



Installation of the telematic unit Vetronics 760/770 into trucks:

DAF, MAN, SCANIA, MB, VOLVO, RENAULT, IVECO

(only connection according to FMS standard,tachograph connection see Connection tachograph)



FMS Standard

FMS is a standardized connector that is used to connect external systems that read data from a CANBUS

(it has to be awolled from manufacturer!)

We can read different data on the FMS connector. For example, only engine data or tachograph data only, but we can also read data from the engine and the tachograph together (DAF and others when it is set by manufacturer).

Everything depends on the manufacturer, the type, the equipment and the old vehicle!

We prefer to connect via connector FMS if is missing or data are not available we have to proceed according to Connection without FMS connector

Position FMS connector - 12ti pin:

Position FMS	Position name	Unit cable	Colors of each wires
1	31 GND (-)	(pin 3) GND	brown
6	CAN_High	(pin 32) CAN1_H	orange/black
9	CAN_Low	(pin 31) CAN1_L	orange/brown
10	15 IGN (+)	(pin 12) ING	black/grey
12	30 PWR (+)	(pin 1) PWR_IN	red

Manufacturer and type of connector: TE CONNECTIVITY connector: FLA-STE-GEH2,8 12P pin: TAB 2.8x0.8 CONTACT CF SRC

Pin to connector:



FMS connector:







Position DAF/FMS connector - 18ti pin:

Position FMS	Position name	Unit cable	Colors of each wires
1	31 GND (-)	(pin 3) GND	brown
9	infoline (D8 , reading AETR from tacho)	(pin 22) UAR	violet/white
10	CAN_High	(pin 32) CAN1_H	orange/black
11	CAN_Low	(pin 31) CAN1_L	orange/brown
17	30 PWR (+)	(pin 1) PWR_IN	red
18	15 IGN (+)	(pin 12) IGN	black/grey

Manufacturer and type of connector: TE CONNECTIVITY connctorr: FLA-STE-GEH2,8 18P pin: TAB 2.8x0.8 CONTACT CF SRC

Pin to connector:

DAF FMS connector:

DAF FMS connector:









List of required components and tools for FULL GPS installation

Su	pplied material.	Tool	s and supplies.
0	Unit cable hernnes 3,5m. PRINCIP OBU CABLE 3.5		Insulating tape.
ELM ELM	Pin to FMS connector. TE Connectivity 1-963746-1	6	Tightening tapes.
	Connector latch (12 pin). TE Connectivity 967632-1		Key for tachograph disassembly.
	FMS connector 12 pin. TE Connectivity 1-967627-1		Dismantling contacts. Junior Power Timer, Standard Power Timer
A	Connector latch (18 pin) TE Connectivity 967634-1		Crimping tool. Junior Power Timer, Standard Power Timer
	FMS connector 18 pin. TE Connectivity 1-967629-1		TOOL SET Screwdrivers: flat - small, large
	Cable to the tachograph 4m. PRINCIP TACHO CABLE 4		crosses - small, big torx - 20, 25, 30 <i>Metric Key:</i> M8, M10, M13, M15
88	Pin to the tachograph connector. TE Connectivity 925596-2		Pliers: Drill pliers Stripping pliers.
	Connector "C" to the tachograph. TE Connectivity 927367-1		Other: breaking knife
	Connector "D" to the tachograph. TE Connectivity 927368-1		

PRINCIP a.s.

Member of W.A.G. payment solutions, a.s.

Hvězdova 1689/2a, 140 00 Prague 4, Czech Republic







Where to find: Fuse box on the passenger side – green connector.

FMS TACHO TACHO D8 AETR

All data – CAN motor + CAN tachograph + AETR in connector FMS.

Connection according to FMS standard = *DAF/FMS connector - 18ti pin*.







PRINCIP a.s.

Member of W.A.G. payment solutions, a.s.

Hvězdova 1689/2a, 140 00 Prague 4, Czech Republic





TACHO AETR D8



Where to find: green connector behind the tachograph - green connector X5080/BU

FMS Connection according to FMS standard = FMS connector - 12ti pin.

CAN_High = connector "C" pin C5 **CAN TACHO** CAN_Low = connector "C" pin C7 connect wtih pin C8 Connect directly to the tachograph.









