



ContiConnect Live

The truck and trailer telematic solution for live tire monitoring

  **Installation Manual**

ContiConnect Live

1	General	4
1.1	Version note	4
1.2	Information on this Installation Manual	4
1.3	Liability disclaimer	5
1.4	Explanation of symbols	5
1.5	Warnings	6
1.6	Abbreviations	7
1.7	Copyright	8
1.8	Warranty terms	8
1.9	Manufacturer's address	8
1.10	After-sales service	8
2	Safety	9
2.1	General	9
2.2	Prohibited modifications	9
2.3	Intended use	9
2.4	Qualifications for installation	10
2.5	Personal protective equipment	11
3	Technical data	12
3.1	Tire sensor	12
3.2	In-Cabin Unit	14
3.3	Enabler Unit	16
3.4	Trailer Unit	18
4	Installation	20
4.1	Scope of supply	20
4.2	Disposal of the packaging materials	20
4.3	General notes on damage prevention	20
4.4	Recommended installation sequence	21
4.5	Installation of the tire sensors	22
4.6	Typical configurations	22
4.7	Initialization using Hand-Held Tool	24

Table of Contents

4.8	Installation of the In-Cabin Unit.....	25
4.9	Installation of the Enabler Unit	30
4.10	Installation of the Trailer Unit	37
4.11	Checks after installation.....	43
5	Activation of the system configuration	44
6	Dismantling and Disposal.....	45
6.1	Dismantling	45
6.2	Disposal.....	47
7	Declaration of Conformity	49

1 General

1.1 Version note

In case of doubt, the English original version of the “Installation manual” applies.

1.2 Information on this Installation Manual

This Installation Manual is intended for qualified technicians with technical know-how in vehicle electrics and tire fitting.

Knowledge of its contents enables the system to be installed on commercial vehicles.

This Installation Manual is a crucial aid to the successful and safe installation of the system. It contains important instructions on installing and operating the system correctly and safely. Observation of its contents helps avoid dangers, increase the reliability and service life of the system and maintain the system warranty.

The current version of the installation manual is available for everyone online (www.continental-tires.com/products/b2b/services-and-solutions/ContiConnect/downloads/). It must be read and observed by everyone who is involved with installation, activation, operation and/or diagnosis of the system.

Observe the instructions contained - in particular the safety instructions.







1.3 Liability disclaimer

The manufacturer assumes no liability for damage and operational faults resulting from:

- Failure to observe this Installation Manual
- Usage other than the intended purpose
- Installation by unqualified or insufficiently qualified personnel
- Faulty installation
- Usage of spare parts and accessories other than original
- Technical changes and modifications






1.4 Explanation of symbols

Warnings are additionally identified in this Installation Manual by warning symbols. The following warning symbols are used in this Installation Manual:

Symbol	Meaning
	General warning
	Electric shock hazard
	Special instructions on safe working
	General instructions and useful suggestions on handling
	Note on observing environmental regulations for disposal
	Electric/electronic components with this symbol may not be disposed of in the normal household waste

1.5 Warnings

The following warnings are used in this Installation Manual:

	<p style="text-align: center;">⚠ WARNING</p> <p>Severe injuries! A warning of this hazard level indicates a possible situation that could lead to death or irreversible injuries. ► Follow the instructions in this warning.</p>
	<p style="text-align: center;">⚠ CAUTION</p> <p>Minor injuries! A warning of this hazard level indicates a possible situation that could lead to reversible injuries. ► Follow the instructions in this warning.</p>
	<p style="text-align: center;">ATTENTION</p> <p>Damage to property A warning of this hazard level indicates a situation that could lead to damage to the equipment. ► Follow the instructions in this warning.</p>
	<p style="text-align: center;">SAFETY INSTRUCTIONS</p> <p>Instructions on safe working These instructions include important information and instructions on safe working during the following actions. ► Follow the instructions in this warning to avoid accidents and injury.</p>
	<p style="text-align: center;">NOTE</p> <p>A note contains additional information that is important for further processing or for simplifying the procedure step explained.</p>

1.6 Abbreviations

The following abbreviations are used in this Installation Manual:

Abbr.	Meaning
ATO	A ssemble-to-order
CAN	(Controller Area Network) Data bus system for communication between vehicle systems
DTCO	D igital T achograph
FMS	F leet M anagement S ystem
GND	G round Battery voltage (negative pole / chassis)
GPS	G lobal P ositioning S ystem
GSM	G lobal S ystem for M obile C ommunications
HHT	H and- H eld T ool
IGN	I gnition
TPMS	T ire P ressure M onitoring S ystem
Truck/UV	Heavy Goods Vehicles/ U tility v ehicle
OBD	O n B oard D iagnosis
RF	R adio F requency
RSSI	Transmission power of the tire sensors (Received Signal Strength Indicator)
Sensor ID	S ensor i dentification number
SIM	S ubscriber I dentify M odule
+ VDC	Battery voltage (positive pole)

1.7 Copyright

This Installation Manual and all documents supplied with this system are protected by copyright.

These documents may not be duplicated either wholly or in part without the express permission of Continental Reifen Deutschland GmbH.

1.8 Warranty terms

The respective relevant "Continental AG terms and conditions" apply with the exception of possible different contractual agreements.

The latest version can be obtained via your ContiConnect Live supplier.

1.9 Manufacturer's address

Continental Reifen Deutschland GmbH

Continental-Plaza 1

30175 Hannover

Germany

www.continental-tires.com

1.10 After-sales service

In the case of technical questions on the system, please contact your ContiConnect Live supplier or the authorized garage that installed the system.

2 Safety

2.1 General

In addition to the safety instructions specified in these installation instructions, the “General Safety Notes” (article no.: 17342240000) belonging to the product must be observed.

Hazards that could occur during a particular action are described before the instructions for each step.

Failure to observe the “General Safety Notes” and procedural instructions specified in these installation instructions can lead to considerable hazards.

2.2 Prohibited modifications

All modifications and changes to the system are prohibited.

The manufacturer assumes no liability for any resulting damage.

