# **Car Phone installation guide**

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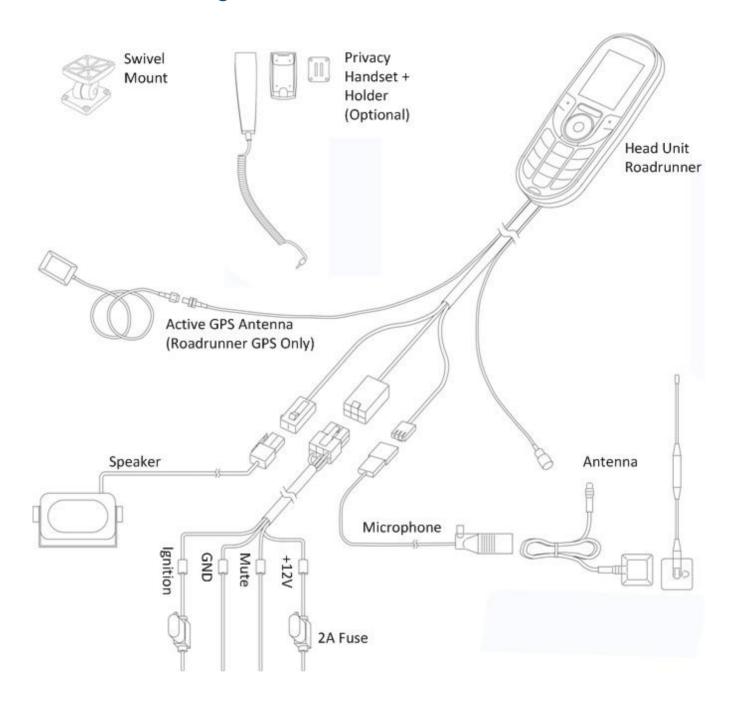
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# 1 Carphone kit

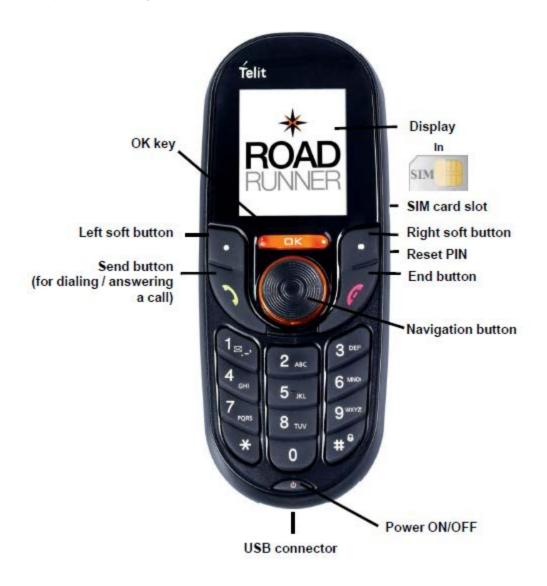
| In box Parts                 | Description |
|------------------------------|-------------|
| Car phone unit               | ROAD        |
| Car phone unit cables        |             |
| Speaker                      |             |
| Microphone                   |             |
| Power supply and fuse Cables | *           |
| Cradle with screws           |             |

| Optional Parts     | Description  |
|--------------------|--|
| RF antenna         | RF Antenna is not supplied part of the car kit. It's an optional accessories and can be provided separately.  Recommended antenna: •Frequency range: 880-960 MHz for EGSM 900 and 1.71-1.88 GHz for GSM 1800 systems •Impedance: 50Ω •Radiation (H-plane): 360° Omni directional •Polarization: linear vertical •Gain: 3 dBi @ 900 MHz, 2 dBi @ 1800 MHz •SWR in bandwidth (TX-band / RX-band):  GSM 900: ≤ 1.8 / ≤ 2.0  GSM 1800: ≤ 1.4 / ≤ 1.8 •Max Power (CW) @ 30°C: 10 Watts •Connector: FME-male  Additional Information: •RF cable RG58U, PVC coated, 5 Meters •Operating Temperature -30 to +85 Degree C •Heat and UV stabilized |
| External Auxiliary | Auxiliary is not supplied part of the car kit. It's an optional accessories and can be provided separately.  |

# 2 Installation Diagram



# 3 Carphone layout



## 4 Preplanned Accessory Positioning

Positioning of all accessories must be planned in advance before installation begins.

