

Precautionary Measures during Installation

CAUTION: Non-compliance with these instructions can cause damage to the device and to the vehicle.

Qualified installation personnel
The device must only be installed in the vehicle and serviced by qualified specialists.

Consequences of incorrect installation
Incorrect installation can cause damage to the vehicle. Incorrect assembly or service can have hazardous consequences and can void the warranty and possibly the operating permit of your vehicle.

Airbag
With vehicles that are equipped with an airbag, remember that the airbag fills with a strong force. Do not install any components in the area impacted by the filled airbag.

Antennas
Before start-up of the device, the GSM or UMTS antenna and the GPS antenna, for a device with integrated GPS module, must be connected (antennas are not included in the scope of supply). The device must not be operated without antenna(s), since this can lead to the destruction of the device.

Connection to the power supply of the vehicle
In some cases settings must be done in modern vehicles after attaching the battery. Absolutely be sure to refer to the operating manual of your vehicle for this.

Environmental influences: Water and dust
The PTCarPhone and all accessories are neither dustproof nor waterproof. Make sure that the PTCarPhone is always protected from moisture and from water penetrating the vehicle. Prevent penetration of dust particles in the housing by cleaning regularly.

More information is available in "PTCarPhone 5 Series Operating Manual" at:
<http://www.ptcarphone.de/en/downloads>



Installation Instructions Upgrade Kit for the PTCarPhone 5 Series

For PTCarPhone, PTCarPhone II,
PTCarPhone 3 and PTCarPhone 4

ENGLISH



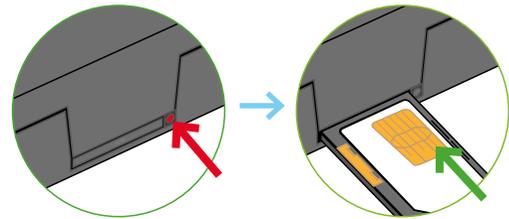
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Setting up the PTCarPhone

Inserting the SIM card

A valid and activated SIM card is required to operate the device. This is available from your mobile phone provider. It saves all the important data of your connection. To open the SIM card holder, push the round button in the housing with a pointed object. Place the SIM card in the holder and push it back in the electronics box.



NOTE:

- Insert the SIM card only if the device and the vehicle ignition are turned off.
- Make sure to insert the SIM card holder in the correct position. Closing does not require strong force.
- If a piece of plastic remains on the edge of the SIM card when taking it out, it is necessary to remove this before inserting the SIM card.

Inputting PIN

If a PIN is required it will be requested with an appropriate message when starting the device.

Enter the PIN using the input keys  and confirm with the **OK** function key. Corrections can be made with the **Delete** function key.

PIN input is shown with asterisks so that it cannot be seen. The subsequent registration in the network can take a few seconds.

After entering an incorrect PIN three times the SIM card is blocked. The PUK is requested for unblocking.

Setting the delay time

After turning off the ignition the device runs for the set delay time and then turns off.

Use the following menu path to set the delay time:

System > Configuration > device code input > Delay timer

The device code at delivery is: 0000

Software update

Software updates for the handset and PTCarPhone are done via the Internet access of the mobile network. Therefore, Internet access must be set up beforehand.

System > Device info > Update > device code input > Update process

The device code at delivery is: 0000

Turning on virtual ignition

In modern vehicles without ignition wiring it is recommended to activate the Virtual ignition function.

System > Configuration > device code input > Virtual ignition

The device code at delivery is: 0000

Technical details of the connections

I/O connections

The TPU has six freely programmable inputs and outputs:

- Model: Open-Drain output (wired ground) with recovery diode / input with 15 kOhm pull-up resistor against the device operating voltage
- Only ohmic and inductive loads are allowed (no capacitive loads!)
- Maximum current carrying capacity: 150 mA per connection
- Dielectric strength smaller than/equal to the connected device operating voltage (however, max. 32 V)
- Recovery diode for relay (inductive loads) included; use of device-specific power supply (pins 4, 5, 6) is required for this

Radio mute output

- Model: Open-Drain output (wired ground)
- Only ohmic loads allowed!
- Maximum current carrying capacity: 50 mA
- Maximum dielectric strength against ground: +32 V

Imprint

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pei tel Communications GmbH, Rheinstr. 15 A, 14513 Teltow, Germany

pei tel reserves the right to modify these instructions at any time, to correct typing mistakes or to add new functions in the course of technical progress or further development. Every current version of these instructions can be found on the Internet at www.ptcarphone.de/en/downloads.