In the event that conversions or modifications to the system should become necessary, contact the manufacturer.

2.3 Intended use

This ContiConnect Live solution is only intended to,

- determine the condition of each tire (e.g. tire pressure or tire inner temperature),
- determine the vehicle position and current state,
- transmit the collected data to an external evaluation unit via GSM.

This solution may only be used for its intended purpose within the limits stipulated in the technical data.

Use for any other purpose is not considered as intended use.

Operation of the solution in a faulty condition is prohibited.

No claims of any kind will be accepted for damage resulting from use other than the intended purpose.

The risks associated with such improper use shall be borne solely by the user.

General information on the system

- ContiConnect Live supports the monitoring of the condition of the tire, e.g. tire pressure. The responsibility for the correct pressure lies with the driver.
- Correct the tire pressure only when the tire temperature corresponds to the ambient temperature.

2.3.1 Use of the tire sensors

Even if continuous technical monitoring is ensured, the operator must make sure that the condition of the tire sensor is checked regularly, at the latest after 20 000 km (12 425 miles) or after 6 months.

In the case of continued use of the tires on other vehicles where monitoring is not ensured, the tire sensors must first be removed from the tires.

2.4 Qualifications for installation




The following qualifications are specified in this Installation Manual:

- **Qualified staff**
is deemed capable of independently carrying out the work assigned to them and of recognizing and avoiding possible dangers due to their technical training, know-how and experience (tire mounting and repair, mechanical and electrical automotive experience) and their knowledge of the relevant regulations.

The solution may only be installed by persons who have been trained for this work and who have technical know-how of vehicle electronics and tire fitting.

2.5 Personal protective equipment

Wear the following protective equipment during installation:

Symbol	Meaning
	Wear protective goggles.
	Wear protective gloves.
	Wear safety shoes.

3 Technical data

3.1 Tire sensor

3.1.1 Generation 1

Dimensions (L x W x H)	38 x 28 x 22 1.5 x 1.1 x 0.87	mm inches
Weight	26 0.92	g oz
Cover color	black	
Transmission frequency	433.92	MHz
Reception frequency	125	kHz
Typical service life* of the permanently installed battery approx.	6 or 600 000 372 820	years km miles
Temperature measuring range	-40 to 120 -40 to 248	°C °F
Pressure measuring range (rel.)	0 to 12 0 to 173	bar psi

* Constantly high tire inside temperatures (caused for example by high ambient temperature, low tire pressure, etc.) can lead to a decrease of the battery service life.

Technical data

3.1.2 Generation 2

Dimensions (L x W x H)	38 x 28 x 22 1.5 x 1.1 x 0.87	mm inches
Weight	26 0.92	g oz
Cover color	orange	
Transmission frequency	433.92	MHz
Reception frequency	125	kHz
Bluetooth (Active only at standstill)	2.4	GHz
Typical service life* of the permanently installed battery approx.	4 or 600 000 372 820	years km miles
Measuring ranges		
- Temperature	-40 to 120 -40 to 248	°C °F
- Pressure (rel.)	0 to 12 0 to 173	bar psi
Temperature ranges		
- Tire sensor	-20 to 60 -4 to 140	°C °F
- Bluetooth	-20 to 85 -4 to 185	°C °F

* The typical service life applies to a long-distance vehicle operated at moderate outside temperatures and with correct tire pressure. It is assumed that the user does not connect to the tire sensor via Bluetooth (pairing). Deviations from these general conditions can lead to a shortening of the typical service life.

Exemplary variations, but not exhaustively limited, are:

- high internal tire temperatures (Caused by e.g. high ambient temperatures, lower tire pressure, overload, etc.)
- regular connections via Bluetooth
- high proportion of standstill phases/low speed
- high proportion of Stop-and-Go phases (urban traffic)

3.2 In-Cabin Unit

Dimensions (L x W x H)	111 x 64 x 31 4.4 x 2.5 x 1.22	mm inches
Weight		
- with battery	132 4.66	g oz
- with battery and bracket	164 5.78	g oz
Supply voltage	9 to 32	VDC
Supply current (Sleep mode)	7.5	mA
Power consumption		
- Operation (average at 24 V DC)	50	mA
Radio frequency	433	MHz
Temperature ranges		
- Operation	-20 to 60 -4 to 140	°C °F
- Storage	-20 to 85 -4 to 185	°C °F
- Charging	0 to 45 32 to 113	°C °F
Backup battery	Li-Ion	



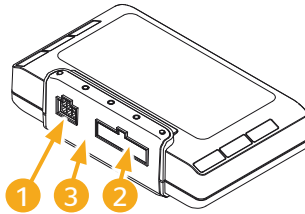
ATTENTION

Possible damage to the In-Cabin Unit!

When replacing the fuse, observe the following points to avoid damage to the In-Cabin Unit:

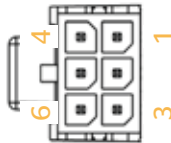
- ▶ Ensure that the protection value does not exceed 2 Amps.

3.2.1 In-Cabin Unit connectors



- 1 Power Connector J4 (see “3.2.2 Pin assignment Power Connector J4 (2x3 Pin)” on page 15)
- 2 Main Connector J8
- 3 Status LED’s

3.2.2 Pin assignment Power Connector J4 (2x3 Pin)



Pin	Signal name	Description	Wire color
1	+ VDC	Main power supply	red
2	Ignition	Ignition sense input	green
3	Analog In3	Analog input 3 (optional)	orange
4	CAN 0 (H)	CAN Bus 0 High signal	orange/white
5	CAN 0 (L)	CAN bus 0 Low signal	yellow/white
6	GND	Battery negative 0 V	black