- Ensure that no wire braids go through locations where Phone accessories are to be installed.
- Ensure that any parts of the handsfree Phone will not interfere with the vehicle or its accessories' operation.

#### 4.1 Plan Phone and Cradle Positions



Note!

The best way to determine the Phone's position to the customer's full satisfaction is to locate it when the customer is beside you and obtain his/her approval.

Please ensure the Phone's location does not interfere with the vehicle or its
accessories operation: it should not interfere with opening the glove compartment
or ashtray, should not prevent access to the lighter, moving the gear stick,
operating the hand break etc.



Warning!

Do not install the Phone in front of the vehicle's air bag. This restriction must be adhered to, as in the case of an emergency the air bag blows up and can fail to work properly.

- Ensure the surface on which this Phone is installed is sufficiently strong to carry the weight and pressure which would be exerted on it.
- When selecting the Phone's location, please ensure the control cable connected to it does not interfere with the vehicle or its accessories' operation.
- Ensure it is safe and convenient to operate the Phone and read the display **from** the driver's seat.
- Ensure the Phone would be protected from direct sunlight and humidity (air conditioner openings).
- Ensure the Phone would be protected from mechanical damage by the car's accessories.

#### 4.2 Plan the Microphone's Position

• Install the handsfree Phone's microphone 30-40 cm away from where the driver speaks when he/she is in their normal driving position.

- It is recommended to install the microphone inbetween car roof and windscreen glass and away from external sources of noise.
- Install the microphone in a different direction than the speaker so as to avoid echo.

#### 4.3 Plan the Speaker's Position



\ Note! The speaker and microphone (installed inbetween car roof and windscreen glass above the driver) must face different directions.



Note!

Do not hide the speaker inside the dash board. If you cover it, sound quality will be lowered.

 Locate the speaker at the right side of the main console, at the front of the console, in a location where it would not bother the driver or passengers but would sound best.

## 5 Installing the Cradle and Phone







Handsfree Phone

Adjustable bracket

### 5.1 Where to Position (Reminder)



Note!

The best way to determine the Phone's position to the customer's full satisfaction is to locate it when the customer is beside you and obtain his/her agreement.

Please ensure the Phone's location does not interfere with the vehicle or its
accessories operation: it should not interfere with opening the glove compartment
or ashtray, should not prevent access to the lighter, moving the gear stick,
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- When selecting the Phone's location, please ensure the control cable connected to it does not interfere with the vehicle or its accessories' operation.
- Ensure it is safe and convenient to operate the Phone and read the display **from** the driver's seat.
- Ensure the Phone would be protected from direct sunlight and humidity (air conditioner openings).

• Ensure the Phone would be protected from mechanical damage by the car's accessories.

#### 5.2 Installing the Cradle and Phone

- 1. Disassemble the cradle into its two parts.
- 2. Install one of the cradle parts in the determined location in the car with 4 tin screws.



If you are not able to locate the cradle properly, please use a adjustable bracket from the station inventory.

3. Install the second cradle part on the handsfree Phone, using the 4 philips screws provided with this kit.

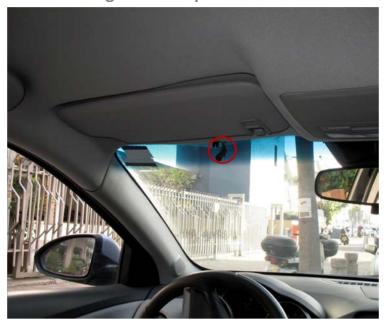


Only use the original screws provided with this kit.

Note!

- 4. Connect the two cradle parts.
- 5. Direct the control cable coming out of the Phone behind the car panel.

#### 5.3 Installing the Microphone



The microphone is provided with a clip which makes it possible to install it inbetween the car roof and windscreen glass.

# 5.3.1 Where to Locate the Microphone (Reminder)

- Install the handsfree Phone's microphone 30-40 cm away from where the driver speaks when he/she is in their normal driving position.
- It is recommended to install the microphone inbetween car roof and windscreen glass and away from external sources of noise.
- Install the microphone in a different direction than the speaker so as to avoid echo, and ensure there is a distance of at least 1.5 meters between them.