Legal notices

pei tel accepts no liability for maintaining settings, data or text messages saved on the PTCarPhone. Some of the services, company names and trademarks given in these instructions are the property of the respective trademark owners.

Scope of supply

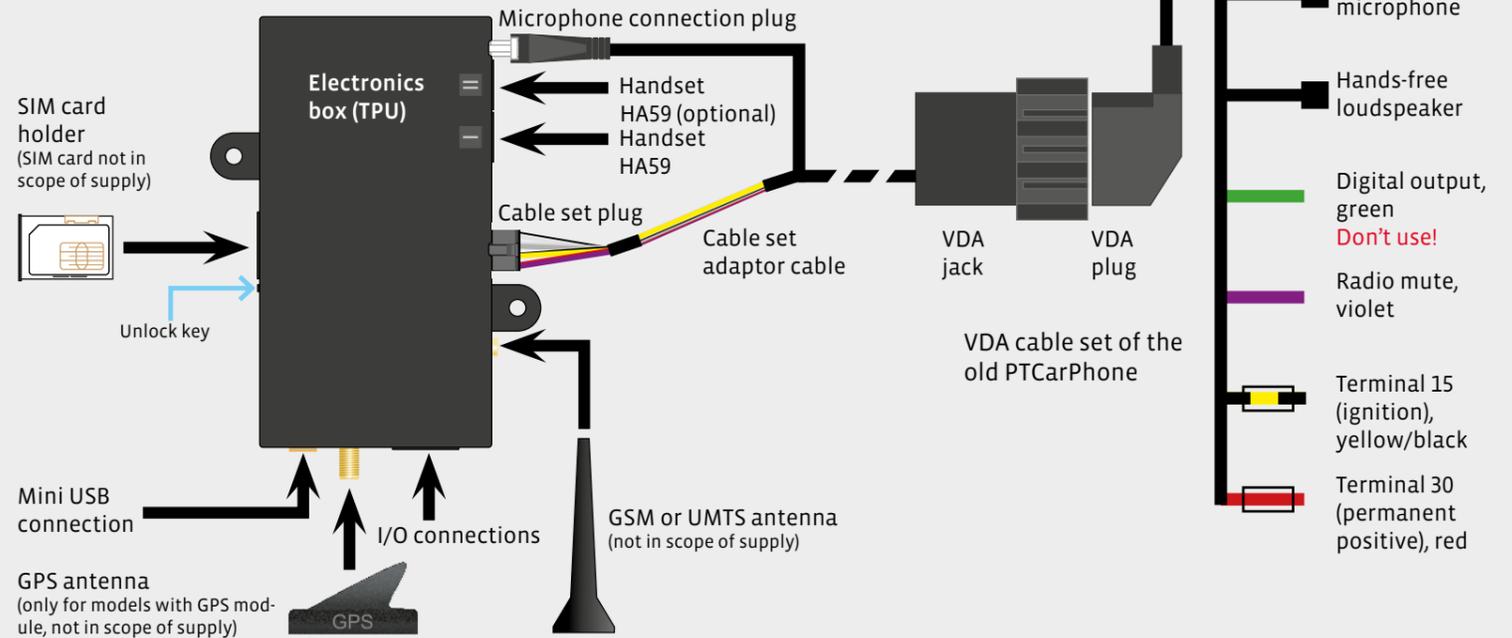
- Electronics box (TPU) PTCarPhone 5
- Handset HA59 with cradle
- Cable set adaptor cable
- Quick reference guide PTCarPhone 5
- Installation instructions for the upgrade kit for the PTCarPhone 5 Series

Additionally required hardware

- GSM or UMTS antenna**
Model-specific GSM or UMTS antenna with FME connection (not in scope of supply).
- GPS antenna for devices with optional GPS**
GPS antenna with SMA connection (not included in the scope of supply). Power supply: 3.3 V, max. 50 mA;