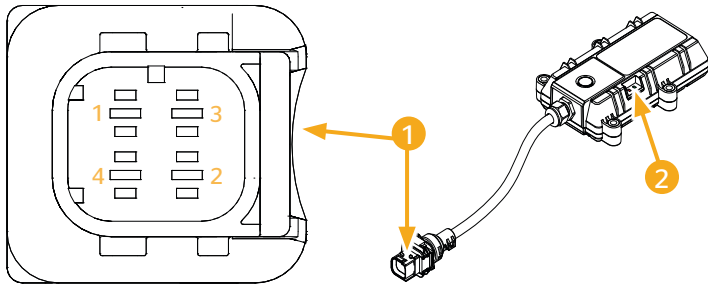
3.2.3 Blinking code of the In-Cabin Unit status LED’s

* * * * *	=	Searching GPS signal
* <u>1 Sec</u> * <u>1 Sec</u> * <u>1 Sec</u> * <u>1 Sec</u> *	=	GPS position established
* * * * *	=	Searching GSM signal
* <u>1 Sec</u> * <u>1 Sec</u> * <u>1 Sec</u> * <u>1 Sec</u> *	=	GSM connection established

3.3 Enabler Unit

Dimensions (L x W x H)	155.4 x 110 x 39 6.1 x 4.33 x 1.54	mm inches
Weight	296 10.44	g oz
Supply voltage	9 to 32	VDC
Supply current (Sleep mode)	5	mA
Supply current (Operation)	50	mA
Radio frequency	433	MHz
Temperature ranges		
- Operation	-40 to 70 -40 to 158	°C °F
- Storage	-40 to 85 -40 to 185	°C °F

3.3.1 Enabler Unit connector



1	Main Connector (see “3.3.2 Pin assignment Main connector (2x2 Pin)” on page 17)
2	Status-LED's

3.3.2 Pin assignment Main connector (2x2 Pin)

Pin	Signal name	Description	Wire color
1	+ VDC	Main power supply	red
2	RS232 RX	OPTIONAL (RS232 Data In)	light blue
3	GND	Battery Negative 0V	black
4	RS232 TX	OPTIONAL (RS232 Data Out)	pink

3.3.3 Blinking code of the Enabler Unit status LED's

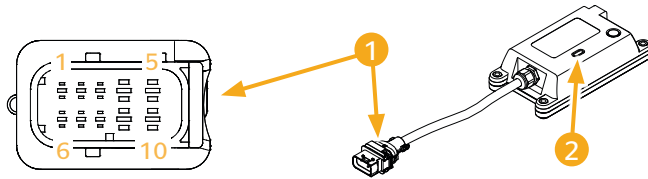
*****	=	Searching for In-Cabin Unit
* 1 Sec * 1 Sec * 1 Sec * 1 Sec *	=	Connection to In-Cabin Unit established
-----	=	TPMS sensors indication

3.4 Trailer Unit

Dimensions (L x W x H)	199 x 104 x 44 7.83 x 4.09 x 1.73	mm inches
Weight		
- with battery	680 23.99	g oz
Supply voltage	7 to 32	VDC
Power consumption		
- Operation (average at 24 V DC)	50	mA
- Maximum current (externally powered)	1.5	A
Radio frequency	433	MHz
Temperature ranges		
- Operation (externally powered)	-20 to 60 -4 to 140	°C °F
- Storage	-20 to 85 -4 to 185	°C °F
- Operation* (battery powered)	-10 to 60 14 to 140	°C °F
- Battery charging	0 to 45 32 to 113	°C °F
Backup battery	Li-Ion	

* Wake up mode occurs daily for 10 min to collect sensor data. Wake up mode will only operate properly in conditions above -10°C/14°F.

3.4.1 Trailer Unit connector



1	Main Connector (see “3.4.2 Pin assignment Main connector (2x5 Pin)” on page 19)
2	Status-LED’s

3.4.2 Pin assignment Main connector (2x5 Pin)


Pin	Signal name	Description	Wire color
1	CAN 0 (H)	CAN bus 0 High signal	orange/white
2	OUT	Open collector output	white/black
3	RS232 Tx	RS232 Data out	pink
4	Ignition/In	Ignition sense input	green
5	+ VDC	Main power supply	red
6	CAN 0 (L)	CAN bus 0 Low signal	yellow/white
7	n.c.	Not connected	
8	RS232 Rx	RS232 Data in	light blue
9	GND	Battery negative 0V	black
10	GND	Battery negative 0V	black

3.4.3 Blinking code of the Trailer Unit status LED’s

* * * * *	=	Searching GPS signal
* <u>1 Sec</u> * <u>1 Sec</u> * <u>1 Sec</u> * <u>1 Sec</u> *	=	GPS position established
* * * * *	=	Searching GSM signal
* <u>1 Sec</u> * <u>1 Sec</u> * <u>1 Sec</u> * <u>1 Sec</u> *	=	GSM connection established

4 Installation

4.1 Scope of supply

	NOTE
	<ul style="list-style-type: none">▶ Check the entire delivery for completeness and visual damage.▶ On delivery of the system, record any damage due to improper packaging or transport damage on the delivery note and report it to your sales contact immediately.

4.2 Disposal of the packaging materials



The packaging protects the system against transport damage. The packaging materials have been selected in line with environmental and disposal aspects and are therefore recyclable.

Recycling the packaging saves raw materials and reduces the production of waste. Packaging materials which are no longer needed should be disposed of in accordance with the local regulations.

4.3 General notes on damage prevention

To avoid damage to the vehicle, the trailer or the system, please refer to the “General Safety Notes” (article no.: 17342240000).

4.4 Recommended installation sequence

For a successful installation of the system it is recommended to perform the steps in the following order:

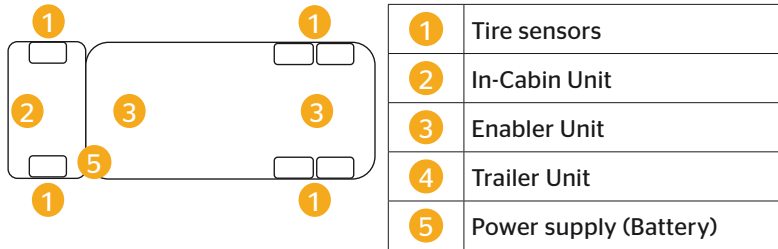
- 1) Installation of tire sensor.
- 2) Perform “Check all Tire” and create report file with the Hand-Held Tool (For detailed instructions refer to **www.continental-tires.com/products/b2b/services-and-solutions/ContiConnect/downloads/** or contact your sales partner).
- 3) Configure vehicle in ContiConnect including serial numbers for external ID.
- 4) Mounting and wiring of all units in a temporary manner in proper installation locations.
- 5) Activate and verify the system with the Installers App. Relocate units, if required.
- 6) Perform a test drive.
- 7) Fix units in a permanent manner.

