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# Fixed Handsfree Car Kit RST620

# Quick Start Guide

### Installation guidelines:

- > Always protect equipment from dirt and moisture
- > Ensure mounting surfaces are strong
- > Allow for cooling space & driver/passenger leg room
- > Ensure all wires are secure
- > Always use the supplied mounting hardware.
- > Ensure removal is easy (as above)

**Note:** Only qualified people should install communication equipment. For vehicle air bag information contact the vehicle manufacturer.

### Routing Cables:

- Use wiring troughs when available, to simplify cable installation and to provide maximum protection for cables. If wiring troughs are not available, route cables under the carpet alongside the drive shaft hump and follow these guidelines:
- > Route cables so they are protected from pinching, sharp edges, and crushing
  - > Where possible, avoid routing cables above the catalytic converter
  - > Use grommets wherever a cable must pass through a hole in a metal panel
  - > In a vehicle equipped with electronically controlled anti-skid brakes (ABS), route all cables on the opposite side of the vehicle from the braking modulator box to minimize any possible interference.
  - > Keep all in-line connectors accessible.

USR030005001

### Thank you for purchasing your BEAM Fixed In-Vehicle Handsfree kit.

This QuickStart Guide lists the installation steps:

1. Installing your handset & holder
2. Installing your Hands Free Interface Unit (HFI)
3. Installing your Transceiver Module
4. Installing your Directional Microphone
5. Installing your Speaker
6. Installing your Antenna: refer to separate guide
7. Connecting Power
8. Testing & Operation

### Package Contents

Before commencing installation ensure your package has the following components:

- 1 x RST620 Hands Free Interface (HFI) module
- 1 x Intelligent Handset & cradle
- 1 x Speaker
- 1 x Microphone
- 1 x L-Band transceiver (9522B)
- 1 x L-Band transceiver bracket & Velcro fastener
- 1 x L-Band transceiver cable
- 1 x 3-wire Power cable harness & 2 Fuses
- 1 x Allen key
- 1 x Printed RST620 User Manual

## 1 Installing your handset & holder/hang-up cup

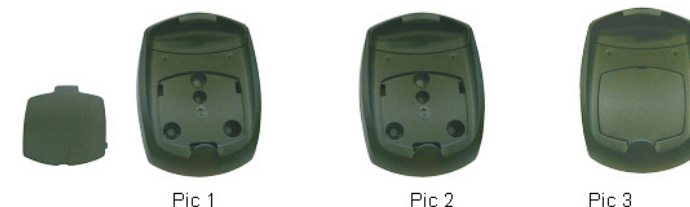
Mount the hang-up up of the Intelligent Handset so that the handset is within easy reach of the driver during normal operation and will not interfere with driver or passenger comfort. Orient the handset hang-up cup vertically, with the spring-loaded clip toward the front of the vehicle.

### Allow enough room to:

- > your handset needs to connect to the Hands Free Interface (HFI).
- > easily insert the handset into and remove it from the hang-up cup

When selecting an installation location, please consider:

- > Each mounting surface is strong enough to support the handset
- > Ensure that handset is within reach of the RST620 interface-unit (HFI).



- Step 1** Remove cover on hang-up cup (Pic 1)
- Step 2** Affix the Hang-up cup in location using the holes in the cup (Pic 2)
- Step 3** Once in place replace cover on hang up cup

## RST620 Options & Accessories

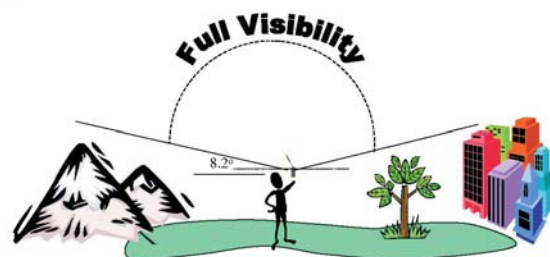


More info @ [www.beamcommunications.com](http://www.beamcommunications.com)

## Optimising Iridium performance

Iridium is a line-of-sight Satellite network, conditions that can compromise the quality of the service you may receive include:

1. **Obstructions:** Provide the best satellite view for your antenna by removing all obstructions where possible
2. **Cabling:** Use the shortest cable length and the fewest number of connectors on all Iridium certified antenna cable runs
3. **RF Interference:** Install antenna as far away from other transmitters as possible.



## 2 Installing your Interface box (HFI)

The best location for mounting the HFI is under the dashboard or front seat within reaching distance of your handset (above) when in the cradle. To install the box, follow these steps:

1. Using the HFI as a template, mark the screw hole locations.
2. Remove the bracket, and drill holes at the marked locations.
3. Mount using the six screws provided with the fuse kit.



