

TRAXEE

INSTALLATION GUIDE



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READ THIS FIRST

LIABILITY

WABCO cannot be held responsible for any possible damage ensuing from the correct or incorrect following of the recommendations as listed in this document. The technical engineer remains responsible at all times for the correct installation and connection of the hardware. This manual is but a (partial) recording of, and an addition to, the practical knowledge of the average installer.

The illustrations and specific data of non-WABCO products have been checked thoroughly and have been found correct at the time this manual was composed. However, WABCO cannot accept any responsibility for possible adaptations by the manufacturer concerned. WABCO aims for a continuous improvement of its products; for the purpose of technical progress, we reserve the right to implement changes at any time, without prior notice.

SAFETY INSTRUCTIONS



Before starting the installation, carefully read the following safety instructions. All instructions, notes and regulations in this manual must be closely followed.

SAFE WORK ENVIRONMENT

Make provisions for a safe work environment:

- The installation and initial operation of the unit can only be performed by trained and qualified technicians.
- Use personal protective equipment if required (protective goggles, respiratory / ear protection, etc.).
- Make sure that the workplace is dry and provided with sufficient lighting.
- Pedal actuations can lead to severe injuries if persons are near the vehicle. Make sure that pedals cannot be actuated as follows:
 - Switch the transmission to "neutral" and actuate the park brake.
 - Secure the vehicle against rolling by using chocks.
 - Fasten a note clearly visible to the steering wheel indicating that work is being performed on the vehicle and that the pedals are not to be actuated.
- Always follow the safety regulations of the country, in which the unit is installed and/or operated.

IMPROPER INSTALLATION / USE

| | |
|---|---|
|  | DURING THE ENTIRE CONNECTION PROCEDURE, THE VOLTAGE MUST BE TURNED OFF. |
|  | THE POSITIVE VOLTAGE 12/24 VDC <u>AND</u> THE POSITIVE VOLTAGE AFTER CONTACT MUST BE PROTECTED BY A BLADE FUSE OF BETWEEN 2 AND 3A. |

- Use the device only for its intended purpose.
- Do NOT open the TRAXEE unit.
- Do NOT drill in the device housing.
- The device safety may be endangered in case:
 - The device is not firmly fastened;
 - The device has suffered from transportation damages;
 - The temperature limits are exceeded;
 - The device comes into contact with water;
 - The device is visibly damaged.
- If the device is visibly damaged, it must be immediately replaced and sent back to WABCO.
- Make sure that the unit is not exposed to direct sunlight.
- Do not mount the device or its accessories near the vehicle airbags or inside the impact area of head or legs.
- Install the device at a distance of at least 20 cm from the user's body (driver).
- The device should not be installed at more than 2 meters above a surface.
- The device should not be used at an altitude of more than 2,000 meters.
- Always follow the specifications and instructions of the vehicle manufacturer.
- Observe all accident regulations of the respective company as well as regional and national regulations.

APPROVALS

EC Declaration of Conformity

- 2014/30/EU Electromagnetic Compatibility (EMC) Directive
- 2014/53/EU European Radio Equipment Directive
- 2014/35/EU Low Voltage Directive on 20/04/2016
- EN 62368-1:2014 Audio / video, information and communication technology equipment

EEC TYPE APPROVAL FOR VEHICLE

- E/ECE/324 Addendum 9: Regulation No. 10 Rev. 4 - E6-10R-040905



WABCO hereby confirms that this wireless device complies with all requirements and other relevant provisions of the RED directive. Consult legal.wabco-traxee.com to obtain a copy of the EC Declaration of Conformity.

Mobile phone radiance: GSM 900: 3.90 dBi / GSM 1800: 4.10 dBi / GNSS: 1558 MHz - 1615 MHz

OPERATING CONDITIONS

Input voltage range: 8 - 32 V

Max. current: 1 A

Operating temperature range: -40°C ~ +70°C

Storage temperature range: -40°C ~ +70°C

Ingress protection (IP): IP5K0

Compliance with: ISO 16750 - B/E - P - D - C - Z - IP5K0

DISPOSAL



In case you no longer want to use the TRAXEE unit, it is prohibited to dispose of it together with domestic waste as the system components are electronic scrap. When disposing components, please observe all laws and regulations applicable in your country.

WABCO strives to protect the environment. As with other old devices, all components can be returned to WABCO.

BEST PRACTICES IN INSTALLATION

REQUIRED TOOLS

For the installation of the TRAXEE hardware, some specific tools are required in addition to the general workshop tools, such as screw drivers, pliers ...

Specific tools

| | |
|--------------------|--|
| Tacho removal tool | |
| Extraction tool | |
| Crimping tool | |

ASSEMBLY

The assembly of the parts must be done using the accessories provided. WABCO cannot be held responsible for any errors resulting from the use of other materials. WABCO wishes to point out that activities which require welding to the trailer, can cause damage to the electronics of the device. It is imperative that the device is disconnected when carrying out such activities.

TAMPERING THE TACHOGRAPH

If the seal of the tachograph has been broken during assembly, or if signals from the tachograph are being diverted to the on-board computer, the tachograph has to be resealed by an authorized organization. WABCO and its distributors do NOT accept any responsibility for possible infringements against local legislation.

WIRE MANAGEMENT

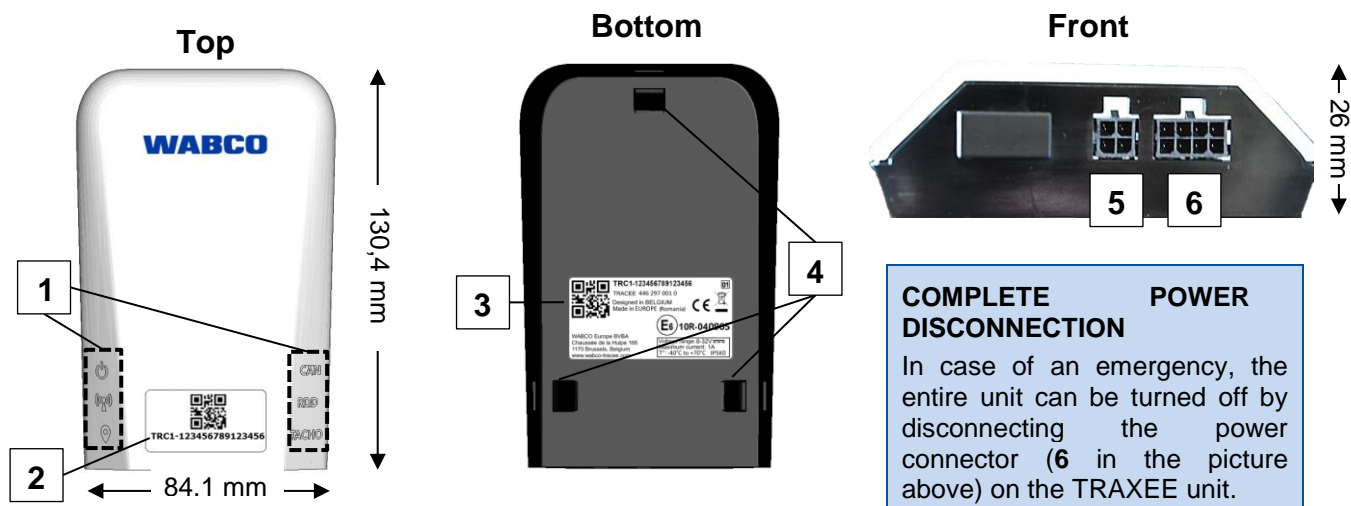
All the wire ways shall be smooth and free from sharp edges. Wires shall be protected, so they do not come into contact with burrs, cooling fins, moving parts, etc., which could cause damage to the insulation of the conductors.




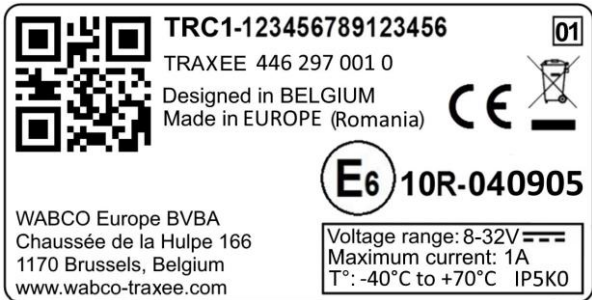
STEP 1 - WHAT'S INSIDE THE BOX

TRAXEE is an intelligent black box solution developed by WABCO for all truck brands. TRAXEE offers GPS position tracking as well as activity tracking and can be connected to the digital tachograph and the vehicle CAN Bus. Its integration with the TRAXEE dispatcher portal results in important value-adding back office capabilities. Next to position, kilometer and real-time tacho activity status tracking, TRAXEE enables remote mass memory and driver card download and permanent driving style monitoring.

| Component | Part number | Content |
|--|---------------|--|
| TRAXEE main unit | 446 297 001 0 |  |
| TRAXEE power I/O cable (Tacho and RDD wires: 4.5 m / Other wires: 2 m) (with 8-pole connector) | 894 600 059 0 | 8-wire cable  |
| TRAXEE CAN cable (2 m) (with 4-pole connector) | 894 600 058 0 | 2-wire cable  |
| FMS connector kit | 400 608 901 0 |  |
| RDD connector kit (red C- connector) | 400 608 902 0 |  |
| Tacho connector kit (brown D- connector) | 400 608 903 0 |  |
| Quick instruction manual / Safety instructions / Vehicle installation card | | |

MAIN UNIT HARDWARE DESCRIPTION



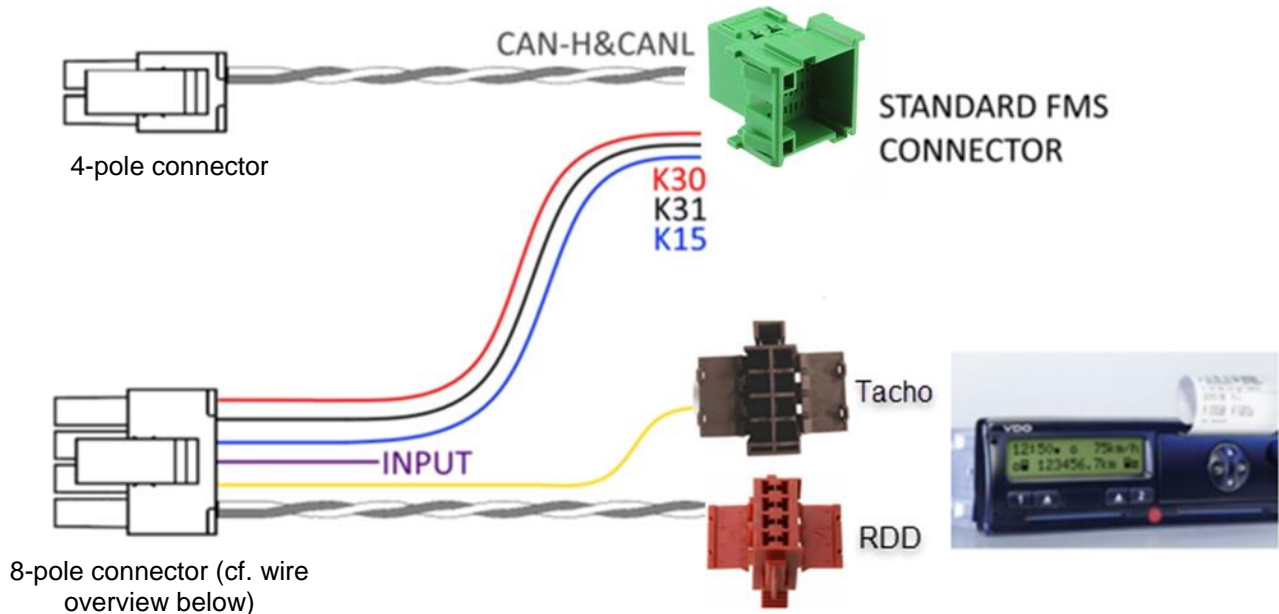
| | | | | | |
|---|--|---|--------------|--------------|-------------------------|
| 1 | LED indicators (see p. 43 for more info) |  | Power status | CAN | CAN connection status |
| | |  | GPRS status | RDD | RDD connection status |
| | |  | GPS status | TACHO | Tacho connection status |
| 2 | Label (top) | QR code + device serial number: TRC1-XXXXXXXXXXXXXXXXX (15 digits) | | | |
| 3 | Label (bottom) |  | | | |
| 4 | Notches for cable ties | | | | |
| 5 | 4-pole connector | See Connection overview (p. 7) | | | |
| 6 | 8-pole connector | | | | |

STEP 2 - CONNECT THE HARDWARE



Connections must be done with the vehicle ignition turned OFF!
Any wires that are not used, must be tied up in a suiting way, so as not to cause a short circuit.
Minimally VBAT (K30), GND (K31) and ignition (K15) must be connected.

CONNECTION OVERVIEW



Wire overview 8-pole connector:



| PIN | Signal | Wire |
|-----|---------------------------------------|--------|
| 1 | K31 GND | Black |
| 2 | INPUT (future use) | Violet |
| 3 | Not used | - |
| 4 | RDD CAN LOW | Grey |
| 5 | K30 VBAT (Positive voltage 12/24 VDC) | Red |
| 6 | K15 IGN (Ignition) | Blue |
| 7 | Digital tacho | Yellow |
| 8 | RDD CAN HIGH | White |



The positive voltage 12/24 VDC AND the positive voltage after contact must be protected by a blade fuse of between 2 and 3A.
When using the FMS standard connector, this circuit is fused by the truck manufacturer (consult the truck manual for the fuse location).
When using direct power connections, a separate fuse has to be installed (not included).

RECOMMENDED INSTALLATION LOCATIONS PER TRUCK BRAND



The technical engineer remains responsible at all times for the correct installation and connection of the hardware. Always check all functionalities after each installation.

WABCO cannot be held responsible for any possible damage / interruption ensuing from the correct or incorrect following of the recommendations as listed in this document.

Mercedes Actros



DAF XF



Iveco Stralis



MAN TGX - TGS



Volvo FH



Renault



Scania R-Series



CONNECTION TO THE STANDARD FMS CONNECTOR

WHAT IS AN FMS INTERFACE?

FMS gateway refers to an interface that helps to release technical information about a vehicle to the back office. Leading truck manufacturers have agreed to use one, single standard for delivering information from their vehicle CAN Bus to third parties: the FMS standard. By fitting an FMS interface / gateway into a vehicle, the CAN Bus technology is linked to the telematics solution of the fleet management system (FMS). This allows the carrier's back office to read out and interpret all the technical details.



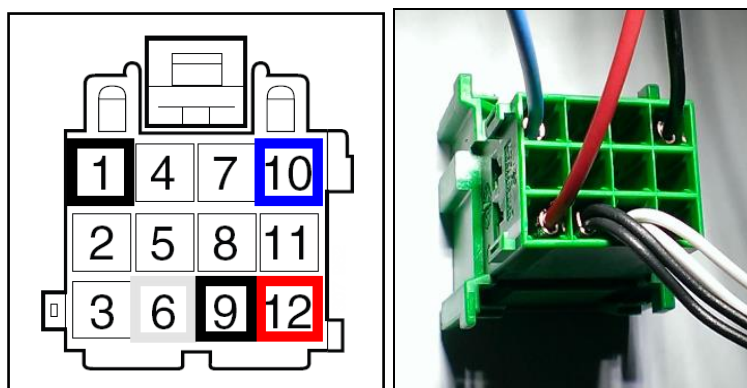
In recent truck types, a standard FMS connector should be available with all required signals. On the following pages, you will find the available signals per truck brand and the specific FMS connector name (if any).

If no FMS interface is available, you will need to connect the power signals (GND, +15 and +30) and the CAN signals (CAN HIGH and CAN LOW) directly to the truck.

Consult the truck-specific installation guide for more information on direct vehicle connections (without standard FMS connector).



THE POSITIVE VOLTAGE 12/24 VDC AND THE POSITIVE VOLTAGE AFTER CONTACT MUST BE PROTECTED BY A BLADE FUSE OF BETWEEN 2 AND 3A.







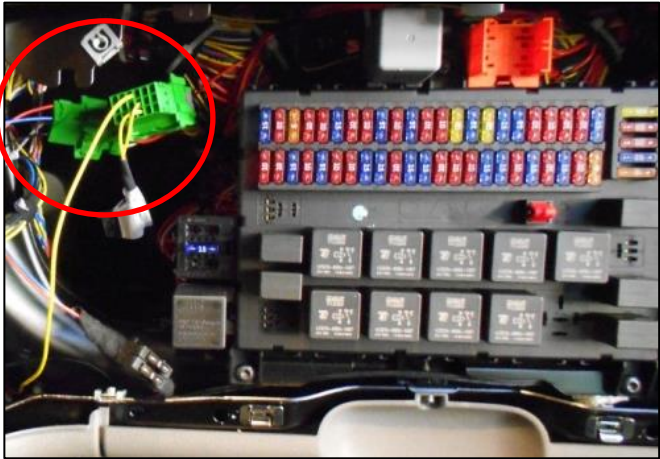

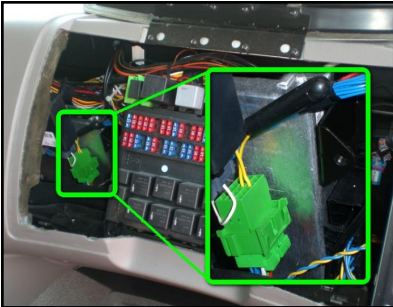


If an active FMS connector is available in your vehicle, the following signals are available:


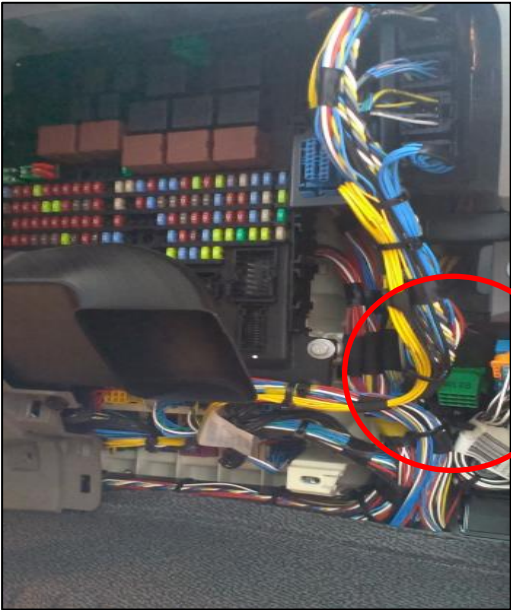

| Signal | Pin |
|---------------|-----|
| GND (31) | 1 |
| Ignition (15) | 10 |
| Vbat (30) | 12 |
| CAN H | 6 |
| CAN L | 9 |

WHERE TO FIND THE FMS INTERFACE ON MY TRUCK


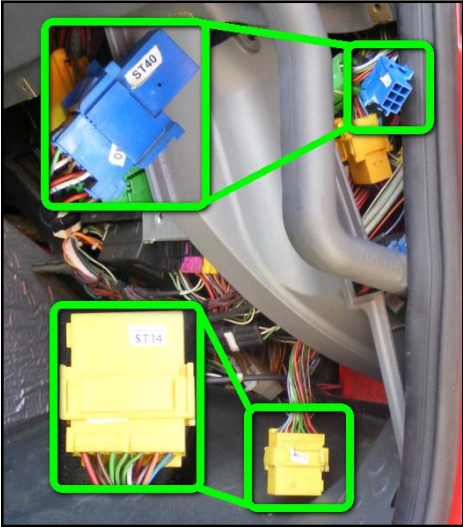

DAF CF - XF 105

| | |
|-------------------|---|
| Truck | <div></div> |
| Location in truck | <div><div><p>Top view truck cabin</p></div><div></div><p>The FMS and A098 connectors can also be found behind a module on the left or under the fuse board.</p></div> |
| Connector | <div></div> <p>Connector A098</p> |


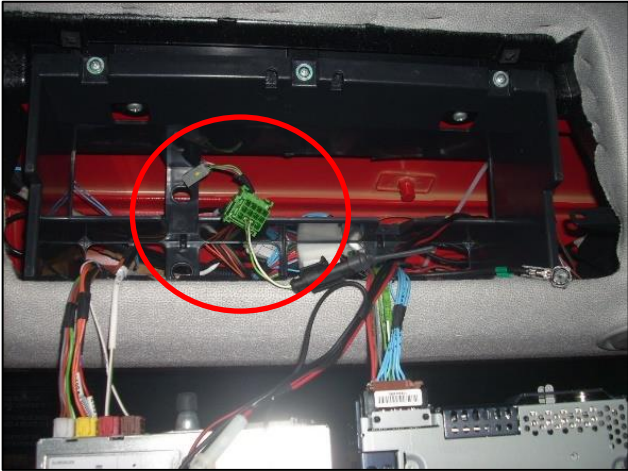

DAF LF EURO 6

| | |
|-------------------|--|
| Truck |  |
| Location in truck |  |
| Connector |  <p>Connector A138</p> |

IVECO Stralis I

| | |
|-------------------|--|
| Truck |  |
| Location in truck | <div><p>Somewhere above connector ST14, you can find the blue connector ST40. The FMS connections should be made here.</p><p>The pin numbers of the FMS wires can change. So be sure to connect to the correct wire colors.</p></div> |
| Connector |  |

Iveco Stralis II & Hi-Way

| | |
|-------------------|---|
| Truck |  |
| Location in truck | <div><p>The connector can be found behind the radio. It is housed in one of the compartments in DIN format, located above the driver's side sun visor.</p></div> |
| Connector | <div><p>FMS</p></div> |


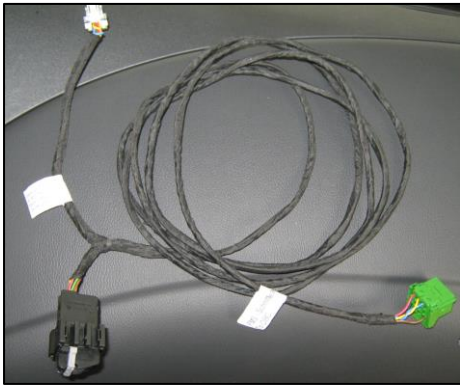
MAN TGX, TGS, TGM, TGL

| | |
|-------------------|--|
| Truck | <div></div> <div>TGX TGS TGM TGL</div> |
| Location in truck |  |
| Connector | <div></div> <div>FMS</div> |

MERCEDES ACTROS (MP 1,2,3) Euro 3/4/5

| | |
|-------------------|--|
| Truck |  |
| Location in truck | <p>Since November 2011, the Actros is delivered with an active Fleetboard.</p> <p>The customer needs to order the Y-cable that is connected to the Fleetboard. The “FMS router function” must be activated in the Fleetboard by MB Germany.</p> <p>If available, the FMS connector can be found:</p> <ul style="list-style-type: none">- Behind the radio.- Behind the center of the dashboard. |
| Connector |  <p>FMS CONNECTOR Y-cable A0035405005</p> |

Mercedes New ACTROS (MP4), ANTOS, ATEGO, AROCS Euro 5-6 (WDB963.### - 964.###)

| | |
|-------------------|---|
| Truck |  |
| Location in truck | <p>Since November 2011, the Actros is delivered with an active Fleetboard.</p> <p>The customer needs to order the Y-cable that is connected to the Fleetboard. The "FMS router function" must be activated in the Fleetboard by MB Germany.</p> |
| Connector |  <p>FMS CONNECTOR Y-cable A0035405005</p> |




MERCEDES ATEGO

| | |
|-------------------|--|
| Truck |  |
| Location in truck | No FMS interface available |



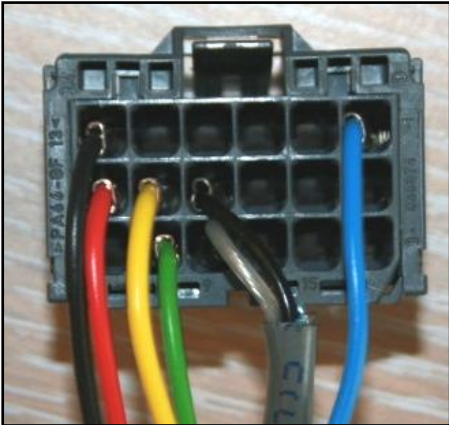
MERCEDES AXOR II

| | |
|-------------------|---|
| Truck |  |
| Location in truck | No FMS interface available |


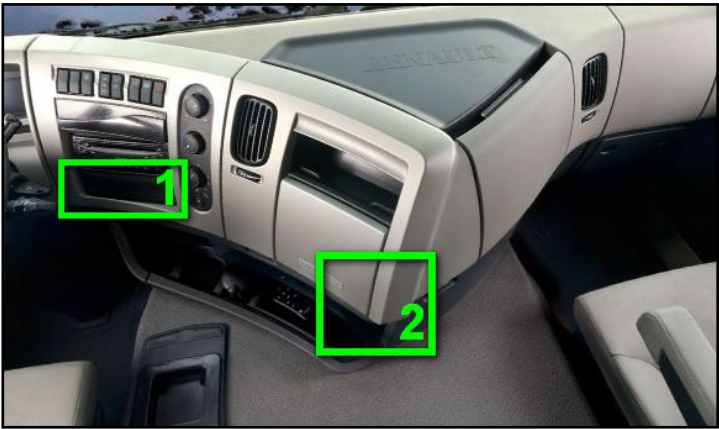
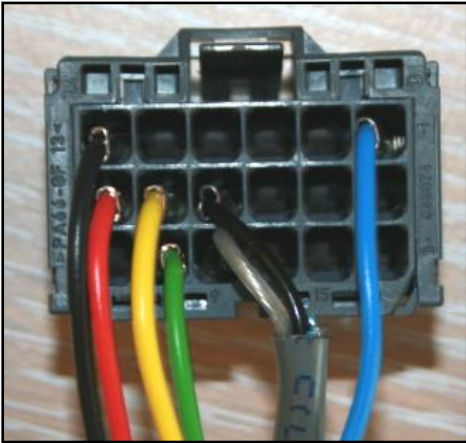
Renault D

| | |
|-------------------|---|
| Truck |  |
| Location in truck | <p>Behind the radio panel, you should find FMS connector X26.</p>  |
| Connector |  <p>Connector X26</p> |


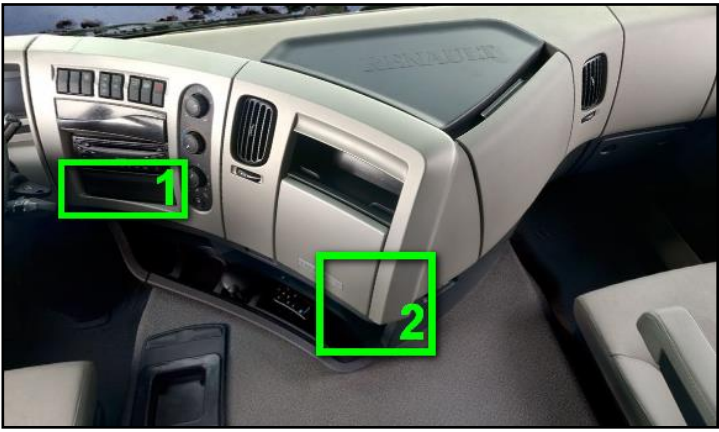
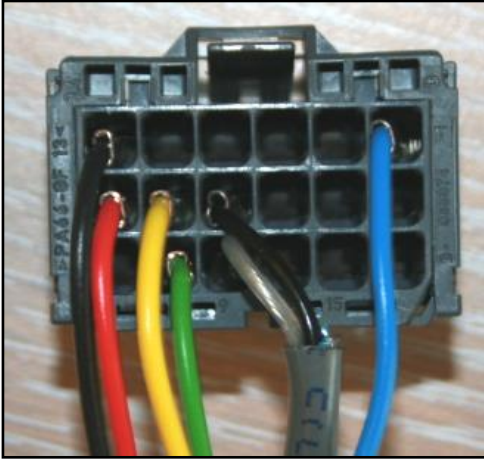

RENAULT MAGNUM DXI (VF617) & E-TECH

| | |
|-------------------|---|
| Truck |  |
| Location in truck | <div><p>The grey FMS connector can be found behind the cup holder on the right side of the driver. All connections can be made there.</p><p>FMS connector</p></div> |
| Connector | <div><p>Part number 74 20 367 826</p></div> |


RENAULT MIDLUM DXI

| | | |
|-------------------|--|--|
| Truck |  | |
| Location in truck | <p>The location of the grey FMS connector depends on the cab model and the production date.</p> <ol style="list-style-type: none">1. Behind the cover plate underneath the radio.2. Behind the bottom part of the dashboard. To reach it, dismount the glove box. |  |
| Connector |  <p>Part number 74 20 367 826</p> | |

RENAULT PREMIUM DXI (VF624 / VF627 / VF629)

| | |
|-------------------|--|
| Truck |  |
| Location in truck | <p>The location of the grey FMS connector depends on the cab model and the production date.</p> <ol style="list-style-type: none"> 1. Behind the cover plate underneath the radio. 2. Behind the bottom part of the dashboard. To reach it, dismount the glove box (2 screws on the inside).  |
| Connector |   <p>Part number 74 20 367 826</p> |


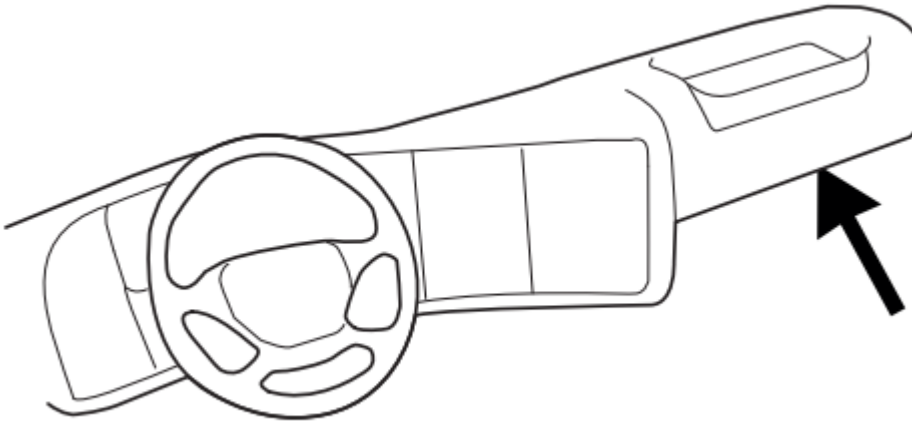
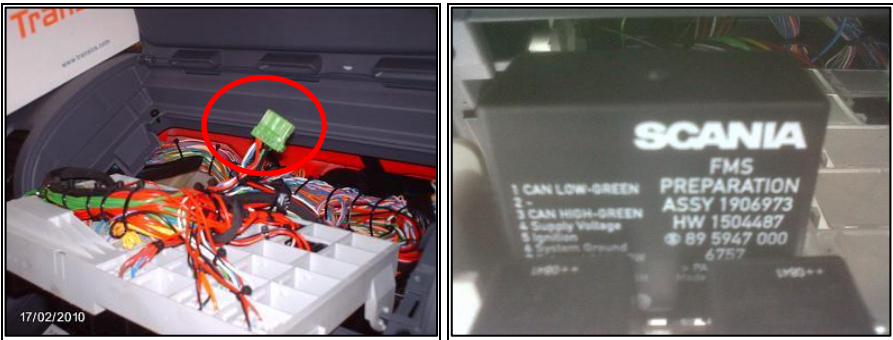
Renault Premium DCI

| | |
|-------------------|--|
| Truck |  |
| Location in truck | No FMS interface available |


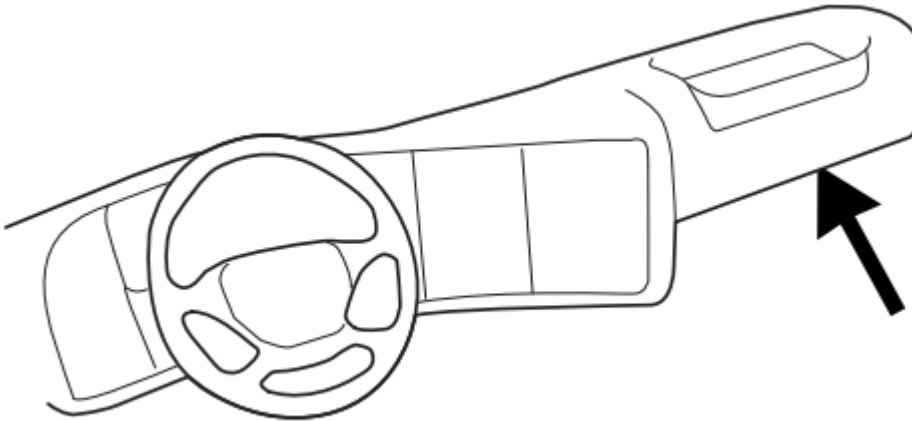
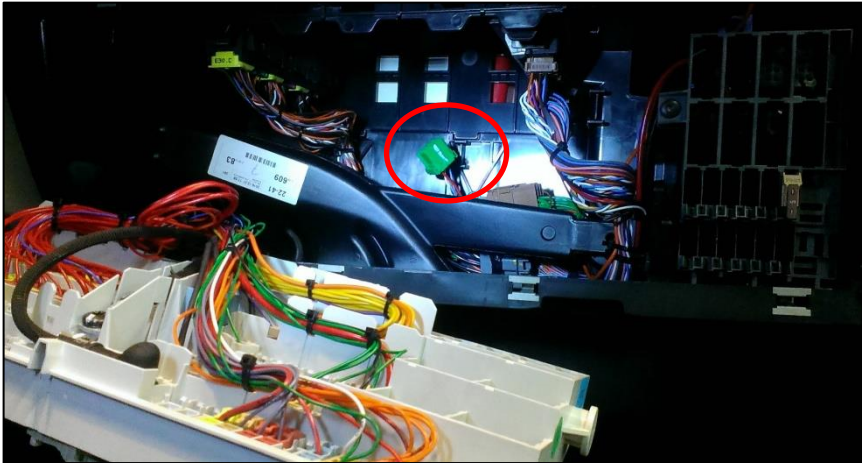
Renault T K C

| | |
|-------------------|---|
| Truck |  |
| Location in truck | <p>Take away the grey radio panel. You should find FMS connector X26 behind the glove box.</p>  |
| Connector |  <p>Connector X26</p> |


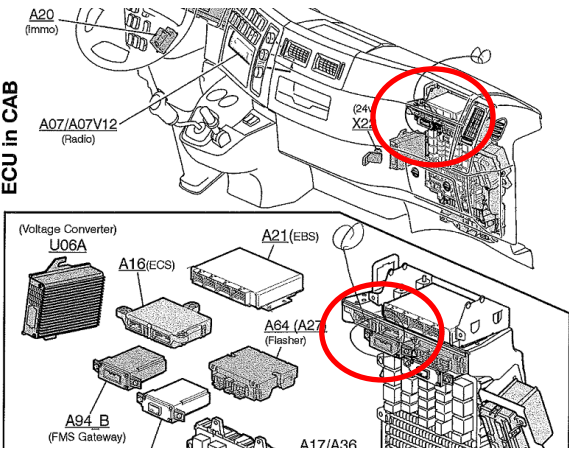
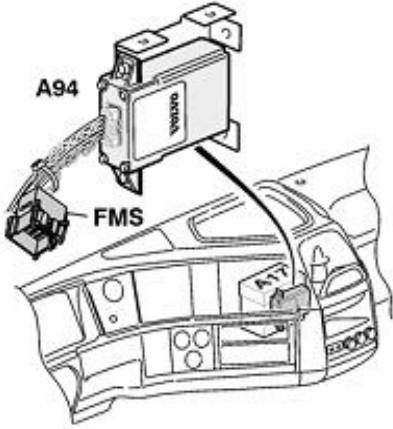
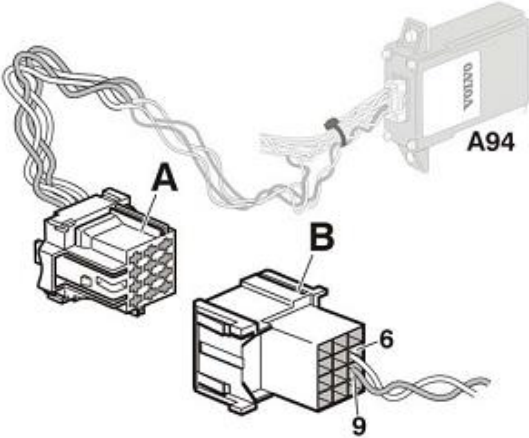
SCANIA R-G-P Series

| | |
|-------------------|--|
| Truck |  |
| Location in truck | <p>Connector C137 can be located underneath the fuse board.</p>  <p><i>Location of C137</i></p> |
| Connector |  <p>Connector C137</p> |


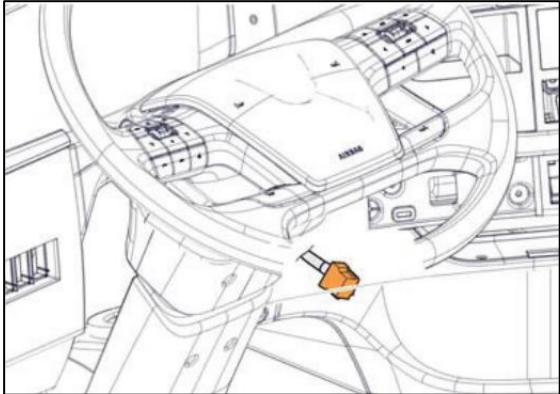



SCANIA New R-S-G-P Series

| | |
|-------------------|--|
| Truck |  |
| Location in truck | <p>Connector C137 can be located behind the fuse board (take out the air tube).</p>  <p><i>Location of C137</i></p> |
| Connector |  <p>Connector C137</p> |





VOLVO FH-FM-FL TYPE 2

| | |
|-------------------|---|
| Truck |  |
| Location in truck | <div><div><p>ECU in CAB</p><p>Volvo FL</p></div><div><p>Volvo FH</p></div></div> |
| Connector |  <p>FMS connector</p> |

VOLVO NEW FH-FM-FL

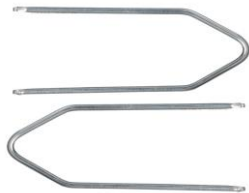

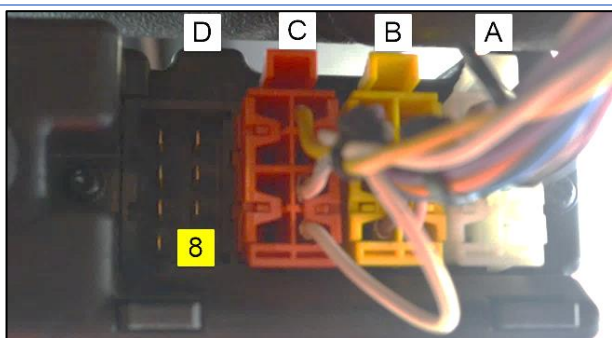

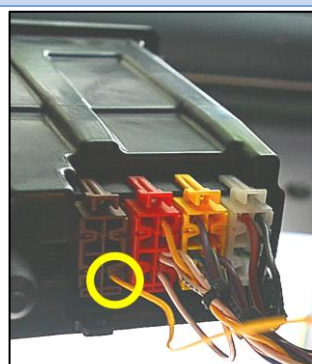
| | |
|--------------------------|--|
| Truck |  |
| Location in truck | <div data-bbox="264 517 826 943"> <p>Volvo FH</p>  </div> <div data-bbox="264 952 826 1270">  </div> <div data-bbox="272 1274 810 1308"> <p>It can also be found under the fuse board.</p> </div> <div data-bbox="300 1312 788 1865">  </div> <div data-bbox="882 851 1430 1547"> <p>Volvo FL</p>  </div> |
| Connector | |

CONNECT TO THE DIGITAL TACHOGRAPH (D8)

| | | | |
|---|----------------------|--|---|
|  | | Opening the tachograph | |
| | | If the seal of the tachograph has been broken during assembly, or if signals from the tachograph are being diverted to the on-board computer, the tachograph has to be resealed by an authorized organization. WABCO and its distributors do NOT accept any responsibility for possible infringements against local legislation. | |
|  | SUPPORTED | Digital tachograph Siemens VDO |  |
| | | Digital tachograph Stoneridge (cf. Stoneridge D8 format below) |  |
| | | Digital tachograph Actia (SmarTach) | |
| | NOT SUPPORTED | <ul style="list-style-type: none">- Other types of digital tachograph: EFAS- Analogue tachographs | |



Connect the TRAXEE device to the tachograph by inserting the yellow tacho wire from the power I/O cable to **position D, pin 8** at the back of the tachograph using the brown connector.

| | | |
|---|--|--|
| <p>1. Firstly, remove the digital tachograph from its DIN shaft using the tachograph removal tools.</p> <p>The tachograph can usually be found above the driver seat.</p> |  | |
| <p>2. Insert the removal tools on both sides of the tachograph. Pull out the tachograph while pushing the brackets outwards.</p> |  | |
| <p>3. Connect the yellow tacho wire to position D, pin 8 at the back of the tachograph using the brown connector.</p> |  | |
|  | <ul style="list-style-type: none">▪ If no connector is present in position D, use the brown D connector provided with the tacho connector kit (part no. 400 608 903 0 (cf. Tacho connector kit (brown D-connector) on p. 5)).▪ In case a wire is already occupying position D8, extract the wire from the connector using the extraction tool and crimp the existing wire together with the yellow tacho wire on a new connector pin. Next, plug in the connector pin to position 8 of the brown connector. | |
| | <p>4. Plug in the brown connector to position D and place the digital tachograph back in its original position.</p> |  |



In case of a Stoneridge tachograph, a setting must be adjusted to enable synchronization with TRAXEE. A tacho company card or workshop card is required for this.