4.5 Installation of the tire sensors

For the installation of the tire sensors please refer to the manuals “Installation instructions tire sensor container with REMA Tip-Top” and “Installation instructions tire sensor container with Cyberbond”, respectively.

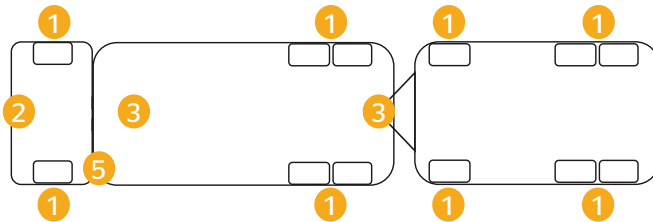
4.6 Typical configurations

Straight truck



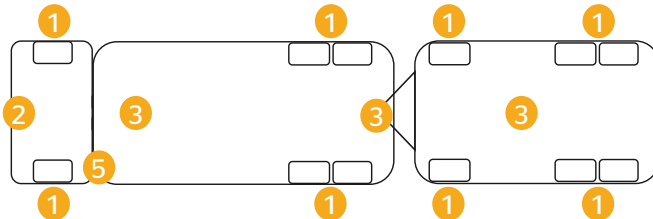
Two Enabler Units, all components installed on the truck

Straight truck with trailer (A)



Two Enabler Units, no extra components installed on the trailer

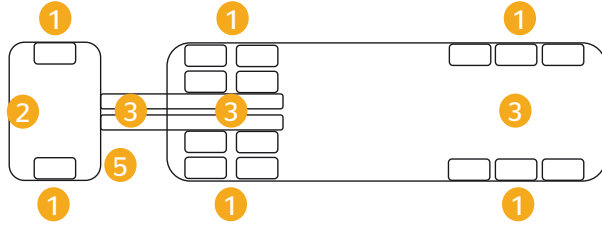
Straight truck with trailer (B)



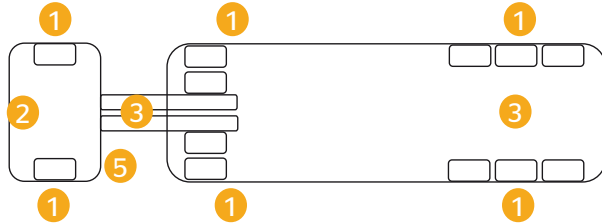
Two Enabler Units installed on the truck and one on the trailer

Installation

Semitrailer truck

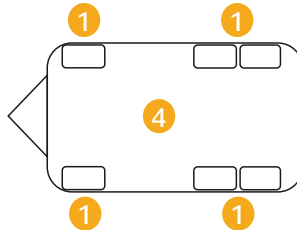


Two Enabler Units installed on the truck and one Enabler Unit installed on the trailer.



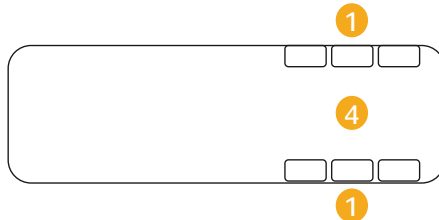
One Enabler Unit installed on the truck and one Enabler Unit installed on the trailer.

Trailer standalone




One Trailer Unit installed on the trailer.

Semitrailer standalone



One Trailer Unit installed on the semitrailer.

4.7 Initialization using Hand-Held Tool

	NOTE
	▶ Obtain all information and handling instructions on the Hand-Held Tool from the <i>“Hand-Held Tool user manual”</i> .

For configuration and initialization of the system with the Hand-Held Tool proceed as follows:

- ◆ Select the appropriate vehicle layout.
- ◆ Initialize and activate all tire sensors.
- ◆ Upload the “Hand-Held Tool file” from the HHT to the ContiConnect portal.

4.8 Installation of the In-Cabin Unit

4.8.1 General notes on installation

Keep the additional sticker provided with unit serial number (SN) and IMEI in a place easy to access for future maintenance.

The device must be installed in such a way that

- it does not cause injury, damage or failure.
- it becomes an integral part of the vehicle, but is still easily accessible for maintenance work.
- its mounting does not generate vibrations or the device can come loose due to vibrations and shocks.
- the position of the device is selected in such a way that optimum data traffic to the paired devices is ensured.
- sufficient distance to metal parts or electrical lines is ensured in the direct vicinity of the installation location.
- the harnesses must be well tied to the vehicle body in order to avoid vibration and damage for the device connector.
- the harness between the plug and filter must also be well fixed with zip ties in order to avoid vibration and damage for the device connector.

4.8.2 Required parts and tools

The following parts and tools are needed for proper installation of the device:

- In-Cabin Unit
- Bracket and cable harness for the In-Cabin Unit
- Mounting screws for the bracket (not included)
- Cable ties long and short (not included)
- Suitable screwdriver
- Side cutter
- Soldering iron, solder or crimp connectors and suitable crimping tool
- Heat shrink tubing/insulating tape (not included)

4.8.3 Installation location

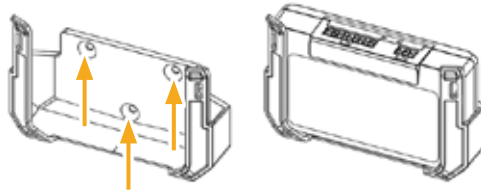
For proper operation, the installation location of the unit must meet the following requirements:

- The device must be installed in a dry environment and must not be exposed to extreme temperatures.
- The device must be installed in a place where the radio signals for GPS, GSM and RF are not weakened by metal parts or cables.
- The antennas on the top of the device (side on which the sticker with the name In-Cabin Unit is located) must be directed to the open sky.

