

# Installation instructions

## Iveco Stralis EURO6 2013\*

\*These installation instructions are valid for trucks manufactured in 2013, however they may still apply for trucks that were manufactured later.

### Important!

This installation instruction offers several connection methods. The user should first try the first provided connection method. Once connected the user must check if all the expected data is received from the vehicle. If the expected data is not received either partially, or at all, the user should try the next connection method and recheck the received data. If all provided connection methods fail or do not output all the expected data **please contact Ruptela tech support while on site during the installation!** If the data is not checked and the vehicle leaves, it will take a significantly longer time to diagnose and solve possible issues with the connection method.



### Connection method 1

This connection method is used when the Iveco Stralis EURO6 truck has a FMS connector.

The connection via the CAN line is possible by means of the optional 14569 connection, which consists of:

- The green connector (FMS), housed in one of the DIN coating cases above the windshield or hidden behind the tachograph;

#### Note

Sometimes the connector is hidden deep inside the compartment. You may need to reach as far as 40cm inside of the DIN coating case to reach it.

- A bridle, which connects the connector to the ST40;
- A resistor, which is used to terminate the CAN line.

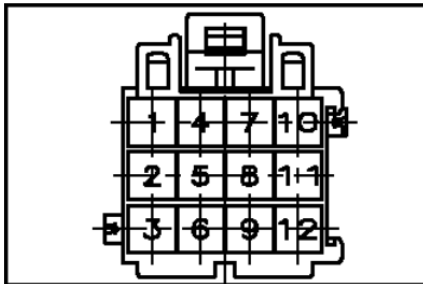


## FMS connector pinout

- Pin 6 – CAN High
- Pin 9 – CAN Low

The power supply, ignition and ground wires can also be found in the FMS connector.

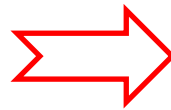
- Pin 12 – Power supply+
- Pin 10 – Ignition (DIN4)
- Pin 1 – GND



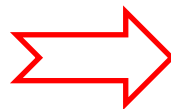
24 V vehicles		
FMS-Standard connector: AMP 12 PIN female (vehicle side)		
Signal	Pin	Remarks
clamp 15 (Ubat)	10	Always
clamp 30 (24V)	12	Always
clamp 31 (24V power ground)	1	Always
CAN low	9	Always
CAN high	6	Always
CAN ground or CAN low shield	8	Option
CAN high shield	5	Option
clamp 15R (Ubat)	11	Option
12 V+	3	optional for 24V vehicles
12 V ground	4	optional for 24V vehicles
Reserved	2	Reserved
D8 from tachograph	7	Option
minimum 100mA for clamp 15 and 15R (might be not more)		
minimum 5A for clamp 30 (more is fuse dependant)		
minimum current for Pin 3 is OEM specific in 24V vehicles		
Coding A		
Colour : yellow green RAL 6018		

## Connection method 2

Connection to the CAN line can be also made through the blue ST40 (12 pin) connector.



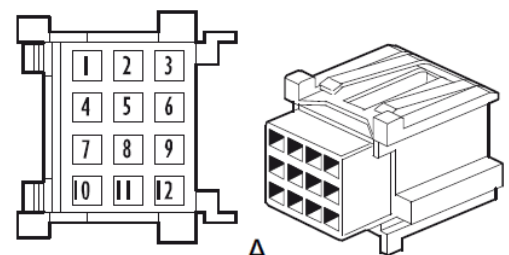
## ST40 FMS connector pinout



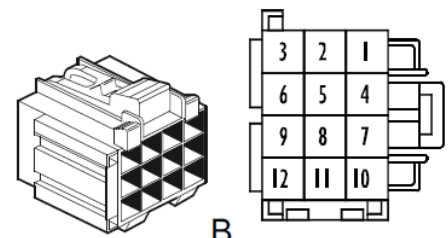
- Pin 5 – CAN High
- Pin 6 – CAN Low

The power supply and GND wires can also be found in the ST40 connector.