Available accessories

- Handset HA59 incl. 5.0 m extension cable
Article number: 6508-006-100-51
- Line-out connection to connect to the vehicle audio system (2x 200 mm strands)
Article number: 6708-003-000-00
- I/O cable installation set (12x 200 mm strands and plug housing)
Article number: 6708-004-000-00
- 2.5 m extension cable for the handset
Article number: 6098-260-005-51
- 5.0 m extension cable for the handset
Article number: 6098-260-007-51



I/O connections

PIN						Signal
12	11	10	9	8	7	1, 2, 3 GND
6	5	4	3	2	1	4, 5, 6 U _B +
7 to 12						I/O 1 to 6

(Top view)

Technical data of the connections can be found on the back! The "I/O connections manual" can be found at: www.ptcarphone.de/en/downloads

CAUTION:

The respective operating voltage of the vehicle electrical system is applied to the I/O connection. Please keep this in mind when selecting your I/O components.

Disassembling:

1. Become familiar with the connections. Disconnect the negative terminal of the vehicle battery while following the safety instructions of the vehicle manufacturer.
2. Disconnect VDA jack and VDA plug.

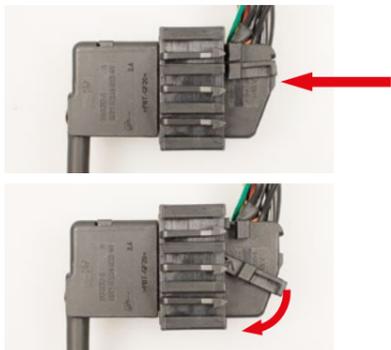


Figure: Unlocking the interlock of the plug.

3. Remove the old handset.



Figure: Removing the plug at the TPU

4. Remove the old TPU.
5. Retrieve the SIM card from the old TPU.



Figure: Open SIM card holder with SIM card

6. If something (e.g. a second handset) is connected to the second interface of the VDA cable, it must be removed.



Figure: Empty second interface.

7. If the digital output (green strand) of the VDA cable is in use, the cable needs to be removed. The digital output of the old PTCarPhone is omitted and replaced by six I/O connections with the new PTCarPhone. Please note that the accessory I/O cable installation set is needed to set up I/O connections.

8. Remove the antenna cables (GSM antenna and if applicable, GPS antenna) from the old PTCarPhone. Please note: Only turn the rotatable nut of the antenna plug while holding the jack of the TPU.



Figure: Unscrewing the connection.

Assembling:

1. Take the cable set adaptor cable and plug the VDA plug of the old VDA cable set into the VDA jack of the new cable set adapter cable.

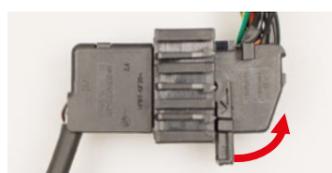


Figure: Correct interlock alignment while pushing the VDA plug into the jack.

2. Plug the cable set plug and the microphone connection plug of the cable set adaptor cable into the new TPU.

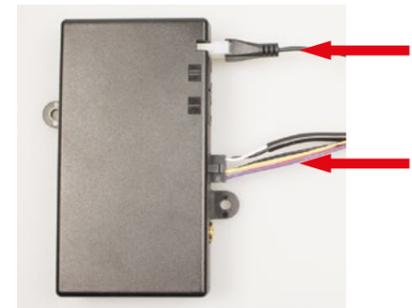


Figure: TPU and cable set adaptor cable

3. Insert the SIM card into the new TPU. See also "Inserting the SIM card" on the back.

4. Plug the new handset (and if applicable, a second handset), into the TPU. If necessary, use the handset extension cable.



Figure: TPU and Handset plug

5. Screw the antenna cable (GSM or UMTS antenna and if applicable, GPS antenna) on the new TPU.

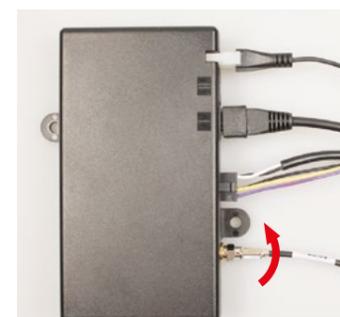


Figure: TPU with antenna

6. Install the new TPU in the vehicle and reconnect the vehicle battery.