Stoneridge D8 format

1. Insert the company / workshop card in the tachograph and press **OK** to show the menu.

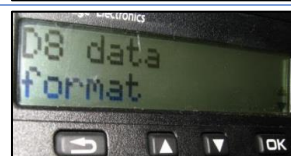
2. Select **SETTINGS** and press **OK**.



3. Select **Parameters** and press **OK**.



4. Select **D8 data format** and press **OK**.

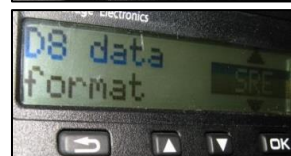
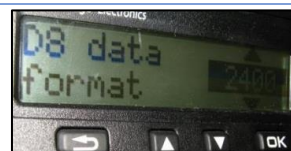


5. Next, set the tacho to:

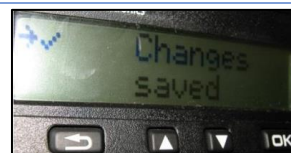
5.1. **SRE** in case the tacho version is ≤ 7.1

5.2. **2400** in case the tacho version is > 7.1

Note: You can verify the tacho version on a tacho printout (cf. [Stoneridge](#) p. 32).



6. Press **OK** to save the changes.



CONNECT THE REMOTE DATA DOWNLOAD (RDD)

| | |
|---|--|
| <p>RDD signal available on FMS ⇒ OPTION A - RDD via FMS</p> | <p>Applies to:</p> <ul style="list-style-type: none"> DAF CF - LF - XF IVECO Stralis I / II / Hi-Way Renault D / Magnum DXI & E-TECH / Midlum DXI / Premium DXI / Renault T-K-C Volvo FH-FM-FL |
| <p>RDD signal NOT available on FMS ⇒ OPTION B - RDD via tachograph</p> | <p>Applies to:</p> <ul style="list-style-type: none"> MAN TGX - TGA - TGL - TGM Mercedes: Actros / Antos / Atego / Arocs / Axor II Scania R-S-G-P |

OPTION A - RDD VIA FMS

If the RDD signal is available on the FMS interface (CAN-H / CAN-L), no additional connection is required.

In this case, the **WHITE** and **GREY** wires from the TRAXEE power I/O cable (RDD CAN H / RDD CAN L) are connected to pin 6 and 9 on the FMS connector (cf. [Connection to the standard FMS connector](#) on p. 10), together with the CAN wires from the TRAXEE CAN cable (cf. [OPTION A - Connection to the CAN Bus via the FMS interface](#) on p. 33).

OPTION B - RDD VIA TACHOGRAPH

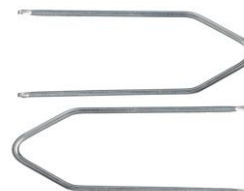
If the RDD signal is NOT available on the FMS interface (or if no FMS interface is available in the truck), you need to retrieve the RDD data by connecting **to the tachograph**.



Firstly, check if the installed tachograph is compatible with RDD:
Cf. [RDD tachocompatibility](#) p. 31

Connect the TRAXEE device to the tachograph by inserting the **WHITE** and **GREY** wires from the TRAXEE power I/O cable to **position C, pin 5 and pin 7** at the back of the tachograph using the red C-connector.

- Firstly, remove the digital tachograph from its DIN shaft using the tachograph removal tools.
The tachograph can usually be found above the driver seat.

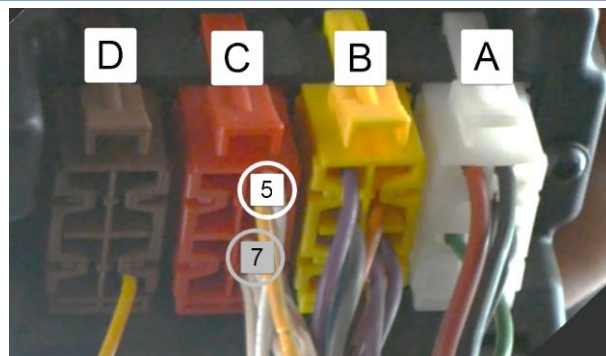


- Insert the removal tools on both sides of the tachograph. Pull out the tachograph while pushing the brackets outwards.



- Connect the **WHITE** and **GREY** wires from the TRAXEE power I/O cable to **position C, pin 5 and pin 7** at the back of the tachograph using the red C-connector.

| Wire color | Tacho pin | Signal |
|------------|-----------|----------|
| WHITE | 5 | RDD High |
| GREY | 7 | RDD Low |





If no connector is present in position C, use the red C-connector provided with the RDD connector kit (part no. 400 608 902 0 (cf. [RDD connector kit \(red C-connector\)](#) on p. 5)).

RDD tacho compatibility

VDO

You need the tacho serial number to verify if your tacho type is compatible with RDD. The tacho serial number can be found on:

| Tacho printout | Sticker on the tachograph: (Can be found behind the paper roll of the printer) |
|---|--|
|  |  |

Next, consult [Appendix I - RDD tacho compatibility overview](#) (p. 53) to verify if your tacho is compatible with RDD. When you have found the serial number in the list, check the last **CAN 2 (1.4 ->)** column in the overview.



| | |
|---|---|
| ● | Compatible with RDD. |
| ○ | Compatible with RDD, but must be activated first (cf. VDO activation (1.3a) below). |
| — | Not compatible with RDD. |

VDO activation (in case of firmware version 1.3a)

i

In case the RDD signal has not been activated yet on the tachograph, it must be unlocked at first using a VDO Compact Test Computer II and a workshop card.

This procedure must be performed in an authorized tacho workshop.

| VDO Compact Test Computer II |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-----------|------|------|------|----|------|------------------------|------|------|--|---|---|---|---|---|---|---|---|---|---|--|--|--|---|---|--|---|--|--|--|---|--|---|---|--|---|--|--|--|--|---|--|--|--|--|---|--|--|--|--|---|--|--|--|--|
| A workshop card |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Access the option "CAN2 Remote Downl." in the menu and make sure it is set to ON. | <div><div><div>PROGRAMMING</div><div>TCO PARAMETER</div><div> N CONSTANT</div><div> DRIVE SHAFT PPR</div><div> CONFIGURATION</div><div> CAN BUS</div><div> CAN ON/OFF</div><div> RESET HEARTBEAT</div><div> REPETIT. RATE TCO1</div><div> OUT OF SCOPE WARN.²⁾</div><div> CAN2 ON/OFF²⁾</div><div> CAN2 TCO1 ON/OFF²⁾</div><div> CAN2 WAKE UP ON D3²⁾</div><div style="border: 2px solid red;"><div> CAN2 REMOTE DOWNL.²⁾</div></div></div><div><table><tr><th>DTCO EFAS</th><th>SE</th><th>Smar</th><th>MTCO</th><th>SE</th></tr><tr><td>1381</td><td>5000 Tach[®]</td><td>1324</td><td>2400</td><td></td></tr><tr><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr><tr><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr><tr><td></td><td></td><td></td><td>✓</td><td>✓</td></tr><tr><td></td><td>✓</td><td></td><td></td><td></td></tr><tr><td>✓</td><td></td><td>✓</td><td>✓</td><td></td></tr><tr><td>✓</td><td></td><td></td><td></td><td></td></tr><tr><td>✓</td><td></td><td></td><td></td><td></td></tr><tr><td>✓</td><td></td><td></td><td></td><td></td></tr><tr><td>✓</td><td></td><td></td><td></td><td></td></tr></table></div></div> <div><div>CAN2 REMOTE DOWNL.</div><div>Enables or disables Remote Download via CAN2.</div><div>1381 Rel. 1.3 and higher ON/ OFF.</div></div> | DTCO EFAS | SE | Smar | MTCO | SE | 1381 | 5000 Tach [®] | 1324 | 2400 | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | | ✓ | | | | ✓ | | ✓ | ✓ | | ✓ | | | | | ✓ | | | | | ✓ | | | | | ✓ | | | | |
| DTCO EFAS | SE | Smar | MTCO | SE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1381 | 5000 Tach [®] | 1324 | 2400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | ✓ | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ✓ | | ✓ | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Stoneridge

The tacho firmware version must be at least SE 5000 7.1.

The version can be found on a tacho printout.

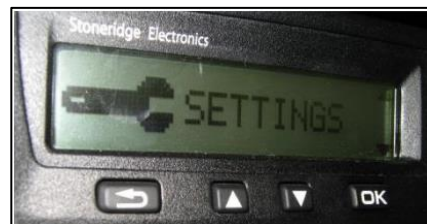


On Stoneridge tachographs, the configured RDD output signal must be verified using the workshop card (NOT the company card!).

The option "Download CAN selection" must be set to C.

This procedure must be performed in an authorized tacho workshop.

1. Insert the workshop card.
2. Use the arrow buttons to navigate to "Settings" and press **OK**.
3. Next, navigate to "Parameters" and press **OK**.
4. Navigate to "Download CAN selection" and press **OK**.
5. Make sure that "Download CAN selection" is set to **C**. Press **OK** to confirm any changes.



Actia

The following tacho types are compatible: Actia AC965124 ind B, AC966060ind A, AC965123 ind B.

CONNECT TO THE CAN BUS



REGARDLESS OF WHAT CHANGES YOU MAKE TO THE CAN BUS CONNECTION, ALWAYS SWITCH OFF TENSION FIRST!

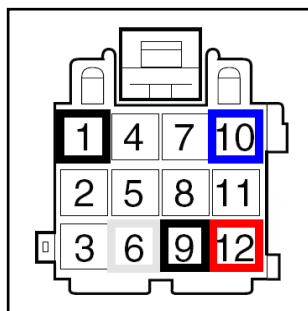
OPTION A - CONNECTION TO THE CAN BUS VIA THE FMS INTERFACE

Required on the truck side: the FMS interface

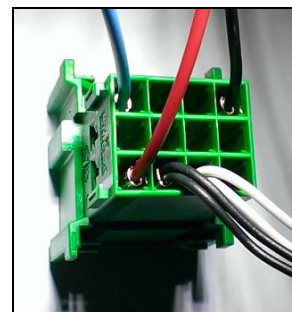
The TRAXEE unit is connected to the CAN Bus through the FMS interface of the truck. Every truck manufacturer has a specific FMS Gateway. **The FMS Gateway is delivered, installed and activated by the truck manufacturer.**

Consult [Where to find the FMS interface on my truck](#) on page 11.

| Signal | Pin |
|---------------|-----|
| GND (31) | 1 |
| Ignition (15) | 10 |
| Vbat (30) | 12 |
| CAN H | 6 |
| CAN L | 9 |



Front view



Back view

Wiring between the FMS Gateway and TRAXEE: the TRAXEE CAN cable

The CAN cable wires from the TRAXEE unit must be connected to the FMS Gateway as follows.



| Wire color | Signal |
|------------|----------|
| BLACK | CAN LOW |
| WHITE | CAN HIGH |

OPTION B - CONNECTION TO THE CAN BUS VIA THE TYPE 1 CAN INTERFACE (CAN CLAMP)



In case no FMS interface is installed on the vehicle, the TYPE 1 CAN interface can be used to connect to the vehicle CAN Bus on the following truck types (truck construction year > 2005):



- | | |
|----------------------------|-------------------------------|
| ▪ DAF XF95 - XF105 - XF106 | ▪ MAN TGX-TGA-TGS-TGM-TGL |
| ▪ IVECO Stralis Euro 4 - 5 | ▪ Scania P - R - T |
| ▪ Renault T-K-C (EURO 6) | ▪ Volvo FH - FM - FL (EURO 6) |

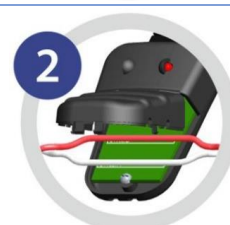
Connect the TRAXEE device to the CAN Bus by attaching the TYPE 1 CAN interface to the CAN wires in the truck.

1. Open the TYPE 1 CAN interface.



2. Place the CAN HIGH and CAN LOW wires in the TYPE 1 CAN interface.

Consult [Connection to truck CAN signal](#) below on p. 35 to find the correct CAN wires in the truck.



Installation guidelines

After closing the TYPE 1 CAN interface, make sure that the CAN wires cannot move anymore. The CAN wires should be tightly twisted against the TYPE 1 CAN interface, as shown in the image below.



CAN wires not twisted
=> The wires can move back and forth in the TYPE 1 CAN interface.

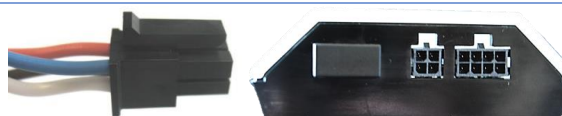


CAN wires tightly twisted against the TYPE 1 CAN interface
=> The CAN wires can no longer move in the TYPE 1 CAN interface.

3. Close the TYPE 1 CAN interface.



4. Plug in the TYPE 1 CAN interface 4-pole connector to the TRAXEE unit.



5. Verify the connection.



TURN ON THE CONTACT TO VERIFY THE CONNECTION.

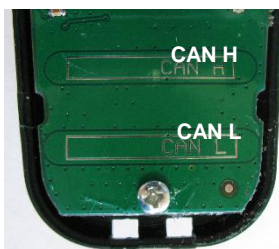


Green LED blinking:
Transferring data



Red LED ON: Power ON

Connection to truck CAN signal



| Vehicle type | Wire color - CAN HIGH | Wire color - CAN LOW |
|---------------------------|-----------------------|----------------------|
| DAF XF95 - XF105 | Blue | Yellow |
| DAF XF EURO 6 | Red | Yellow |
| IVECO Stralis Euro 4-5 | White | Green |
| MAN TGX-TGA-TGS-TGM-TGL | Blue - Red | Blue - White |
| SCANIA P-R-T | Yellow | White |
| Renault T-K-C EURO 6 | Yellow | Green |
| Volvo FH - FM - FL EURO 6 | | |

Location of CAN wires

DAF XF

On the lower left side of the fuse box, the **CAN Bus distribution block** can be found. Connect the TYPE 1 CAN interface to any of the blue and yellow wires.

- CAN HIGH: BLUE
- CAN LOW: YELLOW



DAF XF CF EURO 6

Find the green 56k connector behind the lower dashboard panel on the passenger side.

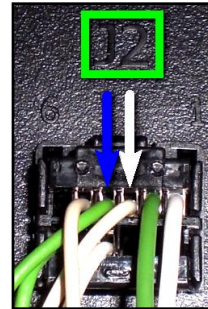
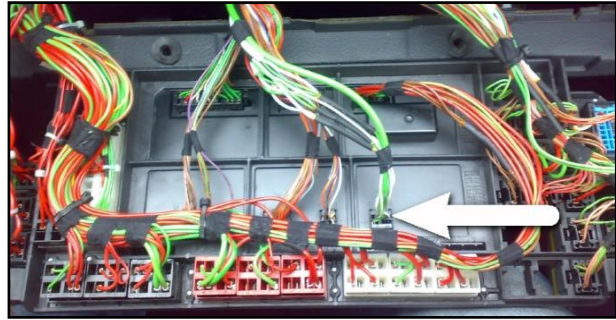
- CAN HIGH: RED
- CAN LOW: YELLOW



IVECO Stralis I / II / Hi-way

On the backside of the fuse board, you can find connector **J2**, where you can connect the TYPE 1 CAN interface.

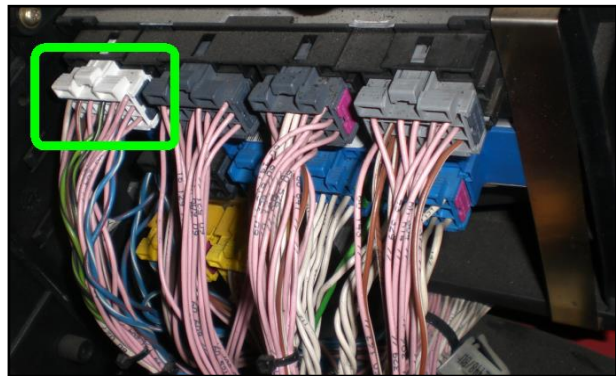
- **CAN HIGH: WHITE - PIN 3 Iveco**
- **CAN LOW: GREEN - PIN 4 Iveco**



MAN TGA - TGL - TGM (< 2007)

On the left side of the fuse board, you can find the white connector **A 403X1**. Here, you can connect the TYPE 1 CAN interface to the BLUE - WHITE and BLUE - RED wires:

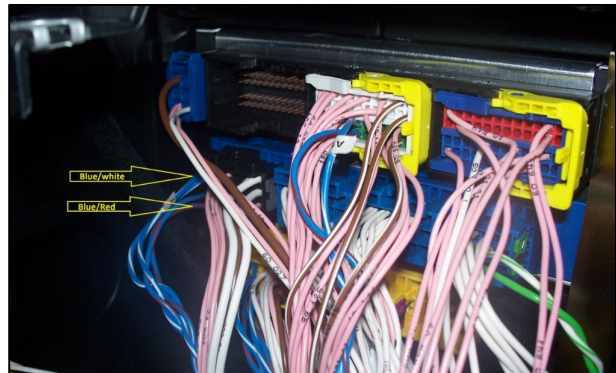
- **CAN HIGH: BLUE - RED**
- **CAN LOW: BLUE - WHITE**



MAN TGX - TGS - TGL - TGM

On the left side of the fuse board, you can find the black connector **A 402X1**. You can connect the CAN wires here:

- **CAN HIGH: BLUE - RED**
- **CAN LOW: BLUE - WHITE**

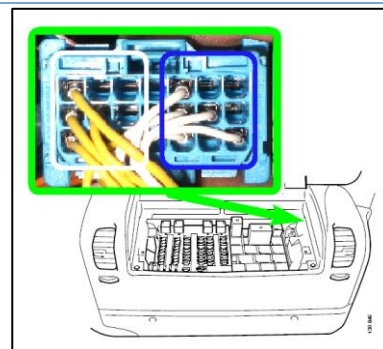


SCANIA R-G-P Series

Connector **C481** (YELLOW / WHITE wires) can be found on the right side of the fuse board.

Take the connector out of its holder and open it.

- **CAN HIGH: all YELLOW wires**
- **CAN LOW: all WHITE wires**



Renault T - K – C EURO 6

Use the 2nd pair from the left.

- **CAN HIGH: YELLOW**
- **CAN LOW: GREEN**



VOLVO FH-FM EURO 6

Open the dashboard by removing the top cover.

Find the twisted green and yellow wires on the horizontally placed connector in the top left corner of the fuse box.

- **CAN HIGH: YELLOW**
- **CAN LOW: GREEN**

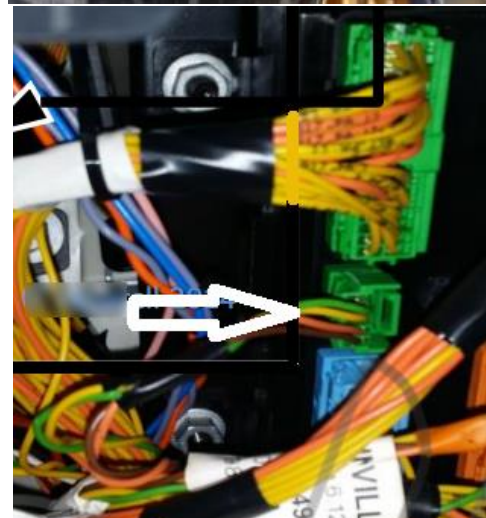


VOLVO FL EURO 6

The connection is located on the passenger side, to the right of the fuse box.

- **CAN HIGH: YELLOW**
- **CAN LOW: GREEN**

Use the YELLOW and GREEN wires from the 4-pin connector.



Consult [Appendix II - Truck-specific installation](#) for more information on direct vehicle connections (without standard FMS connector).

OPTION C - CONNECTION TO THE CAN BUS VIA THE TYPE 2 CAN INTERFACE (FLEX)



In case no FMS interface is installed, the TYPE 2 CAN interface can be used to connect directly to the vehicle CAN Bus of the following truck types (truck construction year > 2005). Two connectors are available on the TYPE 2 CAN interface, required depending on your truck type:

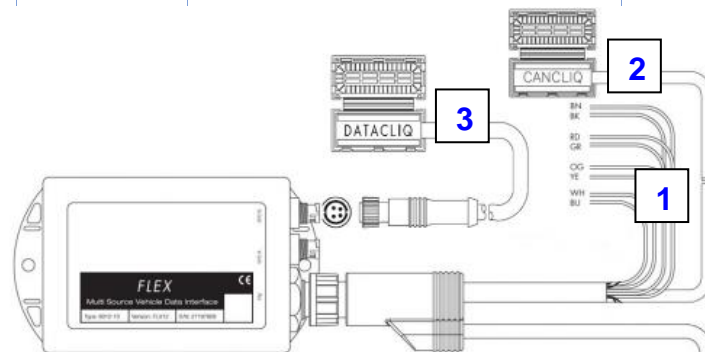
- CANcliQ** for MERCEDES, SCANIA R-S-G-P (EURO 6 - 2018) and IVECO (> 2016): On these truck types, you will only need to use the CANcliQ connector to connect to the CAN bus.
- CANcliQ + DATAcliQ** for RENAULT DXI and VOLVO (≤ EURO 5): On these truck types, the TYPE 2 CAN interface must be connected to the CAN bus using the CANcliQ **AND** to the J1708 bus using the DATAcliQ



Consult [Appendix II - Truck-specific installation](#) in the installation guide for more information on direct vehicle connections (without standard FMS connector).



| | | |
|--------------------|-------------------------------|-----------------------------------|
| CANcliQ | Mercedes Actros (MP 1 - 4) | Mercedes Atego |
| | Mercedes Antos - Arocs | Mercedes Axor |
| | SCANIA R-S-G-P (EURO 6 -2018) | Iveco Hi-Way (> 2016) |
| CANcliQ + DATAcliQ | Volvo FH – FM - FL (≤ EURO 5) | Renault Premium/Magnum/Midlum DXI |



Connection to TRAXEE (1)

Connect the blue (CAN LOW) and white (CAN HIGH) wires of the TYPE 2 module to the correct signals on the 4-pole TRAXEE CAN cable.

Connect the black wire to GND.

Connect the brown (V+) wire to POSITIVE VOLTAGE AFTER CONTACT.

TYPE 2 CAN interface

| Signal | Wire |
|--------|-------|
| GND | Black |
| CAN-L | Blue |
| CAN-H | White |
| V+ | Brown |

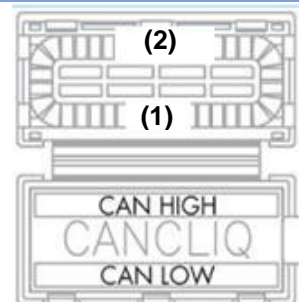
TRAXEE CAN cable

| Signal | Wire |
|--------|-------|
| CAN -L | Black |
| CAN-H | White |

Connection of CAN wires to CANcliQ (2)

Connect the CAN wires to the correct location in the truck using the CANcliQ.

Consult [Location of CAN wires](#) below (p. 40) to find the correct CAN wires in the truck.



Connection of CAN wires to CANcliQ and to DATAcliQ (3)

Connect to the J1708 bus using the DATAcliQ and to the Vehicle CAN Bus using the CANcliQ.

Consult [Location of CAN wires \(CANcliQ\)](#) and [J1708 wires \(DATAcliQ\)](#) below (p. 41) to find the correct CAN and J1708 wires in the truck.



Location of CAN wires (CANcliQ)

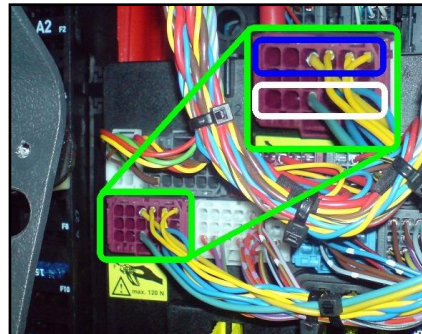
MERCEDES Actros (MP 1 - 2 - 3)

Connect the CANcliQ to the YELLOW and BLUE wires of connector **X11**.

The yellow wires (upper row) are all CAN LOW.

The blue wires (lower row) are all CAN HIGH.

1. **CAN HIGH: BLUE**
2. **CAN LOW: YELLOW**



MERCEDES Actros (MP 4) / Antos / Arocs / Atego

Find the connector with the **green** and **blue** twisted wires:

1. **CAN HIGH: BLUE**
2. **CAN LOW: GREEN**

Place both wires in the CANcliQ and close it.



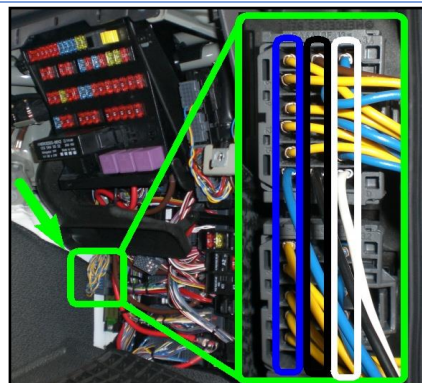
MERCEDES Axor II / Atego II

Connect the CANcliQ to the yellow and blue wires of the connector on the left side below the fuse board.

The BLUE wires (right row) are all CAN HIGH.

The YELLOW wires (left row) are all CAN LOW.

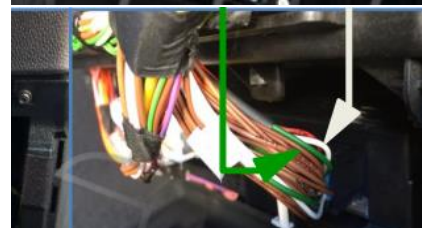
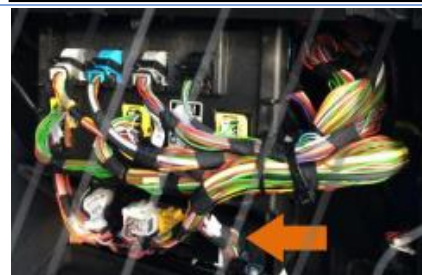
1. **CAN HIGH: BLUE**
2. **CAN LOW: YELLOW**



IVECO HiWay (> 2016)

Remove the lower dashboard cover. The CAN wires are located near the lower ECU. The blue connector can be found on the right side of the ECU.

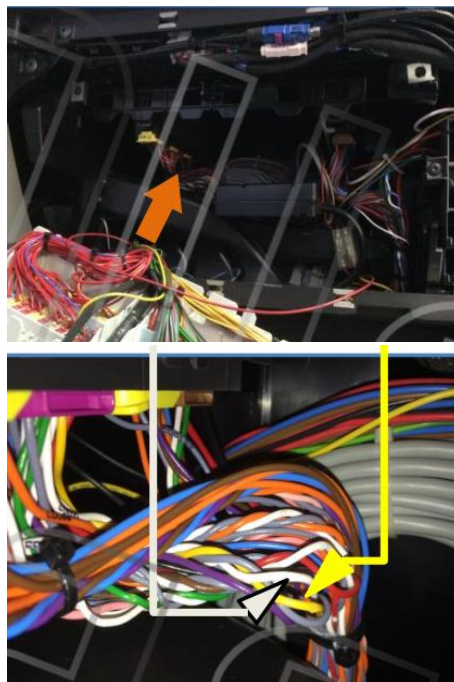
1. **CAN HIGH: WHITE IVECO**
2. **CAN LOW: GREEN IVECO**



SCANIA R-S-G-P (EURO 6 – 2018)

Remove the dashboard cover and fusebox to find the wiring loom on the left side that contains a yellow and white twisted pair of wires with a grey ground wire.

1. **CAN HIGH: YELLOW**
2. **CAN LOW: WHITE**



Location of CAN wires (CANcliQ) and J1708 wires (DATAcliQ)

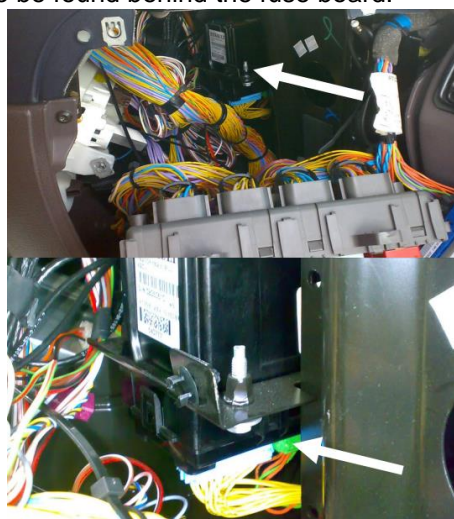
RENAULT Magnum DXI

The VECU can be found behind the cup holder. The connector is directly below it.

- **DATAcliQ**
 - **CAN HIGH: BROWN (J1708)**
 - **CAN LOW: ORANGE (J1708)**
- **CANcliQ:**
 - **CAN HIGH: ORANGE (CAN)**
 - **CAN LOW: GREEN (CAN)**



It can also be found behind the fuse board.

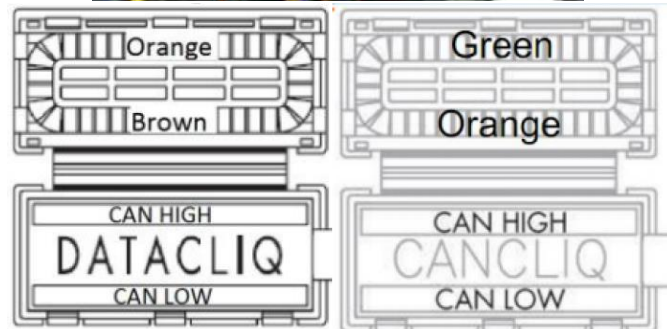


RENAULT Midlum/Premium DXI

VOLVO FL

The VECU can be found behind the panel on the right side.

- **DATAcliQ**
 - o **CAN HIGH: BROWN (J1708)**
 - o **CAN LOW: ORANGE (J1708)**
- **CANcliQ:**
 - o **CAN HIGH: ORANGE (CAN)**
 - o **CAN LOW: GREEN (CAN)**

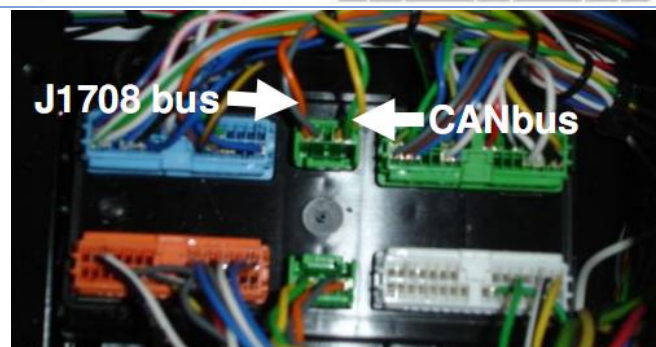
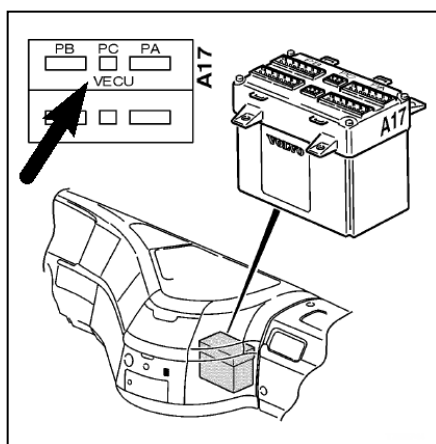


VOLVO FH-FM type 2

Underneath the fuse board, you can find the VECU.

Remark: If there are 2 similar connectors, always take the one closest to the front of the truck.




- **DATAcliQ**
 - o **CAN HIGH: ORANGE**
 - o **CAN LOW: GREY**
- **CANcliQ**
 - o **CAN HIGH: YELLOW**
 - o **CAN LOW: GREEN**



STEP 3 - CHECK THE INSTALLATION

LED INDICATORS

Via various blinking combinations of the LEDs at the front of the unit, TRAXEE will indicate its status.

| LED | Function | Color | Description |
|---|-------------------------|--------|---|
|  | Power status | GREEN | Green blinking: Power OK, contact OFF |
| | | | Green: Power OK, contact ON |
| | | RED | Power < 6V (low truck battery / wrong installation) |
| | | ORANGE | Device powered, but not activated |
|  | GPRS status | GREEN | Connected to GPRS and the server |
| | | RED | <ul style="list-style-type: none"> - No GSM coverage - Not connected to GPRS - Not connected to server |
|  | GPS status | GREEN | GPS OK (> 6 satellites detected) |
| | | RED | GPS not OK / < 6 satellites detected |
| CAN | CAN connection status | GREEN | CAN connection OK |
| | | RED | CAN connection NOK |
| RDD | RDD connection status | GREEN | RDD connection OK |
| | | RED | RDD connection NOK |
| TACHO | Tacho connection status | GREEN | Tacho connection OK |
| | | RED | Tacho connection NOK |

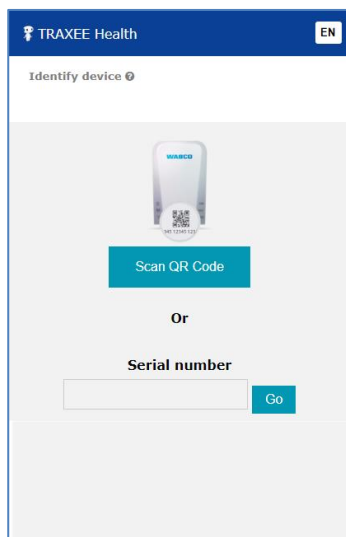
CHECK THE INSTALLATION WITH TRAXEE HEALTH CHECK

To verify the installation, use the TRAXEE Health check app (no other diagnostic software is required).



The TRAXEE Health check is only required to verify the installation, not to monitor the vehicle.

TRAXEE HEALTH CHECK



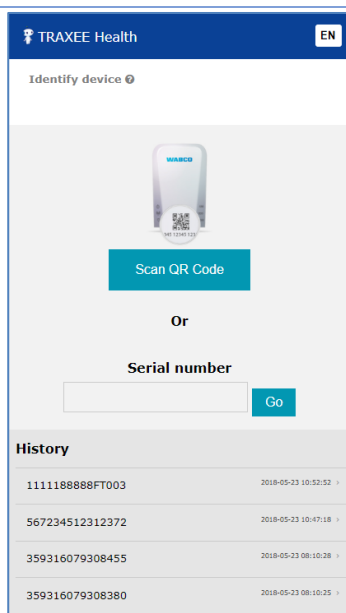
The TRAXEE installation can be registered and verified using a smartphone. Navigate to: <http://health.wabco-traxee.com/>

OR

Scan the following QR code with your smartphone (a [QR code reader app](#) installed on your smartphone is required):



ENTER THE DEVICE SERIAL NUMBER



Register the installed TRAXEE unit:

- Scan the QR-code on the front of the TRAXEE unit (cf. "Main unit hardware description" p. 6), OR
- Enter the device serial number manually.



Scanning the device QR code is not available on all operating systems (not supported on desktop or iOS devices). In this case, only the manual entry field will be available.

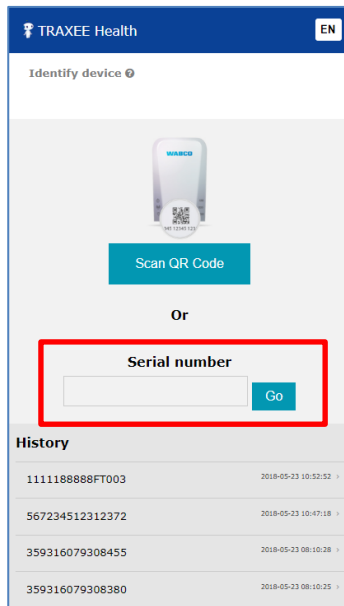
The bottom of the screen displays the history of the last scanned (or manually entered) serial numbers.



Scan

Upon clicking on the **Scan QR code** button, the barcode scanner will be automatically launched.

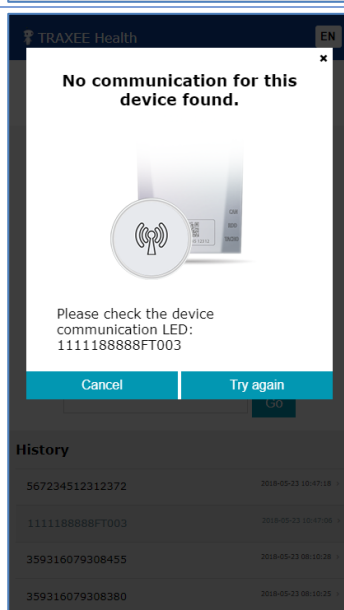
Scan the QR code on the TRAXEE device label.



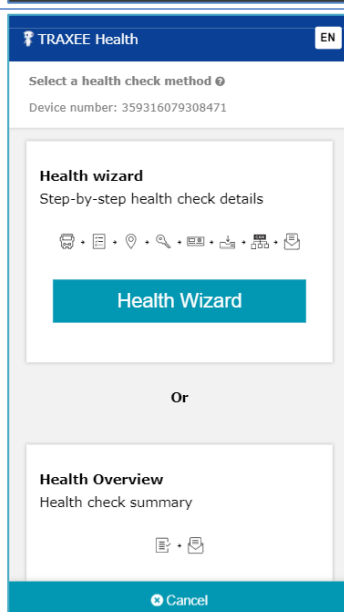
Manual entry

You can also manually enter the device serial number.

Click **GO** to validate the serial number.



To validate the serial number, the device must communicate with the remote server.



Select health check method

After validating the serial number, you can select:

- Health wizard: The health wizard guides you through the different test screens step by step.
- Health overview: The health overview displays the status of all connections in a single test screen overview.

Press **Cancel** to return to the device identification screen.

HEALTH WIZARD

Vehicle identification

In the health wizard, identify the vehicle via the entry fields at first:

- License plate
- Brand
- Model
- Construction year

Press **Next** to continue.

Press **Previous** to select another health check method.

Press **Cancel** to return to the device identification screen.

In the test screens, you can also skip the steps in case the connection is not OK.

Connections

Next, select the installed connections depending on your installation:

- Tacho
- RDD
- CAN
- No additional connections (only power / GND / ignition connected)

Tacho model

Upon selecting **Tacho**, you can specify the tacho model:

- Stoneridge < 7.1
- Stoneridge = 7.1 or 7.2
- Stoneridge ≥ 7.3
- VDO Continental < 1.3a
- VDO Continental ≥ 1.3a

Consult [RDD tacho compatibility](#) for more information on where to find the tacho firmware version (p. 31).

Which tacho model?