RST620 HFI

## 3 Installing your Transceiver Module

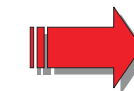
Mount the Transceiver module in a safe location away from driver obstruction.

Ensure the distance between the transceiver module and the Hands Free Interface enables the D25 Connector cable to reach both units.

Use the pre-assembled bracket (3x 4mm slots) and Velcro tape supplied to conveniently attach the Transceiver module to a fixed surface.

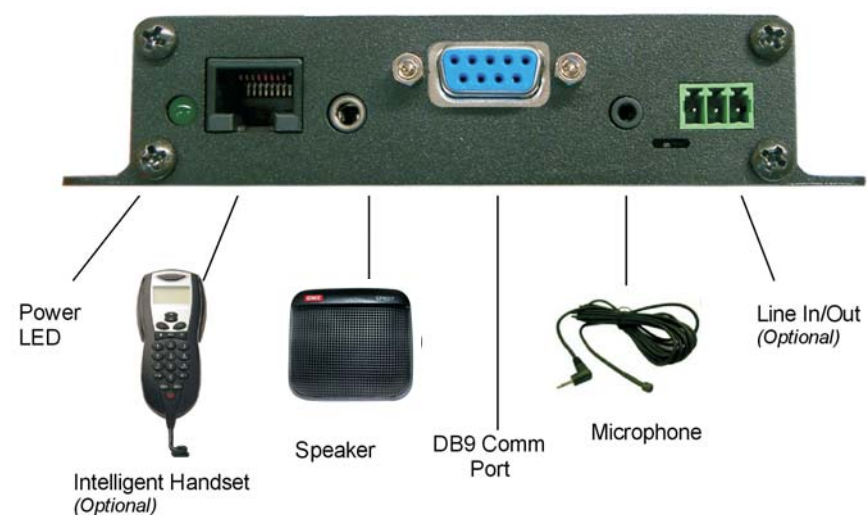


L-Band Transceiver



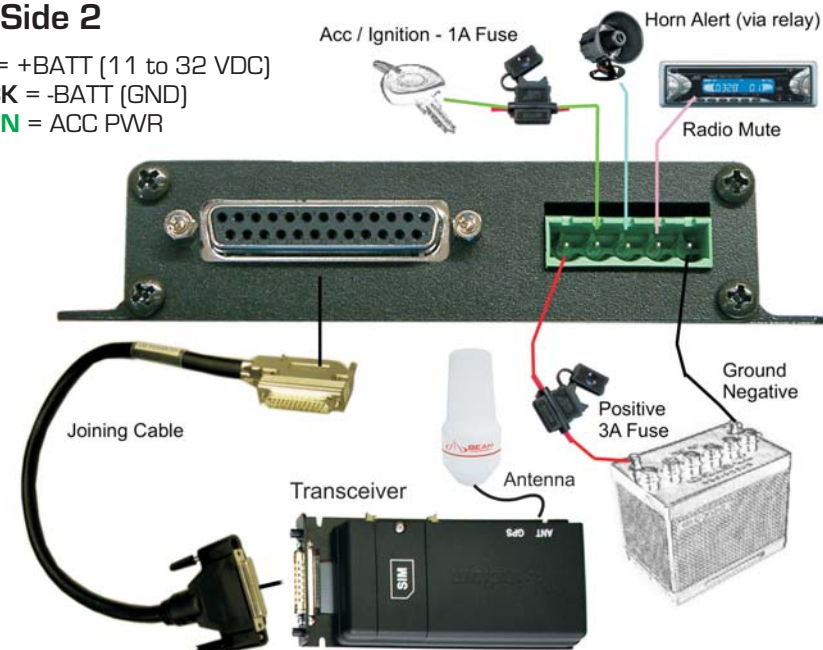
# Setting up your BEAM RST620 Fixed Handsfree Car Kit

## HFI Side 1



## HFI Side 2

**RED** = +BATT (11 to 32 VDC)  
**BLACK** = -BATT (GND)  
**GREEN** = ACC PWR



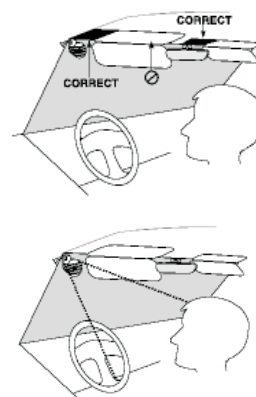
**CAUTION:**  
 DO NOT connect power to the battery until the installation is complete.