- Pin 1 – Power supply+
- Pin 9 – GND



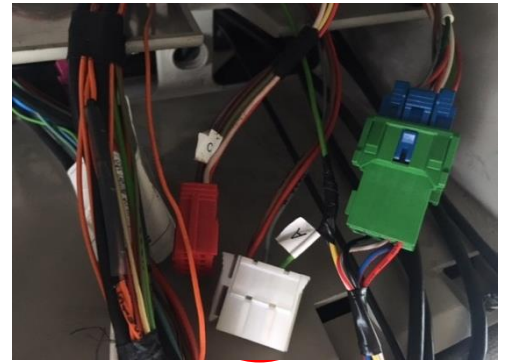
A. Counterpart to be coupled (female)



B. Existing part on vehicle (male)

For the ignition detection you will need to use a different connector. Not far from the ST40 connector there should also be a white connector. It will have a green wire leading to it. This green wire will be labeled "A" as shown in the picture on the right. It can be used for the ignition detection.

- White connector, **Green** "A" wire – Ignition (DIN4)

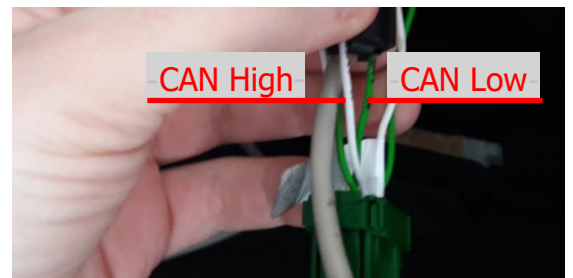


### Connection method 3

Access the fuses compartment on the passenger side. Here you should be able to find an OBD diagnostic connector and a ST14D connector. Both can be used for connection.

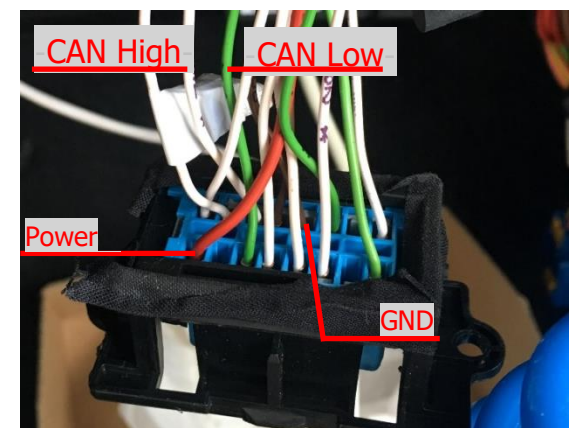
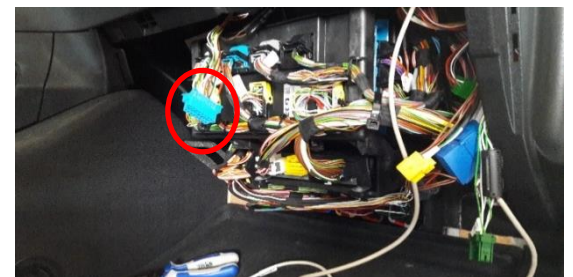
The ST14D connector should be on your right. Use a twisted pair of white and green wires for the connection.

- **White** wire – CAN High
- **Green** wire – CAN Low



Alternatively you could use the OBD connector on your left.

- OBD pin 6, **White** wire – CAN High
- OBD pin 14, **Green** wire – CAN Low



The OBD connector also has pins for the power supply and GND connection. These wires leading to the following OBD socket pins could be used:

- OBD pin 16, **Red** wire – Power supply+
- OBD pin 4, **Brown** wire – GND

The data received from ST14D and OBD CAN bus wires might contain less CAN parameters than other lines that were described earlier. Take a look at the supported "[Trucks](#)" list. CAN parameters listed for Iveco Stralis EURO6 2013+ and marked with an asterisk symbol (\*) will not be available.

