

# Telit RS Car Phone Installation Guide




---

## Table of Content:

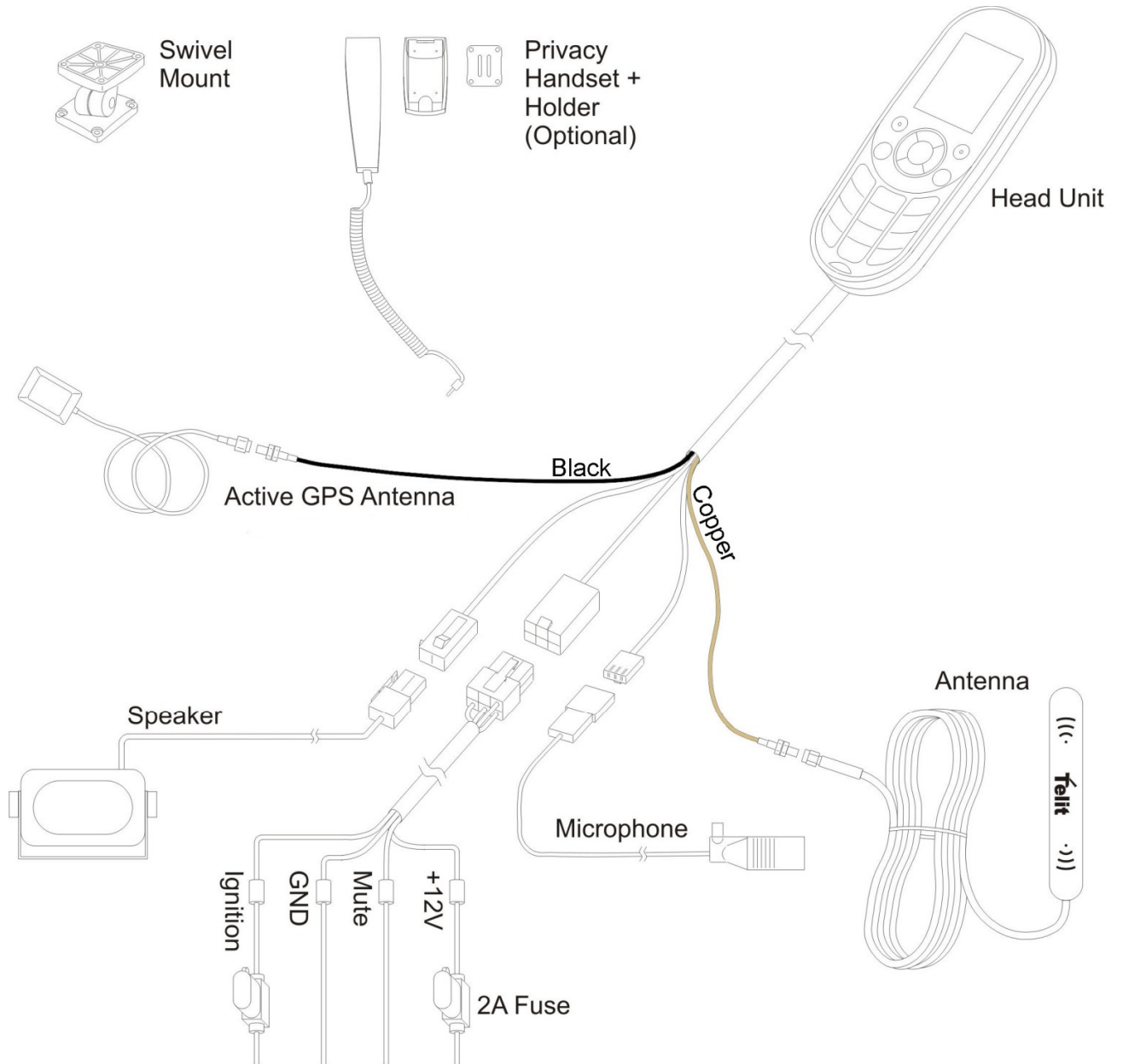
<b>1</b>	<b>Carphone kit.....</b>	<b>3</b>
<b>2</b>	<b>Installation Diagram.....</b>	<b>5</b>
<b>3</b>	<b>Carphone layout .....</b>	<b>6</b>
<b>4</b>	<b>Preplanned Accessory Positioning .....</b>	<b>7</b>
4.1	Plan Phone and Cradle Positions	7
4.2	Plan the Microphone's Position	8
4.3	Plan the Speaker's Position	8
<b>5</b>	<b>Installing the Cradle and Phone .....</b>	<b>9</b>
5.1	Where to Position (Reminder)	9
5.2	Installing the Cradle and Phone	10
5.3	Installing the Microphone	11
5.4	Installing the Speaker	13
5.5	Installing the Electrical Connections	14
5.6	Installing the Voltage Cable	15
5.7	Installing RF Antenna	16
5.8	Installing GPS Antenna	18
5.9	Installing the SIM card	20
5.10	Installing Privacy Handset and Holder	21
<b>6</b>	<b>Trouble Shooting .....</b>	<b>24</b>
<b>7</b>	<b>Appendix.....</b>	<b>25</b>