PRINCIP a.s. Member of W.A.G. payment solutions, a.s. Hvězdova 1689/2a, 140 00 Prague 4, Czech Republic







Where to find: Fuse box on the passenger side – green connector C137		
FMS Connection according to FMS standard = FMS connector - 12ti pin.		
CAN TACHO	Connection according to FMS standard = FMS connector - 12ti pin. (see more at the point 9.) or connector "C"	
TACHO AETR D8	Connect directly to the tachograph.	Infoline, reading AETR = connector "D" pin D8







PRINCIP a.s. Member of W.A.G. payment solutions, a.s. Hvězdova 1689/2a, 140 00 Prague 4, Czech Republic







Where to find: green connector behind the tachograph

FMS

CAN TACHO

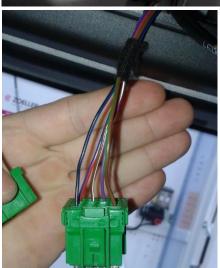
All data – CAN motor + CAN tachograph in connector FMS.

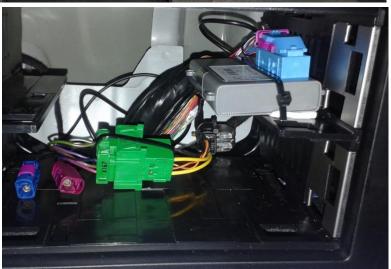
Connection according to FMS standard = FMS connector - 12ti pin.

(If the tachograph data is not on the extension connector, it is connected directly to the tachograph "connector C")

TACHO AETR D8 Connect directly to the tachograph.







PRINCIP a.s.

Member of W.A.G. payment solutions, a.s.

Hvězdova 1689/2a, 140 00 Prague 4, Czech Republic







Where to find: Under the fuse box in the center panel, the green connector

FMS

TACHO AETR D8

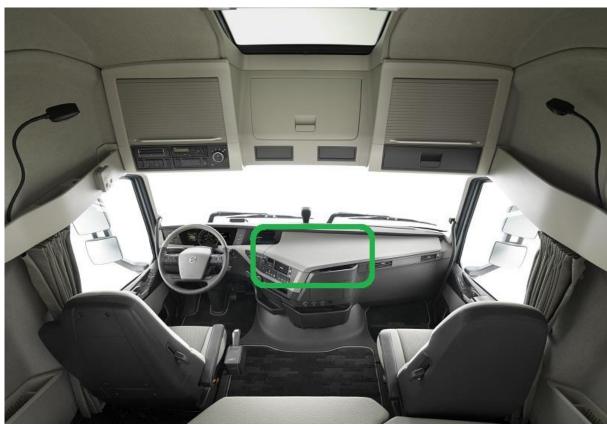
CAN TACHO

All data – CAN motor + CAN tachograph in connector FMS.

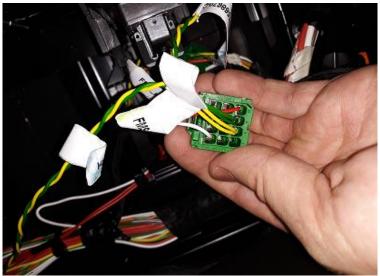
Connection according to FMS standard = FMS connector - 12ti pin.

(If the tachograph data is not on the extension connector, it is connected directly to the tachograph "connector C")

Connect directly to the tachograph.







PRINCIP a.s.

Member of W.A.G. payment solutions, a.s.

Hvězdova 1689/2a, 140 00 Prague 4, Czech Republic







Where to find: Next to the steering wheel under the air conditioning control panel,

FMS

Connection according to FMS standard = FMS connector - 12ti pin.

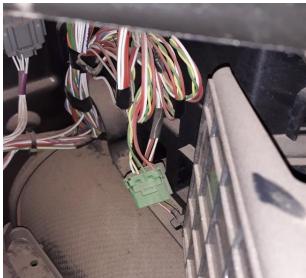
CAN TACHO
TACHO AETR D8

Connect directly to the tachograph.

CAN_High = connector "C" pin C5
CAN_Low = connector "C" pin C7 connect wtih pin C8







PRINCIP a.s.

Member of W.A.G. payment solutions, a.s.

Hvězdova 1689/2a, 140 00 Prague 4, Czech Republic





IVECO

Where to find: green connector behind the tachograph

FMS

CAN TACHO

All data – CAN motor + CAN tachograph in connector FMS.

Connection according to FMS standard = FMS connector - 12ti pin.

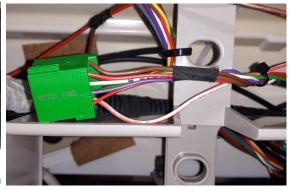
(If the tachograph data is not on the extension connector, it is connected directly to the tachograph "connector C")

TACHO AETR D8 Connect directly to the tachograph.