You can find the tacho version number:

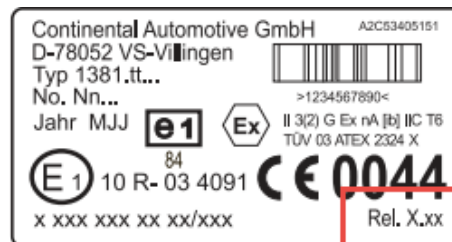
Stoneridge

On the tacho printout

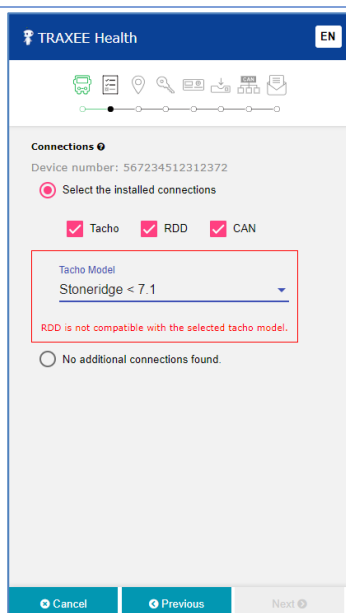


VDO

On the label behind the tachograph paper roll



Or via the tacho serial number (cf. "RDD tacho compatibility" on p. 31)



RDD

When selecting **RDD**, the app will automatically check if the entered tacho model is compatible with RDD.

Stoneridge < 7.1 and VDO Continental < 1.3 are NOT compatible with RDD.

After you have selected all your connections, press **Next** to continue.



Test GPS

In this screen, you can verify the GPS connection.

👍 = OK (satellite coverage)

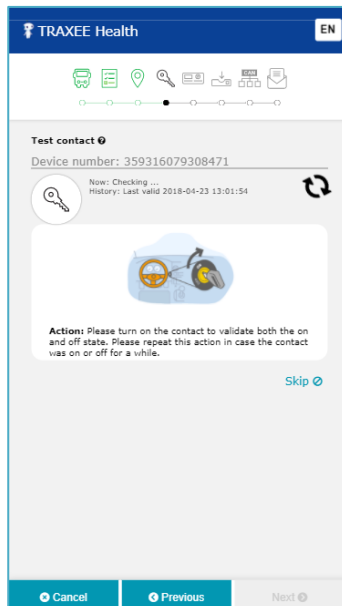
👎 = Not OK



Make sure that you test the GPS connection when the vehicle is standing outside (not inside a workshop or a warehouse).

Make sure that sufficient GPS coverage is guaranteed at all times. Verify whether a good GPS position has been received. Check this for every installation!

Press **Next** to continue.



Test contact

Status: ON / OFF



In the contact test screen, switch the contact state (ON > OFF / OFF > ON) to verify whether the change is correctly updated.

Press **Next** to continue.



Test tacho

In this screen, you can verify the tacho connection.

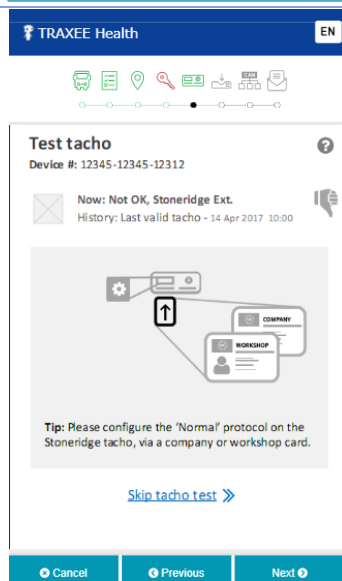
👍 = OK

👎 = Not OK



In the tacho test screen, make sure that the contact state is ON.

Press **Next** to continue.



In case of a Stoneridge tachograph, make sure it is set to the “Stoneridge normal” protocol.

The protocol should be set to:

- VDO: Continental protocol
- Stoneridge: Normal protocol

Consult [Stoneridge D8 format](#) for more information on how to adjust the tacho protocol (p. 31).

Test RDD

= OK

= Not OK



In the RDD test screen, make sure that the contact state is ON.

Press **Next** to continue.

Test CAN

= OK

= Not OK



In the CAN test screen, make sure that the contact state is ON.

Press **Next** to continue.

Mail report

Finally, you can send the health report summary to an email address. If you do not want to send the report, press **FINISH** at the bottom to close the wizard.

Available info in mail report:

- Device summary
- Connection summary
- Current status and history of the installed connections
- Additional info / comment / pictures

Enter an email address and press **ADD EMAIL**. You can enter multiple email addresses.

Add additional info / comment / pictures.

Finally, press **SEND** at the bottom.

HEALTH OVERVIEW

Test overview: connections

The health overview displays the status of all connections in a single test screen overview.



The health overview always displays all options, even if an option is not installed.

- GPS
- Contact
- Tacho
- RDD
- CAN

Test overview: status

= OK

= Not OK

Press **Next** to continue.

Press **Previous** to select another health check method.

Press **Cancel** to return to the device identification screen.

Mail report

Finally, you can send the health report summary to an email address. If you do not want to send the report, press **FINISH** at the bottom to close the wizard.

Available info in mail report:

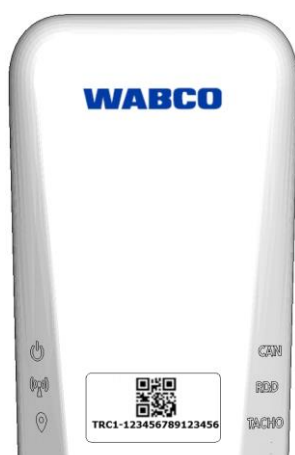
- Device summary
- Connection summary
- Current status and history of the installed connections
- Additional info / comment / pictures

Enter an email address and press **ADD EMAIL**. You can enter multiple email addresses.

Add additional info / comment / pictures.

Finally, press **SEND** at the bottom.

STEP 4 - TRAXEE POSITION



- Find a suitable location to install the TRAXEE unit under the dashboard in the vehicle cabin.
- Make sure that the top of the device is oriented towards the outside of the vehicle.
- When installing the TRAXEE unit, keep the area around the antennas away from metal or other obstructions as much as possible to avoid signal disturbance.



IMPORTANT

Always check all functionalities after each installation. **Pay special attention to the GPS coverage.** Make sure that you check the GPS coverage outside (not inside a hangar, depot, workshop ...), as structures may reduce GPS reception.



- Firmly mount the device in its place using cable ties.
- Use the notches in the bottom side of the TRAXEE unit to fix the cable ties.
- Cables must be fastened at about 50mm from the TRAXEE unit.

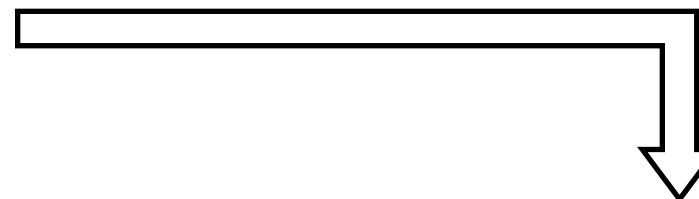
GLOSSARY

| | |
|------|--|
| FMS | Fleet management system interface |
| GND | Ground in electrical circuits |
| I/O | Input / output |
| RDD | Remote Data Download: remote tachometer mass memory download |
| VBAT | Battery voltage |
| VDC | Voltage of direct current |

APPENDIX I - RDD TACHO COMPATIBILITY OVERVIEW

When you have found the serial number in the list, check the last **CAN 2 (1.4 ->)** column in the overview.

| | |
|---|--|
| ● | Compatible with RDD. |
| ○ | Compatible with RDD, but must be activated first (cf. VDO activation (1.3a)). |
| – | Not compatible with RDD. |



| DTCO® 2.2 VDO 01.10.15 II→ OEM 18.01.16 II→ | DTCO® 2.1 VDO (→II 30.06.15) OEM (→II var.) | DTCO® 2.0a/U1 | DTCO® 1.4 | DTCO® 1.3a | DTCO® 1.2a | DTCO® 1.2 DTCO® 1.0+a | Volt | ADR | CAN 1 HW (2.0->) | CAN 2 (1.4->) | Type |
|---|---|-----------------|-----------------|-----------------|-----------------|------------------------------------|------|------|------------------|------------------|-------------|
| VDO UNIVERSAL | | | | | | | | | | | |
| 1381-0214203001 | 1381-0210209003 | 1381-0210209001 | | | | | 12V | - | 250 kBd / R=120Ω | ● | |
| 1381-0214203002 | 1381-0210209004 | 1381-0210209002 | | | | | 12V | - | 250 kBd / w/o R | ● | |
| 1381-2214303001 | 1381-2210309003 | 1381-2210309001 | | | | | 24V | ● Z2 | 250 kBd / R=120Ω | ● | |
| 1381-2214303002 | 1381-2210309004 | 1381-2210309002 | | | | | 24V | ● Z2 | 250 kBd / w/o R | ● | |
| 1381-4214302001 | 1381-4210309003 | 1381-4210309001 | | | | | 24V | ● Z1 | 250 kBd / R=120Ω | ● | |
| 1381-4214302002 | 1381-4210309004 | 1381-4210309002 | | | | | 24V | ● Z1 | 250 kBd / w/o R | ● | |
| VDO Nach- / Umrüstung & Klein-OEM / Retrofit & Small OEM | | | | | | | | | | | |
| - | - | - | 1381-0050200001 | 1381-0051000005 | 1381-0051000004 | 1381-0051000003 1381-0051000001 | 12V | - | 250 kBd / R=120Ω | - | |
| 1381-0214203001 | 1381-0210209003 | 1381-0050209001 | | | | | 12V | - | 250 kBd / R=120Ω | ● | |
| - | - | - | 1381-1050200002 | 1381-1051000012 | 1381-1051000007 | 1381-1051000004 1381-1051000001 | 24V | - | 250 kBd / R=120Ω | ● | |
| 1381-1214303003 | 1381-1210309007 | 1381-1050309001 | | | | | 24V | - | 250 kBd / R=120Ω | ● | |
| - | - | - | 1381-3050200001 | 1381-3051000001 | | | 12V | ● | 250 kBd / R=120Ω | ● | |
| 1381-3214203001 | 1381-3210209002 | 1381-3210209001 | | | | | 12V | ● Z2 | 250 kBd / R=120Ω | ● | |
| - | - | - | 1381-2050300002 | 1381-2050100010 | 1381-2050100008 | 1381-2050100006 1381-2050100005 | 24V | ● | 250 kBd / R=120Ω | ● | |
| - | 1381-2050309002 | 1381-2050309001 | | | | | 24V | ● Z2 | 250 kBd / R=120Ω | ● | |
| - | - | - | 1381-1090200002 | 1381-1081000011 | 1381-1081000010 | 1381-1081000007 1381-1081000006 | 24V | ● | 250 kBd / w/o R | ● | |
| VDO TRAINING | | | | | | | | | | | |
| - | - | - | 1381-1050000014 | 1381-1070000047 | 1381-1070000042 | 1381-1070000028 1381-1070100007 | 24V | - | 250 kBd / R=120Ω | ● | |
| 1381-1214003001 | 1381-1210009002 | 1381-1210009001 | | | | | 24V | - | 250 kBd / R=120Ω | ● | |
| - | 1381-1230009001 | - | | | | | 24V | - | 250 kBd / R=120Ω | ● | |
| Alexander Dennis | | | | | | | | | | | |
| - | - | - | 1381-1051000019 | 1381-1051000009 | 1381-1051000008 | 1381-1051000006 1381-1051000005 | 24V | - | 250 kBd / R=120Ω | ● | Truck / Bus |
| 1381-1055003003 | 1381-1051009008 | 1381-1051009003 | | | | | 24V | - | 250 kBd / R=120Ω | ● | Truck / Bus |

| DAF | | | | | | | | | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------|-----------------|-----------------|-----------------|-----|------|------------------|---|-------------------------------|
| - | - | - | - | - | - | 1381-1050100009 | 24V | - | 250 kBd / R=120Ω | - | LF / CF / XF |
| - | 1381-1051100011 ^{2 3} | 1381-1051100010 ^{2 3} | 1381-1051100009 | 1381-1051100004 | 1381-1051100003 | 1381-1050100001 | 24V | - | 250 kBd / R=120Ω | ○ | LF / CF / XF |
| 1381-1055303001 ² | 381-1051109005 ² | 1381-1051109002 ² | | | | 1381-1051100001 | 24V | - | 250 kBd / R=120Ω | ○ | LF / CF / XF |
| - | - | - | - | - | - | 1381-2050100007 | 24V | ● | 250 kBd / R=120Ω | - | LF / CF / XF |
| - | 1381-2050100011 ³ | 1381-2051100010 ³ | 1381-2051100009 | 1381-2051100004 | 1381-2051100003 | 1381-2050100001 | 24V | ● | 250 kBd / R=120Ω | ○ | LF / CF / XF |
| 1381-2055303001 | 1381-2051100012 ^{2 3} | 1381-2051100011 ^{2 3} | | | | | 24V | ● Z2 | 250 kBd / R=120Ω | ○ | LF / CF / XF |
| | 1381-2051109005 | 1381-2051109002 | | | | | | | | | |
| Dennis Eagle | | | | | | | | | | | |
| - | - | - | - | 1381-1010100011 | 1381-1010100007 | 1381-1010100006 | 24V | - | 250 kBd / R=120Ω | - | Trucks UK |
| - | - | - | 1381-1010100021 | 1381-1010100012 | | 1381-1010100005 | 24V | - | 250 kBd / R=120Ω | ● | Trucks UK |
| 1381-1014103003 | 1381-1010109008 | 1381-1010109003 | | | | | 24V | - | 250 kBd / R=120Ω | ● | Trucks UK |
| EvoBus | | | | | | | | | | | |
| - | - | - | 1381-1070100035 | 1381-1070100025 | 1381-1070100014 | 1381-1070100010 | 24V | - | 250 kBd / R=120Ω | ● | Setra, Mercedes-Benz |
| | | | | | | 1381-1070100001 | 24V | - | 250 kBd / R=120Ω | ● | Setra, Mercedes-Benz |
| - | - | - | - | - | 1381-1070100018 | 1381-1070100011 | 24V | - | 250 kBd / R=120Ω | - | Setra, Mercedes-Benz |
| 1381-1074100001 ³ | 1381-1070100045 ³ | 1381-1070100042 ³ | 1381-1070100036 | 1381-1070100026 | 1381-1070100023 | 1381-1070100012 | 24V | - | 250 kBd / R=120Ω | ● | Setra, Mercedes-Benz |
| | 1381-1070100044 ^{2 3} | 1381-1070100043 ^{2 3} | | | | 1381-1070100003 | | | | | Setra, Mercedes-Benz |
| 1381-1074103002 | 1381-1070109009 | 1381-1070109003 | | | | | 24V | - | 250 kBd / R=120Ω | ● | Setra, Mercedes-Benz |
| 1381-1014103002 | 1381-1010109009 | 1381-1010109004 | | | | | 24V | - | 500 kBd / w/o R | ● | Setra, MB (B2E) |
| Fendt (AGCO) | | | | | | | | | | | |
| - | - | - | 1381-0090200002 | 1381-0090200001 | | | 12V | - | 250 kBd / w/o R | - | 924-939 Vario |
| 1381-0014203001 | 1381-0010209002 | 1381-0010209001 | | | | | 12V | - | 250 kBd / w/o R | ● | 924-939 Vario |
| Fiat / PSA | | | | | | | | | | | |
| - | - | - | 1381-0111000001 | | | | 12V | - | 500 kBd / w/o R | - | Ducato / Boxer / Jumper |
| 1381-0115003001 | 1381-0111009005 | 1381-0111009001 | | | | | 12V | - | 500 kBd / w/o R | ● | Ducato / Boxer / Jumper |

| Ford | | | | | | | | | | | |
|------------------------------|--|--|-----------------|-----------------|-----------------|------------------------------------|-----|---|------------------|---|----------------------------------|
| - | - | - | - | - | - | 1381-0070300001 | 12V | - | - | - | Transit (V184/5) |
| - | - | - | 1381-0070300018 | 1381-0070300012 | 1381-0070300009 | 1381-0070300005 1381-0070300004 | 12V | - | 125 kBd / w/o R | - | Transit (V347/8), 2006 |
| - | - | 1381-0070309004 | | | | | 12V | - | 125 kBd / w/o R | - | Transit (V347/8), 2006 |
| | - | - | 1381-0070300017 | 1381-0070300011 | 1381-0070300010 | 1381-0070300006 1381-0070300002 | 12V | - | 125 kBd / w/o R | - | Transit (V347/8), 2006 |
| - | - | 1381-0070309003 | | | | | 12V | - | 125 kBd / w/o R | - | Transit (V347/8), 2006 |
| 1381-0254303003 | 1381-0250309006 | 1381-0250309003 | | | | | 12V | - | 125 kBd / w/o R | - | Transit (V362/3, 2013) |
| 1381-0254303004 ² | 1381-0250309007 ² | | | | | | 12V | - | 125 kBd / w/o R | - | Transit (V362/3, 2015) (Panther) |
| Hino | | | | | | | | | | | |
| - | - | - | - | - | 1381-1060000006 | 1381-1060000005 1381-1060000003 | 24V | - | - | - | FY |
| - | - | - | 1381-1060000010 | 1381-1060000008 | 1381-1060000007 | | 24V | - | 250 kBd / R=120Ω | • | FY |
| 1381-1074003004 | 1381-1060009002 | 1381-1060009001 | | | | | 24V | - | 250 kBd / R=120Ω | • | FY |
| Hyundai | | | | | | | | | | | |
| 1381-0254003002 | 1381-0250009002 | | | | | | 12V | - | 500 kBd / w/o R | - | H350 |
| Isuzu | | | | | | | | | | | |
| - | - | - | 1381-1050200002 | 1381-1051000012 | 1381-1051000007 | 1381-1051000004 1381-1051000001 | 24V | - | 250 kBd / w/o R | • | NQR, NPR |
| 1381-1054203001 | 1381-1050209002 | 1381-1050209001 | | | | | 24V | - | 250 kBd / w/o R | • | NQR, NPR |
| 1381-1054203002 | | | | | | | 24V | - | 500 kBd / w/o R | • | Midbus |
| Iveco + Irisbus | | | | | | | | | | | |
| - | - | - | - | - | - | 1381-0071000003 | 12V | - | - | - | Daily S2000 |
| 1381-0075000001 ³ | 1381-0070000038 ³ 1381-0071000011 ^{2 3} | 1381-0071000010 ³ 1381-0071000009 ^{2 3} | 1381-0071000008 | 1381-0071000007 | 1381-0071000006 | 1381-0071000005 1381-0071000002 | 12V | - | - | - | Daily S2000 |
| - | - | - | - | - | 1381-0111100006 | 1381-0111100004 ¹ | 12V | - | 250 kBd / w/o R | - | Daily MY 2007 |
| - | 1381-0110100001 ³ | 1381-0111100018 ³ | 1381-0111100015 | 1381-0111100010 | 1381-0111100008 | 1381-0111100005 1381-0111100002 | 12V | - | 250 kBd / w/o R | • | Daily MY 2007 |
| 1381-01115103005 | 1381-0111109008 | 1381-0111109003 | | | | | 12V | - | 250 kBd / w/o R | • | Daily MY 2007 |
| - | 1381-0110100002 ³ | 1381-0111100017 ³ | 1381-0111100014 | | | | 12V | - | 500 kBd / w/o R | • | Daily MY 2012 |

| Iveco + Irisbus | | | | | | | | | | | | |
|------------------------------|--|--|-----------------|-----------------|-----------------|------------------------------------|------------------------------------|------|------------------|------------------|--|--|
| 1381-0115103004 | 1381-0111109010 | 1381-0111109002 | | | | | 12V | - | 500 kBd / w/o R | ● | Daily MY 2012 | |
| 1381-0115103003 | 1381-0111109009 | | | | | | 12V | - | 500 kBd / w/o R | ● | Daily MY 2014 | |
| - | - | - | 1381-1072100015 | 1381-1072100010 | 1381-1072100007 | 1381-1072100003 1381-1072100002 | 24V | - | 250 kBd / R=120Ω | ● | Stralis, Eurocargo Trakker, Irisbus | |
| - | - | - | 1381-1072100014 | 1381-1072100009 | 1381-1072100006 | 1381-1072100000 | 24V | - | 250 kBd / R=120Ω | ● | Stralis, Eurocargo Trakker, Irisbus | |
| | | | | | | | 24V | - | 250 kBd / R=120Ω | ● | Stralis, Eurocargo Trakker, Irisbus | |
| - | - | - | - | - | - | 1381-2072100006 | 1381-2072100004 1381-2072100002 | 24V | ● | 250 kBd / R=120Ω | - | Stralis, Eurocargo Trakker, Irisbus |
| - | 1381-2070100002 ³ | 1381-2070100001 ³ | 1381-2072100009 | 1381-2072100008 | 1381-2072100007 | 1381-2072100005 | 24V | ● | 250 kBd / R=120Ω | ● | Stralis, Eurocargo Trakker, Irisbus | |
| 1381-4076101001 ² | 1381-4072109003 ² | 1381-4072109001 | | | | | 24V | ● Z1 | 250 kBd / R=120Ω | ● | Stralis, Eurocargo Trakker, Irisbus | |
| 1381-1216103004 | 1381-1212109004 | 1381-1212109001 | | | | | 24V | - | 250 kBd / R=120Ω | ● | Stralis MY 2013 | |
| 1381-4216101001 | 1381-4212109004 | 1381-4212109001 | | | | | 24V | ● Z1 | 250 kBd / R=120Ω | ● | Stralis MY 2013 | |
| King Long Bus | | | | | | | | | | | | |
| 1381-1074003002 ² | 1381-1070009005 ² | 1381-1070009003 ² | | | | | 24V | - | 250 kBd / w/o R | ● | Bus | |
| MAN | | | | | | | | | | | | |
| - | - | - | 1381-1051000018 | 1381-1051000011 | 1381-1050000012 | 1381-1050000008 1381-1050000007 | 24V | - | 250 kBd / R=120Ω | ● | Trucks TG MAN Bus, Neoplan | |
| 1381-1055003002 ² | 1381-1051009007 ² | 1381-1051009002 ² | | | | | 24V | - | 250 kBd / R=120Ω | ● | Trucks TG MAN Bus, Neoplan | |
| - | 1381-2050000028 ³ 1381-2051000009 ^{2 3} | 1381-2051000008 ³ 1381-2051000007 ^{2 3} | 1381-2051000006 | 1381-2051000004 | 1381-2050000027 | 1381-2050000023 1381-2050000019 | 24V | ● | 250 kBd / R=120Ω | ● | Trucks TG MAN Bus, Neoplan | |
| 1381-2055003002 | 1381-2051009004 | 1381-2051009001 | | | | | 24V | ● Z2 | 250 kBd / R=120Ω | ● | Trucks TG MAN Bus, Neoplan | |

| Mercedes-Benz | | | | | | | | | | | |
|--------------------------------|--|--|-----------------|-----------------|-----------------|------------------------------------|-----|------|------------------|---|---|
| - | - | - | - | - | 1381-0010000020 | 1381-0010000017 1381-0010000009 | 12V | - | - | - | Vito / Viano (NCV2) |
| 1381-0014003003 ² | 1381-0010009009 ² | 1381-0010009004 ² | | | | | 12V | - | 500 kBd / w/o R | - | Vito / Viano (NCV2) 2010 |
| - | - | - | 1381-0010000027 | 1381-0010000023 | 1381-0010000018 | 1381-0010000012 1381-0010000010 | 12V | - | 500 kBd / w/o R | - | Sprinter (T1N+NCV3) Vito / Viano (NCV2) 2010 |
| - | 1381-0010000029 ³ | 1381-0010000028 ³ | 1381-0010000026 | 1381-0010000024 | 1381-0010000022 | 1381-0010000014 1381-0010000011 | 12V | - | 500 kBd / w/o R | • | Sprinter (T1N+NCV3) |
| - | - | 1381-0010009003 ² | | | | | 12V | - | 500 kBd / w/o R | - | Sprinter (T1N+NCV3) |
| 1381-0014003004 | 1381-0010009007 | 1381-0010009002 | | | | | 24V | - | 500 kBd / w/o R | • | Sprinter (T1N+NCV3) |
| - | - | - | - | 1381-1070000044 | 1381-1070000034 | 1381-1070000024 1381-1070000007 | 24V | - | 250 kBd / R=120Ω | - | Vario (T2W) |
| - | - | - | 1381-1070000055 | 1381-1070000045 | 1381-1070000040 | 1381-1070000025 1381-1070000008 | 24V | - | 250 kBd / R=120Ω | - | Vario (T2W) |
| - | - | - | - | - | 1381-1070000041 | 1381-1070000038 | 24V | - | 250 kBd / R=120Ω | - | Actros, Axor, Atego |
| 1381-2074000001 ³ | 1381-2070000067 ³ 1381-2070000066 ^{2 3} | 1381-2070000065 ³ 1381-2070000064 ^{2 3} | 1381-2070000063 | 1381-2070000053 | 1381-2070000051 | 1381-2070000046 1381-2070000039 | 24V | • | 250 kBd / R=120Ω | • | Actros, Axor, Atego |
| 1381-2074003001 | 1381-2070009004 | 1381-2070009002 | | | | | 24V | • Z2 | 250 kBd / R=120Ω | • | Actros, Axor, Atego |
| 1381-1014003001 ² | 1381-1010009001 ² | | | | | | 24V | - | 500 kBd / w/o R | • | Actros 4, Antos, Arocs, Atego MY 2015 |
| - | 1381-2010000021 ³ | 1381-2010000016 ³ | 1381-2010000015 | | | | 24V | • | 500 kBd / w/o R | • | Actros 4, Antos, Arocs, Atego MY 2015 |
| 1381-2014003002 | 1381-2010009005 | 1381-2010009002 | | | | | 24V | • Z2 | 500 kBd / w/o R | • | Actros 4, Antos, Arocs, Atego MY 2015 |
| Mitsubitshi - FUSO | | | | | | | | | | | |
| - | - | - | 1381-0070100007 | 1381-0070100005 | 1381-0070100004 | 1381-0070100002 1381-0070100001 | 12V | - | 500 kBd / w/o R | - | Canter |
| 1381-0074103002 | 1381-0070109003 | 1381-0070109002 | | | | | 12V | - | 500 kBd / w/o R | - | Canter |
| - | - | - | 1381-1070100040 | 1381-1070100028 | 1381-1070100024 | 1381-1070100017 1381-1070100006 | 24V | - | 500 kBd / w/o R | - | Canter |
| 1381-1074103005 ² | 1381-1070109011 | 1381-1070109005 | | | | | 24V | - | 500 kBd / w/o R | - | Canter |
| Nissan | | | | | | | | | | | |
| 1381-0105000001 ^{2 3} | 1381-0101000002 ^{2 3} | | | | | | 12V | - | - | | Cabstar TL, Atleon TK |
| 1381-0105003003 ² | 1381-0101009005 ² | | | | | | 12V | - | 500 kBd / w/o R | | Atleon TK |
| - | - | - | - | 1381-1081000012 | 1381-1081000008 | 1381-1081000003 1381-1081000001 | 24V | - | - | - | Atleon TL |

| Nissan | | | | | | | | | | | |
|------------------------------|--|---|-----------------|------------------------------------|---------------------------------|--|-----|------|--------------------------|---|--|
| 1381-1105003001 ² | 1381-1101009002 ² | 1381-1101009001 | 1381-1081000016 | 1381-1081000013 1381-1081000014 | 1381-1081000009 | 1381-1081000005 1381-1081000002 | 24V | - | 250 kBd / w/o R | - | Atleon TK (2006) |
| Renault / Nissan | | | | | | | | | | | |
| - | - | - | 1381-0081000011 | 1381-0081000008 1381-0081000009 | 1381-0081000007 | 1381-0081000005 1381-0081000004 | 12V | - | - | - | Atlas, Cabstar / Maxity |
| 1381-0105003002 | 1381-0101009004 | 1381-0101009001 1381-0101009002 | | | | | 12V | - | 500 kBd / w/o R | - | Atlas, Cabstar / Maxity |
| - | - | - | 1381-0111400008 | 1381-0111400006 | 1381-0111400005 | 1381-0111400003 1381-0111400001 | 12V | - | - | - | X62 Master, Movano, X82 Traffic, Prim., Vivaro |
| 1381-0115403001 | 1381-0111409010 | 1381-0111409004 | | | | | 12V | - | 500 kBd / with R=2 x 60Ω | - | X62 Master, Movano, X82 Traffic, Prim., Vivaro |
| - | - | - | 1381-0111400008 | 1381-0111400006 | 1381-0111400005 | 1381-0111400003 1381-0111400001 | 12V | - | - | - | X83 Traffic, Prim., Vivaro |
| 1381-0115403002 | 1381-0111409011 | 1381-0111409005 | | | | | 12V | - | 250 kBd / w/o R | - | X83 Traffic, Prim., Vivaro |
| Renault trucks | | | | | | | | | | | |
| - | - | - | 1381-1052300021 | 1381-1052300013 | 1381-1052300008 (R deactivated) | 1381-1052300005 1381-1052300002 (R deactivated) | 24V | - | 250 kBd / w/o R | - | Magnum, Kerax, Premium, Midlum |
| - | 1381-1052300024 ^{2 3} | 1381-1052300023 ^{2 3} | 1381-1052300019 | 1381-1052300012 | 1381-1052300006 (R deactivated) | 1381-1052300004 1381-1052300001 (R deactivated) | 24V | - | 250 kBd / w/o R | • | Magnum, Kerax, Premium, Midlum |
| 1381-1052303002 ² | 1381-1052309009 ² | 1381-1052309003 ² | | | | | 24V | - | 250 kBd / w/o R | • | Magnum, Kerax, Premium, Midlum |
| - | - | - | 1381-2052300022 | 1381-2052300012 | 1381-2052300007 (R deactivated) | 1381-2052300005 1381-2052300002 (R deactivated) | 24V | • | 250 kBd / w/o R | - | Magnum, Kerax, Premium, Midlum |
| - | 1381-2050300005 ³ 1381-2052300027 ² | 1381-2050300003 ³ 1381-2052300025 | 1381-2052300019 | 1381-2052300013 | 1381-2052300008 (R deactivated) | 1381-2052300004 1381-2052300001 (R deactivated) | 24V | • | 250 kBd / w/o R | • | Magnum, Kerax, Premium, Midlum |
| 1381-2052303004 | 1381-2052309009 | 1381-2052309003 | | | | | 24V | • Z2 | 250 kBd / w/o R | • | Magnum, Kerax, Premium, Midlum |
| - | - | - | - | - | 1381-1052300008 | 1381-1052300005 1381-1052300002 | 24V | - | 250 kBd / R zusch. | - | Magnum, Kerax, Premium, Midlum |

| Renault trucks | | | | | | | | | | | |
|------------------------------|--|--|-----------------|-----------------|------------------------------------|------------------------------------|-----|---------|--------------------|---|---|
| - | - | - | - | - | 1381-1052300006 | 1381-1052300004 1381-1052300001 | 24V | - | 250 kBd / R zusch. | - | Magnum, Kerax, Premium, Midlum |
| - | - | - | - | - | 1381-2052300007 | 1381-2052300005 1381-2052300002 | 24V | • | 250 kBd / R zusch. | - | Magnum, Kerax, Premium, Midlum |
| 1381-2210300004 ³ | 1381-2050300006 ³ 1381-2052300028 ^{2 3} | 1381-2050300004 ³ 1381-2052300026 | 1381-2052300023 | 1381-2052300014 | 1381-2052300008 | 1381-2052300004 1381-2052300001 | 24V | • | 250 kBd / R zusch. | - | Magnum, Kerax, Premium, Midlum |
| 1381-1212303002 | 1381-1212309007 | | | | | | 24V | - | 250 kBd / R=2×60Ω | • | T, K, C-Series (TEA2+) |
| 1381-4212301002 | 1381-4212309007 | | | | | | 24V | • Z1 | 250 kBd / R=2×60Ω | • | T, K, C-Series (TEA2+) |
| 1381-1052303003 ² | 1381-1052309010 ² | | | | | | 24V | - | 250 kBd / R=2×60Ω | • | C, D-Series (P155x) |
| 1381-2052303003 | 1381-2052309010 | | | | | | 24V | • Z2 | 250 kBd / R=2×60Ω | • | C, D-Series (P155x) |
| Scania | | | | | | | | | | | |
| - | - | - | - | 1381-1071400003 | 1381-1071300004 1381-1071400001 | | 24V | - | 250 kBd / R=120Ω | • | R, P-Series |
| - | 1381-2070400001 ³ 1381-2071400010 ^{2 3} | 1381-2071400009 ³ 1381-2071400008 ^{2 3} | 1381-2071400006 | | | | 24V | • | 250 kBd / R=120Ω | • | R, P-Series |
| - | - | 1381-1071409001 | | | | | 24V | - | 250 kBd / R=120Ω | • | R, P-Series |
| 1381-4075402002 | 1381-4071409004 | | | | | | 24V | • Z1 B5 | 250 kBd / R=120Ω | • | R, P-Series |
| Solaris Bus | | | | | | | | | | | |
| - | - | - | 1381-1070100038 | 1381-1070100029 | 1381-1070100020 | 1381-1070100015 1381-1070100008 | 24V | - | 250 kBd / R=120Ω | • | |
| - | - | - | 1381-1070200002 | | | | 24V | - | 250 kBd / w/o R | • | |
| 1381-1074203001 | 1381-1070209002 | 1381-1070209001 | | | | | 24V | - | 250 kBd / w/o R | • | |
| Sor Libchavy (Bus CZ) | | | | | | | | | | | |
| - | - | - | 1381-1070000057 | 1381-1070000048 | 1381-1070000037 | 1381-1070000027 1381-1070000013 | 24V | - | 250 kBd / R=120Ω | • | |
| 1381-1074003003 | 1381-1070009006 | 1381-1070009001 | | | | | 24V | - | 250 kBd / R=120Ω | • | |
| Tatra | | | | | | | | | | | |
| - | - | - | 1381-1070000058 | 1381-1070000050 | 1381-1070000043 | 1381-1070000017 1381-1070000012 | 24V | - | 250 kBd / R=120Ω | • | Trucks |
| 1381-1074003001 | 1381-1070009004 | 1381-1070009002 | | | | | 24V | - | 250 kBd / R=120Ω | • | Trucks |

| Temsa | | | | | | | | | | | |
|--------------------------------|--|---|-----------------|-----------------|-----------------|------------------------------------|-----|------|--------------------|---|------------------------|
| - | - | - | 1381-1071000007 | 1381-1071000005 | 1381-1070000030 | 1381-1070000019 1381-1070000011 | 24V | - | 250 k Bd / R=120Ω | ● | Bus & coach |
| 1381-1075003002 | 1381-1071009004 | 1381-1071009002 | 1381-1071000007 | | | | 24V | - | 250 k Bd / R=120Ω | ● | Bus & coach |
| Van Hool | | | | | | | | | | | |
| - | - | - | 1381-1070000058 | 1381-1070000049 | 1381-1070000031 | 1381-1070000020 1381-1070000010 | 24V | - | 250 k Bd / R=120Ω | ● | Bus & coach |
| 1381-1074003001 | 1381-1070009004 | 1381-1070009002 | 1381-1070000058 | | | | 24V | - | 250 k Bd / R=120Ω | ● | Bus & coach |
| VDL Group | | | | | | | | | | | |
| - | - | - | - | - | 1381-1050100015 | 1381-1050100008 1381-1050100005 | 24V | - | 250 k Bd / R=120Ω | - | Bus & coach |
| - | - | - | - | 1381-1050100017 | 1381-1050100016 | 1381-1050100006 1381-1050100003 | 24V | - | 250 k Bd / R=120Ω | - | Bus & coach |
| - | - | - | 1381-1070100041 | | | | 24V | - | 250 k Bd / R=120Ω | ● | Bus & coach |
| 1381-1074103004 | 1381-1070109008 | 1381-1070109004 | | | | | 24V | - | 250 k Bd / R=120Ω | ● | Bus & coach |
| Volvo Trucks | | | | | | | | | | | |
| - | - | - | 1381-1012000018 | 1381-1012000011 | | | 24V | - | 250 k Bd / R=120Ω | - | FM / FH |
| 381-1210000001 ^{2 3} | 1381-1012000020 ^{2 3} | 1381-1012000019 ^{2 3} | 1381-1012000017 | 1381-1012000012 | 1381-1012000007 | 1381-1012000003 1381-1012100002 | 24V | - | 250 k Bd / R=120Ω | ● | FM / FH |
| 1381-1210003001 ² | 1381-1012009005 ² | 1381-1012009002 ² | | | | | 24V | - | 250 k Bd / R=120Ω | ● | FM / FH |
| - | - | - | 1381-2012000018 | 1381-2012000010 | | | 24V | ● | 250 k Bd / R=120Ω | - | FM / FH |
| 1381-2210000001 ³ | 1381-2010000019 ³ 1381-2012000022 ^{2 3} | 1381-2010000017 ³ 1381-2012000020 | 1381-2012000017 | 1381-2012000011 | 1381-2012000005 | 1381-2012000003 1381-2012100001 | 24V | ● | 250 k Bd / R=120Ω | ● | FM / FH |
| 1381-2210003001 | 1381-2012009005 | 1381-2012009002 | | | | | 24V | ● Z2 | 250 k Bd / R=120Ω | ● | FM / FH |
| - | - | - | - | - | 1381-1012000006 | 1381-1012000004 1381-1012100001 | 24V | - | 250 k Bd / w/o R | - | FL6 |
| 1381-2210000002 ³ | 1381-2010000020 ³ 1381-2012000023 ^{2 3} | 1381-2010000018 ³ 1381-2012000021 | 1381-2012000019 | 1381-2012000012 | 1381-2012000006 | 1381-2012000004 1381-2012100002 | 24V | ● | 250 k Bd / w/o R | - | FL6 |
| 1381-1210300002 ^{2 3} | 1381-1012300013 ^{2 3} | 1381-1012300012 ² | 1381-1012300010 | 1381-1012300006 | 1381-1012300003 | 1381-1012300001 1381-1012100005 | 24V | - | 250 k Bd / w/o R | ● | FE / FL (2006) |
| 1381-1012303003 ² | 1381-1012309009 ² | 1381-1012309003 ² | | | | | 24V | - | 250 k Bd / w/o R | ● | FE / FL (2006) |
| 1381-2210300003 ^{2 3} | 1381-2010300002 ³ 1381-2012300011 ^{2 3} | 1381-2010300001 ³ 1381-2012300010 | 1381-2012300008 | 1381-2012300005 | 1381-2012300002 | 1381-2012300001 1381-2012100005 | 24V | ● | 250 k Bd / w/o R | ● | FE / FL (2006) |
| 1381-2012303003 | 1381-2012309009 | 1381-2012309003 | | | | | 24V | ● Z2 | 250 k Bd / w/o R | ● | FE / FL (2006) |
| 1381-1232303002 | 1381-1232309007 | 1381-1232309005 | | | | | 24V | - | 250 k Bd / R=2×60Ω | ● | FH / FM 4 (TEA2+) |
| 1381-4232301002 | 1381-4232309007 | 1381-4232309005 | | | | | 24V | ● Z1 | 250 k Bd / R=2×60Ω | ● | FH / FM 4 (TEA2+) |
| 1381-1012303002 ² | 1381-1012309010 ² | | | | | | 24V | - | 250 k Bd / R=2×60Ω | ● | FE / FL MY '14 (P155x) |
| 1381-2012303002 | 1381-2012309010 | | | | | | 24V | ● Z2 | 250 k Bd / R=2×60Ω | ● | FE / FL MY '14 (P155x) |

| VW | | | | | | | | | | | |
|------------------------------|------------------------------|------------------------------|-----------------|-----------------|-----------------|-----------------|-----|---|-----------------------------|---|---------|
| - | - | - | - | - | 1381-0121200001 | 1381-0061200002 | 12V | - | - | - | LT2 |
| - | - | - | 1381-0121000014 | 1381-0121000007 | 1381-0121000006 | 1381-0061200001 | 12V | - | 500 kBd / with R=2×1,3kΩ | - | T5 |
| 1381-0125003004 | 1381-0121009009 | 1381-0121009002 | | | | 1381-0061000008 | 12V | - | 500 kBd / with R=2×1,3kΩ | - | T5 / T6 |
| - | - | - | 1381-0120000019 | 1381-0120000012 | 1381-0120000008 | 1381-0120000006 | 12V | - | 500 kBd / w/o R | - | Crafter |
| - | - | 1381-0120009003 ² | 1381-0121000015 | 1381-0121000008 | 1381-0121000003 | 1381-0120000001 | 12V | - | 500 kBd / w/o R | - | Crafter |
| - | 1381-0120000021 ³ | 1381-0120000020 ³ | 1381-0120000018 | 1381-0120000013 | 1381-0120000011 | 1381-0120000007 | 12V | - | 500 kBd / w/o R | - | Crafter |
| 1381-0125003003 | 1381-0121009007 | 1381-0120009002 | 1381-0121000016 | 1381-0121000009 | 1381-0121000005 | 1381-0120000002 | 12V | - | 500 kBd / w/o R | - | Crafter |
| 1381-0125003005 ² | 1381-0121009010 ² | 1381-0121009004 ² | | | | | | | | | |

APPENDIX II - TRUCK-SPECIFIC INSTALLATION



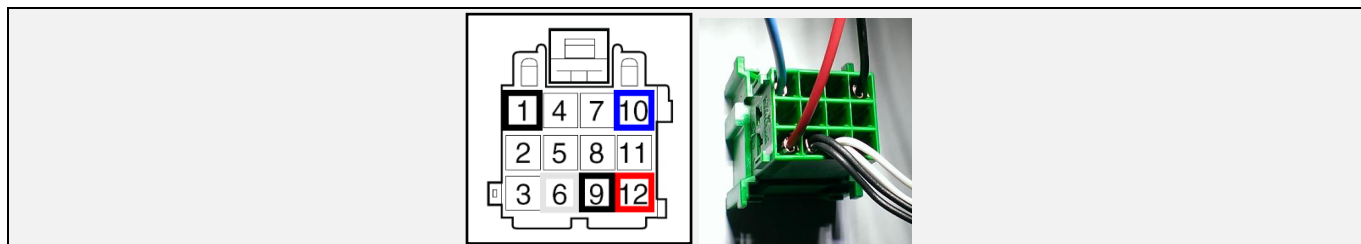
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CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|--|--------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | | 12 | Install extra fuse | FMS |
| -31 (Ground) | | 1 | | |
| +15 (After contact) | | 10 | Install extra fuse | |
| CAN / RDD | | | | |
| CAN-H | | 6 | | FMS |
| CAN-L | | 9 | | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility . | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | A098 | 9 | Wire 3225 | 4 |

FMS



Extra parts

| PART | DAF PART NUMBER | PICTURE |
|------------------------------------|-----------------|---|
| MALE CONTACT PIN | 1315076 |  |
| Standard FMS CONNECTOR NEW TYPE | 1312605 |  |

DAF CF (2001-2013)

CONNECTIONS TO A098 CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|--|-------------------------|----------------------|
| MAIN CABLE | | | | |
| +30 (24V) | A098 | 17 | Fuse 41 or install fuse | A098 |
| -31 (Ground) | A098 | 1 | | |
| +15 (After contact) | A098 | 18 | Install fuse | |
| CAN / RDD | | | | |
| CAN-H | A098 | 10 | Take out the resistor | A098 |
| CAN-L | A098 | 11 | Take out the resistor | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | A098 | 9 | Wire 3225 | A098 |

Green connector A098



CONNECTIONS WHEN NO STANDARD FMS CONNECTOR IS AVAILABLE

| CONNECTIONS | CONNECTOR | PIN | WIRE | | INFO | PIC |
|---------------------|----------------------------|--|-------|------|----------------|--------------------|
| MAIN CABLE | | | | | | |
| +30 (24V) | M4 bolt | - | RED | | Use extra fuse | 1 |
| -31 (Ground) | M6 bolt | - | WHITE | | | |
| +15 (After contact) | M6 bolt | - | RED | | Use extra fuse | |
| CAN / RDD | | | | | | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility . | | | | |
| RDD CAN-L | | | | | | |
| CAN CLAMP | | | | | | |
| CAN-H | CAN DISTRIBUTION BLOCK | | | | | 3 |
| CAN-L | | | | | | |
| TACHO | | | | | | |
| Tacho (D8) | X2 | 5 | BLUE | 3225 | | TC |

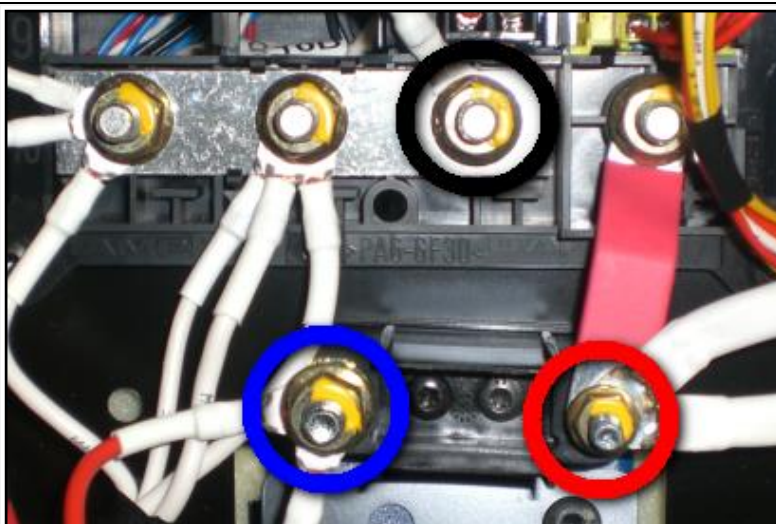
Power connections

Underneath the dashboard on the co-driver's side, some bolt connections can be found. The +24V, +24V after contact and ground wires can be connected here.

