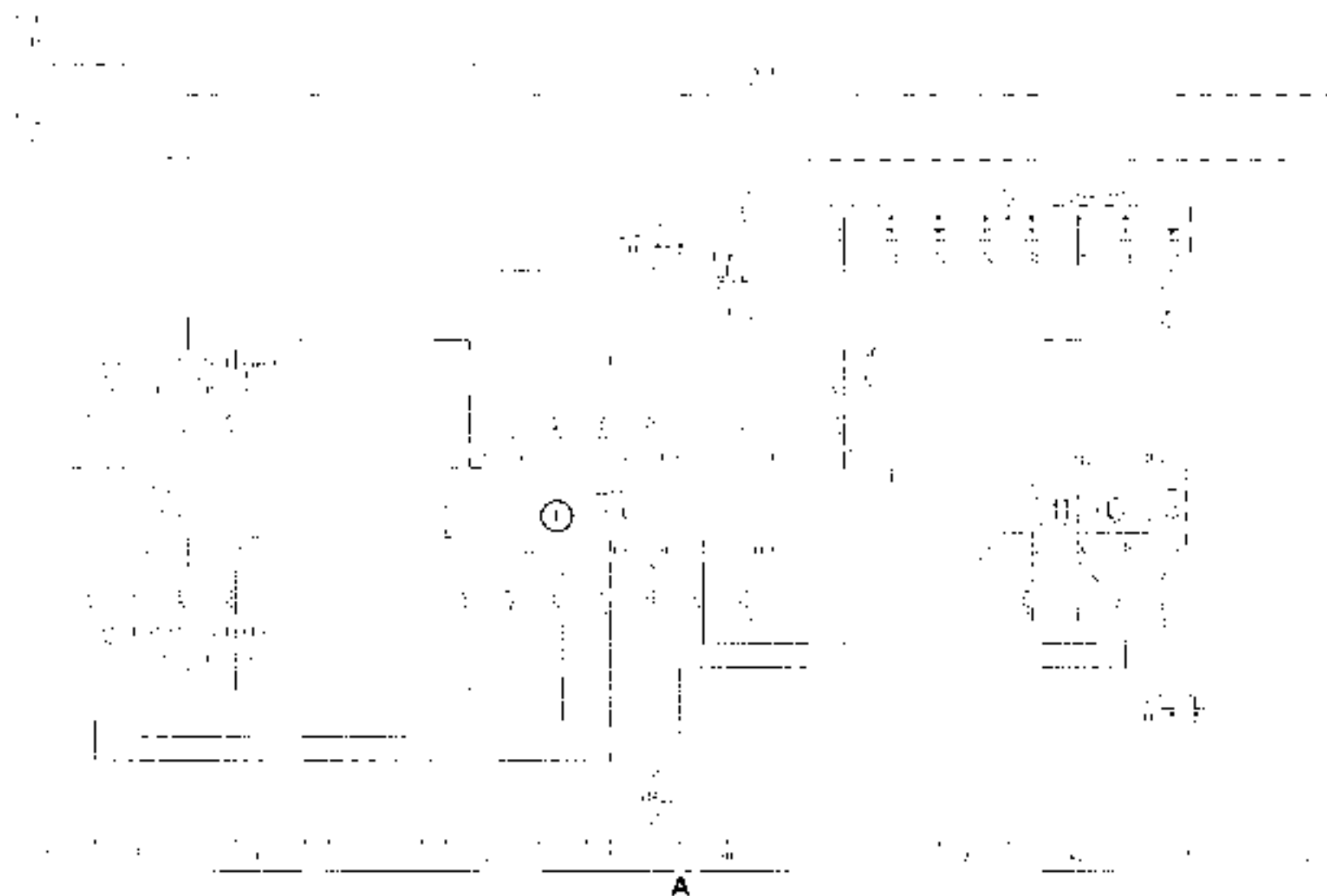
A = Supplementary heating Truma E24-2 without TRS