	NOTE
i	<ul style="list-style-type: none"> ▶ The unit will be best located under the dash cover or in the upper dash compartment in the driver's compartment of the truck/tractor. ▶ Ensure that the status LED's of the device remain visible for easy troubleshooting.

4.8.4 Mounting

- Use the special bracket for the In-Cabin Unit.
For fixing the bracket use screws or double side sticker.
Use at least 2 of the suitable holes provided.



- Alternatively, the unit can be attached without the bracket to solid frame parts inside the driver's compartment using cable ties.

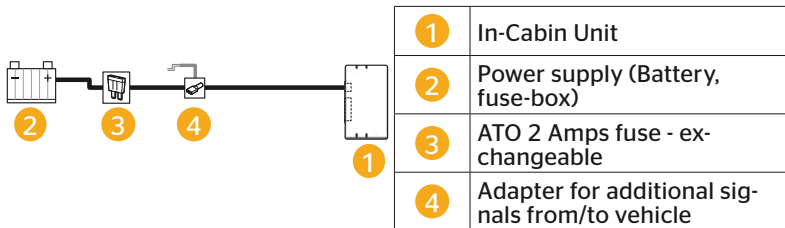
4.8.5 In-Cabin Unit cable harnesses


For connection of the In-Cabin Unit there are several pre-assembled cable harnesses available for easy installation of the system. Please choose the correct cable for your installation types:

No.	
1	US Dutch 9 Pin Connector 500 kbit/s (green)
2	US OBD II Connector
3	EU FMS Connector
4	EU FMS Splitter Connector
5	EU DTCO Connector
6	In-Cabin open connector

J4 Connector with open ends on the other side for connecting power, ignition and vehicle CAN bus.

The typical wiring scheme for a truck/bus is shown in the following illustration:

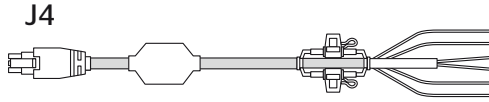


ATTENTION	
	<p>▶ When connecting to tachograph insert Workshop Card into tachograph before starting with the installation.</p>

4.8.6 Wiring

The electrical connection of the In-Cabin Unit is made via the J4 connectors with the matching cable harnesses. Illustrated below is the In-Cabin open connector harness.

Minimal wiring



The following table shows how the wires must be connected to the vehicle:

Pin	Signal name	Connect to	Wire color
1	+ VDC	Battery over separate fuse	red
2	Ignition	Ignition signal over separate fuse	green
3	Analog In3	Not used. Isolate open end.	orange
4	CAN 0 (H)	CAN bus High (optional)	orange/white
5	CAN 0 (L)	CAN bus Low (optional)	yellow/white
6	GND	Battery negative 0V or chassis	black



ATTENTION

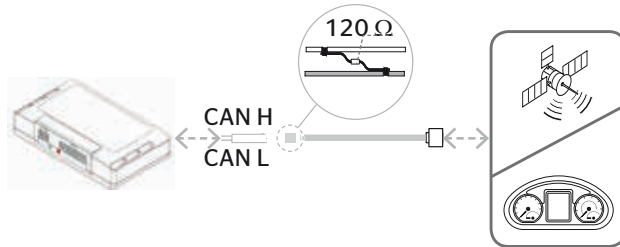
- ▶ Make sure that the electrical fuse is in operating condition and the protection value does not exceed 2 Amps.
- ▶ If the installation is done without a dedicated connector, make sure to connect the poles correctly.

CAN connection

The CAN is a two-wire bus that is typically equipped with $120\ \Omega$ terminating resistors at both ends of the bus line. These terminating resistors serve to ensure the transmission quality on the bus line.

In a system with two $120\ \Omega$ terminating resistors, an impedance of $60\ \Omega$ can be measured with a multimeter between the two CAN bus wires (Ignition set to off). In this case, no further terminating resistor should be installed.

However, if the measured impedance is $120\ \Omega$ or higher, an additional terminating resistor must be installed on the CAN bus line at the In-Cabin Unit.



Adding a terminating resistor between CAN H and CAN L

4.9 Installation of the Enabler Unit

4.9.1 General notes on installation

The device must be installed in such a way that


- it does not cause injury, damage or failure.
- it is accessible for maintenance work.
- it is fixed in such a way that it cannot come loose due to vibrations or shocks.
- the position of the device is selected in such a way that optimum data traffic to the paired devices is ensured.
- sufficient distance to metal parts or electrical lines is ensured in the direct vicinity of the installation location.
- the harnesses must be well tied to the vehicle body, in order to avoid vibration damages to the connectors.

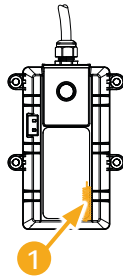
4.9.2 Required parts and tools

The following parts and tools are needed for proper installation of the device:

- Enabler Unit
- Bracket and cable harness for the Enabler Unit
- Mounting screws for the bracket and unit
- Cable ties long and short
- Suitable screwdriver
- Side cutter
- Soldering iron, solder or crimp connectors and suitable crimping tool
- Heat shrink tubing/insulating tape


4.9.3 Installation location and reception

	ATTENTION
	<p>Possible damage to the Enabler Unit!</p> <p>When selecting a suitable installation location, observe the following points to avoid damage to the Enabler Unit:</p> <ul style="list-style-type: none">▶ Avoid proximity to high temperature sources (e.g., exhaust system), rotating, moving or tilting parts.▶ Consider additional load of the vehicle and ensure distance to the ground is big enough do avoid collisions.




For proper operation, the installation location of the unit must meet the following requirements:

- The device should be installed vertically and the antenna (1) of the device must be directed to the ground.
- The device should be installed in a place where the RF radio signals are not weakened by metal parts or cables.
- Ensure that the radio link to the In-Cabin Unit operates without interruption. If the distance to the In-Cabin Unit is too long, use additional Enabler Units as repeaters.