## 1 Carphone kit

In box Parts	Description
Car phone unit	
Speaker	
Microphone	
Power supply and fuse Cables	
Cradle with screws	

Optional Parts	Description
RF antenna	 <p>This High Efficiency Omni directional Antenna is designed for inside glass mount installations operating in the 800MHz cellular, 900 MHz trucking, 1800 MHz DCS, 1900 MHz PCS and 2100 MHz UMTS bands using included 3M /5M adhesive and supplied with 3M /5M cable and SMA male connector.</p>
GPS antenna	 <p>GPS active antenna</p>
Privacy Handset(Optional)	 <p>Handset is not supplied as part of the car kit. It's an optional accessories and can be provided separately.</p>

## 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

 <b>Note!</b>	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.


 <b>Warning!</b>	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

 <b>Note!</b>	The speaker and microphone (installed inbetween car roof and windscreen glass above the driver) must face different directions.
---	---

 <b>Note!</b>	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



Carphone unit



Cradle



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, 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.

## 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.



**Note!**

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.



**Note!**

Only use the original screws provided with this kit.

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.


 <b>Note!</b>	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.



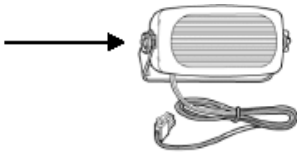
#### 5.4.1 Where to Locate the Speaker (Reminder)

 <b>Note!</b>	The speaker and microphone (installed inbetween the car roof and windscreen glass above the driver) must face <b>different directions</b> . If the speaker and microphone face each other, this will cause echo.
---	---

 <b>Note!</b>	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  speaker to the hanger.
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.

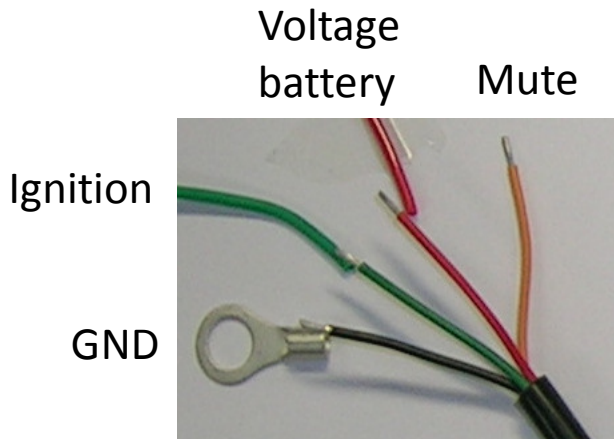
 <b>Warning!</b>	<p>Please note sharp edges or moving parts which may damage the wires.</p> <p>The value for the fuses provided with the kits must not be changed.</p> <p>The kit is appropriate only for a 12V vehicle.</p> <p>In case of converting any other kit model into this kit, please change the power cable.</p>
--	--

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.

 <b>Note!</b>	<p>The external voltage connection is located under the dash board or close to the fuse box (depending on the car model).</p> <p>In new vehicles a cellular phone connection can be found near the fuse box. See the car's user's manual under Info.</p> <p>Only use the kit's original fuses (250V / 2A).</p>
---	--

## 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.	12V-24V Ignition voltage	Determine the correct point with a voltmeter Ensure a 250V / 2A fuse is used.

## 5.7 Installing RF Antenna

### 5.7.1 Where to Locate the Antenna

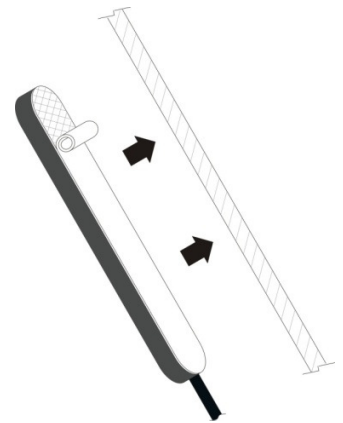
- The preferred location for the antenna is on the right side of the windshield.
- If other communication system is installed in the car, please locate the antenna as far as possible from the other phone antenna. Recommended distance is 30cm.