A100	(255)	Central fuse, relay and terminal block
A290	(395)	Keypad for supplementary heating (clock/thermostat)
A302	(352)	Central computer 2
A189	(390)	Supplementary gas heating
F186	(122)	Fuse, supplementary heating
S* 14	(575)	Time switch, supplementary heating
V* 8H	(120)	Diode group, 8 times for battery emergency shutdown switch
X546		Std. supplementary heating, main battery switch (electric)
X1644		Earthing point, cab. adjacent to centra' fuse, relay and terminal block
X1361		Std. cab keypad, supplementary heating
X2542	(246)	Potential distributor, 21-pin line 58000
X2543	(246)	Potential distributor, 21-pin line 30006

Marking of mounting positions

(r)	Tail	(E)	Driving seat
(e)	Engine	(P)	Passenger seat
(G)	Gearbox	(C)	Control panel
(f)	Front	(B)	Battery box
(B)	Bumper	(E)	B-pillar on driver's side
(R)	Entrance right	(E)	A-pillar on driver's side
(L)	Entrance left	(P)	B-pillar on passenger's side
(E)	Central electrics area	(C)	A-pillar on passenger's side
(C)	Control unit racks	(C)	Ceiling/front
(E)	Near wall of cab	(A)	Front axle
(I)	Instrument panel	(A)	Rear axle
(C)	Central part	(F)	Front part of frame
(C)	Steering wheel/column	(R)	Rear part of frame
(P)	Foot pedals	(D)	Door left
(E)	Front wall, inside left	(D)	Door right
(E)	Front wall, inside right		
(C)	Scope of delivery, Truma		