	NOTE
	<ul style="list-style-type: none">▶ The Enabler Unit will be best located at the frame end on a semitrailer tractor or in the middle of the frame on a truck.

The optimum positions of the Enabler Units are between first and second axle and in case of 3 axles or more a second Enabler Unit should be installed at the rear.

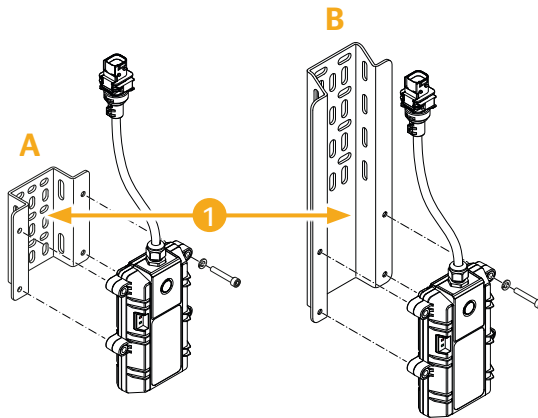
To ensure all signals are properly monitored the placement of the Enabler Unit should allow a direct line of sight between to the side walls of all tires that are to be monitored.

	NOTE
	<p>▶ Have in mind that the Enabler Unit not only receives data from the sensors, it also transmits them to the telematic unit or another Enabler Unit. Please ensure that this signal direction is not blocked by any metal.</p>

During operation of the system, carry out the following measures:

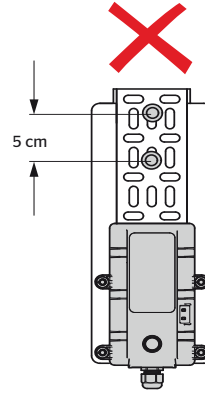
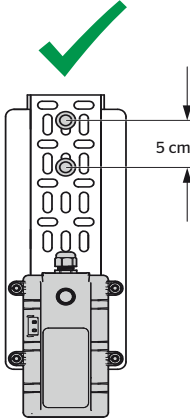
- Keep the Enabler Unit free of dirt and debris such as snow or slush in order not to impair the reception.

4.9.4 Mounting

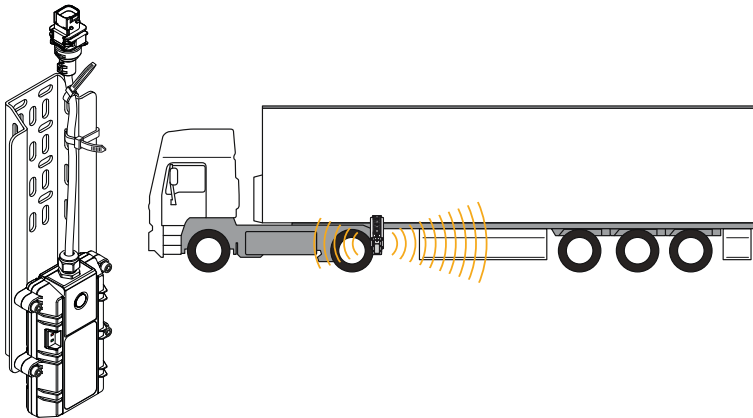


- ◆ Use the special bracket **A** or **B** for the Enabler Unit. In most cases bracket **B** is recommended but for special cases bracket **A** is required and can be ordered separately.
- ◆ For fixing the bracket use screws. Use at least 2 of the suitable holes **1** provided. Secure the bracket with 2 of the 6 screws out of the kit on the frame and use the self-locking nuts and washers. Ensure that the chosen holes on the vehicle have a distance of at least 5 cm between them. Avoid drilling in the frame.
- ◆ Secure the Enabler Unit with the other 4 screws on the bracket. Do not use additional nuts. The antenna-area of the Enabler Unit is not allowed to be covered by any metal (as shown in the picture below). The harness must face the sky.

- ◆ Ensure that the harness of the unit is not tied below the unit. It should be always above the unit.
- ◆ Ensure that the Enabler Unit is mounted vertically and the antenna is directed to the street and the wire to the top.



- ◆ Additionally, secure the device to the bracket with cable ties.
- ◆ Tie the harnesses to the body of the vehicle (not unit) with cable ties.
- ◆ The enabler should always be mounted in the vertical position.
- ◆ When fixing the harness onto the bracket and vehicle frame please ensure distance is observed between the harness and unit antenna in order to not disturb reception.

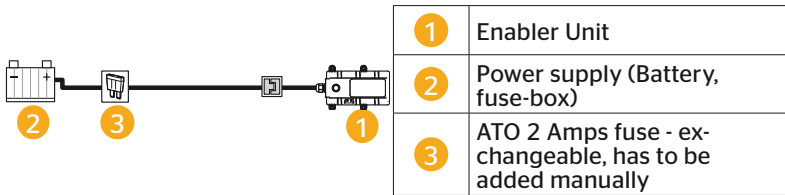


4.9.5 Cable harnesses

There is one pre-assembled cable harness available for easy installation of the system:

- **Enabler-Harness for the Enabler Unit:**
Connector with open end on one side for connecting power.

The typical wiring scheme for a truck/bus with Enabler Units is shown in the following illustration:



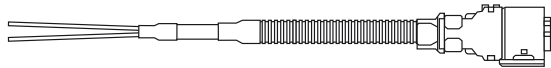
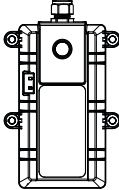
4.9.6 Wiring



The electrical connection of the Enabler Unit is made via the main connector with the matching cable harness.

Install the connection cable in a way that water cannot run along the cable into the plug (see figure on the left).

Typical wiring



The following table shows how the wires must be connected to the vehicle:

Pin	Signal name	Connect to	Wire color
1	+ VDC	Battery over separate fuse	red
2	GND	Battery negative 0V or chassis	black

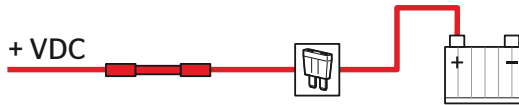
Power supply


The power supply to the unit can be established via the following connections:

- Directly to the vehicle battery
- Via the fuse box
- Via the bodybuilder connector

Separate 2 Amps fuse for + VDC wire

To avoid damage to the device, the + VDC wire must be protected by a separate fuse.