Before loosening the bolts, make sure that the ignition is OFF.

The wires need to be fused within 10 cm of these bolt connections.

DAF advises a maximum of 3 ring connectors per bolt connection.




Picture 1 - Power connections

DAF CF (2001-2013)

Extra parts

To make the CAN and tacho connections, special pins are required. These are available at your local DAF Trucks dealer.

| PART | DAF PART NUMBER | PICTURE |
|--------------------|-----------------|---|
| FEMALE CONTACT PIN | X |  |

CAN CLAMP

On the lower left side of the fuse box, the CAN bus distribution block can be found. Connect the CAN CLAMP to any of the blue and yellow wires.

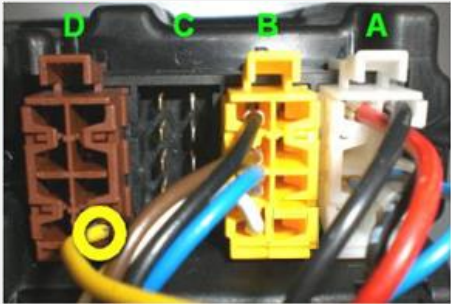
- CAN HIGH: BLUE
- CAN LOW: YELLOW



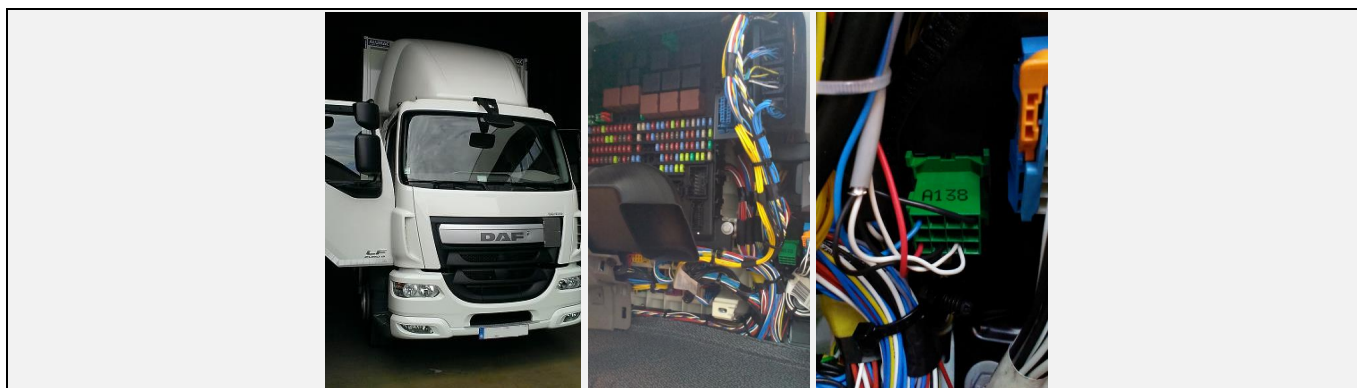
Tacho

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.



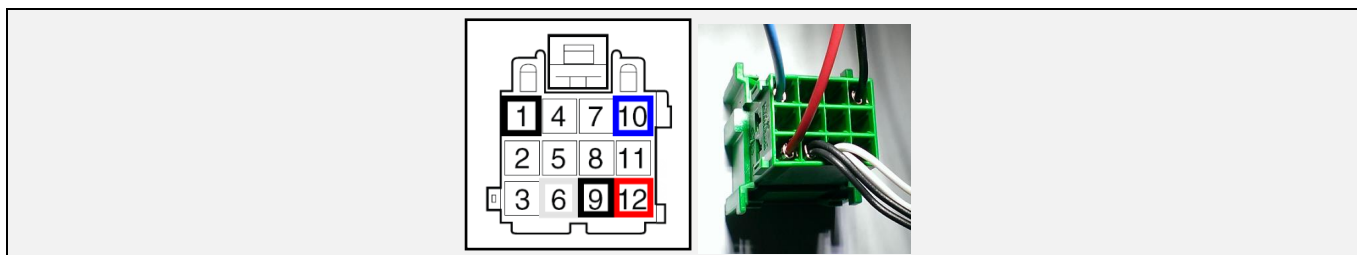
Picture TC - Tacho connection



CONNECTIONS TO THE STANDARD FMS CONNECTOR



| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|--------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | A138 | 12 | Install extra fuse | FMS |
| -31 (Ground) | A138 | 1 | | |
| +15 (After contact) | A138 | 10 | Install extra fuse | |
| CAN / RDD | | | | |
| CAN-H | A138 | 6 | | FMS |
| CAN-L | A138 | 9 | | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | A098 | 9 | Wire 3225 | TC |

FMS




DAF LF EURO 6

Extra parts

| PART | DAF PART NUMBER | PICTURE |
|------------------------------------|-----------------|---|
| MALE CONTACT PIN | 1315076 |  |
| Standard FMS CONNECTOR NEW TYPE | 1312605 |  |

CAN CLAMP

- CAN HIGH: RED
- CAN LOW: YELLOW

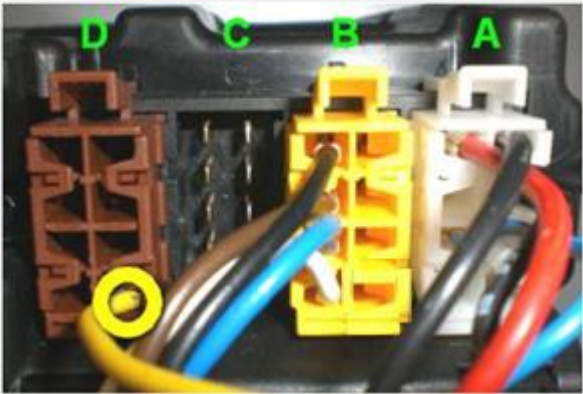


Picture 3 - CAN connector

TACHO

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.



Picture TC - Tacho connection

DAF XF 95/105 (1997-2013)

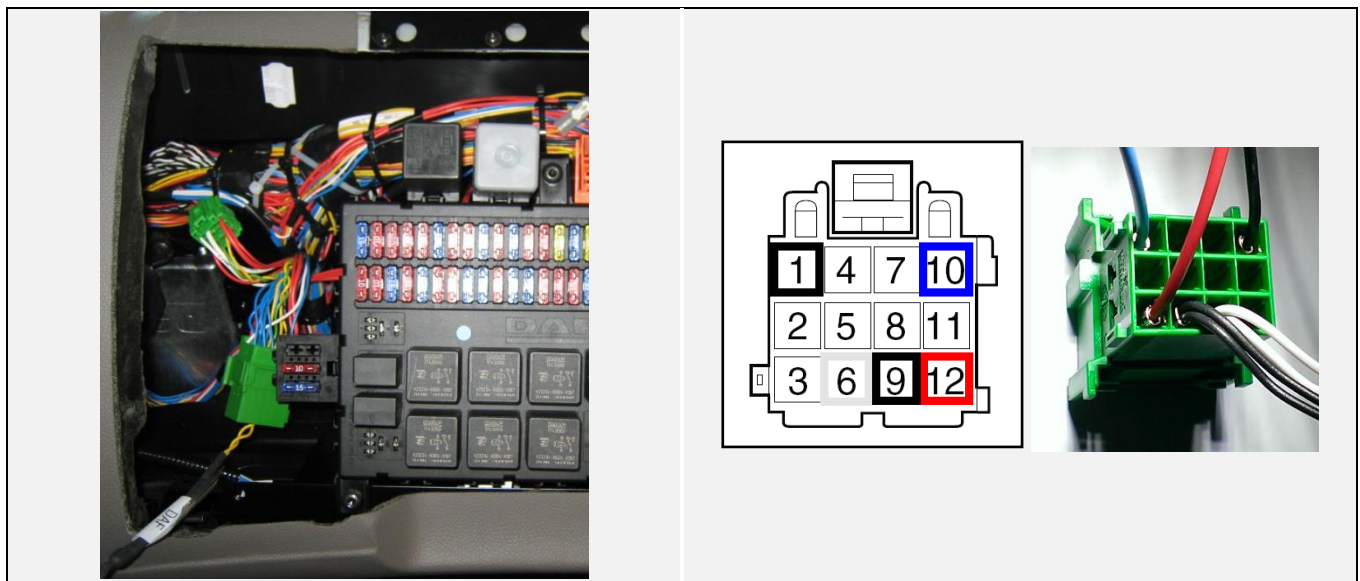
DAF XF 105



CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|--------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | | 12 | Install extra fuse | FMS |
| -31 (Ground) | | 1 | | FMS |
| +15 (After contact) | | 10 | Install extra fuse | FMS |
| CAN / RDD | | | | |
| CAN-H | | 6 | | FMS |
| CAN-L | | 9 | | FMS |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | A098 | 9 | Wire 3225 | 4 |

FMS

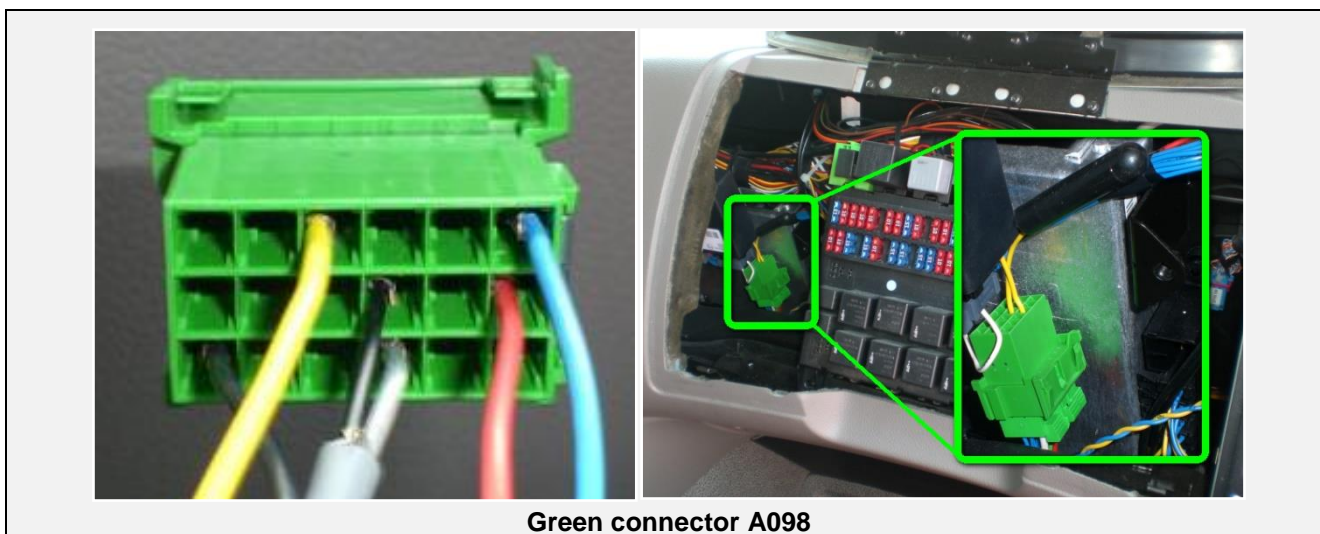


DAF XF 95/105 (1997-2013)

CONNECTIONS TO A098 CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|-------------------------|----------------------|
| MAIN CABLE | | | | |
| +30 (24V) | A098 | 17 | Fuse 41 or install fuse | A098 |
| -31 (Ground) | A098 | 1 | | A098 |
| +15 (After contact) | A098 | 18 | Install fuse | A098 |
| CAN / RDD | | | | |
| CAN-H | A098 | 10 | Take out the resistor | A098 |
| CAN-L | A098 | 11 | Take out the resistor | A098 |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | A098 | 9 | Wire 3225 | A098 |

Green connector A098



| CONNECTIONS | CONNECTOR | PIN | WIRE | | INFO | PIC |
|---------------------|------------------------|---|-------|------|----------------|-----|
| MAIN CABLE | | | | | | |
| +30 (24V) | M4 bolt | - | RED | | Use extra fuse | 1 |
| -31 (Ground) | M6 bolt | - | WHITE | | | |
| +15 (After contact) | M6 bolt | - | RED | | Use extra fuse | |
| CAN / RDD | | | | | | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | | | |
| RDD CAN-L | | | | | | |
| CAN CLAMP | | | | | | |
| CAN-H | CAN DISTRIBUTION BLOCK | | | | | 3 |
| CAN-L | | | | | | |
| TACHO | | | | | | |
| Tacho (D8) | X2 | 5 | BLUE | 3225 | | TC |

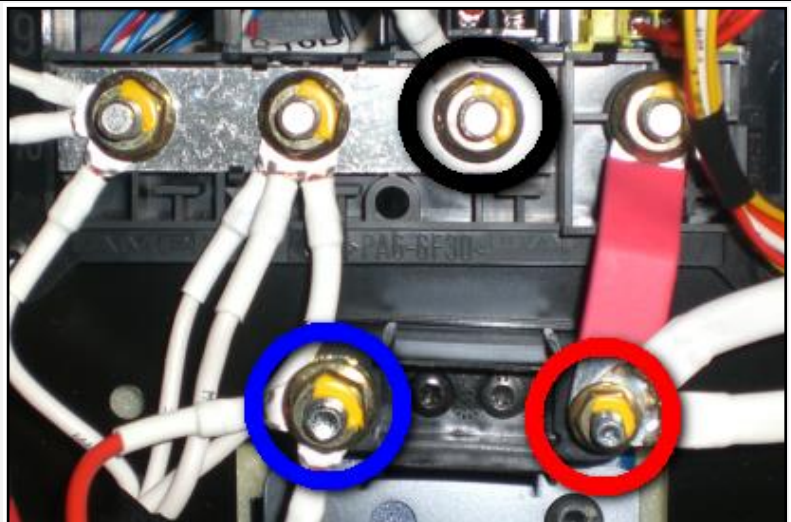
Power connections

Underneath the dashboard on the co-driver's side, some bolt connections can be found. The +24V, +24V after contact and ground wires can be connected here.

Before loosening the bolts, make sure that the ignition is OFF.

The wires need to be fused within 10 cm of these bolt connections.

DAF advises a maximum of 3 ring connectors per bolt connection.



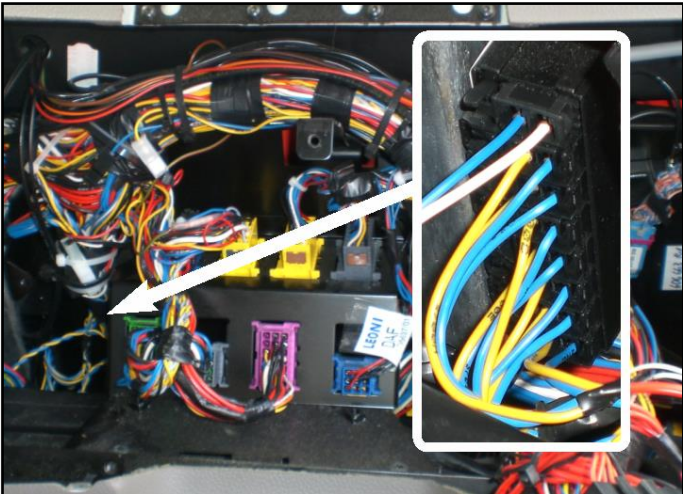
Picture 1 - Power connections

DAF XF 95/105 (1997-2013)

CAN CLAMP

On the lower left side of the fuse box, the CAN bus distribution block can be found. Connect the CAN CLAMP to any of the BLUE and YELLOW wires.

- CAN HIGH: BLUE
- CAN LOW: YELLOW

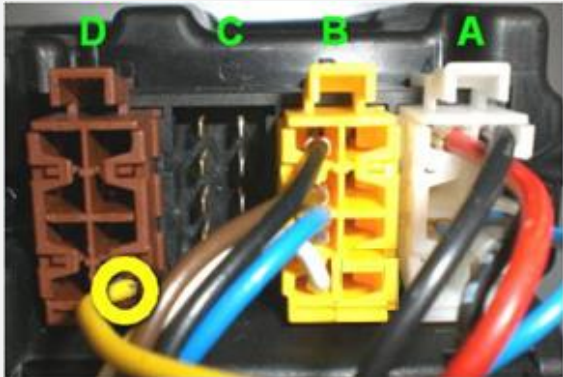


Picture 3

TACHO

Connect the yellow tacho wire to the brown connector D, position 8.



If no connector is present in position D, use the D-connector delivered with the tacho cable.



Picture 4 - Tacho connection

Extra parts

To make the connections to connector A098, special pins are required. These are available at your local DAF Trucks dealer.

| PART | DAF PART NUMBER | PICTURE |
|------------------------------------|-----------------|---|
| MALE CONTACT PIN | 1315076 |  |
| Standard FMS CONNECTOR NEW TYPE | 1312605 |  |

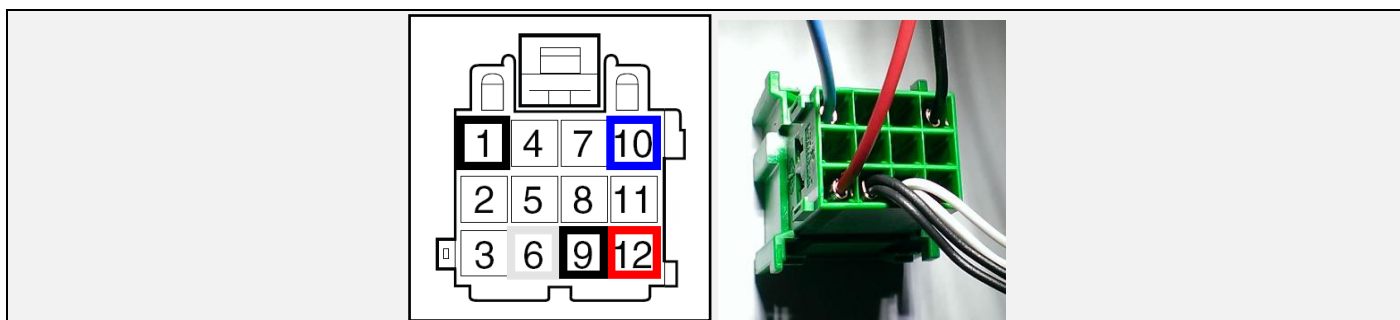
DAF XF-CF EURO 6

DAF XF-CF EURO 6





CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|--------------------|----------------------|
| MAIN CABLE | | | | |
| +30 (24V) | | 12 | Install extra fuse | FMS |
| -31 (Ground) | | 1 | | |
| +15 (After contact) | | 10 | Install extra fuse | |
| CAN / RDD | | | | |
| CAN-H | | 6 | | FMS |
| CAN-L | | 9 | | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | A098 | 9 | Wire 3225 | A098 |

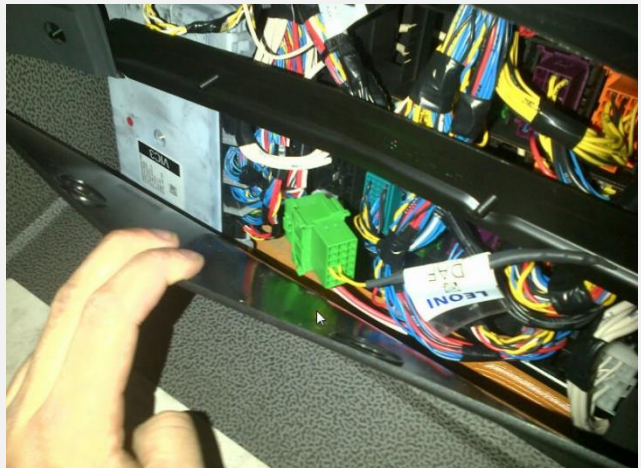


Extra parts

| PART | DAF PART NUMBER | PICTURE |
|--|-----------------------|---|
| MALE CONTACT PIN | 1315076 |  |
| <u>Standard FMS CONNECTOR</u> <u>NEW TYPE</u> | <u>1312605</u> |  |

CONNECTIONS TO A098 CONNECTOR

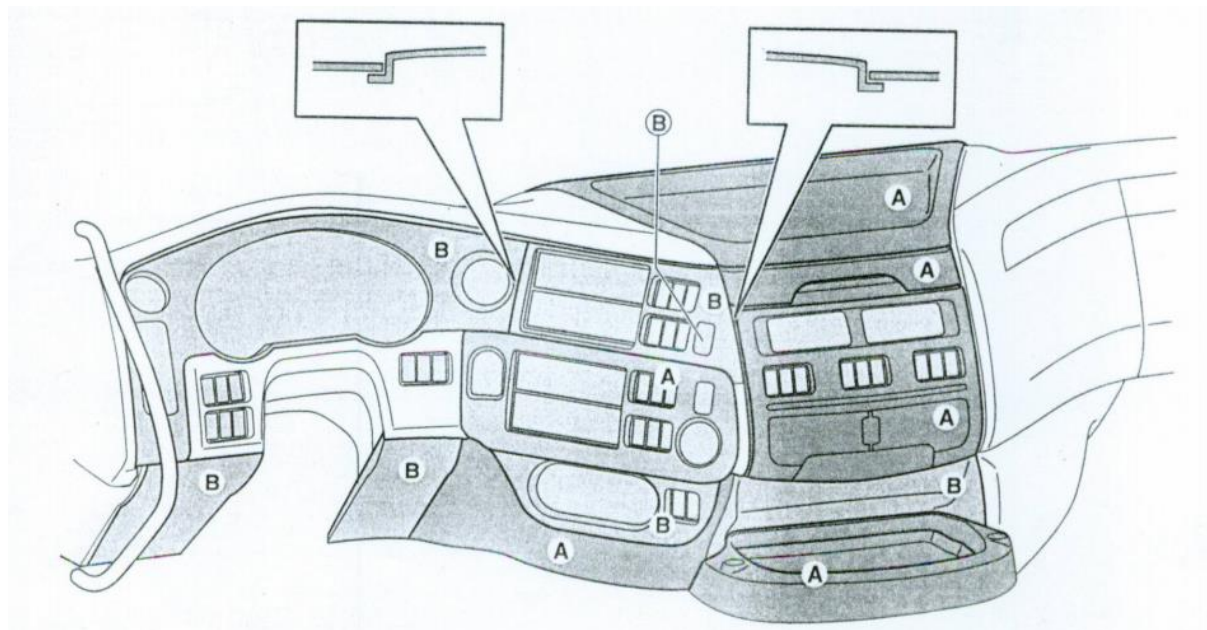
| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|-------------------------|----------------------|
| MAIN CABLE | | | | |
| +30 (24V) | A098 | 17 | Fuse 41 or install fuse | A098 |
| -31 (Ground) | A098 | 1 | | |
| +15 (After contact) | A098 | 18 | Install fuse | |
| CAN / RDD | | | | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| CAN CLAMP | | | | |
| CAN-H | | 13 | Red | |
| CAN-L | | 4 | Yellow | |
| TACHO | | | | |
| Tacho (D8) | A098 | 9 | Wire 3225 | A098 |



Picture 4 - Green connector A098

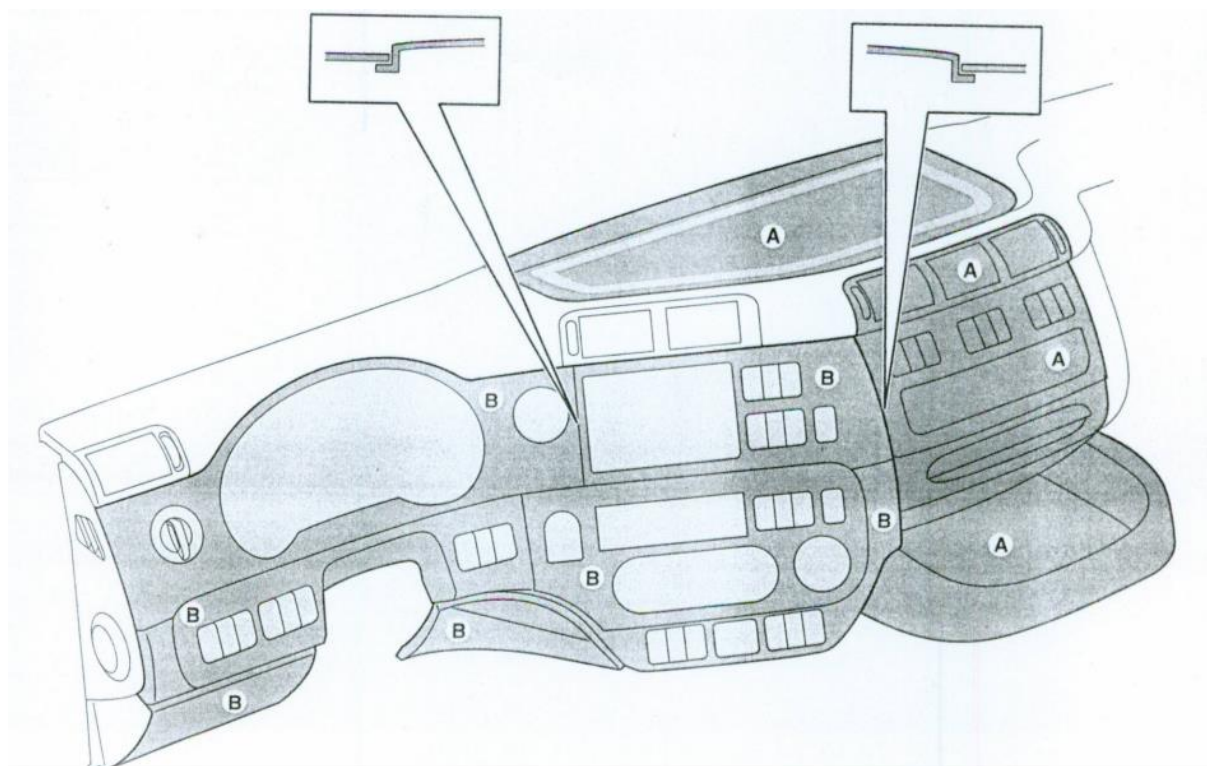


The FMS and A098 connectors can also be found behind a module on the left or under the fuse board.



The dashboard panels are fastened with screws (A) and with click mechanisms (B).

CF series



The dashboard panels are fastened with screws (A) and with click mechanisms (B).

- CAN HIGH: RED
- CAN LOW: YELLOW



Construction year: 2002 - 2007



CONNECTIONS

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|---------------------------|---------------------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | ST14 | 21 | Install extra fuse | 1 & 2 |
| -31 (Ground) | ST14 | 17 | | |
| +15 (After contact) | ST14 | 11 | Install extra fuse | |
| CAN / RDD | | | | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| CAN CLAMP | | | | |
| CAN-H | J2 / ST05 | | Connect to the WHITE wire | 3 (J2) |
| CAN-L | J2 / ST05 | | Connect to the GREEN wire | 4 (ST05) |
| TACHO | | | | |
| Tacho (D8) | Tacho D | 8 | Connect to tachometer | TC |

IVECO STRALIS I

Connector ST14



Picture 1 - Connector ST14

The yellow ST14 connector can be found underneath the passenger kick panel on the right side.

Automatic battery switch

If the +30 (24V) should drop after a couple of minutes, the truck is equipped with an automatic battery switch. In that case, you should try to find a +30 on the BLACK or RED fuse row.



STRALIS AT/AD EURO 4/5

ELEKTRIK/ELEKTRONIK

STEUERGERÄT SICHERUNGSKASTEN / SCHÜTZE
766111 SICHERUNGEN
Abb. 149

Schwarzer Sicherungskasten (70601)

| Bez. | Funktion | Durchsatz (A) | Klemme |
|------|---|---------------|--------|
| 1 | Klemme 15 für Klimaanlage / Vorfilterbeheizung / Radio 24V | 5 | +15 |
| 2 | Wärmehalteplatte + Kühlschrank / BM / Diagnosestecker / OBD/POTR-Steckverbinder (BC2) | 10 | +Batt |
| 3 | Fahrtenschreiber / IC / Zentralverriegelung (Fernbedienung) | 5 | +Batt |
| 4 | SWI/IVTM (BC2) | 3 | +30 |
| 5 | Zigarettenanzünder - Abspanner 24V/12V / Radio 24V | 20 | +30 |
| 6 | Fahrerhaus gekippt / Trockner / Wasser im Kraftstofffilter vorhanden / Magnetventil "Shut off" / Leuchtweitenregelung | 10 | +15 |

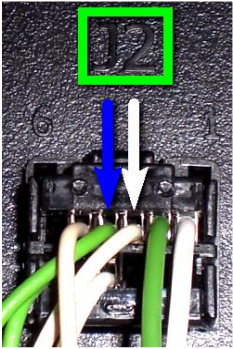
IVECO STRALIS I

CAN CLAMP



On the backside of the fuse board, you can find connector J2, where you can connect the CAN CLAMP.

- CAN HIGH: WHITE - PIN 3 Iveco
- CAN LOW: GREEN - PIN 4 Iveco



Picture 3 - J2 CAN connector

The ST05 can be found at the bottom on the co-driver side.

- CAN HIGH: WHITE - PIN 2 & 4
- CAN LOW: GREEN - PIN 1 & 3

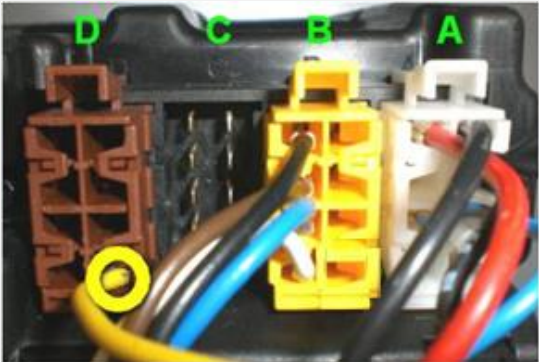


Picture 4 – ST05 CAN connector

TACHO

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.



Picture TC - Tacho connection

Extra parts

To make the connections, special connectors and pins are required. These are available at your local Iveco Trucks dealer. In most cases, the ST14 and ST40 connectors are already present on the truck.

| PART | IVECO PART NUMBER | PICTURE |
|------------------|-------------------|---|
| MALE CONTACT PIN | 4120 0695 |  |

IVECO STRALIS II & HI-WAY

IVECO STRALIS II & HI-WAY



CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|--------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | 86131 | 12 | Install extra fuse | FMS |
| -31 (Ground) | 86131 | 1 | | |
| +15 (After contact) | 86131 | 10 | Install extra fuse | |
| CAN / RDD | | | | |
| CAN-H | 86131 | 6 | | FMS |
| CAN-L | 86131 | 9 | | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | Connect to tacho | TC |

FMS

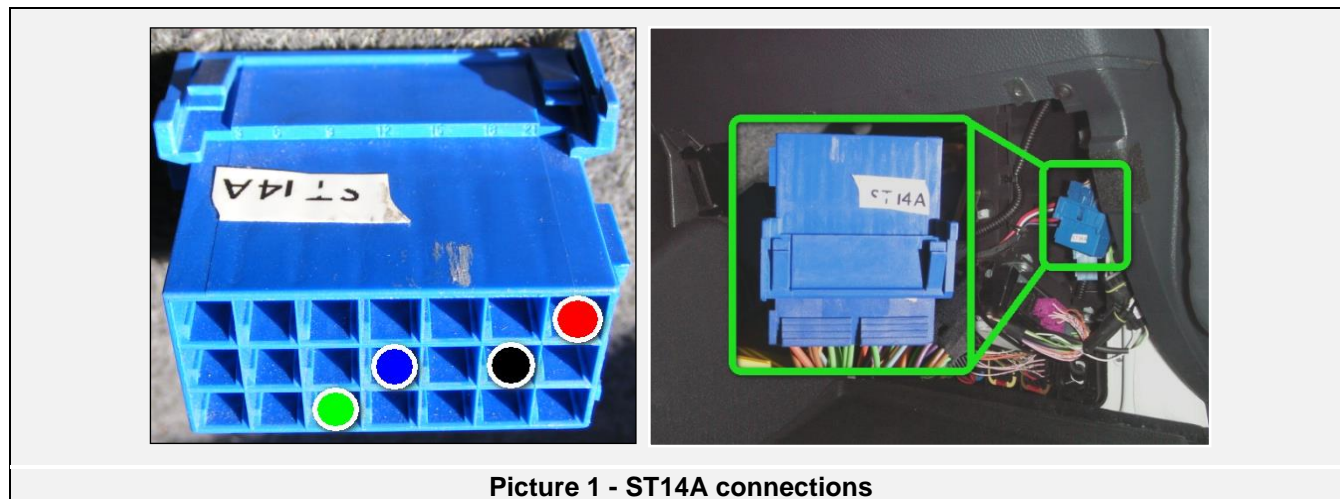
Can be found behind the radio.

IVECO STRALIS II & HI-WAY

CONNECTIONS TO ST14A CONNECTOR

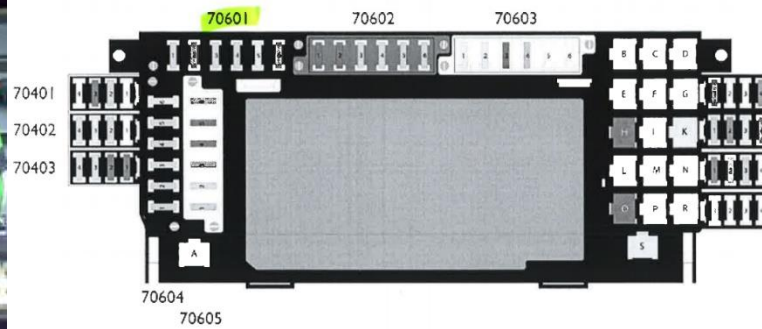
| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---------|---|---|
| MAIN CABLE | | | | |
| +30 (24V) | ST14A | 21 or 6 | 2nd fuse from the left | ST14A |
| -31 (Ground) | ST14A | 17 | | |
| +15 (After contact) | ST14A | 11 | Automatic fuse | |
| CAN / RDD | | | | |
| RDD CAN-H | RDD available on FMS | | Firstly, check RDD tacho compatibility. | |
| RDD CAN-L | | | | |
| CAN CLAMP | | | | |
| CAN-H | | | Connect to the WHITE wire | 4 (J2) / 5 (ST05) |
| CAN-L | | | Connect to the GREEN wire | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | | TC |
| | ST07B | 9 | Wire 5149 | |

ST14A



Automatic battery switch

If the +30 (24V) should drop after a couple of minutes, the truck is equipped with an automatic battery switch. In that case, you should try to find a +30 on the BLACK or RED fuse row.