Wiring diagram no. 81.99102.1479 Sheet 1 of 1





**Supplementary heating Webasto Airtop 2000 OEM and 3500 with TRS**


































**Legend**

Wiring diagram no. **81.99192.1473** Sheet 1 of 1  
 Change status: 05.01

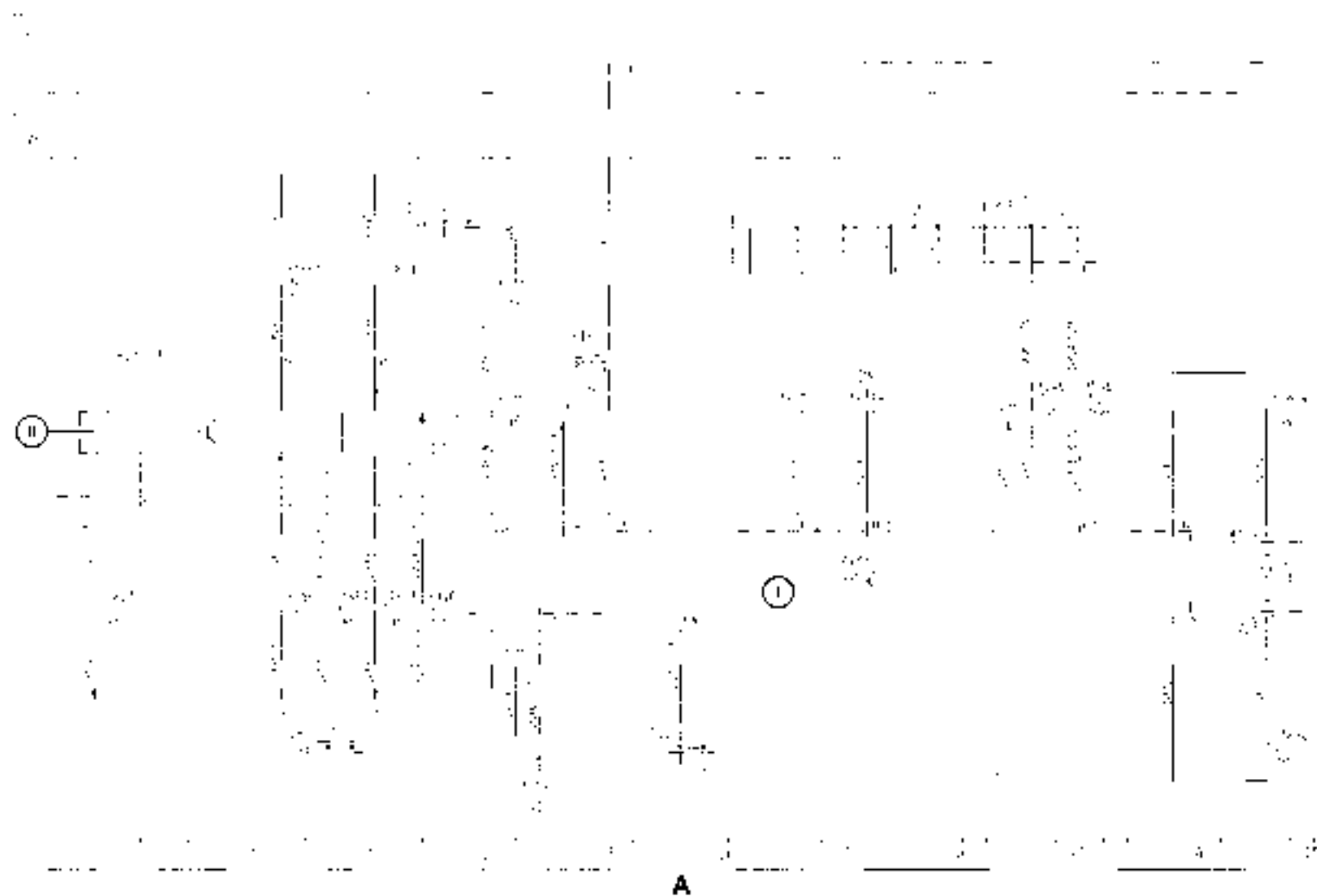
**A = Supplementary heating Webasto Airtop 2000 OEM and 3500 with TRS**

A100	(255)	Central fuse, relay and terminal block
A290	(381)	Keypad for supplementary heating (clock/thermostat)
A302	(352)	Central computer 2
A483	(382)	Scope of delivery, supplementary hot-air heating
F185	(122)	Fuse, supplementary heating
M123	(158)	Metering pump, supplementary heating
V186	(120)	Diode group, 8 lines, for battery emergency shutdown switch
X546		Std. supplementary heating, main battery switch (electric)
X1644		Earthing point, cab, adjacent to central fuse, relay and terminal block
X1824		Std. cab. metering pump, supplementary heating
X1861		Std. cab keypad, supplementary heating
X2182		Std. TRS shutdown, hot air heating
X2542	(246)	Potential distributor, 21-pin line G9000
X2543	(246)	Potential distributor, 21-pin line 30006
X2544	(246)	Potential distributor 21-pin K-line

**Marking of mounting positions**

 Tail	 Driving seat
 Engine	 Passenger seat
 Gearbox	 Control panel
 Front	 Battery box
 Bumper	 B-pillar on driver's side
 Entrance right	 A-pillar on driver's side
 Entrance left	 B-pillar on passenger's side
 Central electrics area	 A-pillar on passenger's side
 Control unit racks	 Ceiling/root
 Rear wall of cab	 Front axle
 Instrument panel	 Rear axle
 Central part	 Front part of frame
 Steering wheel/column	 Rear part of frame
 Foot pedals	 Door left
 Front wall, inside left	 Door right
 Front wall, inside right	
 Scope of delivery, Webasto	
 LCD clock	