## 4 Installing the Directional Microphone

The hands-free directional microphone must be properly positioned in the vehicle to ensure optimum performance.

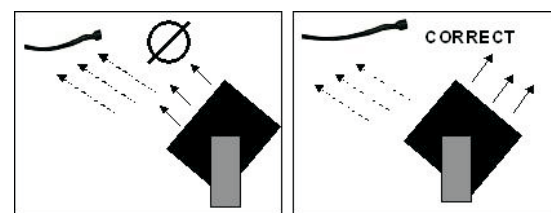
When selecting a location for the microphone, consider these guidelines:

- > Mount the microphone near the centre of the vehicle, either on the driver-side sun visor or on the head-liner above the driver.
- > Do not position the microphone where it may be blocked by the visor.
- > Position the microphone so that it faces the user of the mobile when the user is seated normally.
- > Do NOT position the microphone near a window or in any location where road noise or any ambient background noise may be high (above 85 dB SPL).
- > Do NOT position the microphone where it will be affected by the output of the speaker (**see below**).



## 5 Installing the Speaker

1. Mount the speaker to the transmission hump or underneath dashboard on passenger side.
2. Mount speaker so it faces AWAY from microphone - this can cause "feedback" through the system.
3. To avoid damaging the cable, route the cable carefully to ensure that it does not get crimped by any heavy objects or enclosures.



## 6 Installing your External Iridium Antenna

See the specific "Iridium Antenna Installation Guide" manual or visit us @ [www.beamcommunications.com](http://www.beamcommunications.com)

## 7 Connecting Power

1. Ensure the power and Interface cable to the HFI will reach from the RST620 unit to the point at which vehicle power is being sourced DO NOT connect to the HFI **until after** the installation is complete.
2. Route the power cable from the HFI to the connection point.

**Note:** To limit ground loops and high impedance ground paths, run the green/red-stripe and black wires directly to the battery, or as close to the battery as possible. Use a grommet or other protection to prevent wear on metal surfaces for these wires.

3. Prepare the fuse block. Remove all fuses, and tape them to their respective holders, before making any connection. DO NOT insert fuses until you have completed and inspected all connections.
4. Connect the **BLACK** Ground wire to negative battery / vehicle chassis (if negatively grounded chassis).
5. Connect the **RED** +Battery wire to the vehicle + Battery (eg. +12V) via a 3A fuse.
6. Connect the **GREEN** Accessory wire to the vehicle accessory power, via a 1A fuse. (This may be connected to Vehicle Ignition voltage if Accessory power is unavailable).

## 8 Testing & Operation

Once steps 1-7 have been completed, test the installation by following this checklist.

1. Ensure the Satellite terminal has power to the unit.
2. Ensure that the vehicle is located in an area where quality signal is available
3. Ensure that the Intelligent Handset is plugged into the HFI
4. Turn on the ignition to ACC or ON position
5. The handset should now be on (after few seconds), attempting to find Satellite network
6. Wait for the unit to register on the network (20 to 40 seconds).
7. You are now ready to make and receive calls.

## info

### Checking performance after installation:

To confirm your car kit is working properly:

1. Make a call **from** the handset in the cradle and confirm operation.
2. Make a call **to** the handset and confirm operation.

## Important Operational Notes

1. When the vehicle ignition is turned off, the handset will be turned off after a delay as follows: The unit will prepare to turn-off phone after the first 5 seconds. The vehicle ignition can be returned to ACC / ON position during this time, and the phone will remain on without phone power dropout. This is useful if the vehicle was inadvertently turned off during a voice-call. If ACC remains off, then the Interface unit will also turn off after a further few seconds.
2. If during operation of the Hands free unit the unit either does not turn on or will not turn off, it is recommended to follow these steps:
  - > Turn vehicle Accessories off
  - > Turn the terminal off
  - > Wait 10 seconds
  - > Turn on the vehicle Accessories once more.
3. If the power button is pressed after the accessories has already been turned off in the vehicle the telephone will operate for a period of 20 minutes before the unit will power off. If after 19minutes a call is in progress the terminal will stay on for another 20 minutes. This feature is to minimise drain on the battery.
4. The power to the terminal is dependent on the power source chosen during installation. If power is required at all times even when the vehicles turned off then the power should be connected to constant 11-32V DC input.
5. Be aware of the possibilities of this however flattening the vehicle battery.

## Hands-free Interface LEDs

The Interface unit has a **green** status indicator (LED), which indicates:

Indicator state	State description
Flash (slow)	Unit is powered, transceiver not registered yet
Steady on	Transceiver registered
Flash (fast)	Call in progress