#### 5.3.2 Installing the Microphone

- 1. Using the clip, install the microphone inbetween the car roof and windscreen glass.
- 2. Direct the microphone cable along the roof, behind it, so as not to be seen.
- 3. Continue directing the microphone cable along the left beam on the driver side.
- 4. Direct the cable under the dash board to the connection point of the cable with the control cable connected to the Phone.



Note!

Ensure the microphone cable and antenna cable are kept away from each other.

Ensure the microphone cable is not in contact and does not interfere with the car pedals and steering wheel stick.

5. Connect the microphone cable plug to the correct port on the control cable.

#### **5.4** Installing the Speaker



### 5.4.1 Where to Locate the Speaker (Reminder)



The speaker and microphone (installed inbetween the car roof and windscreen glass above the driver) must face **different directions.** 

If the speaker and microphone face each other, this will cause echo.



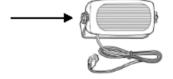
Do not hide the speaker inside the dash board.

If you cover it, sound quality will be lowered.

 Locate the speaker at the right side of the main console, at the front of the console, in a location where it would not bother the driver or passengers but would sound best.

#### 5.4.2 Installing the Speaker

- 1. Install the speaker at the right side of the main console, at the front of the console.
- 2. Disassemble the screws connecting the to the hanger.



speaker

- 3. Install the hanger using the 2 tin screws.
- 4. Direct the speaker cable behind the mat located at the bottom of the car.
- 5. Ensure the cable does not interfere with the vehicle or its accessories' operation.
- 6. Ensure the speaker cable is not exposed to damage by the passengers.

#### 5.5 Installing the Electrical Connections

The electrical cable is provided separately from the control cable. Before installation begins, connect the four leads (which include the 2A fuses) using a red or blue crimp sleeve as appropriate.



Please note sharp edges or moving parts which may damage the wires.

The value for the fuses provided with the kits must not be changed.

The kit is appropriate only for a 12V vehicle.

In case of converting any other kit model into this kit, please change the power cable.

The electrical cables should be directed as follows:

- So as not to disturb the driver or passengers.
- So as not to pass near the car's sharp or moving parts.



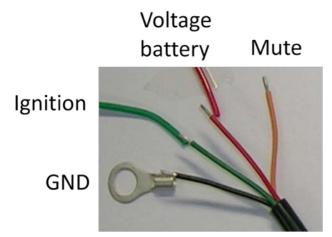
Note!

The external voltage connection is located under the dash board or close to the fuse box (depending on the car model).

In new vehicles a cellular phone connection can be found near the fuse box. See the car's user's manual under Info.

Only use the kit's original fuses (250V / 2A).

# 5.6 Installing the Voltage Cable



The following chart covers the manner by which the voltage cable should be connected to the car's electrical system.

| Wire Color               | Function  | Must be connected to  | Ensure  |
|--------------------------|---|---|---|
| Red Includes fuse case   | To provide the handsfree Phone with fixed voltage   | 12V fixed voltage An additional fuse case is provided which must be connected to a fixed voltage source (+) | Ensure a 250V / 2A fuse is used   |
| Black                    | To provide a fixed minus (-)  | Car body (minus)  | Ensure the connection point is on the car body only.  Use a cable shoe, tin screw and springy disc. |
| Green Includes fuse case | To turn on the cellular phone after switching the ignition on and turn it off after car ignition is switched off. | IGN voltage   | Determine the correct point with a voltmeter Ensure a 250V / 2A fuse is used.                       |

#### 5.7 Installing the Antenna

#### 5.7.1 Where to Locate the Antenna

- The preferred location for the antenna is on the right side of the windshield.
- If a cell phone or other communication system is installed in the car, please locate the antenna as far away as possible from the other Phone's antenna.

Remember!

Some car models (such as Renault Megan and Renault Kangoo) feature a radiation filter on the windshield. Therefore it is necessary to install the antenna on a side or back window.



Note!

In vehicles with air bags on the beam where the antenna cable passes, the antenna cable should be directed behind or beside the airbag.