Wiring diagram no. 81.99192.1473 Sheet 1 of 1



**Supplementary heating Webasto Airtop 2000 OEM and 3500 without TRS**

**Legend**

Wiring diagram no. 81.99192.1474 Sheet 1 of 1

Change status: 06.01

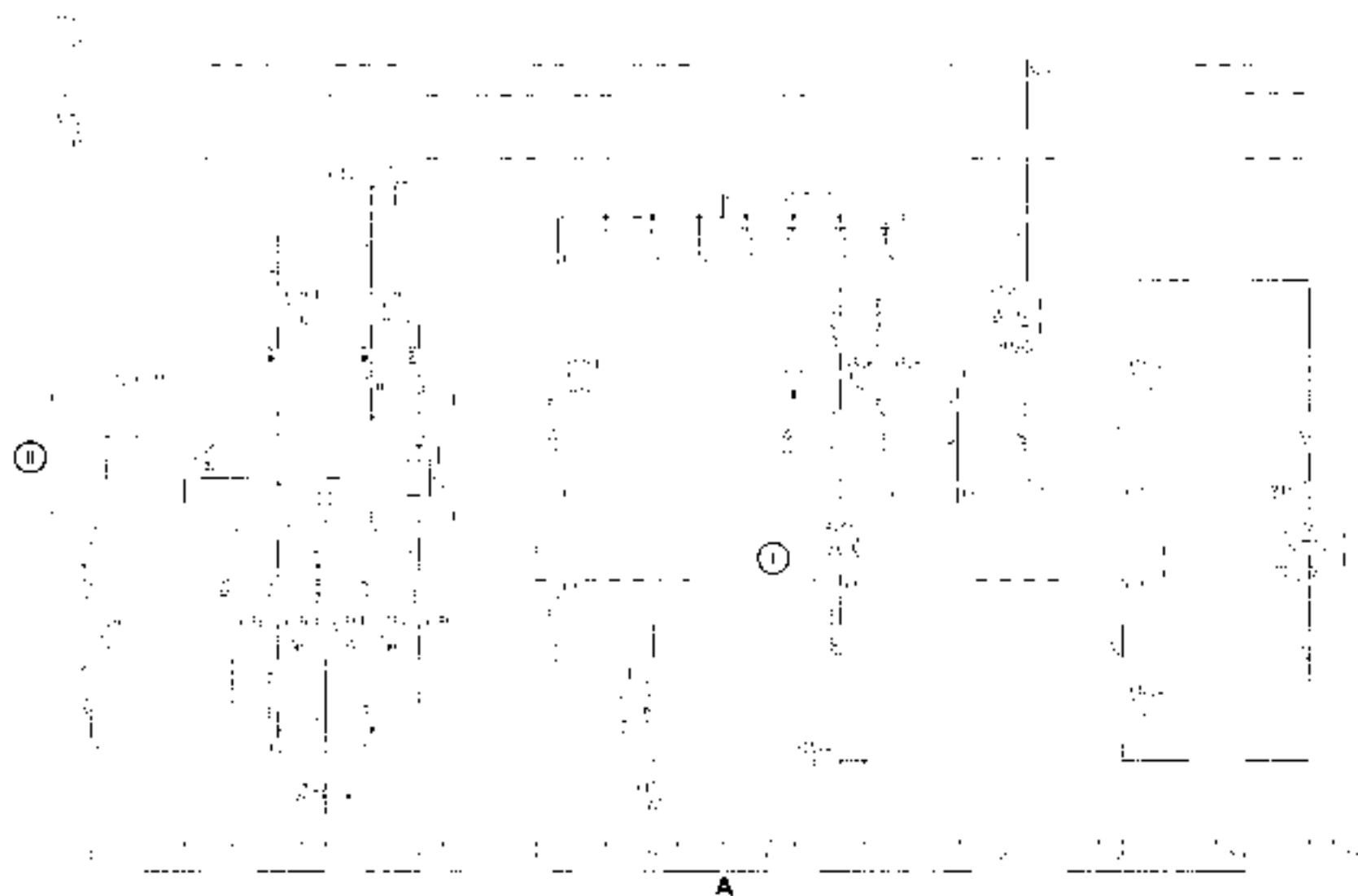
**A = Supplementary heating Webasto Airtop 2000 OEM and 3500 without TRS**