Schwarzer Sicherungskasten 70601



| Bezug, | Beskrivelse | |
|--------------------------------|---|--------------|
| 1 (5A) | Klemme 15 für Klimaanlage / Zusatzheizung / beheizter Vorfilter / Radio 24V / Fernschalter weiße - rote Lichter | +15 |
| 2 (7,5A) | Speisenwärmer + Kühlschrank / BM / OBD / FMS-Stecker | +Batt |
| 3 (7,5A) | Fahrtenschreiber / IC / Toll Collect / Zentralverriegelung (Fernbedienung) / UTP | +Batt |
| 4 (5A) | SWI / IVTM | +30 |
| 5 (20A) | Steckdose 24V / Spannungssenkung 24 V / 12 V / Radio 24 V | +30 |
| 6 (10A) | Gekipptes Fahrerhaus / Trockner / Wasser im Kraftstofffilter / Beheizbare Windschutzscheibe | +15 |
| 6 (Hi Road-Street)(10A) | Gekipptes Fahrerhaus / Trockner / Wasser im Kraftstofffilter / Beheizbare Windschutzscheibe / Scheinwerfereinstellung | |

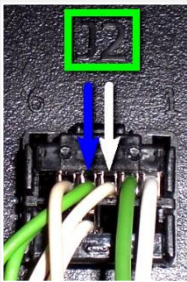
IVECO STRALIS II & HI-WAY

CAN CLAMP



On the backside of the fuse board, you can find connector J2. Connect the CAN wires here.

- CAN HIGH: WHITE - PIN 3 IVECO
- CAN LOW: GREEN - PIN 4 IVECO



Picture 4 - J2 CAN connector

The ST05 can be found at the bottom on the co-driver side.

- CAN HIGH: WHITE - PIN 2 & 4
- CAN LOW: GREEN - PIN 1 & 3

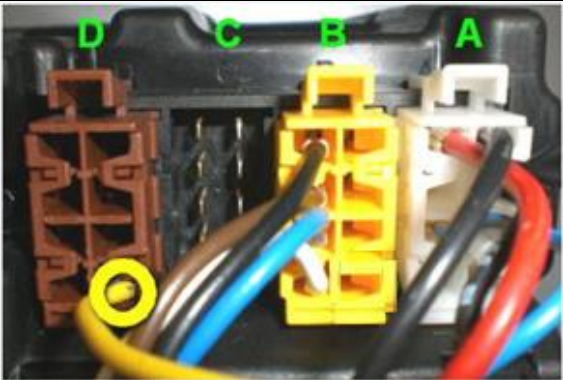


Picture 5 – ST05 CAN connector

Tacho

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.



Picture TC - Tacho connection

Extra parts

To make the connections, special pins are required. These are available at your local Iveco Trucks dealer. In most cases, connector ST14A is already present on the truck.

| PART | IVECO PART NUMBER | PICTURE |
|------------------|-------------------|---|
| MALE CONTACT PIN | 4120 0695 |  |



CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|--------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | 86131 | 12 | Install extra fuse | FMS |
| -31 (Ground) | 86131 | 1 | | |
| +15 (After contact) | 86131 | 10 | Install extra fuse | |
| CAN / RDD | | | | |
| CAN-H | 86131 | 6 | | FMS |
| CAN-L | 86131 | 9 | | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | Connect to tacho | TC |

FMS

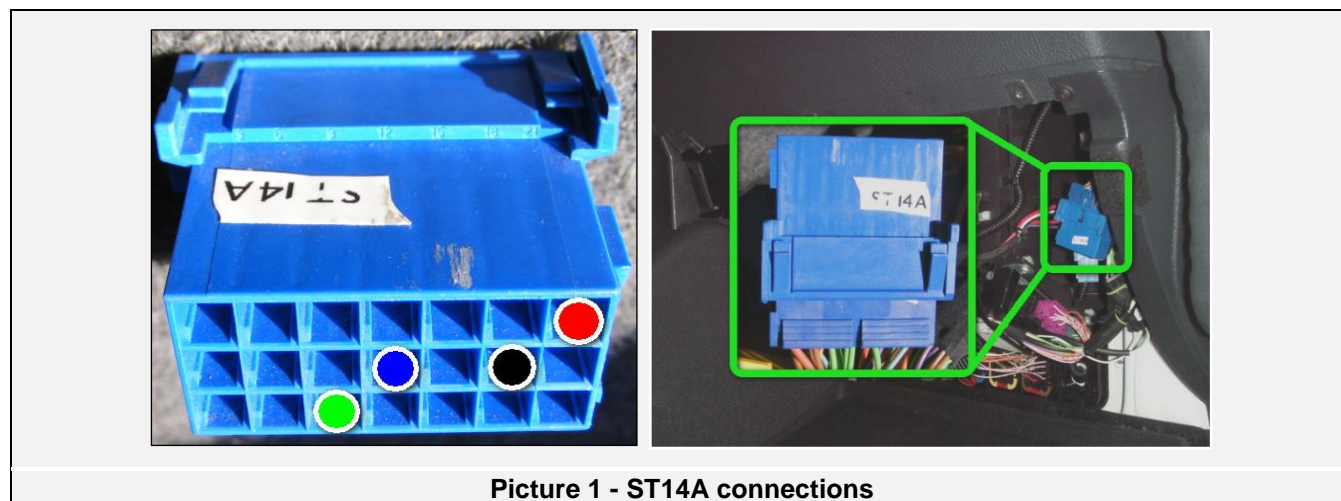
Can be found behind the radio.

IVECO HI-WAY (> 2016)

CONNECTIONS TO ST14A CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---------|---|--|
| MAIN CABLE | | | | |
| +30 (24V) | ST14A | 21 or 6 | 2nd fuse from the left | ST14A |
| -31 (Ground) | ST14A | 17 | | |
| +15 (After contact) | ST14A | 11 | Automatic fuse | |
| CAN / RDD | | | | |
| RDD CAN-H | RDD available on FMS | | Firstly, check RDD tacho compatibility. | |
| RDD CAN-L | | | | |
| CANcliQ | | | | |
| CAN-H | | | Connect to the WHITE wire | 6 (IVECO Hi-way 2016+) |
| CAN-L | | | Connect to the GREEN wire | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | | TC |
| | ST07B | 9 | Wire 5149 | |

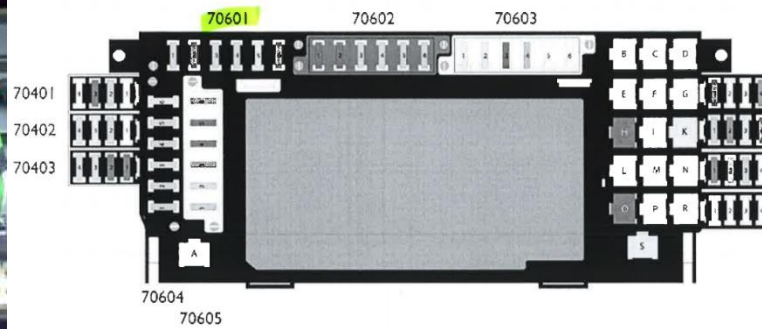
ST14A



IVECO HI-WAY (> 2016)

Automatic battery switch

If the +30 (24V) should drop after a couple of minutes, the truck is equipped with an automatic battery switch. In that case, you should try to find a +30 on the BLACK or RED fuse row.



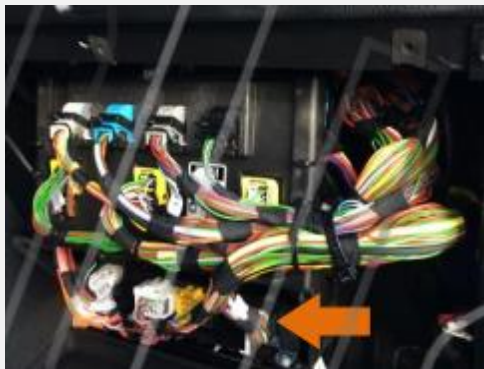
Schwarzer Sicherungskasten 70601



| Bezug, | Beskrivelse | |
|--------------------------------|---|--------------|
| 1 (5A) | Klemme 15 für Klimaanlage / Zusatzheizung / beheizter Vorfilter / Radio 24V / Fernschalter weiße - rote Lichter | +15 |
| 2 (7,5A) | Speisenwärmer + Kühlschrank / BM / OBD / FMS-Stecker | +Batt |
| 3 (7,5A) | Fahrtenschreiber / IC / Toll Collect / Zentralverriegelung (Fernbedienung) / UTP | +Batt |
| 4 (5A) | SWI / IVTM | +30 |
| 5 (20A) | Steckdose 24V / Spannungssenkung 24 V / 12 V / Radio 24 V | +30 |
| 6 (10A) | Gekipptes Fahrerhaus / Trockner / Wasser im Kraftstofffilter / Beheizbare Windschutzscheibe | +15 |
| 6 (Hi Road-Street)(10A) | Gekipptes Fahrerhaus / Trockner / Wasser im Kraftstofffilter / Beheizbare Windschutzscheibe / Scheinwerfereinstellung | |

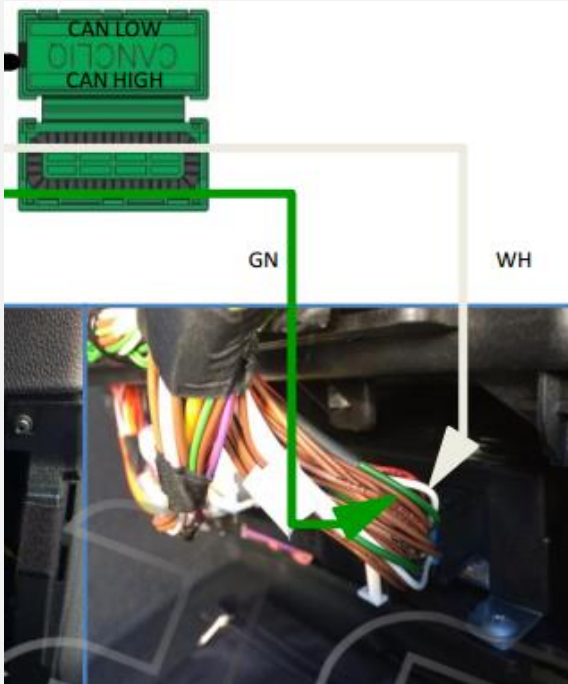
IVECO HI-WAY (> 2016)

CANcliQ (Iveco Hi-Way 2016+)



Remove the lower dashboard cover. The CAN wires are located near the lower ECU. The blue connector can be found on the right side of the ECU.

- CAN HIGH: WHITE IVECO
- CAN LOW: GREEN IVECO

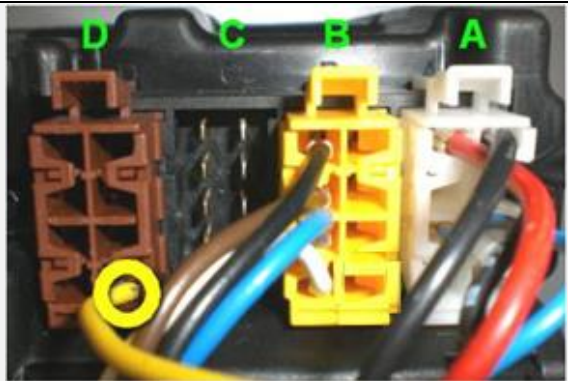


Picture 6 – J1939 CAN connector

Tacho

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.



Picture TC - Tacho connection

Extra parts

To make the connections, special pins are required. These are available at your local Iveco Trucks dealer. In most cases, connector ST14A is already present on the truck.

| PART | IVECO PART NUMBER | PICTURE |
|------------------|-------------------|---------|
| MALE CONTACT PIN | 4120 0695 | |



Construction year: 2000 - 2007

CONNECTIONS WHEN NO STANDARD FMS CONNECTOR IS AVAILABLE

| CONNECTIONS | CONNECTOR | PIN | WIRE NO. | INFO | PIC |
|---------------------|---|--|----------|--------------------|--------------------|
| MAIN CABLE | | | | | |
| +30 (24V) | Fuse board | 91 | | Install extra fuse | 1 |
| -31 (Ground) | Chassis | | | | 1 |
| +15 (After contact) | Fuse board | 94 | | Install extra fuse | 1 |
| CAN / RDD | | | | | |
| RDD CAN-H | RDD not available on FMS Cf. MAN work instruction 567502 | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | | |
| RDD CAN-L | | | | | |
| CAN CLAMP | | | | | |
| CAN-H | A 403X1 | 14 | | BLUE / RED | 3 |
| CAN-L | A 403X1 | 15 | | BLUE / WHITE | 3 |
| TACHO | | | | | |
| Tacho (D8) | Tacho | D8 | | | TC |

MAN TGA-TGL-TGM (EURO 3 / 4 / 5)


Power connections



Picture 1 - Power connections

Extra parts

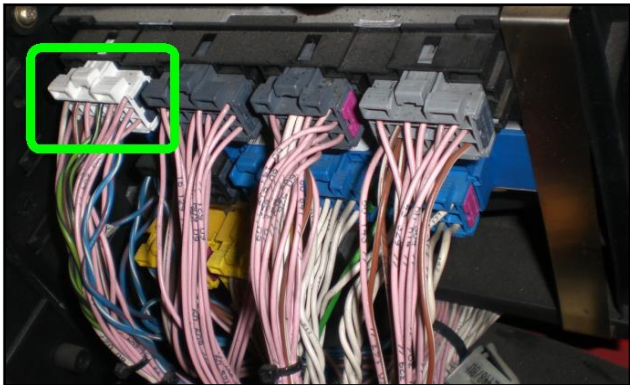
To make the FMS connection, special pins are required. These are available at your local MAN Trucks dealer.

| PART | MAN PART NUMBER | PICTURE |
|--------------------|-----------------|---|
| FEMALE CONTACT PIN | 07.912.010.222 |  |

CAN CLAMP

On the left side of the fuse board, you can find the white connector A 403X1. Here, you can connect the CAN CLAMP to the BLUE-WHITE and BLUE-RED wires:

- **CAN HIGH: BLUE-RED**
- **CAN LOW: BLUE-WHITE**

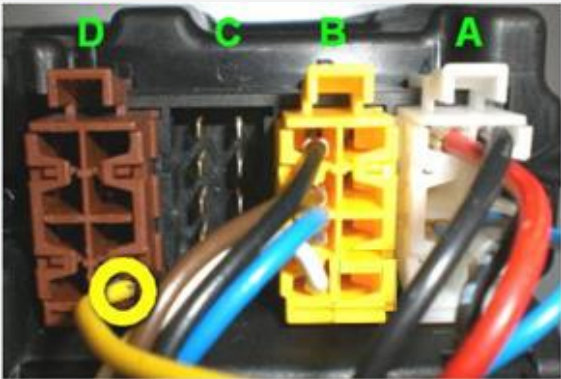


Picture 3 - CAN connector

TACHO

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.



Picture TC - Tacho connection

**MAN After Sales Portal**

English

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Technische Informationen

Hier werden Ihnen alle Technischen Informationen zu Ihren Filterkriterien angezeigt.

Bitte klicken Sie auf die auf die gewünschte Technische Information, um sie als PDF-Datei zu öffnen. In der Ergebnisliste haben Sie weiterhin folgende Möglichkeiten: Einschränken der Suchergebnisse, Ändern der angezeigten Ergebnisse pro Seite, Blättern in den Ergebnisseiten bei vielen Treffern, Umstellen der Sprache der Suchergebnisse. Bitte beachten Sie: die Technische Information in der gewünschten Sprache nicht vorhanden, wird Ihnen ihre Profilsprache oder die deutschsprachige Version angezeigt.

Downloads

 Sicherheitshinweise

Suchergebnis: Service Informationen

FIN/Fahrzeugnummer

Service-Informationen für die Produktgruppen(n).
Alle Produktgruppen ▶ ändern

Suchergebnisse einschränken
Geben Sie eine Nummer oder ein Stichwort ein.

▶ Einschränkung aufheben

| Datum | Nummer und Vorschautext | Sprache |
|------------|---|---------|
| 30.09.2015 | 567502 TGS, TGX with customer-specific control module 2.1: If a third-party telematics system has been connected and the tachograph data cannot be transferred via remote download, connect the third-party telematics system directly to the tachograph and remove MAN genuine software. | English |

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MAN Truck & Bus AG Technical Information



| | | |
|------------------------|---|----------------|
| Information sheet type | Work instruction | Number: 567502 |
| Publication | 30/09/2015 | |
| Valid | <ul style="list-style-type: none"> As of publication until withdrawn or replaced Worldwide | |
| Vehicle(s) affected | TGS, TGX with customer-specific control module 2.1 | |
| Topic | Remote download may not work if a third-party telematics system is connected. | |
| Component(s) affected | Customer-specific control module 2.1, tachograph | |
| Work to be completed | In the event of a complaint | |
| Link(s) | 5675AR | |
| Problem | If a telematics system other than that offered by MAN ("third-party telematics system") is being used, it is possible that the tachograph data cannot be transferred via remote download. | |
| Cause | The third-party telematics system has the same cycle (transfer time rate) as customer-specific control module 2.1. | |
| Remedy | <p>⇒ Connect the third-party telematics system directly to the tachograph in accordance with the manufacturer's instructions (manufacturer of the third-party telematics system).</p> <p>⇒ Then remove MAN genuine software 81.25890-7775 (function parameter set 81.25890-3668).</p> | |

This Information sheet is available on the Internet (MAN After Sales Portal).

This Information sheet will also be made available to the MAN service organisation on the MAN Intranet/Extranet.

This Technical Information sheet applies in addition to as well as in conjunction with the standard service documents (Operator's Manual, repair and maintenance instructions, etc.) as well as the generally applicable regulations concerning warranty, workshop processes, etc.

Issued by: SASPC

567502en
Page 1 of 2

| | |
|----------------------|---|
| Conversion data file | <p>You can order the conversion data file using MAN-cats. Select the following menu items in the main menu of MAN-cats: MAN-cats II:</p> <ul style="list-style-type: none"> → Vehicle programming → Online application for a conversion file → Order function packages → Remote download → external remote download → Remove software package <p style="text-align: center;">Remove MAN genuine software 81.25890-7775 (function parameter set 81.25890-3668). MAN-cats II version required: 14.01.00 (or higher)</p> <p>MAN-cats III:</p> <ul style="list-style-type: none"> → Vehicle configuration/vehicle model → Tractor vehicle → Order with vehicle (conversion data file) → Conversion data file order → Order MAN Genuine Software → Software packages → Remote download → external remote download → Remove package <p style="text-align: center;">Remove MAN genuine software 81.25890-7775 (function parameter set 81.25890-3668). MAN-cats III version required: Diagnostic package 15.33 (or higher)</p> |
|----------------------|---|

567502en
Page 2 of 2

71302en, Supplement 6
Page 8 of 10

• Remote download without on-board telematics module

| Function parameter set | Description | Functional description |
|------------------------|--|--|
| 81.25890-3668 | Remote download via customer-specific control module | <p>Reading out tachograph data (remote download) is also possible without having fitted an on-board telematics module by means of an external telematics unit (via the body interface).</p> <p>Requirement:</p> <ul style="list-style-type: none"> • Customer-specific control module Step 2.1 (81.25816-7008) or higher has been fitted. • Body CAN is not connected to the RDL-compatible tachograph: If cable harness 81.25459-5504 is fitted: ⇒ No changes necessary. There is no connection between the body CAN and RDL-compatible tachograph. If cable harness 81.25458-5324 is fitted: ⇒ Disconnect connections C/5 and C/7 on the RDL-compatible tachograph. |

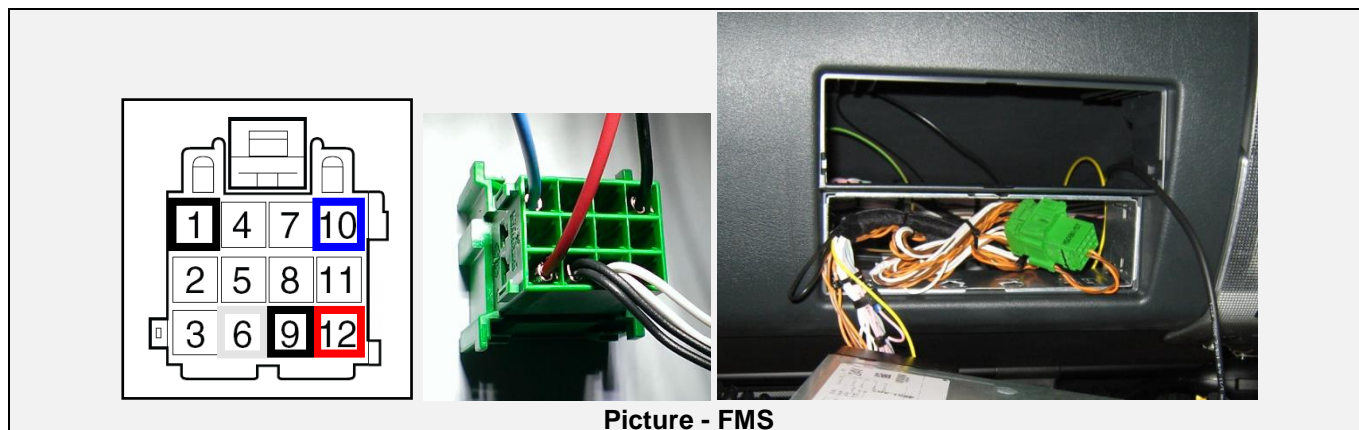
Function parameter set 81.25890-3668 is also available as a software package and can be ordered using MAN-cats (direct order):

| Function parameter set | MAN genuine software |
|------------------------|---|
| 81.25890-3668 | 81.25890-7775 "Tachograph read-out in vehicles with control unit for external data exchange" |



CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|---|--|--------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | X5080/ST | 12 | Install extra fuse | FMS |
| -31 (Ground) | X5080/ST | 1 | | FMS |
| +15 (After contact) | X5080/ST | 10 | Install extra fuse | FMS |
| CAN / RDD | | | | |
| CAN-H | X5080/ST | 6 | | FMS |
| CAN-L | X5080/ST | 9 | | FMS |
| RDD CAN-H | RDD not available on FMS Cf. MAN work instruction 567502 | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | Connect to tacho | TC |



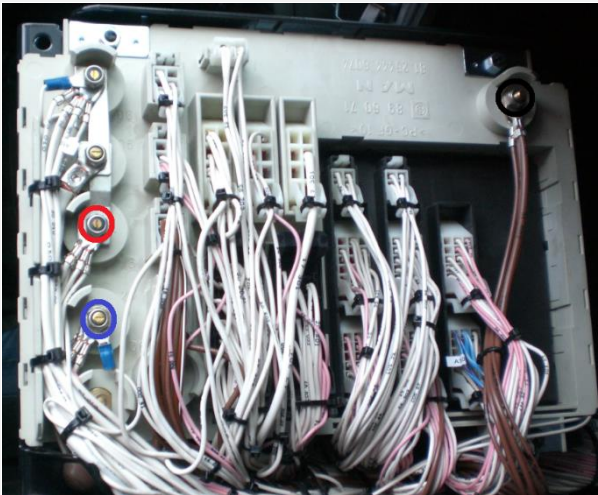
Picture - FMS

CONNECTIONS WHEN NO STANDARD FMS CONNECTOR IS AVAILABLE

| CONNECTIONS | CONNECTOR | PIN | WIRE NO. | INFO | PIC |
|---------------------|---|--|----------|--------------------|--------------------|
| MAIN CABLE | | | | | |
| +30 (24V) | Fuse board | 91 | | Install extra fuse | 1 |
| -31 (Ground) | Chassis | | | | 1 |
| +15 (After contact) | Fuse board | 94 | | Install extra fuse | 1 |
| CAN / RDD | | | | | |
| RDD CAN-H | RDD not available on FMS Cf. MAN work instruction 567502 | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | | |
| RDD CAN-L | | | | | |
| CAN CLAMP | | | | | |
| CAN-H | A 402X1 | 14 | | BLUE / RED | 3 |
| CAN-L | A 402X1 | 15 | | BLUE / WHITE | 3 |
| TACHO | | | | | |
| Tacho (D8) | Tacho | D8 | | | TC |

MAN TGX-TGS-TGM-TGL (EURO 6)

Power connections

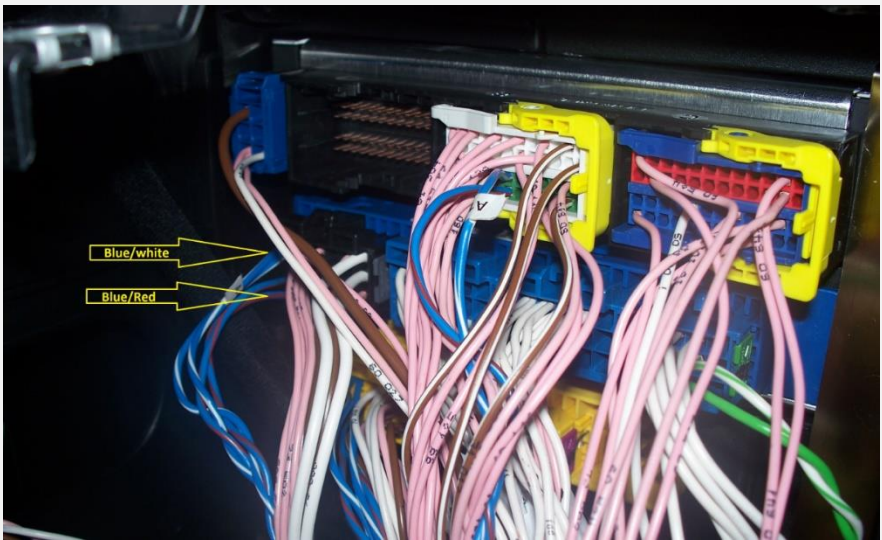


Picture 1- Power connections

CAN CLAMP

On the left side of the fuse board, you can find the black connector **A 402X1**. You can connect the CAN wires here:

- **CAN HIGH: BLUE-RED**
- **CAN LOW: BLUE-WHITE**

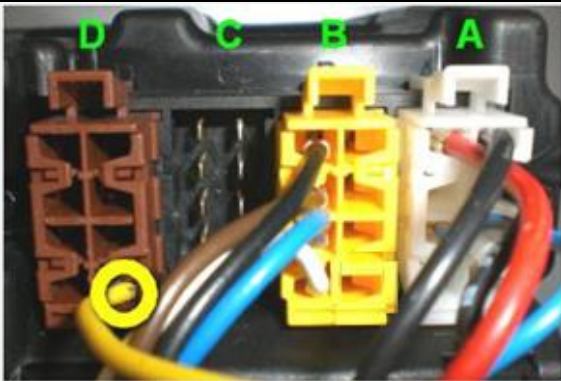


Picture 3 - CAN connector

TACHO

Connect the yellow tacho wire to the brown connector **D**, position 8.

If no connector is present in position **D**, use the D-connector delivered with the tacho cable.



Picture TC - Tacho connection

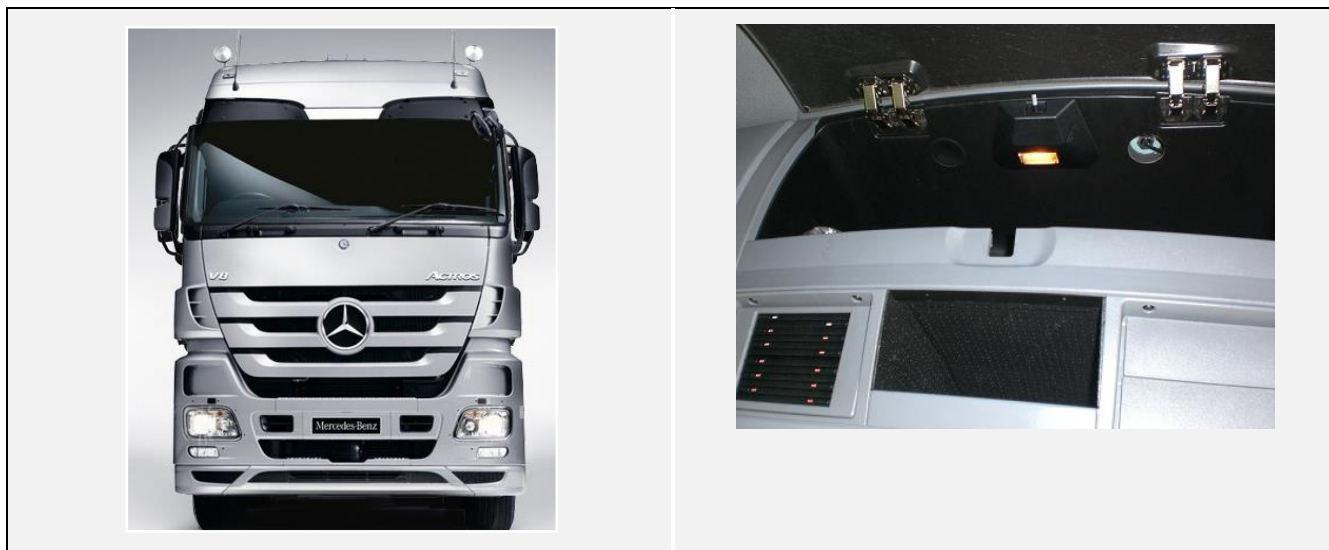
Extra parts

To make the FMS connection, special pins are required. These are available at your local MAN Trucks dealer.

| PART | MAN PART NUMBER | PICTURE |
|--------------------|-----------------|---------|
| FEMALE CONTACT PIN | 07.912.010.222 | |

MERCEDES ACTROS (MP1,2,3)

MERCEDES ACTROS (MP1, 2, 3) Euro 3/4/5



CONNECTIONS TO THE STANDARD FMS CONNECTOR

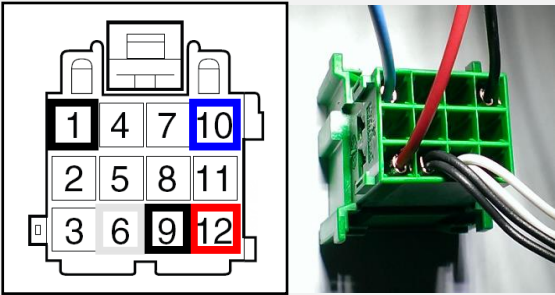
| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|--------------------------|---|--------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | | 12 | Install extra fuse | FMS |
| -31 (Ground) | | 1 | | FMS |
| +15 (After contact) | | 10 | Install extra fuse | FMS |
| CAN / RDD | | | | |
| CAN-H | | 6 | | FMS |
| CAN-L | | 9 | | FMS |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tacho compatibility . | | RDD |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | Connect to tacho | TC |

MERCEDES ACTROS (MP1,2,3)

FMS

Since November 2011, the Actros is delivered with an “active” Fleetboard for 4 months. The customer needs to order the **Y-cable** that is connected to the Fleetboard.

The “FMS router function” must be activated in the Fleetboard by MB Germany.

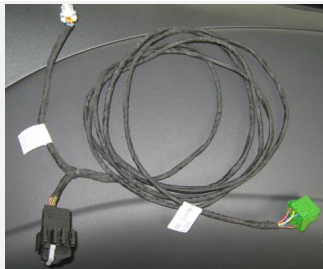


Picture - FMS

FMS CONNECTOR

Y-cable

A0035405005



RDD

Connection variant B - Mass Memory Downloads via other telematics suppliers when using the FMS router

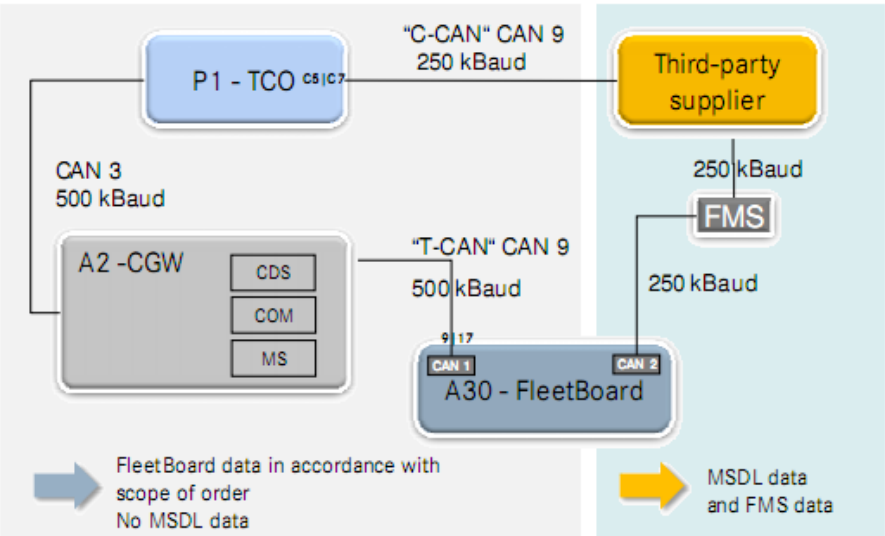


Figure 2 Schematic interconnection diagram - Mass Memory Download via other telematics suppliers

If the customer desires Mass Memory Download through a different supplier, then the connection to the tachograph can be made in accordance with the schematic representation. Separate the connection from the FleetBoard hardware over the 8-pin C plug on the tachograph (red) and replace this with the cable set from the third-party supplier. Proceed according to the installation documentation from the manufacturer. Parameterize the kbaud rate for the C-CAN on the tachograph to 250 kbaud. This can be set using the Star Diagnosis by selecting the control equipment TCO (P1) and by continuing with the tab “Adaptations - Encoding/Parameterization”.

- Stoneridge tachograph: Value 000 - Telematics CAN Bus → “Low-speed CAN-Bus”
- Continental tachograph: Value 000 - FleetBoard → “NOT INSTALLED”
Value 001 - Telematics CAN Bus → “Low-speed CAN-Bus”

IMPORTANT: The tachographs can only be parameterized with the workshop card.

Picture - RDD

MERCEDES ACTROS (MP1,2,3)

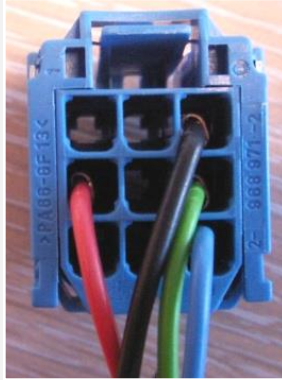
CONNECTIONS WITHOUT FLEETBOARD

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|--|--------------------------|--|---------------------------------|---------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | X7 | 2 | F8 or install extra fuse | 1 & 2 |
| -31 (Ground) | X7 | 7 | | 1 & 2 |
| +15 (After contact) | X7 | 9 | F10 or install extra fuse | 1 & 2 |
| CAN / RDD | | | | |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | RDD |
| RDD CAN-L | | | | |
| CANcliQ | | | | |
| CAN-H | X11 | | Lower row | 5 |
| CAN-L | X11 | | Upper row | 5 |
| TACHO | | | | |
| Tacho (D8) ONLY in case Fleetboard is NOT used! | X83 | | Connect to the YELLOW-BLUE wire | 6 |

For the activation of the CoTel FMS interface, we refer to Mercedes' Xentry tips, case: GI82.85-N-039319.

MERCEDES ACTROS (MP1,2,3)

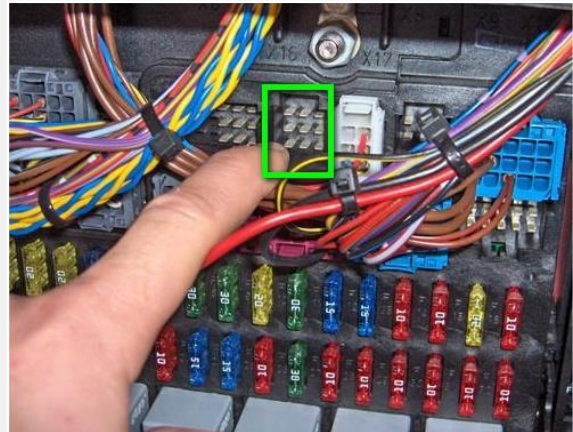
Power connections



Picture 1 - Power connections

Underneath the dashboard on the passenger side, you can find the fuses. Take off the plastic shield plate above the fuses.

Connect the blue power connector to position X7.



Picture 2 - X7 location

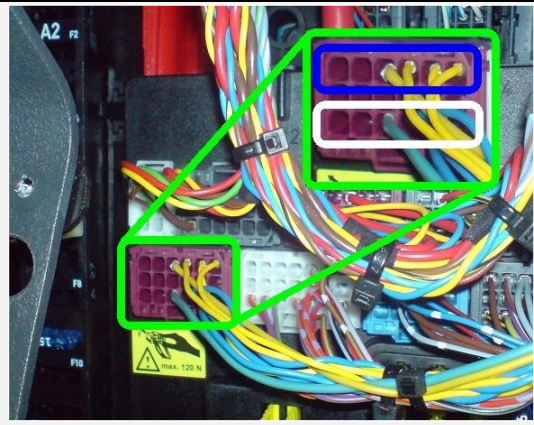
CANcliQ

Connect the CANcliQ to the YELLOW and BLUE wires of connector X11.

The yellow wires (upper row) are all CAN LOW.

The blue wires (lower row) are all CAN HIGH.

- **CAN HIGH: BLUE**
- **CAN LOW: YELLOW**



Picture 5 - X11 CAN connector

MERCEDES ACTROS (MP1,2,3)

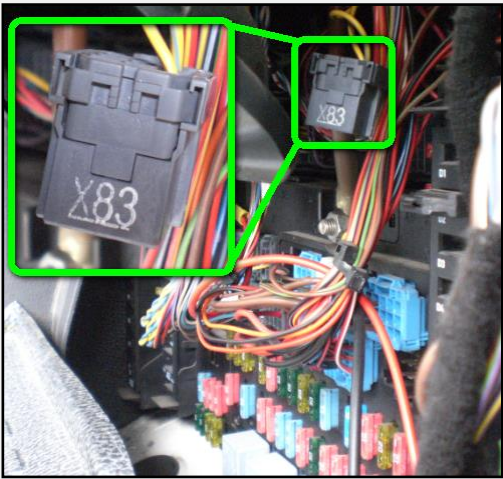
TACHO

ONLY in case Fleetboard is NOT used!

Directly above the fuses, there is a connector with 2 wires: X83. This connector has no specific function.

Connect the YELLOW tacho wire to the YELLOW-BLUE wire in the X83 connector. Take out the tachograph and change the YELLOW-BLUE wire from connector D to PIN 8.

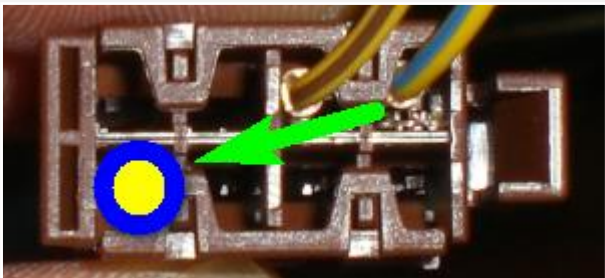
In this way, you do not have to pull the yellow tacho wire up to the tachograph.



Picture 6 - X83 connector

Other possible tacho connections

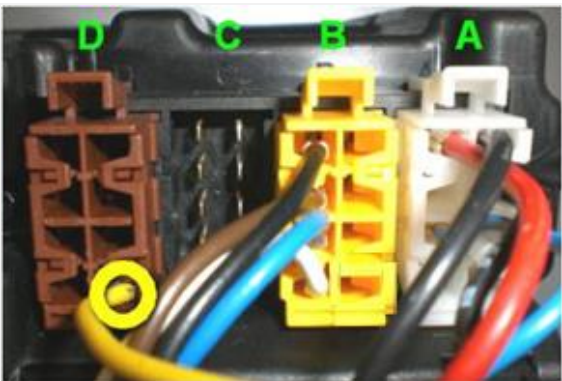
Change the YELLOW-BLUE wire from position 1 to position 8.



D8 wire

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.



