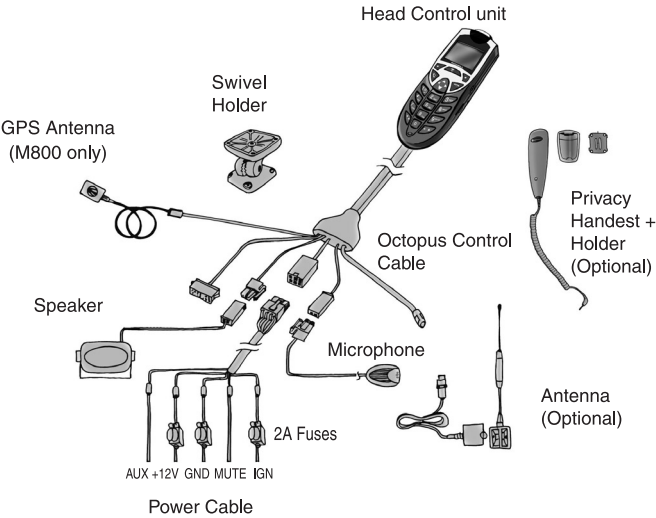




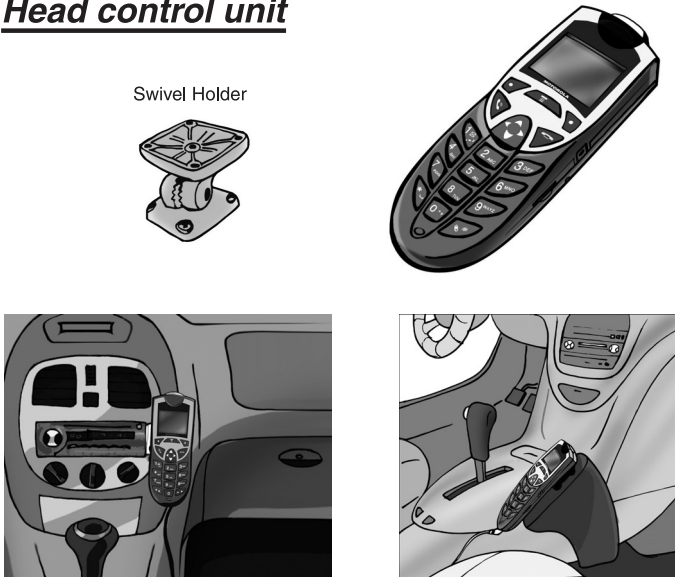
Car Phone Installation Guide

Product parts



Motorola Proprietary 1

Head control unit



When installing the fixed mobile car phone avoid positioning the head control unit where it may disrupt the proper operation of the vehicle and/or its components, such as car stereo, air bags, cubbyhole, glove compartment, ashtray, lighter, gear stick, hand brake, etc....

Attach the car phor to a stable surface, in a position that is safe and convenient for the driver to use.

Special warning: Do not position the head control unit in front of the air bag or where it may impair air bag performance, as the air bag might inflate in an accident and cause damage.

Verify that the control unit does not face the sun or source of humidity, such as air conditioner vents.

When the phone is powered off insert the SIM into socket at the right side of the phone (M900, M930 only).

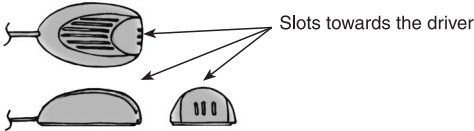
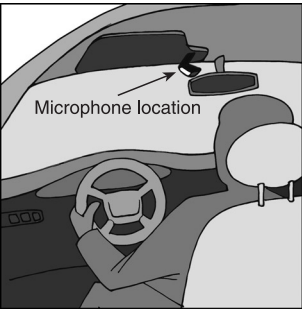
Motorola Proprietary 2

Microphone

Install the microphone at a distance of no more than 30 cm (12 inch) away from the driver's mouth, ideally on the upper right hand side of the sun visor and away from any noise source such as windscreens, window, fan/air conditioner, car stereo etc.