	ATTENTION
	<ul style="list-style-type: none"> ▶ Make sure that the electrical fuse is in working condition and the protection value does not exceed 2 Amps. ▶ Make sure to connect the poles correctly.

4.10 Installation of the Trailer Unit

4.10.1 General notes on installation

Keep the additional sticker provided with unit serial number (SN) and IMEI in a place easy to access for future maintenance.

The device must be installed in such a way that


- it does not cause injury, damage or failure.
- it is accessible for maintenance work.
- it is fixed in such a way that it cannot come loose due to vibrations or shocks.
- the position of the device is selected in such a way that optimum data traffic to the paired devices is ensured,
- sufficient distance to metal parts or electrical lines is ensured in the direct vicinity of the installation location.
- the harnesses must be well tied to the trailer body, to avoid vibration damages.

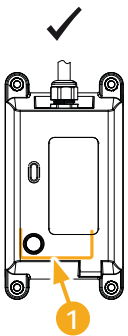
4.10.2 Required parts and tools

The following parts and tools are needed for proper installation of the device:

- Trailer Unit
- Bracket and cable harness for the Trailer Unit
- Mounting screws
- Cable ties long and short
- Suitable screwdriver of correct size
- Side cutter
- Soldering iron, solder or crimp connectors and suitable crimping tool
- Heat shrink tubing/insulating tape

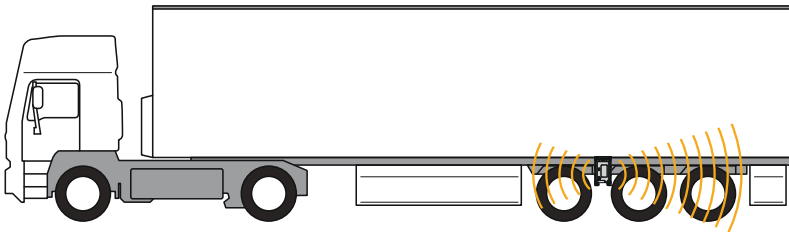
4.10.3 Installation location and reception

	ATTENTION
	<p>Possible damage to the Trailer Unit!</p> <p>When selecting a suitable installation location, observe the following points to avoid damage to the Trailer Unit:</p> <ul style="list-style-type: none"> ▶ Avoid proximity to high temperature sources (e.g., exhaust system), rotating, moving or tilting parts. ▶ Consider additional load of the vehicle and ensure distance to the ground is big enough do avoid collisions.



For proper operation, the installation location of the unit must meet the following requirements:

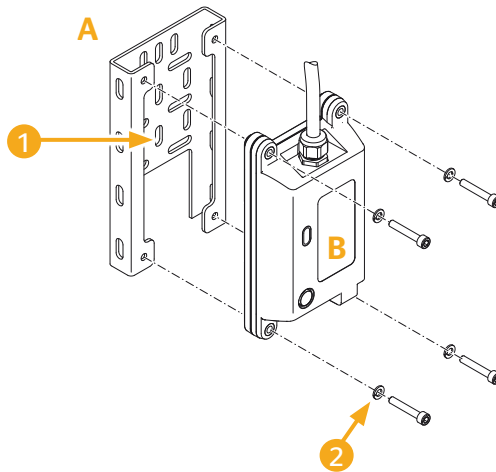
- The device should be installed in a place where the radio signals for GPS, GSM and RF are not weakened by metal parts or cables.
- The antennas on the bottom of the device **1** should be directed to face the street, that the communication with the tire sensors is possible and a good radio link for GSM and GPS can be established. The device should be installed vertically as shown on left side.



During operation of the system, carry out the following measures:

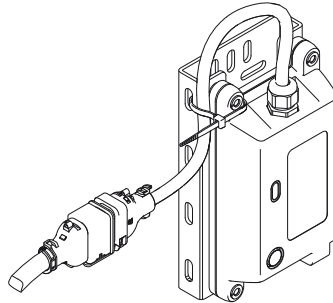
- Keep the Trailer Units free of dirt and debris such as snow or slush in order not to impair the reception.

4.10.4 Mounting



- ◆ Use the special bracket (A) for the Trailer Unit. For mounting the bracket on the frame avoid to drill additional holes in the frame. Secure the bracket with 2 of the 6 screws out of the kit and secure them with washers and self-locking nuts. The Trailer Unit bracket should be mounted vertically oriented with the open-area of the bracket facing the ground.
- ◆ For mounting the Trailer Unit on the bracket, use the other 4 screws. Do not use any additional nuts.
- ◆ Place the Trailer Unit as shown in the picture on the bracket. The antenna of the Trailer Unit is not allowed to be covered or shielded by any metal in each direction.
- ◆ For fixing the Trailer Unit (B) on to the bracket use the provided holes. Use all 4 holes provided. Use the lock washers (2) provided for avoiding loose of screws.

- ◆ Additionally, secure the device to the bracket with cable ties.
- ◆ Tie the harness to the bracket with cable ties.
- ◆ When fixing the harness onto the bracket and vehicle frame please ensure distance is observed between the harness and unit antenna in order to not disturb reception.

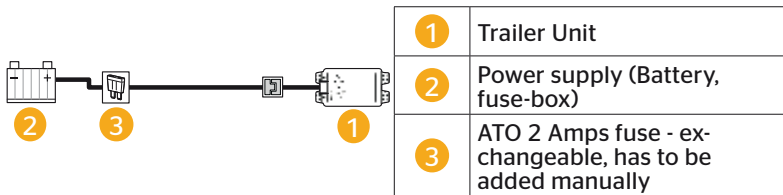


4.10.5 Cable harnesses

There is one pre-assembled cable harness available for easy installation of the system:

- **Trailer-Harness for the Trailer Unit:**
Connector with open ends on the other side for connecting power.