Picture TC - Tacho connection

Extra parts

To make the connections, special connectors and pins are required. These are available at your local Mercedes Trucks dealer.

| PART | MERCEDES PART NUMBER | PICTURE |
|--------------------|----------------------|---------|
| FEMALE CONTACT PIN | 013 545 76 26 | |
| X7 CONNECTOR | 017 545 60 26 | |

Information on FMS interface (FMS standard)

| | |
|-------------------|---|
| Topic number | GI82.85-N-052870 |
| Version | 8 |
| Design group | 82.85 Navigation and Communication system (CNS, ICS, COMAND, FleetBoard) |
| Date | 08-13-2014 |
| Validity | New Actros/Antos/Arocs (963.### - 964.###) |
| Reason for change | corrected message name for "High Resolution Fuel Consumption: HRLFC" was "FEC1" instead of "FD09" |

Complaint:

Information on retrofitting or upgrading (updating) the FMS interface according to FMS Standard (code E4B "Interface, FMS fleet management system")

Notes:

Preinstallation of the FMS interface can be ordered from the factory under the sales code E4B.

Parallel operation of FleetBoard and the FMS interface is possible under certain circumstances (see Remedy, option 3).

The data are output via the central gateway (CGW) control unit.

In vehicles up to production month 11/2012 the FMS Standard 2.0 was installed (CGW control unit A000 446 11 27, -14 27).

In vehicles as of production month 12/2012 the FMS Standard 3.0 was installed (CGW control unit A000 446 15 27, -16 27 and future versions).

If a vehicle is to be upgraded from FMS Standard 2.0 to FMS Standard 3.0 at the customer's request, then the CGW control unit must also be replaced with the current version.

In vehicles up to production month 07/2012 with CGW control unit A000 446 11 27, it is absolutely essential to use an A000 446 16 27 or higher.

Information about the fuel consumption is transmitted in the form of the message FD09 "High Resolution Fuel Consumption: HRLFC" (ID 18FD0917). The message FEE9 "Fuel Consumption: LFC" (ID 18FEE917) is NOT used.

The status of the power take-off ("PTO state" in ID 14FEF1FC) is currently unavailable. It will be made available at a later date.

The message FE6B "Driver's Identification: DI" will be made available with FMS Standard 3.0.

FMS stands for 'Fleet Management System'. The FMS standard is an electronic communications interface for fleet management systems from different manufacturers. It is used to convert vehicle-internal CAN data into the standardized SAE J1939 format and to forward it to the respective external fleet management system. The data contents of the

interface are precisely defined and agreed upon jointly by the manufacturers Daimler, DAF, IVECO, MAN, Scania and Volvo. As a result, different fleet management systems can evaluate vehicle data generated by equipment from the above-named manufacturers without problem and irrespective of the brand and make.

Cause:

Queries regarding retrofit installation or upgrading (updating) of external fleet management systems.

| Attachments | |
|-----------------------------------|------------------------------------|
| File | Description |
| Einbauorte.pdf | Einbauorte CGW, X109.21 |
| Installations.pdf | Mounting locations of CGW, X109.21 |
| FMS 2.0-Signaltabelle_Ver3.pdf | FMS 2.0 Signaltabelle |
| FMS 2.0 table of signals_Ver3.pdf | Overview of signals FMS 2.0 |
| FMS 3.0-Signaltabelle_ver2.pdf | FMS 3.0-Signaltabelle |
| FMS 3.0 table of signals_ver2.pdf | Overview of signals FMS 3.0 |

Remedy:

Note:

The retrofitting or upgrading of the FMS interface is not covered by warranty, and must be paid for entirely by the customer.

Alternative 1: FleetBoard or FleetBoard preinstallation exists in the vehicle (codes J3A, J9C, Z8I)

In this case the FleetBoard computer (code J3A) must first be disconnected and, if necessary, removed. The connector A30.X1.18 contains CAN-H, CAN-L, tml. 30, tml. 15 and tml. 31 for connecting the FMS system (see circuit diagram PE82.85-W-2103SFA). Then perform the following steps:

- In the CGW under "Adaptations -> Coding -> Control unit list" set the value "043 FleetBoard" to "Not Installed"
- In the CGW under "Adaptations -> Coding -> Vehicle configuration" set the value "541 Telematics platform" to "FMS"
- In the ICUC under "Teach-in processes" transfer the vehicle equipment and control unit list from the CGW
- In the digital tachograph under "Adaptations -> Coding" set the value "000 FleetBoard" to "NOT INSTALLED" (with Stoneridge only) and set the value "001 Telematics CAN bus" to "Low Speed CAN Bus".

IMPORTANT: These changes can only be performed with a workshop card.

NOTE on CGW: If fields highlighted in red or fields with dashes "----" are displayed in the parameters of the CGW, then any parameter changes will not be accepted. Valid data must first be entered in these fields (e.g. "IPPC -> NOT PRESENT") before the changes can be accepted.

Alternative 2: FleetBoard preinstallation is NOT present in the vehicle (code J9X)

In this case, install the wiring according to circuit diagram PE82.85-W-.2006SFA. If the connections on the CGW are already occupied, the connection must be made according to the circuit diagram at the roof connector X109.21. Then perform the following steps:

- In the CGW under "Adaptations -> Coding -> Vehicle configuration" set the value "541 Telematics platform" to "FMS"

- In the ICUC under "Teach-in processes" transfer the vehicle equipment and control unit list from the CGW
- In the digital tachograph under "Adaptations -> Coding" check the value "000 FleetBoard" and, if necessary, set it to "NOT INSTALLED" (with Stoneridge only)
- In the digital tachograph under "Adaptations -> Coding" check the value "001 Telematics CAN bus" and, if necessary, set it to "Low Speed CAN Bus".

IMPORTANT: These changes can only be performed with a workshop card.

NOTE on CGW: If fields highlighted in red or fields with dashes "----" are displayed in the parameters of the CGW, then any parameter changes will not be accepted. Valid data must first be entered in these fields (e.g. "IPPC -> NOT PRESENT") before the changes can be accepted.

Alternative 3: Parallel operation of FleetBoard and FMS system (FMS router function)

Prerequisite: FleetBoard is already present in the vehicle.

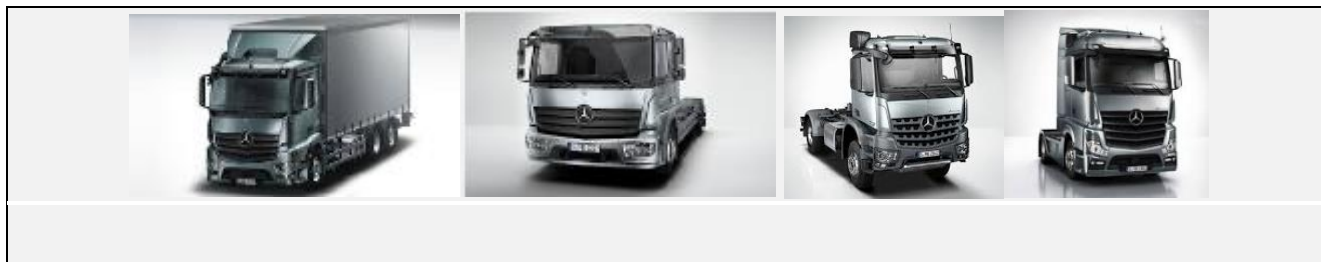
The new FleetBoard telematics platform features an FMS router function allowing the parallel operation of both systems. The FMS system is connected to the output of the FleetBoard telematics platform by means of an adapter cable.

The FMS router is activated by FleetBoard Support on request. The FleetBoard FMS interface can only be used with an active FleetBoard service contract. Further information can be obtained directly from FleetBoard.

| Parts | | | | | | | |
|-----------------|-----|-----|------------------|----------|--|-----|-----------------|
| Part number | ES1 | ES2 | Designation | Quantity | Note | EPC | Other make part |
| A 003 540 49 05 | | | Adapter cable 1m | 1 | Adapter cable for use with FMS router function | X | |
| A 003 540 50 05 | | | Adapter cable 3m | 1 | Adapter cable for use with FMS router function | X | |

MERCEDES ACTROS (MP4)-ANTOS-ATEGO-AROCS **WABCO**

MERCEDES ACTROS (MP4), ANTOS, ATEGO, AROCS Euro 5-6 (chassis WDB963.### - 964.###)

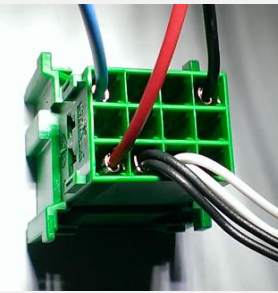
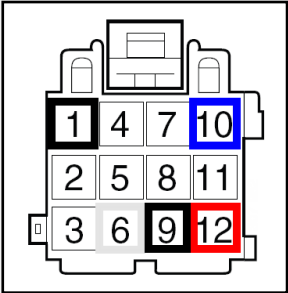


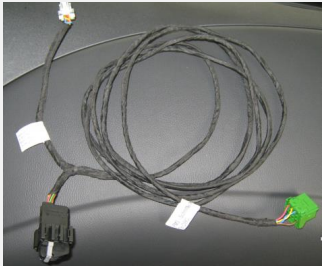


CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|--------------------------|---|--------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | FMS | 12 | Install extra fuse | FMS |
| -31 (Ground) | FMS | 1 | | FMS |
| +15 (After contact) | FMS | 10 | Install extra fuse | FMS |
| CAN / RDD | | | | |
| CAN-H | FMS | 6 | To be activated | FMS |
| CAN-L | FMS | 9 | To be activated | FMS |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility. | | RDD |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | | | Tacho connector D8 | |

MERCEDES ACTROS (MP4)-ANTOS-ATEGO-AROCS

FMS

| <p>On TP4: Only possible with an <u>active</u> Fleetboard service contract!</p> <p>When the Y-cable (FMS router cable) is mounted, the FMS router function needs to be activated by the Fleetboard support.</p> <p>We refer to Mercedes' Xentry tips, case: GI82.85-N-052870.</p> <p>On TP5, the FMS router function should be open for use as an FMS Gateway.</p> | | | <div></div> <p>Picture - FMS</p> | |
|---|--|--|---|--|
| PART | MERCEDES PART NUMBER | | PICTURE | |
| <p><u>FMS CONNECTOR</u></p> <p><u>Y-cable</u></p> <p>(FMS router cable)</p> | <div><p>(TP4) A0035405005</p><p>(TP5) A0015467201</p></div> | |  | |

Connection variant B - Mass Memory Downloads via other telematics suppliers when using the FMS router

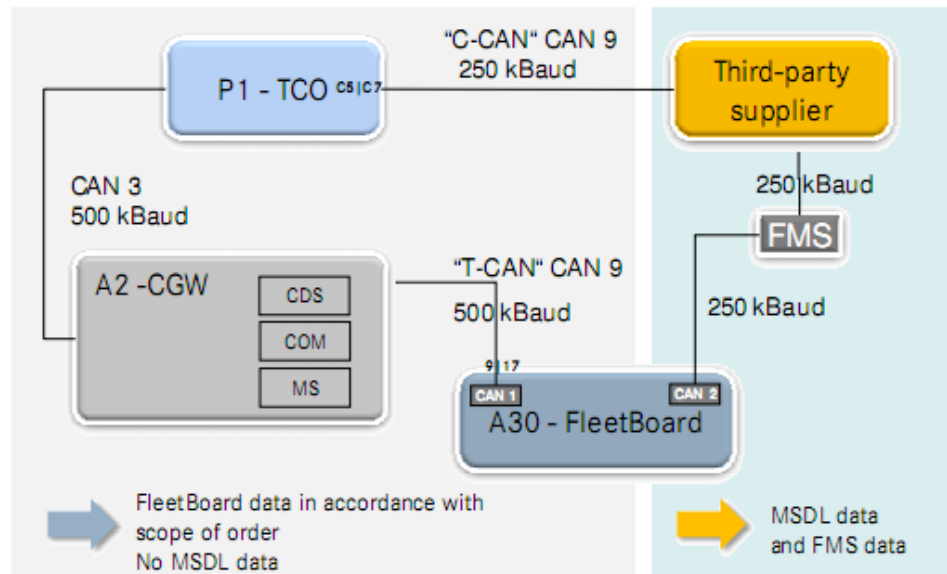


Figure 2 Schematic interconnection diagram - Mass Memory Download via other telematics suppliers

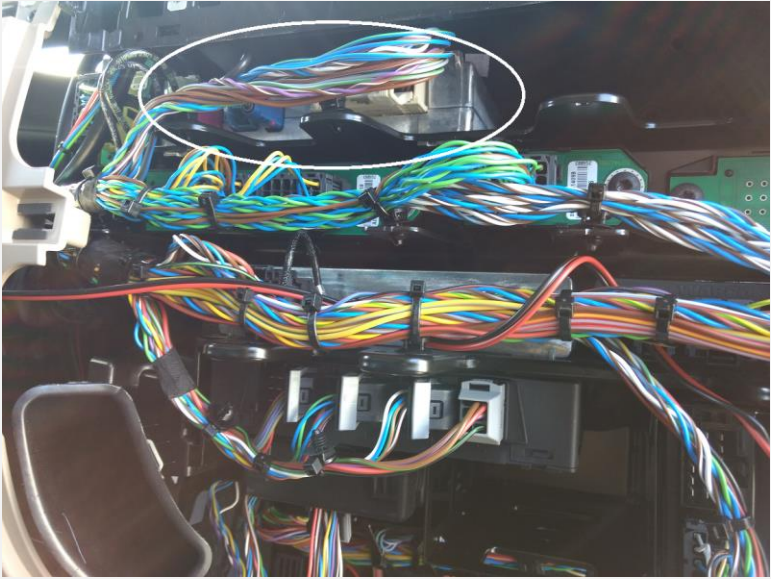



If the customer desires Mass Memory Download through a different supplier, then the connection to the tachograph can be made in accordance with the schematic representation. Separate the connection from the FleetBoard hardware over the 8-pin C plug on the tachograph (red) and replace this with the cable set from the third-party supplier. Proceed according to the installation documentation from the manufacturer. Parameterize the kbaud rate for the C-CAN on the tachograph to 250 kbaud. This can be set using the Star Diagnosis by selecting the control equipment TCO (P1) and by continuing with the tab "Adaptations - Encoding/Parameterization".

Stoneridge tachograph: Value 000 - Telematics CAN Bus → "Low-speed CAN-Bus"

Continental tachograph: Value 000 - FleetBoard → "NOT INSTALLED"
 Value 001 - Telematics CAN Bus → "Low-speed CAN-Bus"

IMPORTANT: The tachographs can only be parameterized with the workshop card.

Picture - RDD

| <div><div><p>Preinstallation of the FMS interface can also be ordered from the factory under the sales code E4B.</p><p>(code E4B "Interface - FMS fleet management system")</p></div><div></div></div> | | |
|--|----------------------|--|
| <div><div></div><div></div></div> <div>FMS</div> | | |
| PART | MERCEDES PART NUMBER | PICTURE |
| "Interface - FMS fleet management system" | A000 827 73 59 | <div><div><div>- CAN HIGH = Purple</div><div>- CAN LOW = Brown/White</div><div>- K-line (Tacho) = Purple/white</div></div></div> |

MERCEDES ACTROS (MP4)-ANTOS-ATEGO-AROCS **WABCO**

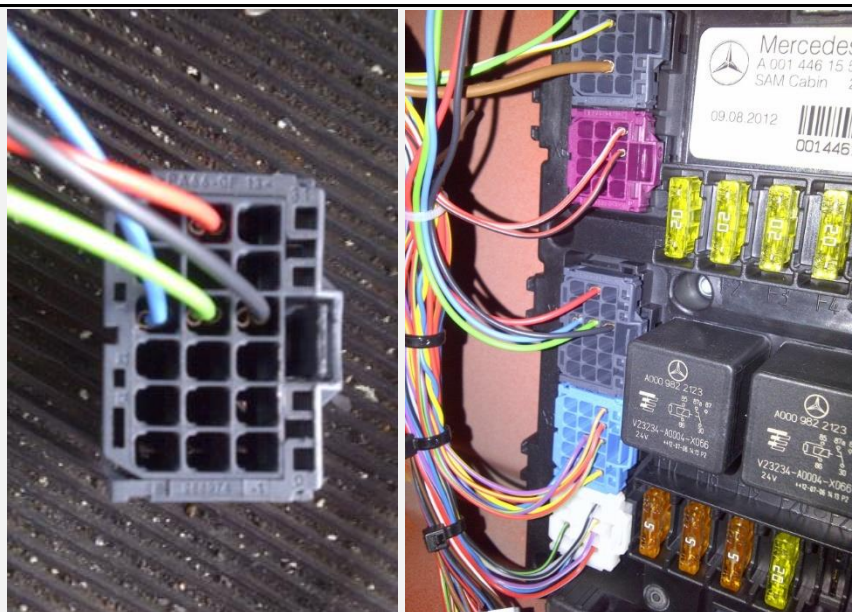
CONNECTIONS WITHOUT FLEETBOARD

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|--|---|--|---|---------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | X7 | 2 | Install extra fuse | 1 & 2 |
| -31 (Ground) | X7 | 7 | | 1 & 2 |
| +15 (After contact) | X7 | 9 | Install extra fuse | 1 & 2 |
| CAN / RDD | | | | |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| CANcliQ | | | | |
| CAN-H | GREEN & BLUE twisted wires | | BLUE | 5 |
| CAN-L | GREEN & BLUE twisted wires | | GREEN | 5 |
| TACHO | | | | |
| Tacho (D8) | | | Tacho connector D8 | |
| Tacho (D8) ONLY in case Fleetboard is NOT used! | Grey connector on the right side above the fuse board | YELLOW -BLUE | Tacho connector D: Change the YELLOW-BLUE wire from position 1 to position 8. | 4 |

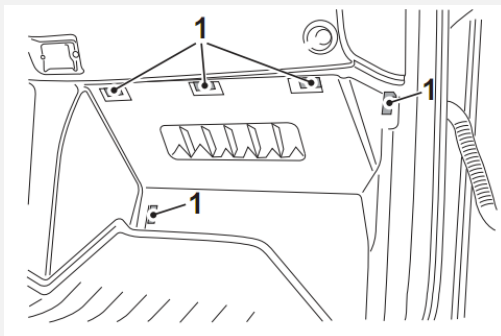
For the activation of the Fleet Management System (FMS), we refer to Mercedes' Xentry tips, case: **GI82.85-N-052870**.

The MB workshop needs to deactivate Fleetboard and activate FMS in the CGW (Central Gateway).

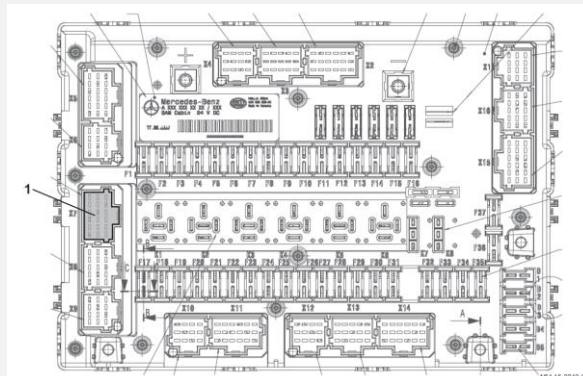
Power connections



Picture 1 - Power connections



Underneath the dashboard on the passenger side, you can find the fuses.



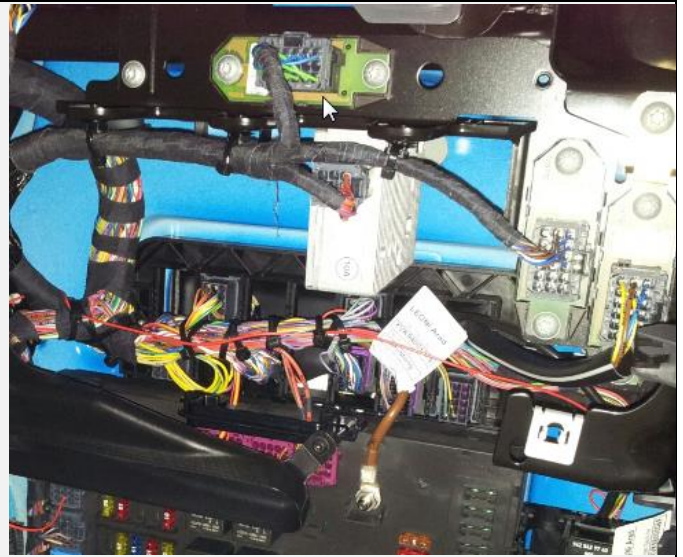
Picture 2 - X7 location (1)

CANcliQ

Find the connector with the **green** and **blue** twisted wires:

- **CAN HIGH: BLUE**
- **CAN LOW: GREEN**

Place both wires in the CANcliQ and close it.



Picture 5 - Actros Atego



MERCEDES ACTROS (MP4)-ANTOS-ATEGO-AROCS

TACHO

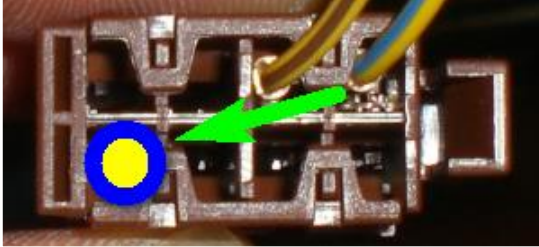
WABCO

ONLY in case Fleetboard is NOT used!

Pull the yellow tacho wire up to the tachograph.

OR

Take out the tachograph and change the **YELLOW-BLUE** wire from connector D from PIN 1 to PIN 8.

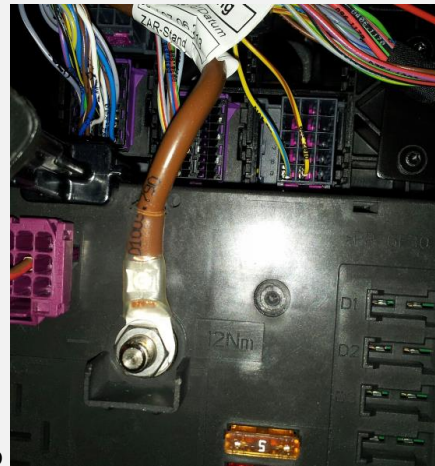


Connect the yellow tacho wire to the **YELLOW-BLUE** wire in the GREY connector on the right side above the fuse board.

Picture 4



Actros

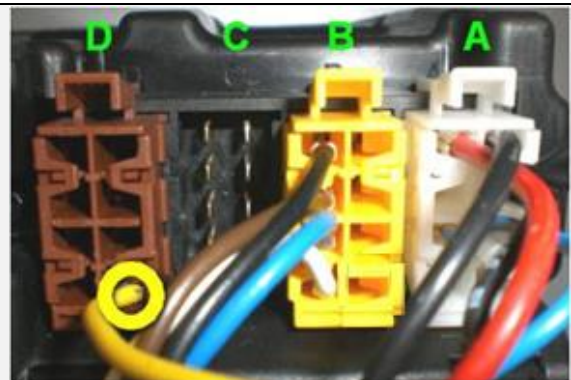


Atego

Tacho

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.







Picture TC - Tacho connection

MERCEDES ACTROS (MP4)-ANTOS-ATEGO-AROCS **WABCO**

Extra parts

To make the connections, special connectors and pins are required. These are available at your local Mercedes Trucks dealer.

| PART | MERCEDES PART NUMBER | PICTURE |
|-------------------------------|----------------------|---|
| FEMALE CONTACT PIN | A013 545 76 26 |  |
| Grey connector X7 | A013 545 64 26 |  |
| Standard FMS connector | | |
| FMS CONNECTOR NEW TYPE | A0265459628 |  |
| MALE CONTACT PIN | A035 545 25 28 |  |

XENTRY TIPS

XENTRY TIPS

Information on FMS interface (FMS standard)

| | |
|-------------------|--|
| Topic number | GI82.85-N-052870 |
| Version | 12 |
| Design group | 82.85 Navigation and Communication system (CNS, ICS, COMAND, FleetBoard) |
| Date | 07-29-2016 |
| Validity | Model 963, 964, 967, 956 |
| Reason for change | Order date for retrofit updated Document number for model 956 added |

Complaint:

- The FMS date for fuel consumption is missing from the FMS interface
- The FMS date "Driver-ID" is missing from the FMS interface
- The value of the FMS date "PTO-State" does not change when power take-off switched on
- Queries on retrofitting or upgrading (updating) the FMS interface according to the FMS Standard (code E4B "Interface, FMS fleet management system")

Notes:

- Preinstallation of the FMS interface can be ordered from the factory under the sales code E4B.
- A retrofit for the FMS interface is available as a retrofit kit (see remedy).
- Parallel operation of FleetBoard and the FMS interface is possible under certain conditions (see remedy).
- The FMS data are issued through the central gateway (CGW) control unit.
- In vehicles up to production month 11/2012 the FMS Standard 2.0 was installed (CGW control unit A000 446 11 27, -14 27).
- In vehicles as of production month 12/2012 the FMS Standard 3.0 was installed (CGW control unit A000 446 15 27, - 19 27 and future versions).
- If a vehicle is to be upgraded from FMS Standard 2.0 to FMS Standard 3.0 at the customer's request, then the CGW control unit must also be replaced with the current version.
- For vehicles up to production month 07/2012 with CGW control unit A000 446 11 27 an upgrade to FMS Standard 3.0 is not possible.

The FMS standard is an electronic communications interface for fleet management systems from different manufacturers. It is used to convert vehicle-internal CAN data into the standardized SAE J1939 format and to forward it to the respective external fleet management system. The data contents of the interface are precisely defined and agreed upon jointly by the manufacturers Daimler, DAF, IVECO, MAN, Scania and Volvo. As a result, different fleet management systems can evaluate vehicle data generated by equipment from the above-named manufacturers without problem and irrespective of the brand and make.

Cause:

-

Attachments

MERCEDES ACTROS (MP4)-ANTOS-ATEGO-AROCS

XENTRY TIPS



| File | Description |
|-----------------------------------|-----------------------------|
| FMS 2.0-Signaltabelle_Ver3.pdf | FMS 2.0 signal table |
| FMS 2.0 table of signals_Ver3.pdf | Overview of signals FMS 2.0 |
| FMS 3.0-Signaltabelle_ver2.pdf | FMS 3.0 signal table |
| FMS 3.0 table of signals_ver2.pdf | Overview of signals FMS 3.0 |

Remedy:

- The message FE6B "Driver's Identification: DI" will be made available with FMS Standard 3.0.
- Information about the fuel consumption is transmitted in the form of the message FD09 "High Resolution Fuel Consumption: HRLFC" (ID 18FD0917). The message FEE9 "Fuel Consumption: LFC" (ID 18FEE917) is NOT used.
- The status of the power take-off ("PTO state" in ID 14FEF1FC) is currently unavailable. This will be available with a new CGW generation as from 2017. The new CGW generation is not downward compatible.

Retrofitting of FMS interface (code E4B):

For chargeable retrofitting of the FMS interface, the retrofit kit A000 827 73 59, consisting of a CD-ROM and a parts kit for connection, is required. The retrofit kit can be ordered as from 29.07.2016 in the GLC.

WIS contains corresponding work instructions (Note: Ignore the B6-number stated there)

Procedure:

- Order retrofit kit using the part number and quoting the vehicle identification number in the Global Logistics Center (GLC).
- The GLC supplies an empty data medium and the contacting points (the data medium is required for process-related reasons and can be disposed of immediately after receipt).
- Use XENTRY to parameterize the FMS interface (after receipt of data medium).

Requirements:

- XENTRY must be online for parameterization.
- At least XENTRY update 05/2016 or 07/2016 in each instance with the latest add-on status must be installed.

Parallel operation of FleetBoard and FMS system (FMS router function)

Prerequisite: FleetBoard is already present in the vehicle.

The FleetBoard telematics platform features an FMS router function allowing the parallel operation of both systems. The FMS system is connected to the output of the FleetBoard telematics platform by means of an adapter cable.

The FMS router is activated by FleetBoard Support on request. Further information on this and on the current adapter cables can be obtained directly from FleetBoard.

| WIS-References | | | |
|------------------|--|-------------------------------|------------|
| Document number | Title | Note | Allocation |
| AN82.85-W-0021HA | Retrofit interface for fleet management system (FMS) | Model 963/964 except code Z3L | Remedy |

MERCEDES ACTROS (MP4)-ANTOS-ATEGO-AROCS

XENTRY TIPS



| | | | |
|------------------|--|-----------------------------|--------|
| AN82.85-W-0021HB | Retrofit interface for fleet management system (FMS) | Model 963/964 with code Z3L | Remedy |
| AN82.85-W-0021B | Retrofit interface for fleet management system (FMS) | Model 967 | Remedy |
| AN82.85-W-0021C | Retrofit interface for fleet management system (FMS) | Model 956 | Remedy |

Construction year: 2004 - present

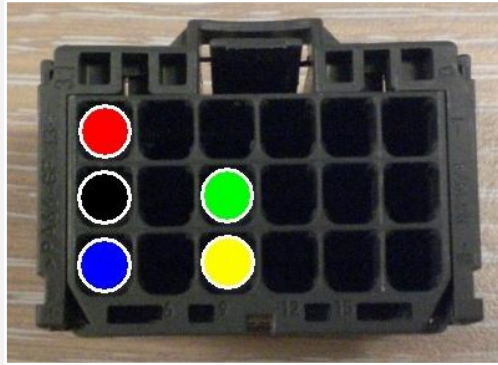


CONNECTIONS

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|--------------------------|---|--------------|----------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | X7.1 | 1 | Install fuse | 1 & 2 |
| -31 (Ground) | X7.1 | 2 | | 1 & 2 |
| +15 (After contact) | X7.1 | 3 | Install fuse | 1 & 2 |
| CAN / RDD | | | | |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| CANcliQ | | | | |
| CAN-H | Z | Right row | BLUE | 5 |
| CAN-L | Z | Left row | YELLOW | 5 |
| TACHO | | | | |
| Tacho (D8) | X7.1 | 9 | | 3 & TC |

For the activation of the CoTel FMS interface, we refer to Mercedes' Xentry tips, case: GI82.85-N-039319.

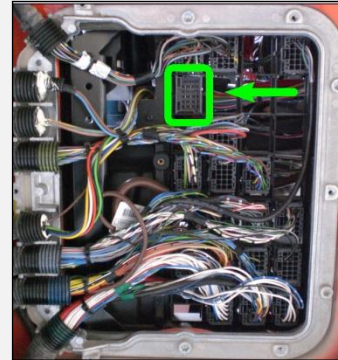
Power connections



Picture 1 - X7.1 connections

Underneath the hood on the left side, you can find connector X7.1.

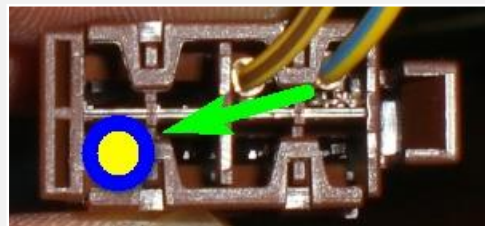
It can also be reached from the inside of the cabin.



Picture 2 - X7.1 location

If you have connected the yellow tacho wire to connector X7.1, you must change the YELLOW-BLUE wire in the brown D-connector on the back of the tachometer.

Change the YELLOW-BLUE wire from position 1 to position 8.

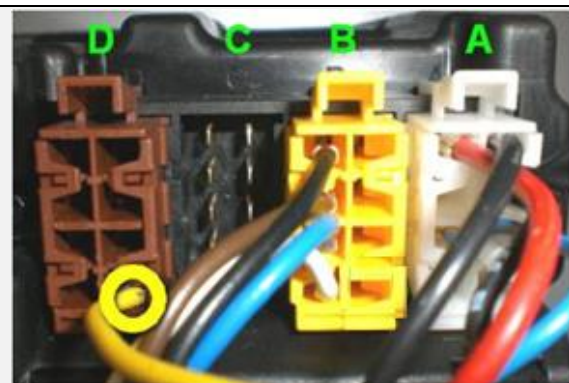


Picture 3 - D8 wire

Other possible tacho connection

Connect the yellow tacho wire to the brown connector D, position 8.


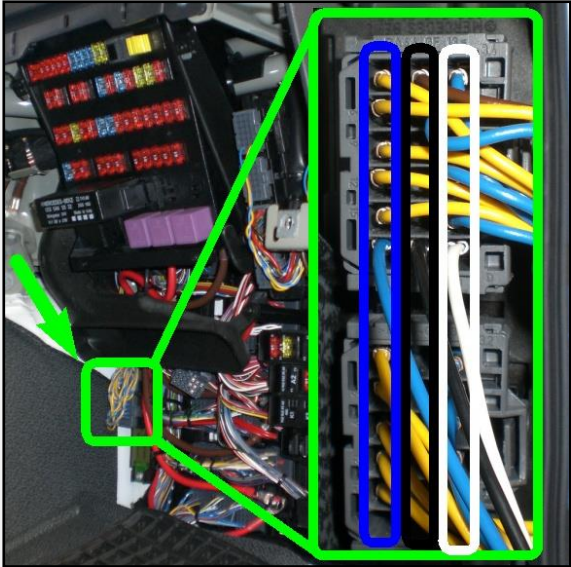
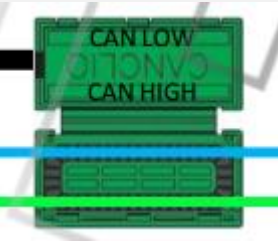

If no connector is present in position D, use the D-connector delivered with the tachometer cable.



Picture TC - Tacho connection

MERCEDES ATEGO

CANcliQ

| | |
|--|--|
| <p>Atego 1st generation</p> <p>Connect the CANcliQ to the yellow and blue wires of the connector on the left side below the fuse board.</p> <p>The BLUE wires (right row) are all CAN HIGH.</p> <p>The YELLOW wires (left row) are all CAN LOW.</p> <ul style="list-style-type: none">- CAN HIGH: BLUE- CAN LOW: YELLOW  |  <p>Picture 5 - CAN connector location</p> |
| <p>Atego 2nd generation</p> <p>Connect the CANcliQ to the green and blue wires of the distribution block at the top.</p> <ul style="list-style-type: none">- CAN HIGH: BLUE- CAN LOW: GREEN  |  |

Extra parts

To make the connections, special connectors and pins are required.

| PART | MERCEDES PART NUMBER | PICTURE |
|--------------------|----------------------|---|
| FEMALE CONTACT PIN | 013 545 76 26 |  |
| X7.1 CONNECTOR | 013 545 64 26 |  |

MERCEDES AXOR II

MERCEDES AXOR II

Construction year: 2004 - present

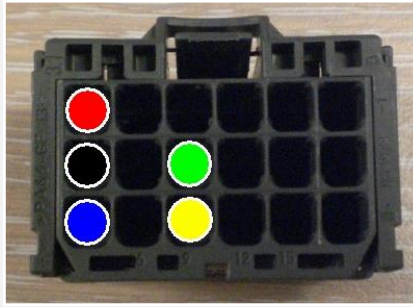


CONNECTIONS

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|--------------------------|---|--------------------|----------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | X7.1 | 1 | Install extra fuse | 1 & 2 |
| -31 (Ground) | X7.1 | 2 | | 1 & 2 |
| +15 (After contact) | X7.1 | 3 | Fused by Mercedes | 1 & 2 |
| CAN / RDD | | | | |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| CANcliQ | | | | |
| CAN-H | Z | Right row | BLUE | 4 |
| CAN-L | Z | Left row | YELLOW | 4 |
| TACHO | | | | |
| Tacho (D8) | X7.1 | 9 | | 5 & TC |

For the activation of the CoTel FMS interface, we refer to Mercedes' Xentry tips, case: GI82.85-N-039319.

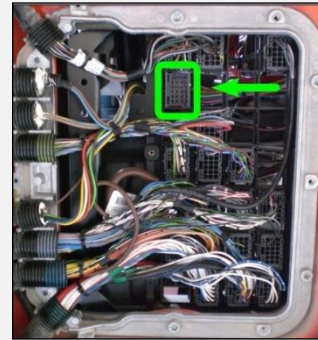
Power connections



Picture 1 - X7.1 connections

Underneath the hood on the left side, you can find connector X7.1.

It can also be reached from the inside of the cabin.

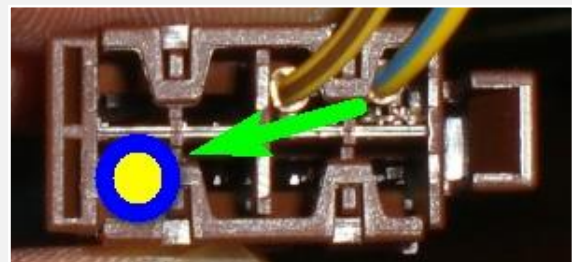


Picture 2 - X7.1 location

TACHO

If you have connected the yellow tacho wire to connector X7.1, you must change the YELLOW-BLUE wire in the brown D-connector on the back of the tachometer.

Change the YELLOW-BLUE wire from position 1 to position 8.

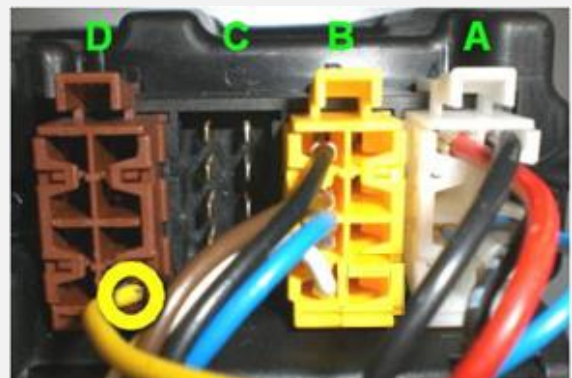


Picture 5 - D8 wire

Other possible tacho connections

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tachometer cable.



Picture TC - Tacho connection

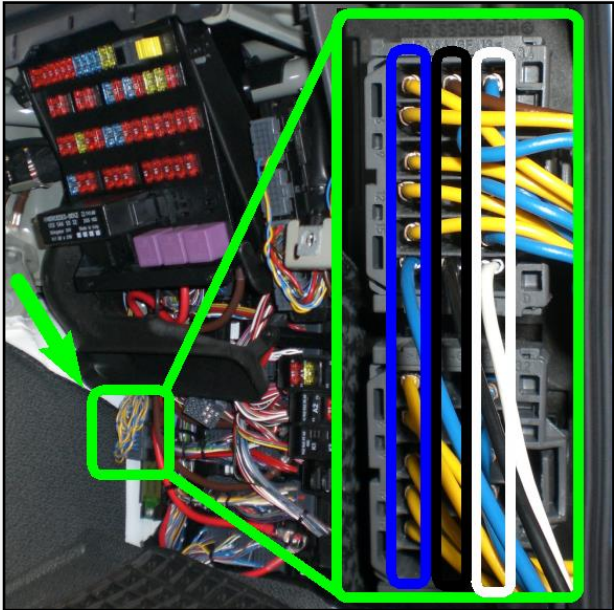
MERCEDES AXOR II

CANcliQ

Connect the CANcliQ to the yellow and blue wires of the connector on the left side below the fuse board.

The BLUE wires (right row) are all CAN HIGH.
The YELLOW wires (left row) are all CAN LOW.

- CAN HIGH: BLUE
- CAN LOW: YELLOW



Picture 4 - CAN connector location

Extra parts

To make the connections, special connectors and pins are required. These are available at your local Mercedes Trucks dealer.

| PART | MERCEDES PART NUMBER | PICTURE |
|---------------------|----------------------|---|
| FEMALE CONTACT PIN | 013 545 76 26 |  |
| X7.1 & X1 CONNECTOR | 013 545 64 26 |  |



CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|-----------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | X26 | 12 | | FMS |
| -31 (Ground) | X26 | 1 | | FMS |
| +15 (After contact) | X26 | 10 | | FMS |
| CAN / RDD | | | | |
| CAN-H | X26 | 6 | | FMS |
| CAN-L | X26 | 9 | | FMS |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | XCH2 BROWN | 29 | Wire 0405 | 1 |

Power connections

Picture - FMS

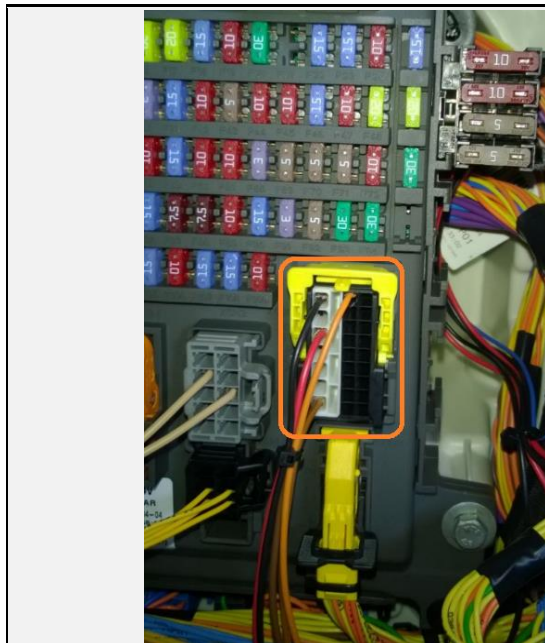
Behind the radio panel, you should find FMS connector X26.