<b>Note!</b>	Some car vendors (such as Renault) feature a radiation filter on the windshield. Therefore it is necessary to install the antenna on a side or back window.
--------------	---

<b>Note!</b>	In vehicles with air bags on the beam where the antenna cable passes, the antenna cable should be directed behind or beside the airbag.
--------------	---

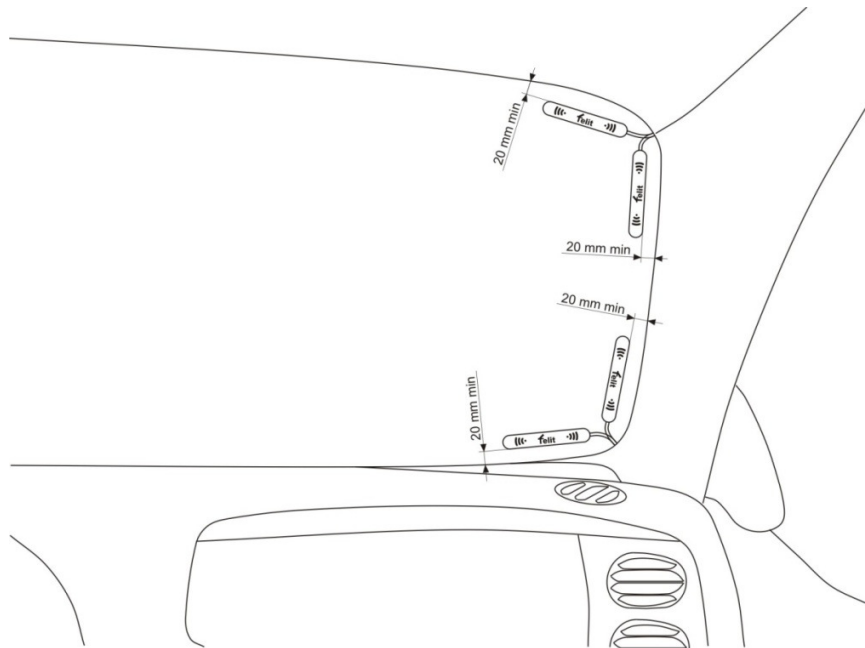
### 5.7.2 Installing the Antenna

1. Thoroughly clean the location intended for installation using a cloth and detergent. Allow the spot to dry before you continue.
2. Carefully remove the protective film from the 3M adhesive
3. Locate the antenna on the cleaned location.
4. Carefully press the antenna toward the window. Ensure all corners of the antenna are attached to the window. Chose the mounting position on the vehicle windshield according to bellow drawing.



<b>Note!</b>	Please keep min. 20 mm distance from metal surface.
--------------	---





#### 5.7.4 Installing the Coaxial Cable

1. Direct the antenna's coaxial cable along the car beam. Ensure the antenna cable does not get damaged.
2. When completing the cables installation and reaching close to the device coaxial cables SMA female connector attach both connectors together.
3. Roll the remaining cable.
4. Examine the antenna and cables properly installed.

## 5.8 Installing GPS Antenna

### 5.8.1 Where to Locate the Antenna

- The preferred location for the antenna is on the bottom right side of the dashboard

<b>Note!</b>	In vehicles with air bags on the beam where the antenna cable passes, the antenna cable should be directed behind or beside the airbag.
--------------	---

### 5.8.2 Installing the Antenna

1. Thoroughly clean the location intended for installation using a cloth and detergent. Allow the spot to dry before you continue.
2. Carefully remove the protective film from the 3M adhesive
3. Locate the antenna on the cleaned location.
4. Carefully press the antenna toward the dashborad. Ensure all corners of the antenna are attached to the dashboard.

### 5.8.3 Possible positions



#### 5.8.4 Installing the Coaxial Cable

5. Direct the antenna's coaxial cable along the car beam. Ensure the antenna cable does not get damaged.
6. When completing the cables installation and reaching close to the device coaxial cables SMA female connector attach both connectors together.
7. Roll the remaining cable.
8. Examine the antenna and cables properly installed.

See SIM card installation position:



**Note!**

Insert the SIM card when the phone is off.

## 5.10 Installing Privacy Handset and Holder



1. Attached the holder base to car dashboard or specific place in the back seat environment. Additional metal bracket (not supplied) can be used.



2. Insert the cradle to the holder base and secured it, to make sure that it won't lift up during normal usage.



3. Insert handset to holder.



**Note!**

To detach the handset from the holder, push the handset up.



4. Insert the external handset plug to the carphone jack.
5. Secure the external handset cable with a plastic strip to the octopus cable.
6. Make sure that the external handset plug is attached firmly to the carphone jack.



## 6 Trouble Shooting

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



## 7 Appendix

Finding IMEI code

1. Type code `*#06#`
2. Find locking code `*5625#`