Infoline, reading AETR = connector "D" pin D8









Connection points on specific trucks where is not extension FMS connector od does not active CAN-BUS:

It must be noted that this connection is not standard, we install at the express wish of the customer, this must be stated and signed on the installation protocol

- Before the connection, it is necessary to measure and verify the necessary signals
- For trucks that is not active CAN-BUS on the extension connector it is possible to use the supply voltage KL30, KL15 and KL31 from the connector see FMS standard = FMS connector 12ti pin. (see more on the table on page 4) and CAN-BUS read by connecting to the vehicle CAN-BUS via the contactless Sniffer reader.





Connection without FMS connector			
	Where to find: Comment		
Power supply	In fuse box.	31 GND (-), 30 PWR (+), 15 IGN (+)	
CAN-BUS	In fuse box connect via CAN-Sniffer.	CAN_Low = yellow	
		CAN_High = blue	
CAN TACHO		CAN_High = connector "C" pin C5	
	Connect directly to the tachograph.	CAN_Low = connector "C" pin C7 wtih pin C8	
TACHO D8		Infoline, reading AETR = connector "D" pin D8	





Connection without FMS connector		
Whwre to find:		Comment
Power supply	We find connection points on the back of the fuse box with metric screws M10 a M8.	M8 = 31 GND (-), M10 = 30 PWR (+), 15 IGN (+)
CAN-BUS	In fuse box connect via CAN-Sniffer.	CAN_Low = blue/white CAN_High = blue/red
CAN TACHO	Connect directly to the tachograph.	CAN_High = connector "C" pin C5 CAN_Low = connector "C" pin C7 wtih pin C8
TACHO D8		Infoline, reading AETR = connector "D" pin D8







10.00			
Connection without FMS connector			
	Where to find:	Comment	
Power supply	We find connection points on the back of the fuse box.	31 GND (-), 30 PWR (+), 15 IGN (+)	
CAN BUS	CAN-BUS In fuse box connect via CAN-Sniffer.	CAN_Low = white	
CAN-DO3		CAN_High = yellow	
CAN TACHO	Connect directly to the tachograph.	CAN_High = connector "C" pin C5	
CAN TACHO		CAN_Low = connector "C" pin C7 wtih pin C8	
TACHO AETR D8		Infoline, reading AETR = connector "D" pin D8	





Connection without FMS connector			
	Where to find:	Comment	
Power supply	Under the fuse box, we find connectors where we can connect. White connector X18 = 31 GND (-). Grey connector X17 = left side 30 PWR (+), right side 15 IGN (+).	31 GND (-), 30 PWR (+), 15 IGN (+)	
CAN-BUS	In fuse box connect via CAN-Sniffer.	CAN_Low = YELLOW or GREEN CAN_High = BLUE	
CAN TACHO	Connect directly to the tachograph.	CAN_High = connector "C" pin C5 CAN_Low = connector "C" pin C7 wtih pin C8	
TACHO AETR D8		Infoline, reading AETR = connector "D" pin D8	





Connection without FMS connector		
Where to find:		Comment
Power supply	From the right side of the fuse box, we find a switchgear where we can connect.	31 GND (-), 30 PWR (+), 15 IGN (+)
CAN-BUS	In fuse box connect via CAN-Sniffer.	CAN_Low = GREEN CAN_High = YELLOW
CAN TACHO	Connect directly to the tachograph.	CAN_High = connector "C" pin C5 CAN_Low = connector "C" pin C7 wtih pin C8
TACHO AETR D8		Infoline, reading AETR = connector "D" pin D8







Connection without FMS connector		
Where to find:		Comment
Power supply	In fuse box.	31 GND (-), <mark>30 PWR (+)</mark> , 15 IGN (+)
CAN BUS	In fuse box connect via CAN-Sniffer.	CAN_Low = GREEN CAN_High = YELLOW
CAN TACHO	Connect directly to the tachograph.	CAN_High = connector "C" pin C5 CAN_Low = connector "C" pin C7 wtih pin C8
TACHO AETR D8		Infoline, reading AETR = connector "D" pin D8





Connection without FMS connector			
Where to find:		Comment	
Power Supply	We find connection points on the back of the fuse box.	31 GND (-), 30 PWR (+), 15 IGN (+)	
CAN BUS	CAN BUS In fuse box connect via CAN-Sniffer.	CAN_Low = GREEN	
		CAN_High = WHITE	
CANTACHO	CAN TACHO Connect directly to the tachograph.	CAN_High = connector "C" pin C5	
CAN TACHO		CAN_Low = connector "C" pin C7 wtih pin C8	
TACHO AETR D8		Infoline, reading AETR = connector "D" pin D8	

Princip a.s.

Member of W.A.G. payment solutions, a.s. Hvězdova 1689/2a | 140 00 Prague | Czech Republic

Tel.: +420 236 089 900

E-mail: servis@princip.cz

www.princip.cz