Picture 1

CONNECTIONS WHEN NO STANDARD FMS CONNECTOR IS AVAILABLE

| CONNECTIONS | CONNECTOR | PIN | WIRE | INFO | PIC |
|---------------------|--------------------------|--|-----------|----------------|-------------------|
| MAIN CABLE | | | | | |
| +30 (24V) | XC-BB1 | 23 | | Use extra fuse | 2 |
| -31 (Ground) | XC-BB1 | 14,19,20 | | | 2 |
| +15 (After contact) | XC-BB1 | 25 | | Use extra fuse | 2 |
| RDD | | | | | |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | | |
| RDD CAN-L | | | | | |
| CAN CLAMP | | | | | |
| CAN-H | VECU | | YELLOW | | |
| CAN-L | VECU | | GREEN | | |
| TACHO | | | | | |
| Tacho (D8) | XCH2 BROWN | 29 | Wire 0405 | | 1 |

Power connections



Picture 2 - Power connections

RENAULT D


CAN CLAMP



- CAN HIGH: YELLOW
- CAN LOW: GREEN



Extra parts

To make the FMS and tacho connections, special pins are required. These are available at your local DAF Trucks dealer.

| PART | RENAULT PART NUMBER | PICTURE |
|--|---------------------|---|
| <u>Standard FMS CONNECTOR</u> <u>NEW TYPE</u> | <u>7403987480</u> |  |
| <u>MALE CONTACT PIN</u> | <u>7400978295</u> |  |

| PART | VOLVO PART NUMBER | PICTURE |
|-----------------------------|-------------------|---|
| <u>XC-BB1 +30 & +15</u> | <u>20375161</u> |  |
| <u>XC-BB1 GND PIN</u> | <u>991610</u> |  |

RENAULT MAGNUM DXI

RENAULT MAGNUM DXI (VF617) & E-TECH

Construction year: 2005 - present

Info: DXI engines as from VIN number: VF617 (first 5 characters)



CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|--------------------|---------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | FMS | 2 | Install extra fuse | 1 & 2 |
| -31 (Ground) | FMS | 1 | | 1 & 2 |
| +15 (After contact) | FMS | 16 | Install extra fuse | 1 & 2 |
| CAN / RDD | | | | |
| CAN-H | FMS | 9 | | 1 & 2 |
| CAN-L | FMS | 8 | | 1 & 2 |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | FMS | 5 | | 1 & 2 |

RENAULT MAGNUM DXI

Power connections



Picture 1 - Connections



The grey FMS connector can be found behind the cup holder on the right side of the driver. All connections can be made there.



Picture 2 - FMS connector

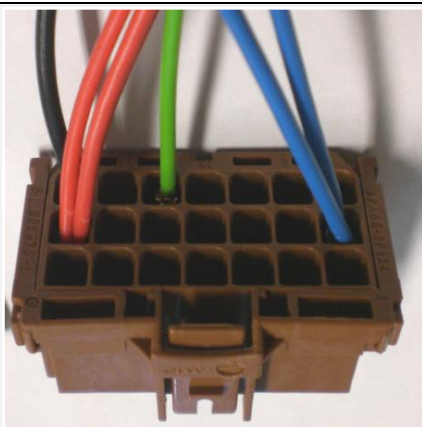
Extra parts

To make the connections, a special connector and pins are required. These are available at your local Renault Trucks dealer.

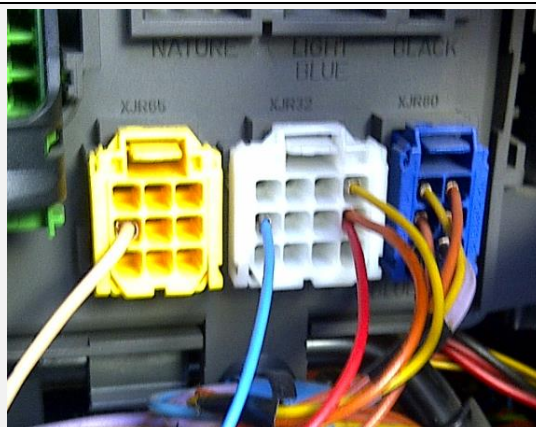
| PART | RENAULT PART NUMBER | PICTURE |
|--------------------|---------------------|---|
| FEMALE CONTACT PIN | 50 01 865 638 |  |
| FMS CONNECTOR | 74 20 367 826 |  |

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------------|--------------------------|-----|---|---------------------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | PB1 | 20 | Install extra fuse | 3 |
| | XJR32 | 11 | Install extra fuse | 4 |
| -31 (Ground) | PB1 | 21 | Ground point above | 3 & 4 |
| +15 (After contact) | PB1 | 2 | Install extra fuse | 3 |
| | XJR32 | 2 | Install extra fuse | 4 |
| CANcliQ + DATAcliQ (FLEX) | | | | |
| VECU CAN CONNECTOR | | | <ul style="list-style-type: none">- DATAcliQ<ul style="list-style-type: none">o CAN HIGH: BROWNo CAN LOW: ORANGE- CANcliQ:<ul style="list-style-type: none">o CAN HIGH: ORANGEo CAN LOW: GREEN | 5 |
| RDD | | | | |
| RDD CAN-H | RDD not available on FMS | | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho D | 8 | | TC |

Power connections



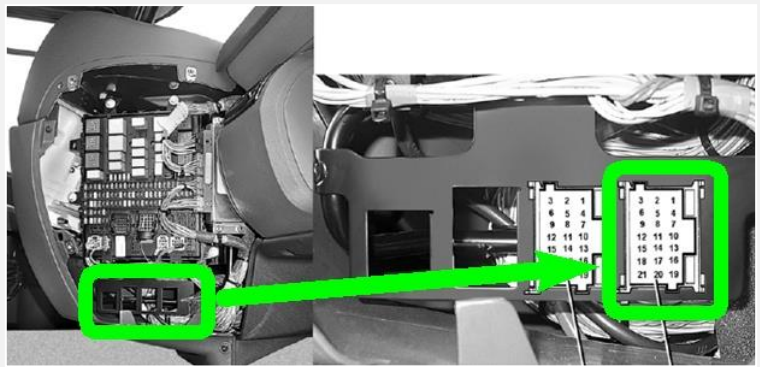
Picture 3



Picture 4

The brown PB1 connector can be found underneath the fuse panel on the right side.

Connector XJR32 can be found above the space of PB1.



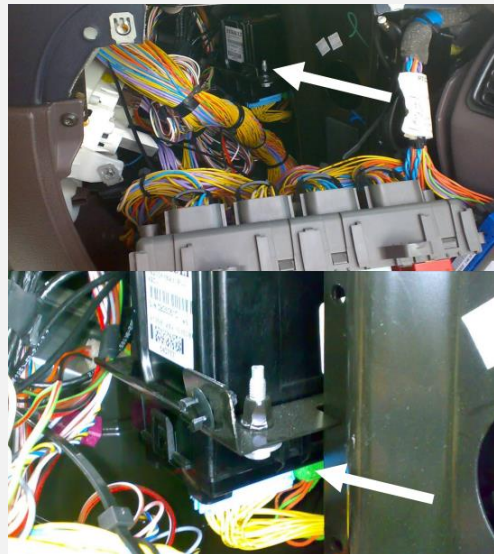
Picture 3 - PB1 location

CANcliQ + DATAcliQ (FLEX)

The VECU can be found behind the cup holder. The connector is directly below it.



It can also be found behind the fuse board.



Picture 5 - VECU

- **DATAcliQ**
 - o CAN HIGH: BROWN (J1708)
 - o CAN LOW: ORANGE (J1708)
- **CANcliQ:**
 - o CAN HIGH: ORANGE (CAN)
 - o CAN LOW: GREEN (CAN)

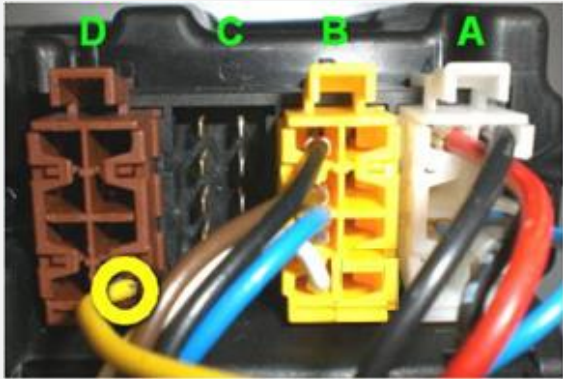
RENAULT MAGNUM DXI

Extra parts

To make the connections, a special connector and pins are required. These are available at your local Renault Trucks dealer.

| PART | RENAULT ORDER CODE | PICTURE |
|--------------------|--------------------|---|
| FEMALE CONTACT PIN | 50 01 865 638 |  |
| PB1 CONNECTOR | 74 20 367 827 |  |

Tacho

| | |
|---|--|
| <p>Connect the yellow tacho wire to the brown connector D, position 8.</p> <p>If no connector is present in position D, use the D-connector delivered with the tacho cable.</p> |  <p>Picture TC - Tacho connection</p> |
|---|--|

CONNECTIONS TO MAGNUM E -TECH < 2005

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|--------------------------------|-----------|-----|--------------|-------------------|
| MAIN CABLE | | | | |
| +30 (24V) | C972 | 1 | Install fuse | 6 |
| -31 (Ground) | C972 | 2 | | 6 |
| +15 (24V after contact) | C971 | 2 | Install fuse | 6 |

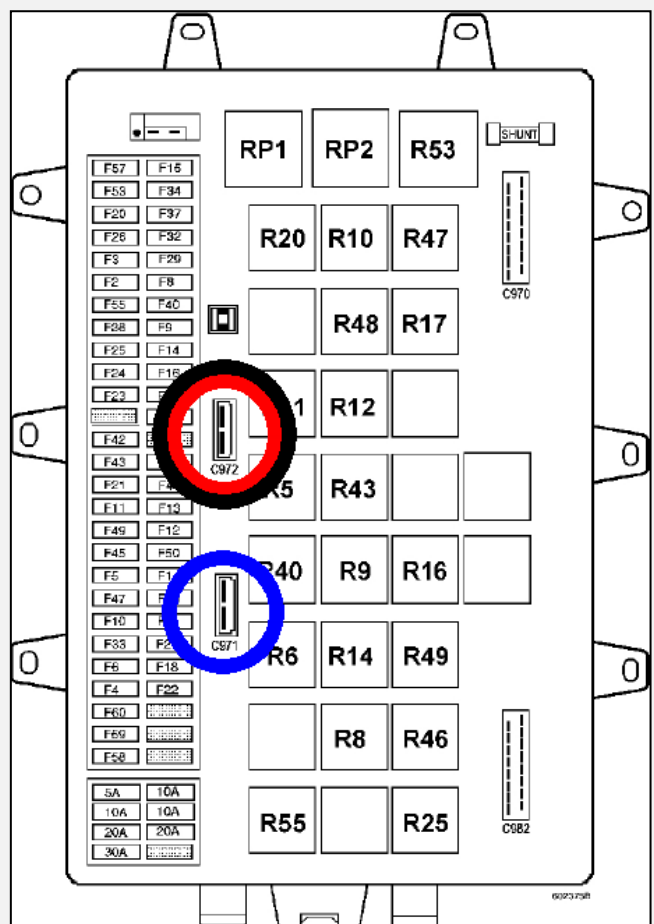
Power connections

The power connections can be made on 2 connectors on the fuse board.

+24V and GROUND will be connected to C972.

+24V AFTER CONTACT will be connected to connector C971.


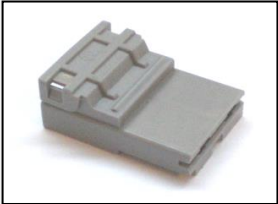
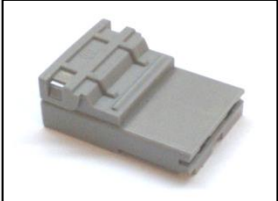
If the connectors are already present, then put the WABCO wires together with the wires that are already inside.



Picture 6 - Power connections

Extra parts

To connect the main cable, 2 special connectors and pins are required. These are available at your local Renault Trucks dealer.

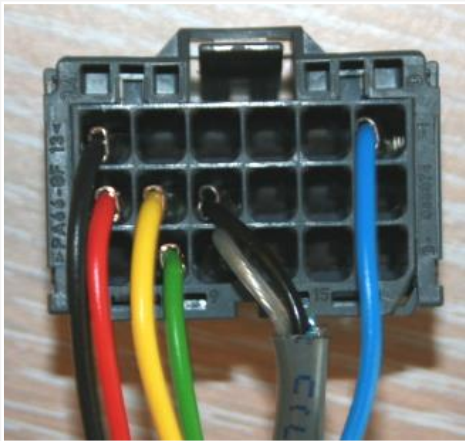
| PART | RENAULT ORDER CODE | PICTURE |
|----------------------|--------------------|---|
| FEMALE CONTACT PIN | 5010 347 347 |  |
| GREY CONNECTOR C972 | 50 10 293 074 |  |
| BLACK CONNECTOR C971 | 50 10 293 073 |  |



CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|--------------|-------------------|
| MAIN CABLE | | | | |
| +30 (24V) | FMS | 2 | Install fuse | 1 |
| -31 (Ground) | FMS | 1 | | 1 |
| +15 (After contact) | FMS | 16 | Install fuse | 1 |
| CAN / RDD | | | | |
| CAN-H | FMS | 9 | | 1 |
| CAN-L | FMS | 8 | | 1 |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | FMS | 5 | | 1 |

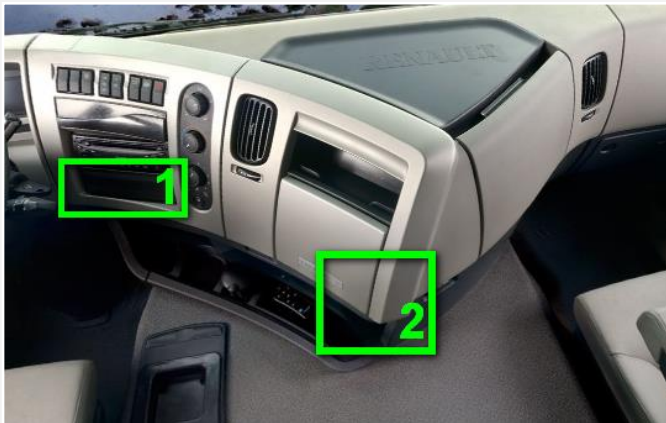
RENAULT MIDLUM DXI



Picture 1 - Connections

The location of the grey FMS connector depends on the cab model and the production date.

- 3. Behind the cover plate underneath the radio.
- 4. Behind the bottom part of the dashboard. To reach it, dismount the glove box.



Picture 2 - FMS location

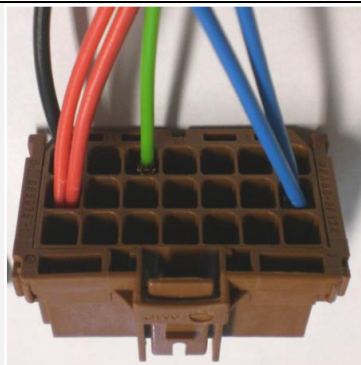
Extra parts

To make the FMS connection, special connectors and pins are required. These are available at your local Renault Trucks dealer.

| PART | RENAULT PART NUMBER | PICTURE |
|--------------------|---------------------|---|
| FEMALE CONTACT PIN | 50 01 865 638 |  |
| FMS CONNECTOR | 74 0 367 826 |  |

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------------|-----------|---|--------------------|-------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | PB1 | 20 | Install extra fuse | 3&4 |
| -31 (Ground) | PB1 | 21 | | 3&4 |
| +15 (After contact) | PB1 | 2 | Install extra fuse | 3&4 |
| CANcliQ + DATAcliQ (FLEX) | | | | |
| VECU CAN CONNECTOR | | <ul style="list-style-type: none">- DATAcliQ<ul style="list-style-type: none">o CAN HIGH: BROWN (J1708)o CAN LOW: ORANGE (J1708)- CANcliQ:<ul style="list-style-type: none">o CAN HIGH: ORANGE (CAN)o CAN LOW: GREEN (CAN) | | 5 |
| RDD | | | | |
| RDD CAN-H | | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | | TC |

Power connections



Picture 3 - PB1 connector

The brown PB1 connector can be found on the right side of the fuse panel on the passenger's side.



Picture 4 - Location of PB1 connector



RENAULT MIDLUM DXI

Extra parts

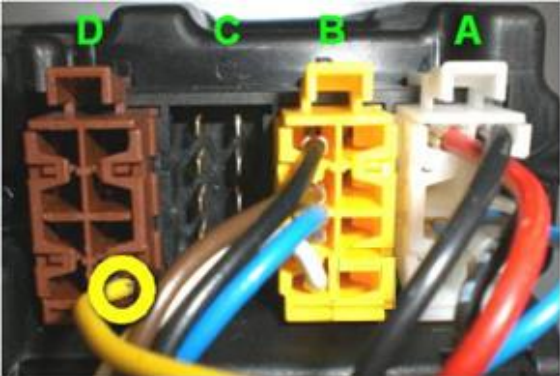
To connect the main cable, a special connector and pins are required. These are available at your local Renault Trucks dealer.

| PART | RENAULT ORDER CODE | PICTURE |
|--------------------|--------------------|---|
| FEMALE CONTACT PIN | 50 01 865 638 |  |
| PB1 CONNECTOR | 74 20 367 827 |  |

CANcliQ + DATAcliQ (FLEX)

| | |
|---|---|
| <p>The VECU can be found behind the panel on the right side.</p>  |  <p>Picture 5 - VECU</p> |
| <ul style="list-style-type: none">- DATAcliQ<ul style="list-style-type: none">o CAN HIGH: BROWN (J1708)o CAN LOW: ORANGE (J1708)- CANcliQ:<ul style="list-style-type: none">o CAN HIGH: ORANGE (CAN)o CAN LOW: GREEN (CAN) | |

TACHO

| | |
|---|---|
| <p>Connect the yellow tacho wire to the brown connector D, position 8.</p> <p>If no connector is present in position D, use the D-connector delivered with the tacho cable.</p> |  <p>Picture TC - Tacho connection</p> |
|---|---|

RENAULT PREMIUM DXI

RENAULT PREMIUM DXI (VF624 / VF627 / VF629)

Construction year: 2005 - present

Info: DXI engines as from VIN number: VF624 / VF627 / VF629 (first 5 characters)



CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|--|---------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | FMS | 2 | Wire 2312 to fuse 54 or install extra fuse | 1 & 2 |
| -31 (Ground) | FMS | 1 | Wire -15.8 | 1 & 2 |
| +15 (After contact) | FMS | 16 | Wire 2317 to fuse 58 or install extra fuse | 1 & 2 |
| CAN / RDD | | | | |
| CAN-H | FMS | 9 | Wire 0206 | 1 & 2 |
| CAN-L | FMS | 8 | Wire 0207 | 1 & 2 |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | FMS | 5 | Wire 0405 | 1 & 2 |

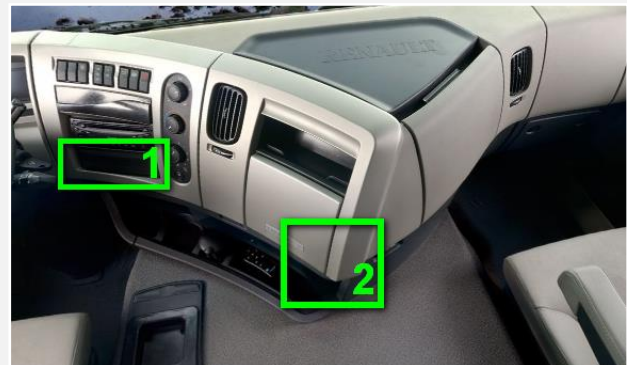
Power connections



Picture 1 – Connections

The location of the grey FMS connector depends on the cab model and the production date.

1. Behind the cover plate underneath the radio.
2. Behind the bottom part of the dashboard. To reach it, dismount the glove box (2 screws on the inside).



Picture 2 - FMS location

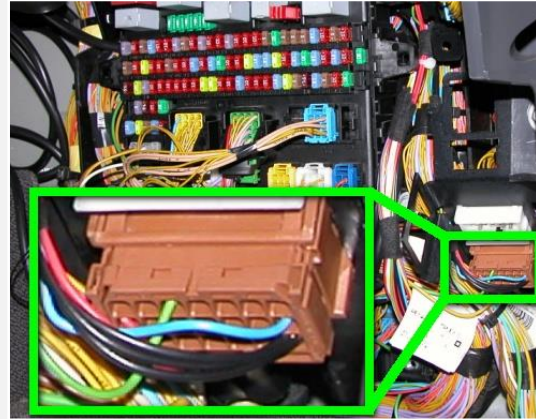
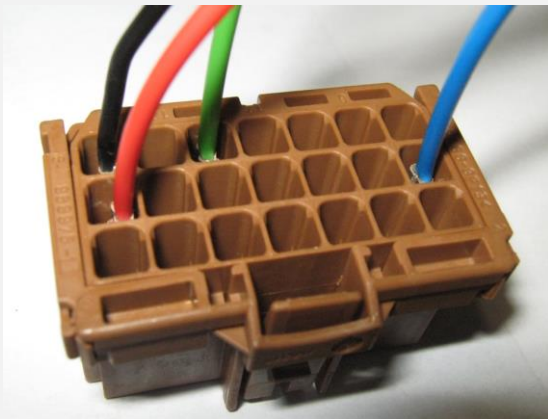
To make the FMS connection, special connectors and pins are required. These are available at your local Renault Trucks dealer. See [Extra parts](#).

CONNECTIONS WHEN NO STANDARD FMS CONNECTOR IS AVAILABLE

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------------|-----------|---|--------------------|---------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | PB1 | 20 | Install extra fuse | 3 & 4 |
| -31 (Ground) | PB1 | 21 | | 3 & 4 |
| +15 (After contact) | PB1 | 2 | Install extra fuse | 3 & 4 |
| CANcliQ + DATAcliQ (FLEX) | | | | |
| VECU CAN CONNECTOR | | <div><div>- DATAcliQ<ul style="list-style-type: none">○ CAN HIGH: BROWN (J1708)○ CAN LOW: ORANGE (J1708)</div><div>- CANcliQ:<ul style="list-style-type: none">○ CAN HIGH: ORANGE (CAN)○ CAN LOW: GREEN (CAN)</div></div> | | 5 |
| RDD | | | | |
| RDD CAN-H | | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachocompatibility . | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | | TC |

Power connections

The brown PB1 connector can be found on the right side of the fuse panel on the passenger's side.



Picture 3 & 4 - PB1 connector

To make the PB1 connection, special connectors and pins are required. These are available at your local Renault Trucks dealer. See [Extra parts](#).

CANcliQ + DATAcliQ (FLEX)

The VECU can be found behind the panel on the right side.



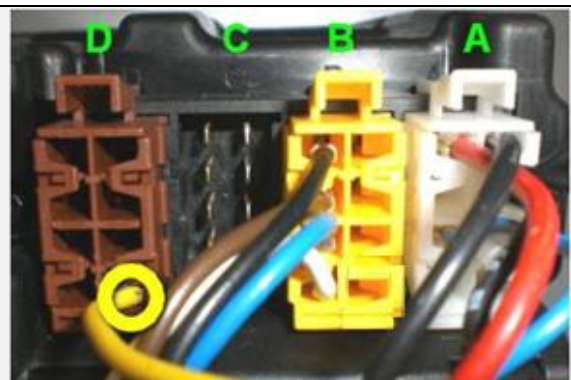
Picture 5 - VECU

- **DATAcliQ**
 - o **CAN HIGH: BROWN (J1708)**
 - o **CAN LOW: ORANGE (J1708)**
- **CANcliQ:**
 - o **CAN HIGH: ORANGE (CAN)**
 - o **CAN LOW: GREEN (CAN)**

TACHO

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.





Picture TC - Tacho connection

RENAULT PREMIUM DXI

Extra parts

Grey FMS connector

| PART | RENAULT PART NUMBER | PICTURE |
|--------------------|---------------------|---|
| FEMALE CONTACT PIN | 50 01 865 638 |  |
| FMS CONNECTOR | 74 20 367 826 |  |

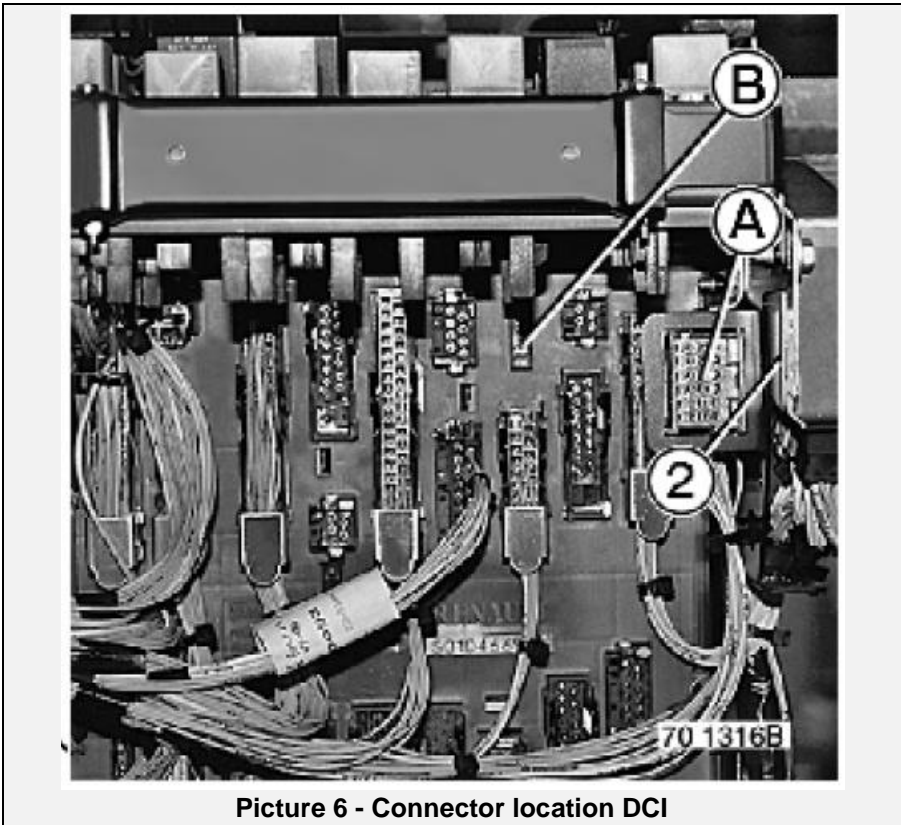
Brown PB1 connector

| PART | RENAULT PART NUMBER | PICTURE |
|--------------------|---------------------|--|
| FEMALE CONTACT PIN | 50 01 865 638 |  |
| PB1 CONNECTOR | 74 20 367 827 |  |

RENAULT PREMIUM DCI
RENAULT PREMIUM DCI

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|-----------|-----|-----------|-------------------|
| MAIN CABLE | | | | |
| +30 (24V) | A | 9 | Wire 208 | 6 |
| -31 (Ground) | B | 1 | | 6 |
| +15 (After contact) | B | 2 | Wire 2234 | 6 |

Power connections

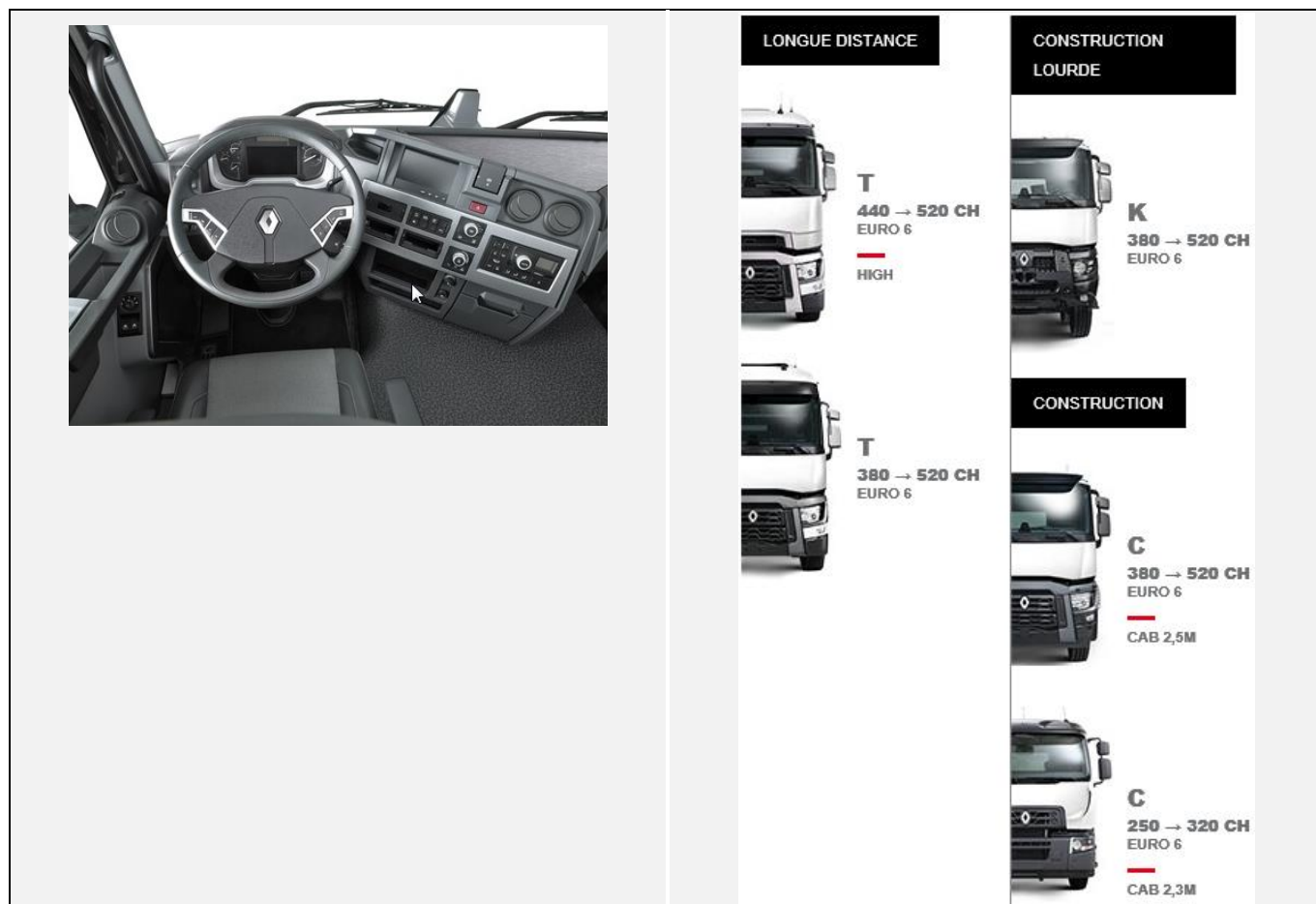


Picture 6 - Connector location DCI

Extra parts

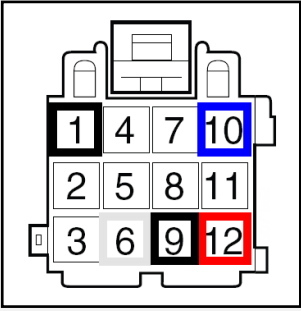
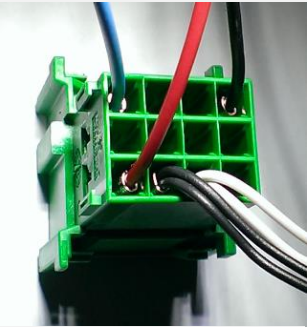
To connect the main cable, special connectors and pins are required. These are available at your local Renault Trucks dealer.

| PART | RENAULT ORDER CODE | PICTURE |
|--------------------|--------------------|---|
| FEMALE CONTACT PIN | 5001 865 638 |  |
| FEMALE CONTACT PIN | 5010 347 347 |  |
| CONNECTOR A | 7420 367 826 |  |
| CONNECTOR B | 5010 293 074 |  |



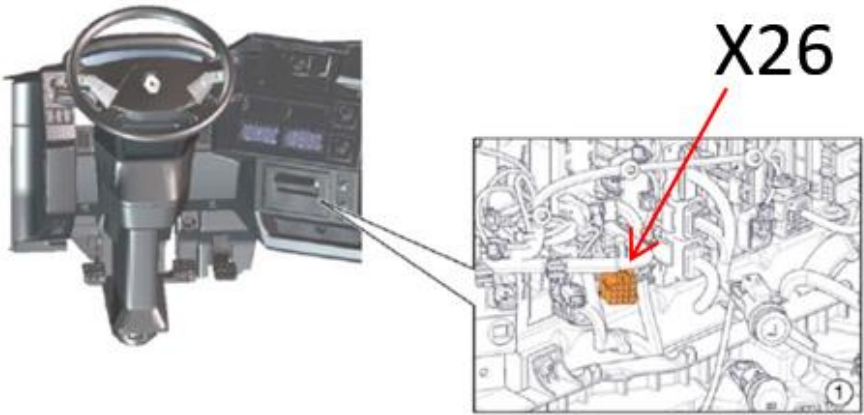
CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | X26 | 12 | | FMS |
| -31 (Ground) | X26 | 1 | | FMS |
| +15 (After contact) | X26 | 10 | | FMS |
| CAN / RDD | | | | |
| CAN-H | X26 | 6 | | FMS |
| CAN-L | X26 | 9 | | FMS |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | Connect to tacho | TC |

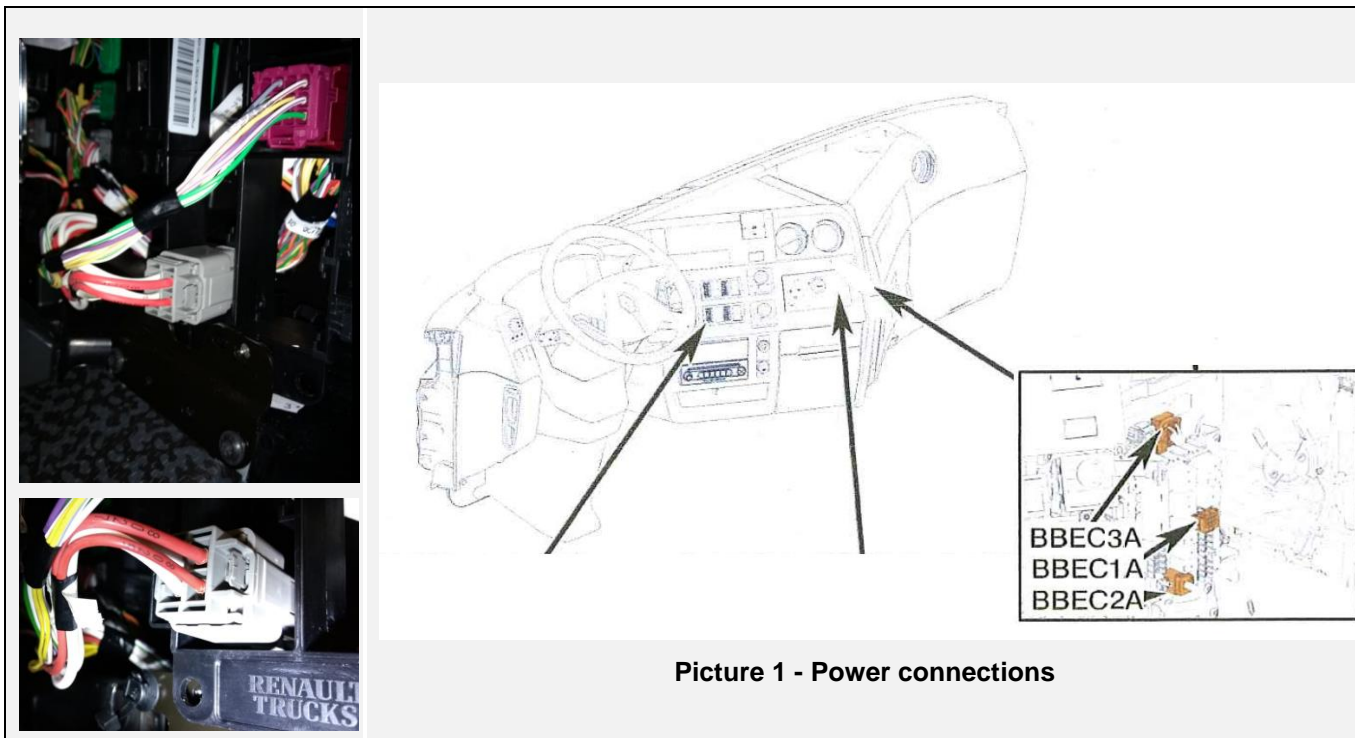
Picture - FMS

Take away the grey radio panel. You should find FMS connector X26 behind the glove box.



CONNECTIONS WHEN NO STANDARD FMS CONNECTOR IS AVAILABLE

| CONNECTIONS | CONNECTOR | PIN | WIRE | INFO | PIC |
|---------------------|--------------------------|--|--------|------------------------------------|--------------------|
| MAIN CABLE | | | | | |
| +30 (24V) | BBEC2A | 2 | 8025 | F08 | 1 |
| -31 (Ground) | BBEC2A | 3&4 | 1 | | 1 |
| +15 (After contact) | BBEC2A | 1 | 8027 | F73 | 1 |
| CAN CLAMP | | | | | |
| CAN-H | | | YELLOW | 2 nd pair from the left | 3 |
| CAN-L | | | GREEN | | |
| RDD | | | | | |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | | |
| RDD CAN-L | | | | | |
| TACHO | | | | | |
| Tacho (D8) | D8 | | | Tacho | TC |



CAN CLAMP

Use the 2nd pair from the left.

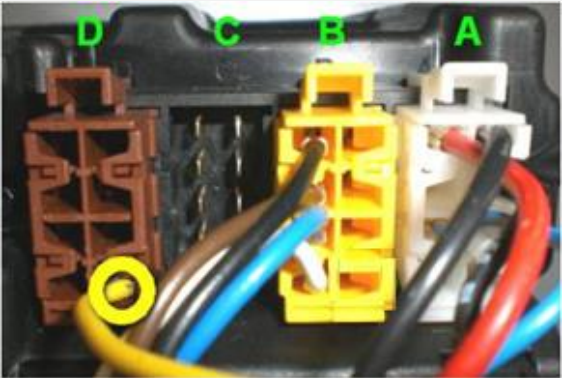


Picture 3 - CAN connector

RENAULT T-K-C

TACHO



Connect the yellow tacho wire to the brown connector D, position 8.
If no connector is present in position D, use the D-connector delivered with the tacho cable.