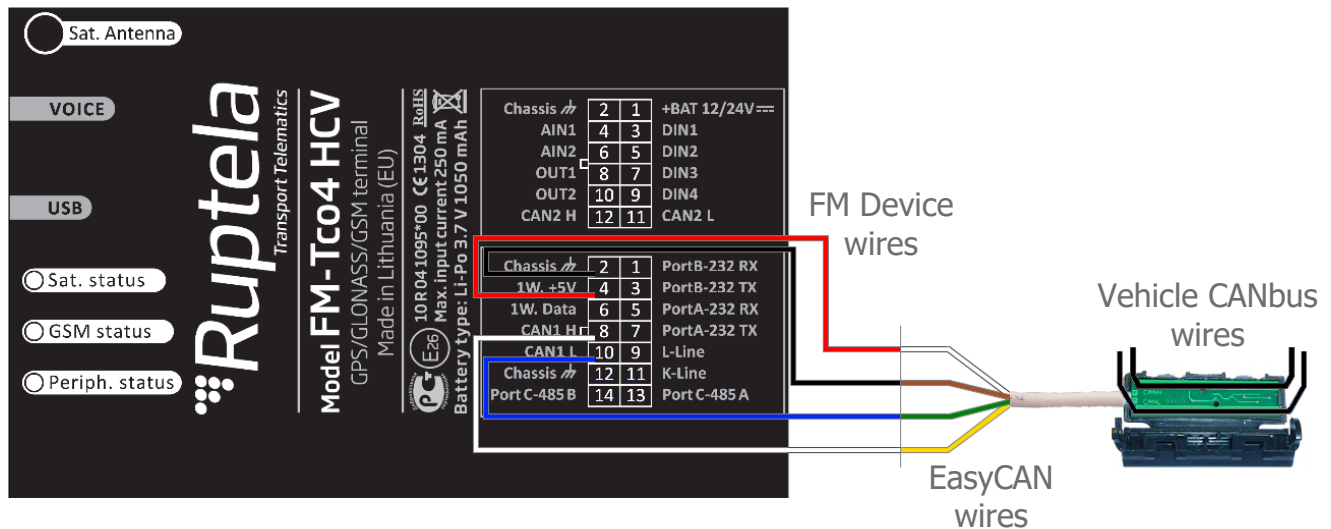


## EasyCAN connection to FM Device (methods 2 and 3)

If you do not have a counterpart female connector to couple with the ST40, then use wires on the other side of the ST40 (existing part on vehicle, male connector). Same rules apply for the ST14D and OBD connectors. It is mandatory to use an EasyCAN adapter for the connection. There are two versions available, one for connection to the J1939 line and another for connection to the J1708. In this case use J1939 version. Adapter allows to read data from vehicle's system without physically connecting to the CANbus wires. It is a safe, reliable and quick way to connect.

All connections must be made according to our "[Common installation rules](https://doc.ruptela.it)" available at [doc.ruptela.it](https://doc.ruptela.it)

FM Device side	EasyCAN side
<b>Red</b> – 1W. +5V	<b>White</b> – to Power supply
<b>Black</b> – GND (Chassis)	<b>Brown</b> – to GND
<b>White</b> – CAN1 H	<b>Yellow</b> – to CAN High port
<b>Blue</b> – CAN1 L	<b>Green</b> – to CAN Low port



## Connection method 4

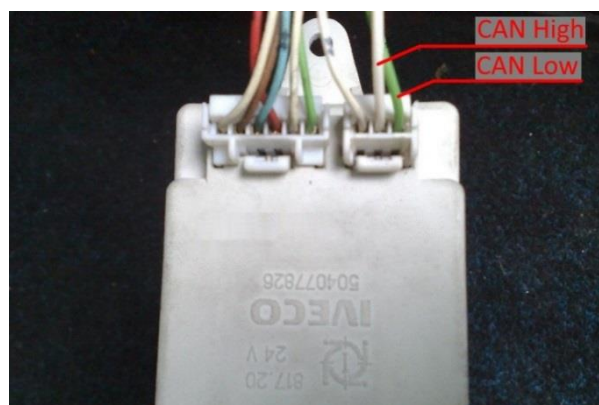
This connection method is used, when the Iveco Stralis EURO6 truck does not have a standard FMS connector.

In this case you need to locate the FMS block, which is placed on the passenger side, behind the lower dashboard.

- White wire – CAN High
- Green wire – CAN Low

### Note

In this case EasyCAN cannot be used since a configuration with FMS CAN Active mode is required. Therefore a direct connection to the vehicle's CAN bus wires is necessary.



## Configuration

Follow these steps to configure your FM Device:

1. In the main configurator window choose your device.
2. **IO events** "Options" button opens up a new "IO settings" window, here you can enable or disable IO parameters that will be sent to the server.
3. Select a slot that you want to enable.
4. In the **IO properties** section tick the **Enable** check box, otherwise the slot will remain empty.
5. **ID** contains the parameter list. Choose a parameter you want to enable for the selected slot. One parameter can be enabled only once. List of the most commonly used FMS parameters:  
*CAN high resolution total vehicle distance, CAN engine total fuel used, CAN engine speed, CAN fuel level 1, CAN wheel based speed.*

List of additional FMS parameters:

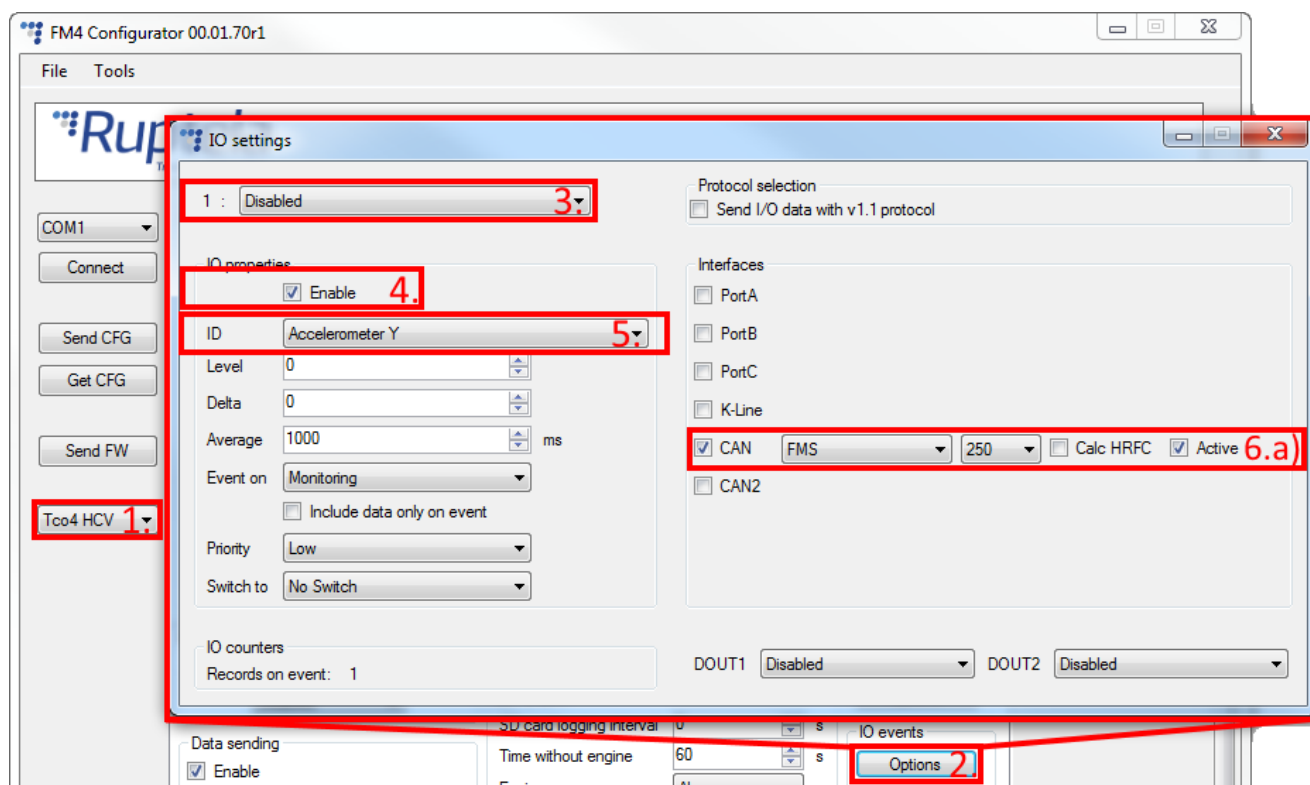
*CAN accelerator pedal position 1, CAN axle weight\*, CAN break switch, CAN clutch switch, CAN cruise control active, CAN engine coolant temperature, CAN engine hours, CAN engine percent load at current speed, CAN fuel rate, CAN high resolution engine total fuel used, CAN PTO state, CAN service distance, CAN vehicle ID.*

*\*CAN axle weight parameters and their availability depends on vehicle configuration and equipment.*

### 6. a) Connection method 1 or 4 is used:

Put a tick on the **CAN** check box. Choose an appropriate CAN interface. It should be the same interface that was used in connection to the vehicle. Select the FMS and baud rate: 250. Checkbox **Active** should be checked.

Close the "IO settings" window and send the configuration to the device.



## 6. b) Connection method 2 or 3 is used:

Put a tick on the **CAN** check box. Choose an appropriate CAN interface. It should be the same interface that was used to connect to the vehicle. Select *FMS* and baud rate: 250. The checkbox **Active** should not be checked.

Close the "IO settings" window and send the configuration to the device.