Make sure the microphone is at a distance of at least 1.5m (4.9 ft) from the speaker and is not directed towards the speaker.

Make sure that the microphone is correctly positioned. See picture below for microphone position.



Do not thread the microphone cable close to antenna cable, to avoid audio interference.

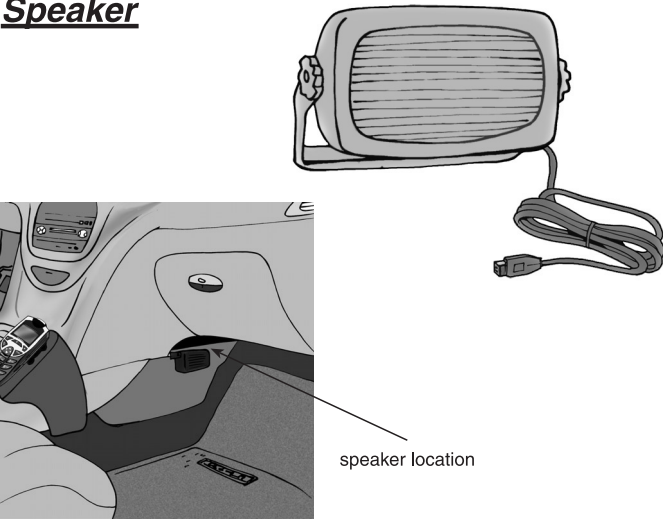
Plug the microphone cable into the compatible connection in the octopus control cable.

Important: Make sure that the microphone cable does not come in contact and does not interfere with the steering wheel and/or the pedals of the vehicle.

Attention! The speaker and microphone (which is fitted on the sun visor above the driver) should be pointed towards **opposite directions** to avoid echo.

Motorola Proprietary 3

Speaker



Install the speaker on the side of the central console, ideally alongside the legs of the passenger sitting beside the driver, as far as possible from the microphone.

Thread the speaker cable under the carpet along the floor of the vehicle.

Plug the speaker cable into the compatible connection in the octopus control cable.

Verify that the cable does not interfere with the proper operation of the vehicle and/or its components.

Do not conceal the speaker behind any obstacle such as dashboard, glove compartment, carpet or any other barrier which will result in bad audio quality.

Attention! The speaker and microphone (which is fitted on the sun visor above the driver) should be pointed towards **opposite directions** to avoid echo. speaker slots should be pointed towards passenger door.

Motorola Proprietary 4

RF Antenna

On-glass antenna specifications

M900, M930 (GSM):
Frequency band: 900+1800MHz (850+ 1900MHz)
VSWR: Tx<=1.5:1 ; Rx <=2:1
Gain: 3dBi @ 900MHz & 2dBi @ 1800MHz (3dBi @ 850MHz & 2dBi @ 1900MHz)

Recommended antenna:
(1) 900/1800MHz, GDE-5M, Mfr. Panorama Antenna, UK
(2) 850/1900MHz, APDM928M, Mfr. PC-TEL Antenna Product USA, Part Number Z2307

M800 (CDMA):
Frequency band: 800+1900MHz
VSWR: Tx<=1.5:1; Rx <=2:1
Gain: 3dBi @ 850 MHz & 2dBi @ 1900MHz

Recommended antenna:
(1) 850/1900MHz, APDM928M, Mfr. PCTEL Antenna Product USA

Additional information
RF Cable: RG58U, PVC coated / polyethylene dialectic cable, length 5M
RF Connector: M800, M900 (900/1800), M930 (900/1800): Mini UHF Male
M900 (850/1900), M930 (850/1900): SMA Male
Radiator and Foot cover: The following environmental parameters are mandatory:
Operating temperature: -30°C to +85°C
Heat and UV stabilized
Flammability UL94V0

Adhesive pads: Operating temperature: -40°C to +90°C and bond not effected by moisture.

Attention! Ensure the antenna is located at least 20 cm from driver or passengers.

Motorola Proprietary 5

Antenna Installation

The preferred position for the antenna is on the upper right side of the windshield

Should another cellular device already be installed in the vehicle, the antennas should be located at a distance of at least 30 cm (1ft) from each other.