Picture TC - Tacho connection

Extra parts

To make the FMS and tacho connections, special pins are required. These are available at your local Renault Trucks dealer.

| PART | RENAULT PART NUMBER | PICTURE |
|--|---------------------|--|
| <u>Standard FMS CONNECTOR</u> <u>NEW TYPE</u> | <u>7403987480</u> |  |
| <u>MALE CONTACT PIN</u> | <u>7400978295</u> |  |

SCANIA R-G-P

SCANIA R-G-P Series

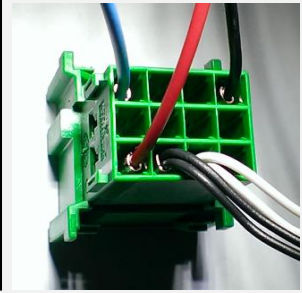
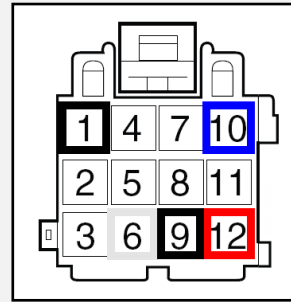
Construction year: 04/2004 - 08/2016



CONNECTIONS TO THE STANDARD FMS CONNECTOR

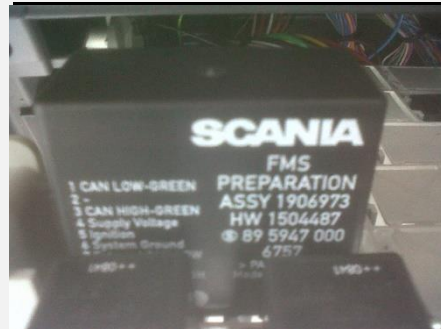
| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|--------------------------|---|-----------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | C137 | 12 | Fuse 41 | FMS |
| -31 (Ground) | C137 | 1 | | FMS |
| +15 (After contact) | C137 | 10 | Fuse 8 | FMS |
| CAN / RDD | | | | |
| CAN-H | C137 | 6 | | FMS |
| CAN-L | C137 | 9 | | FMS |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | Connect to tachometer | TC |

The main & FMS cable must be connected to the extra connector (see [Extra parts](#)).
Connect the wired connector to C137.



Picture - FMS connector C137

Connector C137 can be located underneath the fuse board.
The FMS Gateway is visible on the fuse board.

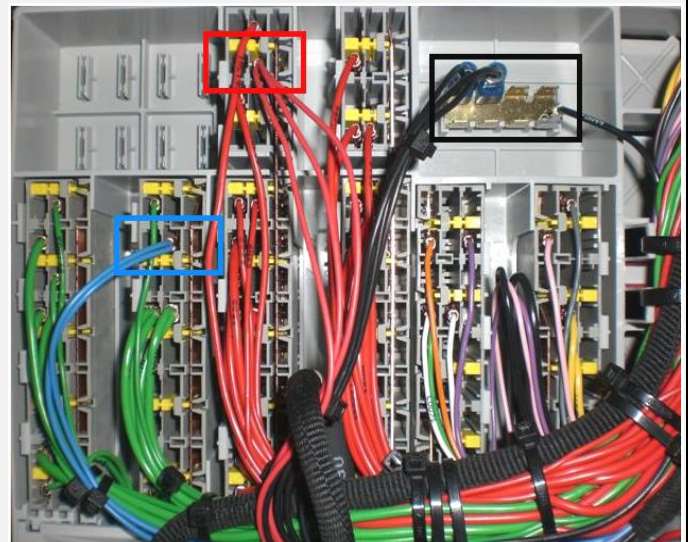


Connector C137

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|--------------------------|--|----------------------|---------------------------|
| MAIN CABLE | | | | |
| +30 (24V) | Fuse board | 30 | Change fuse 30 to 5A | 1 & 2 |
| -31 (Ground) | Fuse board | Ground point | | 1 |
| +15 (After contact) | Fuse board | 17 | Change fuse 17 to 5A | 1 & 2 |
| CAN / RDD | | | | |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tacho compatibility . | | |
| RDD CAN-L | | | | |
| CAN CLAMP | | | | |
| CAN-H | C481 | 1 TO 9 | | 6 |
| CAN-L | C481 | 13 TO 21 | | 6 |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | Connect to tacho | TC |

Power and ground connections can be made directly to the fuse board.

For the +24V and +24V after contact connections, you need special Scania pins.



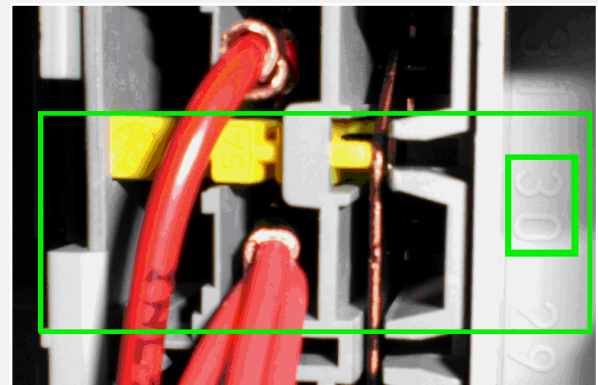
Picture 1 - Fuse board connections

Next to the cable entries in the fuse board, you can see numbers, which correspond to the fuses on the front of the fuse board.

Push out the yellow locking device from its position and put it back when the connection is made.

When no other devices are connected to fuse 30 or 17, you must change the original fuses to 5A.

When another device is also connected to fuse 30 or 17, you should use the extra fuse holder.



Picture 2 - Fuse board cable entries

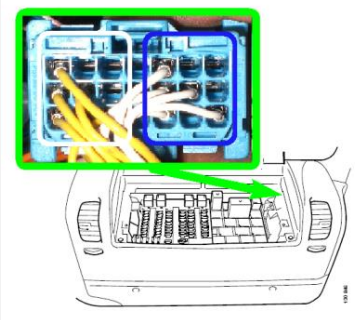
CAN CLAMP

Connector **C481** (YELLOW / WHITE wires) can be found on the right side of the fuse board.

Take the connector out of its holder and open it.

The yellow wires are all CAN HIGH.

The white wires are all CAN LOW.

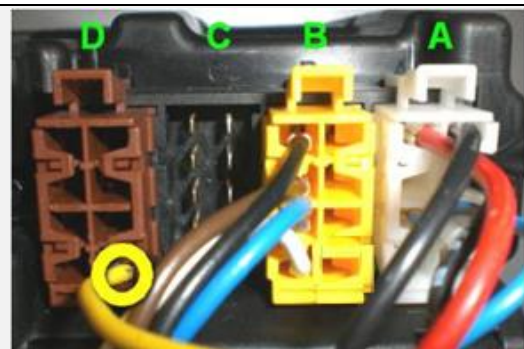


Picture 6 - CAN connector

TACHO

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.





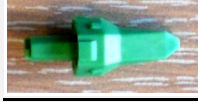




Picture TC - Tacho connection

SCANIA R-G-P



Extra parts

To make the connections, special connectors and pins are required. These are available at your local Scania Trucks dealer.

| <u>PART</u> | <u>SCANIA ORDER CODE</u> | <u>PICTURE</u> |
|-------------------------------|---|---|
| MAIN CABLE | | |
| <u>MALE CONTACT PIN</u> | <u>1 448 955</u> |  |
| Old CAN CABLE | | |
| <u>FMS CONNECTOR</u> | <u>DT04-3P</u> |  |
| <u>SECONDARY LOCK</u> | <u>W3P</u> |  |
| <u>MALE CONTACT PIN</u> | <u>0460-202-16141</u> |  |
| Standard FMS connector | | |
| <u>MALE CONTACT PIN</u> | <u>816143</u> |  |
| <u>FMS CONNECTOR NEW TYPE</u> | <u>1409 447</u> <u>1409 445</u> |  |
| Old CAN pins | | |
| <u>FEMALE CONTACT PIN</u> | <u>1 443 343 OR</u> <u>1 431 421</u> |  |

SCANIA R-S-G-P (NEW)

SCANIA New R-S-G-P Series

Construction year: August 2016 - present



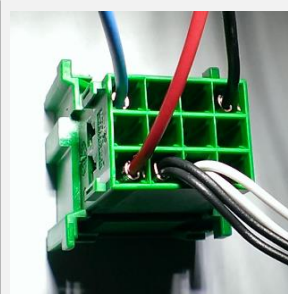
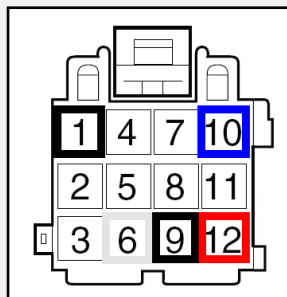
CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|--------------------------|---|-----------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | C137 | 12 | Fuse 41 | FMS |
| -31 (Ground) | C137 | 1 | | FMS |
| +15 (After contact) | C137 | 10 | Fuse 8 | FMS |
| CAN / RDD | | | | |
| CAN-H | C137 | 6 | | FMS |
| CAN-L | C137 | 9 | | FMS |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | Connect to tachometer | TC |

SCANIA R-S-G-P (NEW)

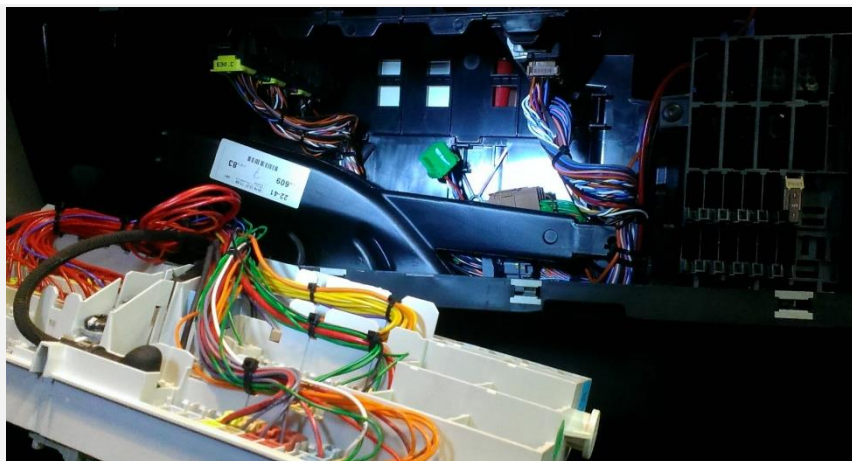
Power connections

The main & FMS cable must be connected to the extra connector (see [Extra parts](#)). Connect the wired connector to C137.



Picture - FMS connector C137

Connector C137 can be located behind the fuse board (take out the air tube).



Connector C137

SCANIA R-S-G-P (NEW)

CONNECTIONS WHEN NO STANDARD FMS CONNECTOR IS AVAILABLE

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|--------------------------|---|------------------|--------------------|
| MAIN CABLE | | | | |
| +30 (24V) | Extra fuse board | Upper row | | 1 |
| -31 (Ground) | Extra fuse board | Ground point on the right side | | 1 |
| +15 (After contact) | Extra fuse board | Lower row | | 1 |
| CAN CLAMP / CANcliQ | | | | |
| CAN-H | | YELLOW | | |
| CAN-L | | WHITE | | |
| RDD | | | | |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | Connect to tacho | TC |

Power connections

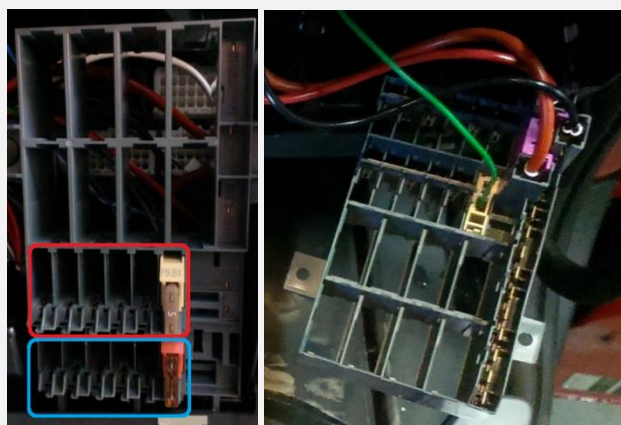
Power and ground connections are available on the extra fuse board.

- Upper row: +30
- Lower row: +15

A special fuse holder and pin are required to make the fuse.



See [Extra parts](#).



Picture 1 - Extra fuse board connections

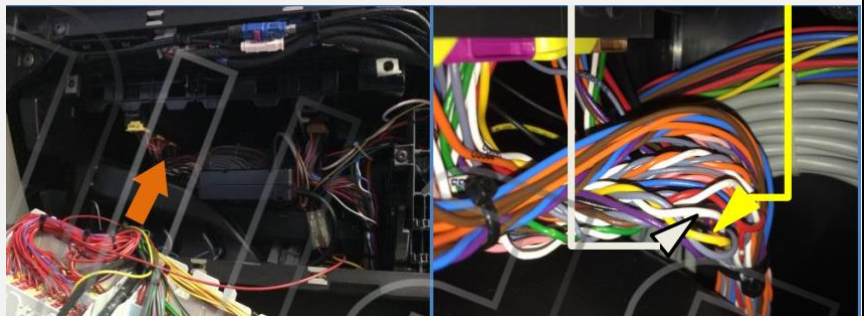
SCANIA R-S-G-P (NEW)

CAN CLAMP / CANcliQ

Remove the dashboard cover and fusebox to find the wiring loom on the left side that contains a yellow and white twisted pair of wires with a grey ground wire.

CAN CLAMP (EURO 6 - < 2018)

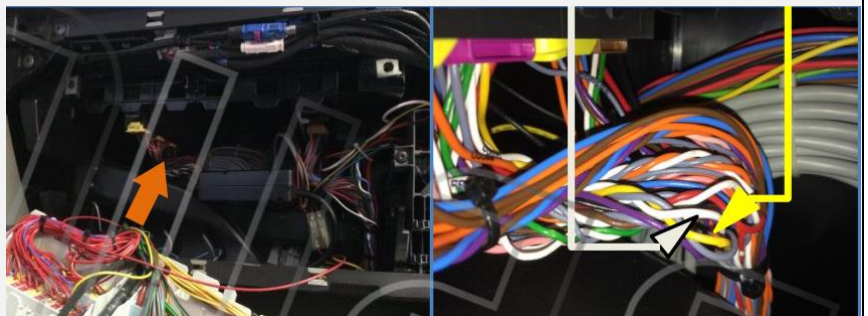
- CAN HIGH: YELLOW
- CAN LOW: WHITE



Picture 3 – CAN

CANcliQ (EURO 6 - 2018)

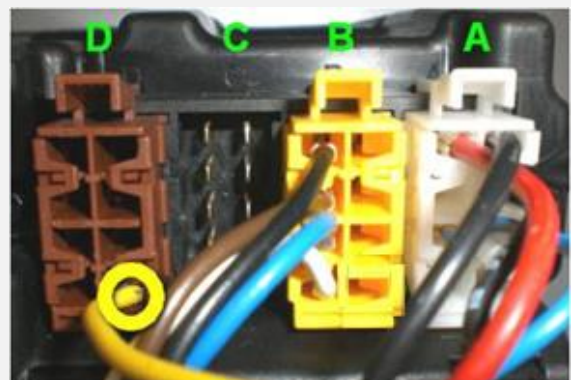
- CAN HIGH: YELLOW
- CAN LOW: WHITE



Tacho

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.













Picture TC - Tacho connection

SCANIA R-S-G-P (NEW)

Extra parts

To make the connections, special connectors and pins are required. These are available at your local Scania Trucks dealer.

| <u>PART</u> | <u>SCANIA ORDER CODE</u> | <u>PICTURE</u> |
|---|------------------------------------|--|
| Standard FMS connector | | |
| <u>MALE CONTACT PIN</u> | <u>816143</u> |   |
| <u>FMS CONNECTOR</u> <u>NEW TYPE</u> | <u>1409 447</u> <u>1409 445</u> |    |
| MAIN CABLE | | |
| <u>Fuse holder 5A</u> | <u>2085459</u> |     |
| <u>Fuse holder contact pin</u> | <u>815651</u> |  |

VOLVO FH-FM-FL TYPE 2

VOLVO FH-FM-FL TYPE 2

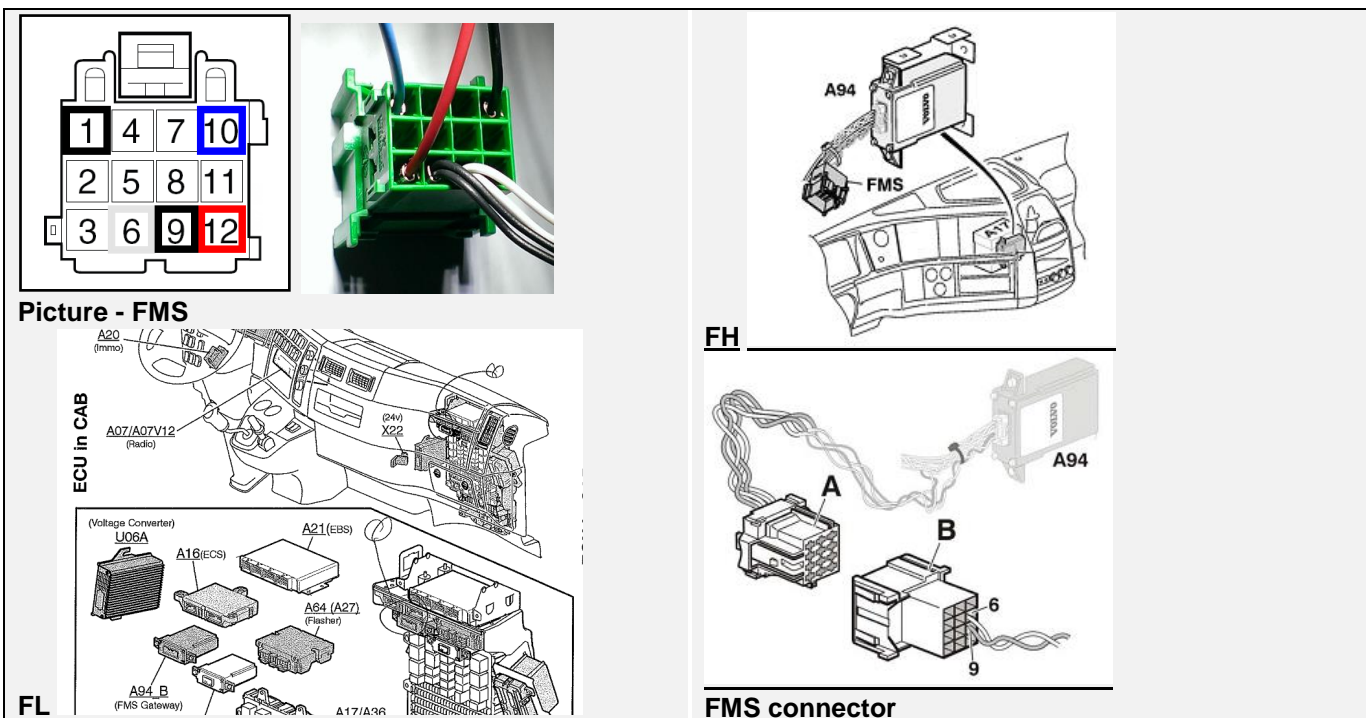


CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|-------------------------|---|---------------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | FMS | 12 | Fuse F91 or extra fuse | FMS |
| -31 (Ground) | FMS | 1 | | FMS |
| +15 (After contact) | FMS | 10 | Fuse F85 or extra fuse | FMS |
| CAN / RDD | | | | |
| CAN-H | FMS | 6 | | FMS |
| CAN-L | FMS | 9 | | FMS |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | CUB | 2 | PINK wire | 2 |
| Tacho (D8) | Or tacho | D8 | Connect to tacho | TC |

VOLVO FH-FM-FL TYPE 2

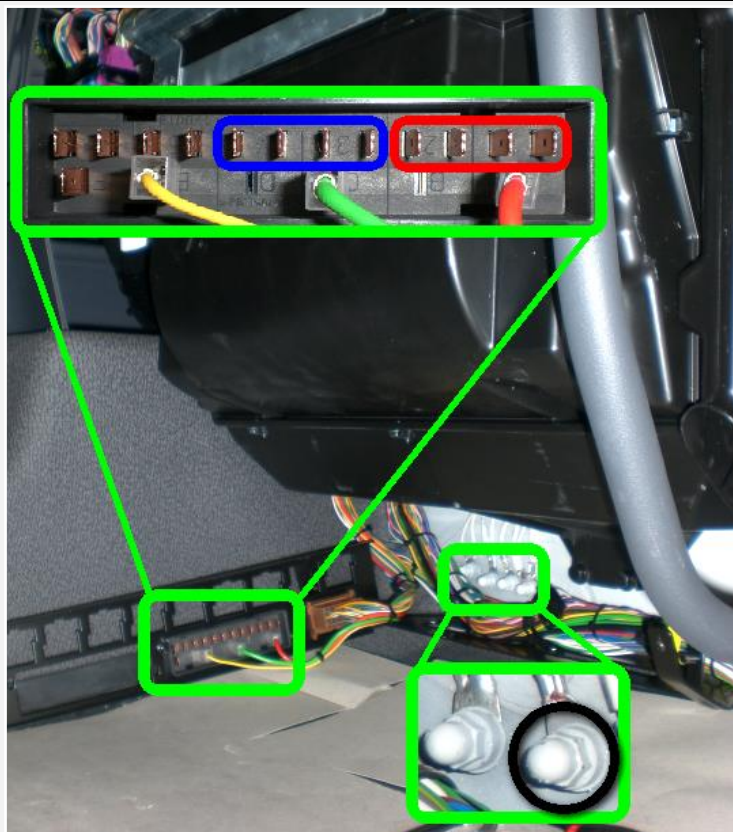
Power connections



CONNECTIONS WHEN NO STANDARD FMS CONNECTOR IS AVAILABLE - FH

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------------|----------------------|---|-------------------|--------------------|
| MAIN CABLE | | | | |
| +30 (24V) | Extra fuse holder | 1 to 4 | Fused by Volvo | 1 |
| -31 (Ground) | Ground point | - | | 1 |
| +15 (After contact) | Extra fuse holder | 5 to 8 | Fused by Volvo | 1 |
| CAN / RDD | | | | |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| CANcliQ + DATAcliQ (FLEX) | | | | |
| VECU CAN CONNECTOR | | <div><div>- DATAcliQ<ul style="list-style-type: none">○ CAN HIGH: ORANGE○ CAN LOW: GREY</div><div>- CANcliQ<ul style="list-style-type: none">○ CAN HIGH: YELLOW○ CAN LOW: GREEN</div></div> | 4 | |
| TACHO | | | | |
| Tacho (D8) | CUB | 2 | PINK wire | 2 |
| Tacho (D8) | Or tacho | D8 | Connect to tacho | TC |

Power connections



Picture 1 - Extra fuse holder

PIN 1 TO 4: +24V / PIN 5 TO 8: +24V AFTER CONTACT

On the passenger side underneath the dashboard, you can find the CUB connector on the right side.

On PIN 2, a PINK wire is connected. Solder the YELLOW wire of the tachometer cable to this PINK wire.

Do not disconnect the CUB connector! Otherwise, the tachometer will be switched off.



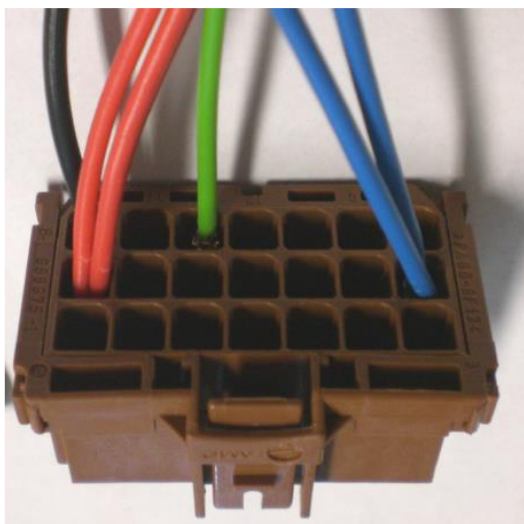
Picture 2 - CUB connector

VOLVO FH-FM-FL TYPE 2

CONNECTIONS WHEN NO STANDARD FMS CONNECTOR IS AVAILABLE-FL

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------------|---|--|--------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | PB1 | 20 | Install extra fuse | PB1 |
| -31 (Ground) | PB1 | 21 | | PB1 |
| +15 (After contact) | PB1 | 2 | Install extra fuse | PB1 |
| CANcliQ + DATAcliQ (FLEX) | | | | |
| VECU CAN CONNECTOR | <ul style="list-style-type: none">- DATAcliQ<ul style="list-style-type: none">o CAN HIGH: BROWNo CAN LOW: ORANGE- CANcliQ:<ul style="list-style-type: none">o CAN HIGH: ORANGEo CAN LOW: GREEN | | | 5 |
| RDD | | | | |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachocompatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | | TC |

Power connections



PB1 connector



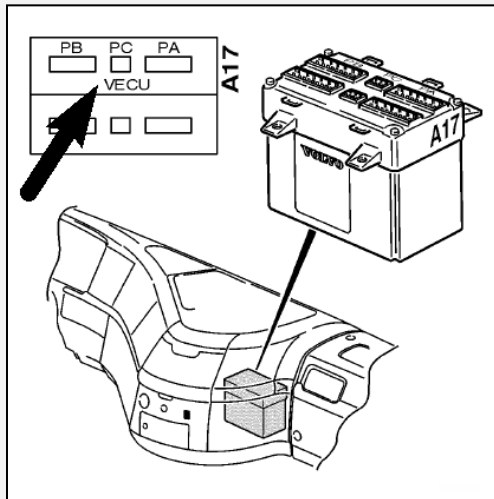
VOLVO FH-FM-FL TYPE 2

CANcliQ+DATAcliQ (FLEX)

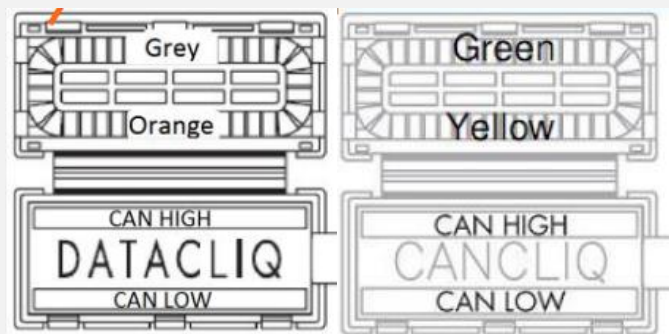
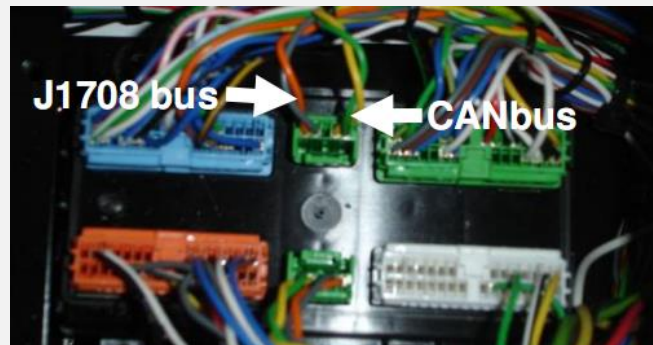
FH

Underneath the fuse board, you can find the VECU.
Remark: If there are 2 similar connectors, always take the one closest to the front of the truck.

- **DATAcliQ**
 - o CAN HIGH: ORANGE
 - o CAN LOW: GREY
- **CANcliQ**
 - o CAN HIGH: YELLOW
 - o CAN LOW: GREEN



Picture 4 - VECU



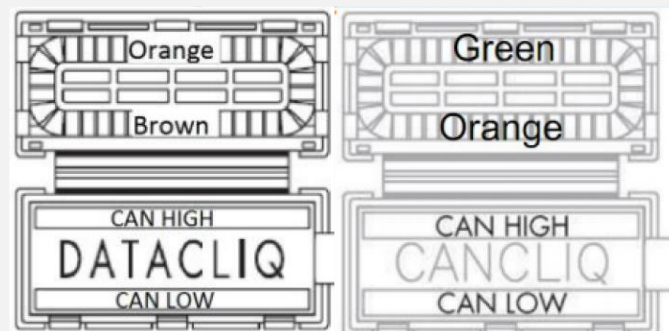
FL

The VECU can be found behind the panel on the right side.

- **DATAcliQ**
 - o CAN HIGH: BROWN
 - o CAN LOW: ORANGE
- **CANcliQ**:
 - o CAN HIGH: ORANGE
 - o CAN LOW: GREEN



Picture 5 – VECU

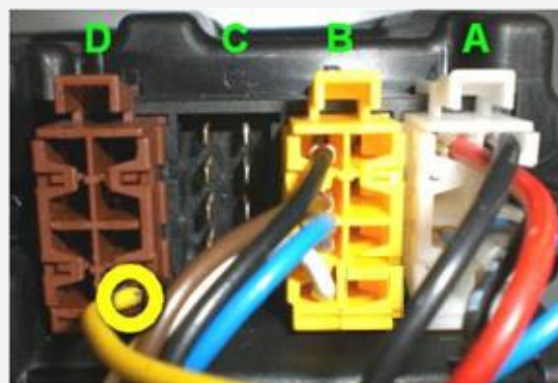


VOLVO FH-FM-FL TYPE 2

Tacho





Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.



Picture TC - Tacho connection

Extra parts

| PART | VOLVO PART NUMBER | PICTURE |
|--|----------------------------------|---|
| Old FMS CONNECTOR | 203 83 169 |  |
| MALE CONTACT PIN | 978295 |  |
| <u>Standard FMS CONNECTOR</u> <u>NEW TYPE</u> | <u>3987480</u> <u>1078187</u> |  |
| <u>MALE CONTACT PIN</u> | <u>978295</u> |  |

VOLVO NEW FH-FM-FL

VOLVO NEW FH-FM-FL

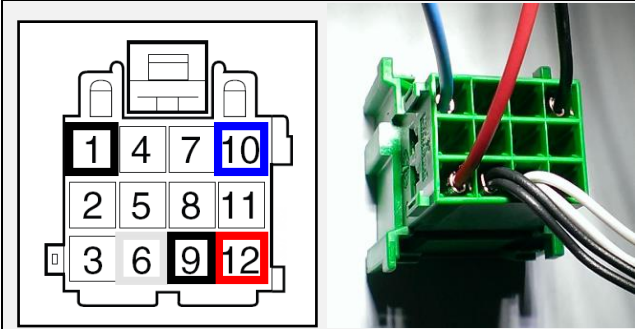
WABCO

Construction year: 2013 - present



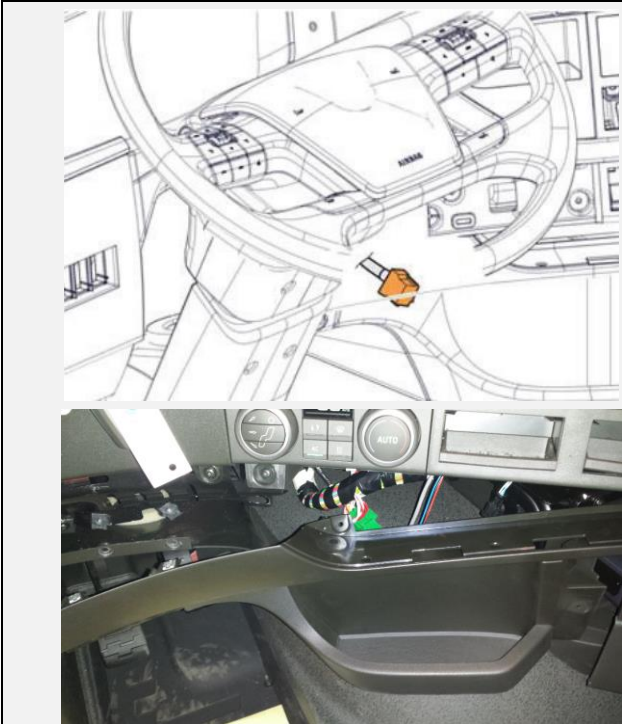
CONNECTIONS TO THE STANDARD FMS CONNECTOR

| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|----------------------|---|------------------------|---------------------|
| MAIN CABLE | | | | |
| +30 (24V) | FMS | 12 | Fuse F91 or extra fuse | FMS |
| -31 (Ground) | FMS | 1 | | FMS |
| +15 (After contact) | FMS | 10 | Fuse F85 or extra fuse | FMS |
| CAN / RDD | | | | |
| CAN-H | FMS | 6 | | FMS |
| CAN-L | FMS | 9 | | FMS |
| RDD CAN-H | RDD available on FMS | Firstly, check RDD tacho compatibility. | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Or tacho | D8 | Connect to tacho | TC |



Picture - FMS

Volvo FH



It can also be found under the fuse board.



Volvo FL



| CONNECTIONS | CONNECTOR | PIN | INFO | PIC |
|---------------------|---------------------------|--|------------------|--------------------|
| MAIN CABLE | | | | |
| +30 (24V) | Extra fuse holder C-D-E-F | 5 to 12 | Fuse 3-4-5-6 | 1 |
| -31 (Ground) | Ground point | - | | 1 |
| +15 (After contact) | Extra fuse holder A-B | 1 to 4 | Fuse 1-2 | 1 |
| CAN CLAMP | | | | |
| CAN-H | | | YELLOW wire | 2 |
| CAN-L | | | GREEN wire | 2 |
| RDD | | | | |
| RDD CAN-H | RDD not available on FMS | Connect to the RED C-connector on the tachograph: PIN 5 (CAN HIGH) & PIN 7 (CAN LOW) Firstly, check RDD tachometer compatibility . | | |
| RDD CAN-L | | | | |
| TACHO | | | | |
| Tacho (D8) | Tacho | D8 | Connect to tacho | TC |

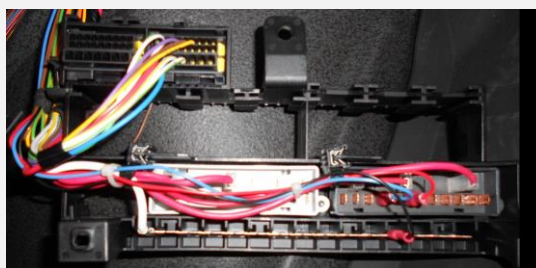
Power connections

To the left of the dashboard on the passenger side, you can find an extra fuse panel.

Fuse 1 - 2 = +15 (24V after contact)

Fuse 3 - 6 = +30 (24V)

14 x Ground



Picture 1 - Extra fuse holder

Open the dashboard by removing the top cover.

Find the twisted green and yellow wires on the horizontally placed connector in the top left corner of the fuse box.

- **CAN HIGH: YELLOW**
- **CAN LOW: GREEN**

| | | |
|--------|---------------------|----------|
| Yellow | PIN 7 (wire #7004) | CAN High |
| Green | PIN 16 (wire #7005) | CAN Low |

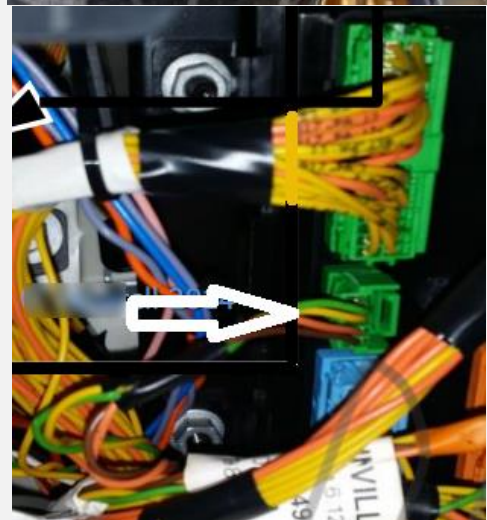


Picture 2 - CAN connector

The connection is located on the passenger side, to the right of the fuse box.

- **CAN HIGH: YELLOW**
- **CAN LOW: GREEN**

Use the YELLOW and GREEN wires from the 4-pin connector.

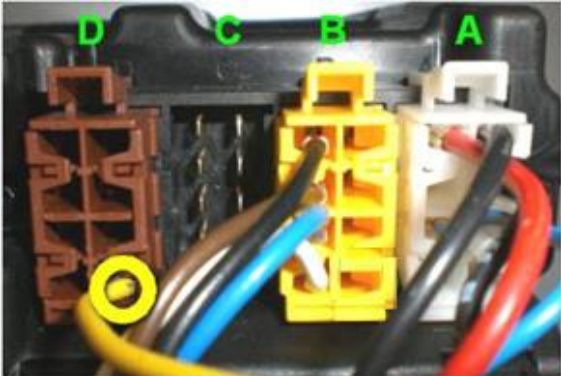


Picture 3 - CAN connector

VOLVO NEW FH-FM-FL
TACHO

Connect the yellow tacho wire to the brown connector D, position 8.

If no connector is present in position D, use the D-connector delivered with the tacho cable.



Picture TC - Tacho connection

Extra parts

| PART | VOLVO PART NUMBER | PICTURE |
|--|----------------------------------|---------|
| <u>Standard FMS CONNECTOR</u> <u>NEW TYPE</u> | <u>3987480</u> <u>1078187</u> | |
| <u>MALE CONTACT PIN</u> | <u>978295</u> | |

Additional guidelines

Put the truck in 'service mode' when you need to disconnect any connectors, or the batteries !!!

| | |
|---------------------|--|
| Chassis ID | Path |
| | 36/Repair/FH (4)/Control unit BBM, replace |
| Model | Identity |
| FH (4) | 131789205 |
| Publish date | ID/Operation No. |
| Friday, 17 May 2013 | 36524-2 |

36524-2Control unit BBM, replace



Illustrations may differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.



CAUTION

Risk of material damage.

Disconnecting the batteries incorrectly may damage the electrical system.

- ▶ Follow the instructions carefully in order to disconnect the batteries correctly.

- 1 Perform this procedure when the condition below is met.

Conditions

- If the vehicle has an alarm.
- ▶ Set the alarm to service mode.

- 2 Remove the key from the starter switch (1).

- 3 Press the button for the warning flashers (2).

- 4 Press and hold down the warning flasher button (3).

Conditions

- Hold in the button for at least 5 seconds.

Tech data

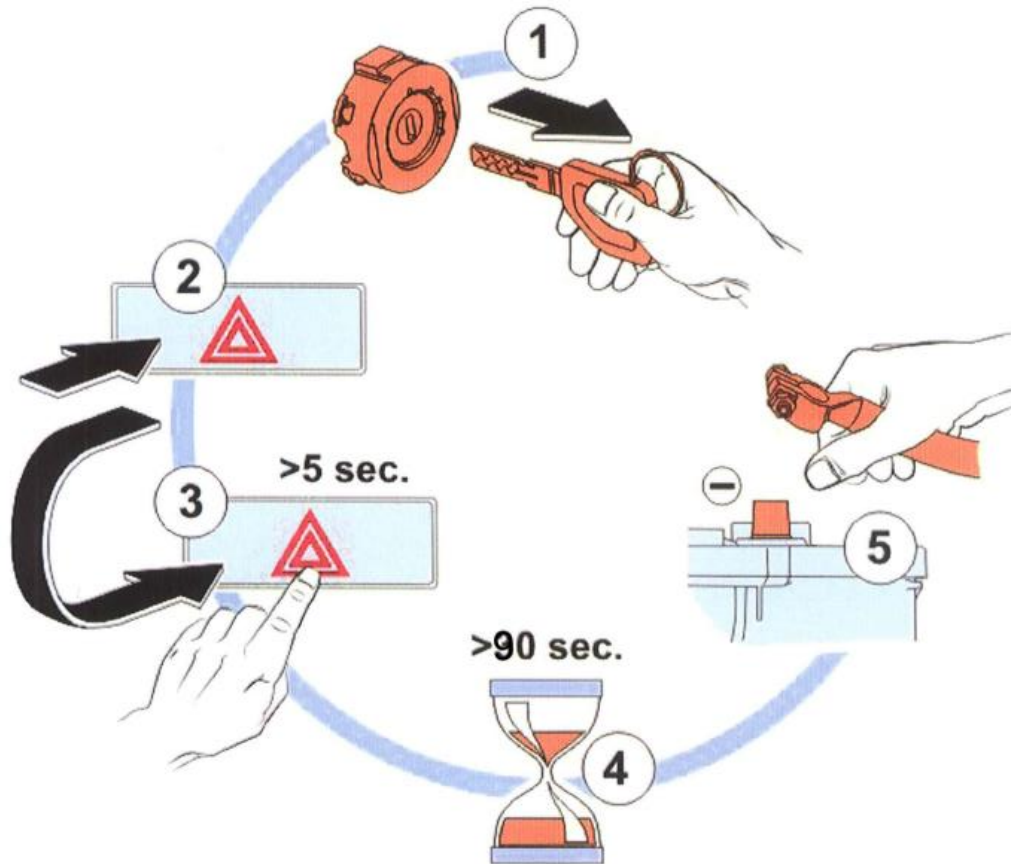
If the process was successful:

The courtesy light and interior light are off when the door is opened.

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- 5 Wait for at least 90 seconds (4).
- 6 Remove the cable from the negative terminal (5).



- 7 Remove the panel.

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CONTACT INFORMATION

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