The typical wiring scheme for a trailer with a Trailer Unit is shown in the following illustration:



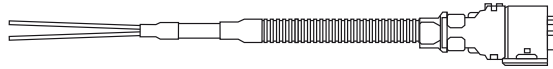
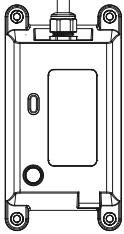
4.10.6 Wiring



The electrical connection of the Trailer Unit is made via the main connector with the matching cable harness.

Install the connection cable in a way that water cannot run along the cable into the plug (see figure on the left).

Typical wiring

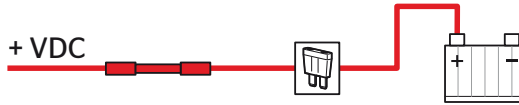


The following table shows how the wires must be connected to the vehicle:

Pin	Signal name	Connect to	Wire color
1	+ VDC	Battery over separate fuse	red
2	GND	Battery negative 0V or chassis	black


Separate 2 Amps fuse for + VDC wire

To avoid damage to the device, the + VDC wire must be protected by a separate fuse.



Low resistance ground connection

To ensure the proper function of the device and to avoid damage, a low-resistance ground connection is mandatory. Connect the GND-wire directly to the chassis of the vehicle use a ring terminal.

	<p style="text-align: center;">ATTENTION</p> <ul style="list-style-type: none">▶ Make sure that the electrical fuse is in working condition and the protection value does not exceed 2 Amps.▶ Make sure to connect the poles correctly.
---	---

4.11 Checks after installation

After completing the installation:

- ◆ Check all functions and safety equipment of the vehicle (e.g. brake and lighting system) for proper function.

The In-Cabin Unit and Trailer Unit includes 2 LED's used for fast analysis of the GSM-connection and GPS-recognition.

The relevant LED's indications are shown in chapter ***“3.2.3 Blinking code of the In-Cabin Unit status LED's”*** for the In-Cabin Unit and in chapter ***“3.4.3 Blinking code of the Trailer Unit status LED's”***.

The Enabler Unit includes 2 LED's for fast analysis of the In-Cabin Unit connection and the TPMS sensors indication (see chapter ***“3.3.3 Blinking code of the Enabler Unit status LED's”***).

To ensure the unit will operate via parking mode, the Trailer Unit must be powered for at least 3 hours after the installation.


5 Activation of the system configuration

There is a special app available for download for vehicle verification and activation.

	QR Code or Link
Apple	
	https://apps.apple.com/de/app/conticonnect-installer/id1637378742
Android	
	https://play.google.com/store/apps/details?id=com.traffilog.contiTechnician

6 Dismantling and Disposal

6.1 Dismantling

	⚠ CAUTION
	<p>Danger of short-circuit!</p> <p>Danger of short-circuits when working on the vehicle electrical system.</p> <ul style="list-style-type: none">▶ Observe the vehicle manufacturer's safety instructions.▶ Switch off all electrical equipment before disconnecting the battery terminals.▶ Disconnect the minus terminal before the plus terminal.

The system may only be dismantled by appropriately qualified staff in observance of local safety regulations.

- ◆ Disconnect all plugs of the wiring harnesses.
- ◆ Remove the cable straps.
- ◆ Remove the wiring harnesses.

In-Cabin Unit:

- ◆ Remove the In-Cabin Unit from the bracket.
- ◆ Loosen the fixing bolts on the bracket and remove it.
- ◆ Open the In-Cabin Unit and remove the built in backup battery. Dispose of it separately.

Enabler Unit:


- ◆ Loosen the fixing bolts on the bracket and remove it together with the Enabler Unit.
- ◆ Remove the Enabler Unit from the bracket.

Trailer Unit:

- ◆ Loosen the fixing bolts on the bracket and remove it together with the Trailer Unit.
- ◆ Remove the Trailer Unit from the bracket.
- ◆ Open the Trailer Unit and remove the built in backup battery. Dispose of it separately.

Complete system:

- ◆ Dispose of all system components as described in chapter “**6.2 Disposal**”.

NOTE	
	▶ If unprotected holes are left in the vehicle frame after removal of the system, these must be sealed with zinc spray.


6.2 Disposal

The manufacturer is committed to the protection of the environment. As with other old devices, the system can be returned to Continental via the normal channels. For details of disposal, please contact your authorized sales partner.

- ◆ Sort metals and plastics carefully for recycling or scrapping.
- ◆ Dispose of all other components such as cleaning agents, batteries, and electrical components according to legal regulations.

6.2.1 Tire sensor disposal

The tire sensor container remain in the tire.

	NOTE
	▶ Before disposing of a tire, the tire sensor must be taken out. If the tire sensor shall be used further, pay attention to the service life and mileage of the tire sensor as described in chapter “3.1 Tire sensor” .

The tire sensor contains a lithium battery that is cast into the housing and cannot be replaced.

After reaching the end of its service life, the tire sensor must be disposed of in accordance with all current local, regional and national laws and regulations. For this, a return to an authorized sales partner or the return to the central collection point is possible (address, see chapter **“6.2.3 Collection point”**).

6.2.2 Electrical/electronic components



All other electrical/electronic components except tire sensor and Hand-Held Tool must be disposed of as used electric and electronic devices in accordance with Directive 2012/19/EU.



In case of any questions, please contact your local authority responsible for waste disposal.

6.2.3 Collection point

Address:

Georg Ebeling Spedition GmbH
An der Autobahn 9-11
30900 Wedemark
Germany

7 Declaration of Conformity

The ContiConnect Live solution meets the basic requirements and relevant regulations of the European Union (EU) and the USA as well as other countries.

The complete original declaration of conformity is available at **www.continental-tires.com/products/b2b/services-and-solutions/ContiConnect/downloads/**

Continental Reifen Deutschland GmbH
Continental-Plaza 1
30175 Hanover
Germany

www.conticonnect.com

www.continental-tires.com

Continental 
The Future in Motion