#### 5.7.2 Installing the Antenna

#### 5.7.2.1 Installing the External Adapter and Antenna Rod

- 1. Thoroughly clean the location intended for installation on both sides of window using a cloth and detergent. Allow the spot to dry before you continue.
- 2. Carefully remove the clear plastic cover protecting the external adapter (the antenna base).
- 3. Locate the adapter on the cleaned location. Ensure the adapter is stably placed in a horizontal position parallel to the window border.
- 4. Carefully press the antenna base toward the window. Ensure all corners of the adapter are attached to the window and the antenna rod is in a vertical position.

#### 5.7.2.2 Installing the Internal Adapter and Coaxial Cable

- 5. Carefully remove the clear plastic cover protecting the internal adapter.
- 6. Move the adapter, on the inside of the window, toward the antenna base (the external adapter), and direct the adapter so as to fully overlap the base.
- 7. Carefully press the antenna adapter to the window. Ensure all adapter corners are attached to the window.
- 8. Direct the antenna's coaxial cable along the car beam. Ensure the antenna cable does not get damaged.



Do not direct the microphone cable and antenna cable together on the same beam (lintel).

- 9. When completing the cable's installation and reaching close to the control cable connected to the Phone, please leave approximately 30 cm of additional wire and cut off the unnecessary extra cable.
- 10. Press a connector at the end of the cable. Use the original plug and pressers only.
- 11. Examine the antenna and cable's proper working order with an efficiency meter.

### See SIM card installation position:





Insert the SIM card when the phone is off.

# 6 Trouble Shooting

| Symptom                              | What to Check   | What to Do   |
|--------------------------------------|---|--|
| No reception                         | Check whether connector is correctly  | Replace connector  |
|                                      | connected to the cable – use an efficiency meter                                |  |
|                                      | Check if internal and external antenna base                                     | Attach antenna base  |
|                                      | is correctly attached   |  |
|                                      | Check proper working order of antenna cable                                     | Replace antenna cable  |
| Other party cannot                   | Check speaker's proper working order  | Replace speaker  |
| be properly heard                    | A Phone problem may exist   | Replace Phone  |
|                                      | Check speaker location  | Change location  |
| User is not heard by the other party | Check microphone and contacts   | Tighten microphone connector to the Phone  |
|                                      | Check routing of microphone cable   | Change routing of microphone cable   |
|                                      | Check microphone's proper working order   | Replace microphone   |
|                                      | A Phone problem may exist   | Replace Phone  |
| Noise is heard                       | Ask whether noise always occurs in specific                                     | Explain that reception trouble   |
|                                      | geographical areas  | sometimes occurs in transition   |
|                                      |   | between coverage areas   |
|                                      | Ask whether noise occurs when window is   | Explain that the Phone is an amplifying system that receives all environmental   |
|                                      | open  | noise, and therefore it is preferable to   |
|                                      |   | speak with a closed window   |
|                                      | Check whether microphone and antenna are  | If they are, install microphone as per   |
|                                      | installed on the same side  | the instructions   |
|                                      | Check whether eye contact exists between  | If it does, change location accordingly  |
|                                      | speaker and microphone  | Character the control of the control |
|                                      | Check for improper voltage connection – check whether voltages are connected as | Change voltage source in accordance with instructions  |
|                                      | per instructions  | With histi detions   |
| Phone switches on                    | Check minus (-) connection  | Black wire: connect minus to car body  |
| and off by itself                    | Check voltage contacts  | Tighten loose contacts   |
| Phone switches on                    | Check fuse. Check connection to voltage   | Replace fuse. Tighten connection to  |
| and off by itself                    | source (green cable)  | voltage source. Ensure a 250V / 2A   |
|                                      |   | fuse is used   |
| Phone does not                       | Check connection to power source (green   | Tighten connection to power source   |
| switch off after switching off car   | cable)  |  |
| Phone does not                       | Check connection to power source. Check   | Replace fuse. Tighten connection to  |
| switch off after                     | fuse (red cable)  | power source   |
| switching off car                    |   |  |

# 7 Appendix

### Finding IMEI code

- 1. Type code \*#06#
- 2. Find locking code \*5625#