A100	(255)	Central fuse, relay and terminal block
A290	(381)	Keypad for supplementary heating (clock/thermostat)
A312	(352)	Central computer 2
A483	(382)	Scope of delivery supplementary hot-air heating
F185	(122)	Fuse, supplementary heating
M123	(153)	Metering pump, supplementary heating
V168	(120)	Diode group 8 times, for battery emergency shutdown switch
X546		Std. supplementary heating, main battery switch (electric)
X1644		Earthing point, cab, adjacent to central fuse, relay and terminal block
X1624		Std. cab, metering pump, supplementary heating
X1661		Std. cab keypad supplementary heating
X2542	(246)	Potential distributor, 21-pin line 58000
X2543	(246)	Potential distributor, 21-pin line 30006
X2544	(246)	Potential distributor 21-pin K-line

**Marking of mounting positions**

(A)	Tail	(S)	Driving seat
(B)	Engine	(T)	Passenger seat
(C)	Gearbox	(U)	Control panel
(D)	Front	(V)	Battery box
(E)	Bumper	(W)	B-pillar on driver's side
(F)	Entrance right	(X)	A-pillar on driver's side
(G)	Entrance left	(Y)	B-pillar on passenger's side
(H)	Central electronics area	(Z)	A-pillar on passenger's side
(I)	Control unit racks	(AA)	Ceiling/roof
(J)	Rear wall of cab	(AB)	Front axle
(K)	Instrument panel	(AC)	Rear axle
(L)	Central part	(AD)	Front part of frame
(M)	Steering wheel/column	(AE)	Rear part of frame
(N)	Foot pedals	(AF)	Door left
(O)	Front wall, inside left	(AG)	Door right
(P)	Front wall, inside right		
(Q)	Scope of delivery, Webasto		
(R)	LCD clock		

Wiring diagram no. 81.99192.1474 Sheet 1 of 1



**Additional headlight**

**Legend**

Wiring diagram no. **81.99192.2461** Sheet 1 of 1
































Change status: -

**A = Front fog light**

**B = Additional main beam**

<b>A100</b>	(255)	Central fuse, relay and terminal block
<b>A302</b>	(352)	Central computer 2
<b>A407</b>	(342)	Instrumentation
<b>A438</b>		Light strip, right
<b>A439</b>		Light strip, left
<b>E122</b>		Fog lights, right
<b>E123</b>		Fog lights, left
<b>E194</b>		High beam, right
<b>E195</b>		High beam, left
<b>S403</b>	(477)	Switch/control switch combinat on front fog light/ rear fog lamp
<b>X1545</b>		Stud, front region, left
<b>X1550</b>		Stud, front region, right
<b>X1825</b>		Crimped connector, line 31000
<b>X1833</b>		Crimped connector, line 16000
<b>X1835</b>		Crimped connector, line 58000

**Marking of mounting positions**

 1	Tail	 10	Driving seat
 2	Engine	 11	Passenger seat
 3	Gearbox	 12	Control panel
 4	Front	 13	Battery box
 5	Bumper	 14	B-pillar on driver's side
 6	Entrance right	 15	A-pillar on driver's side
 7	Entrance left	 16	B-pillar on passenger's side
 8	Central electric area	 17	A-pillar on passenger's side
 9	Control unit racks	 18	Ceiling/roof
 10	Rear wall of cab	 19	Front axle
 11	Instrument panel	 20	Rear axle
 12	Central part	 21	Front part of frame
 13	Steering wheel/column	 22	Rear part of frame
 14	Foot pedals	 23	Door left
 15	Front wall, inside left	 24	Door right
 16	Front wall, inside right		

Wiring diagram no. **81.99192.2461** Sheet 1 of 1