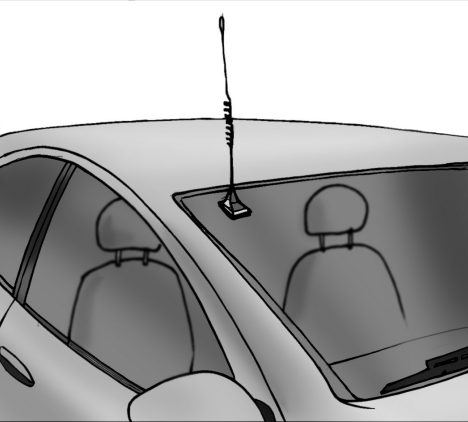
Remember: In certain car models (such as "Renault Megane" and "Renault Kangoo"), the anterior windshield has a radiation filter, and therefore it is necessary to paste the antenna in the side or rear windshield only.

Attention! Do not thread the antenna cable close to the microphone cable to avoid audio interference.

Use original antenna plug and clamping tools only.

Test antenna and cable performance using a VSWR meter.

Note: In certain M800 models there is a GPS connection to be used with 4V external active GPS antenna for navigation services.



Motorola Proprietary 6



Cable connections

Power

Connect the **RED** wire to a positive (+) 12V pole for steady power supply. Ensure the use of a 2A/250V fuse.

Ground

Connect the **BLACK** wire to a negative pole (-) in the vehicle body. Ensure the use of a 2A/250V fuse.

Ignition

Connect the **GREEN** wire to car IGN voltage and check the appropriate voltage using voltmeter. This connection switches the phone on when turning the ignition on and it switches the phone off when turning the ignition off. Ensure the use of a 2A/250V fuse.

Entertainment Mute

Connect the **ORANGE** wire to the car stereo system entertainment mute connection to mute the stereo system when receiving or dialing a call.

*Ent. Mute is an optional feature.

Auxiliary alert

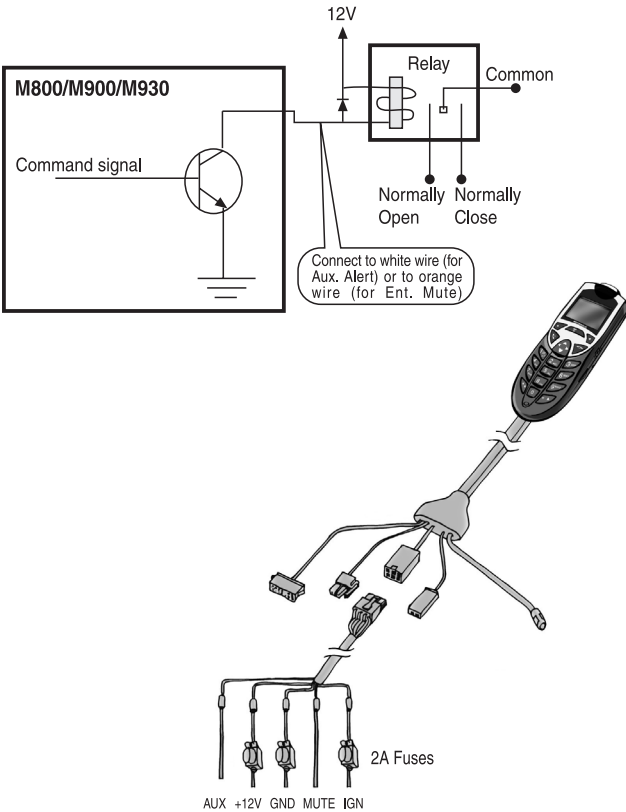
Connect the **WHITE** wire to the car's horn and/or to the car's light connection to turn on the lights and/or to activate the horn when receiving a call.

*Aux. Alert is an optional feature.

*Certain M800 models have a 3-wires connection, without Auxiliary alert and entertainment mute wires.

Cable connections (continue)

Entertainment Mute & Auxiliary Alert - open collector connections



Motorola Proprietary 7

Motorola Proprietary 8

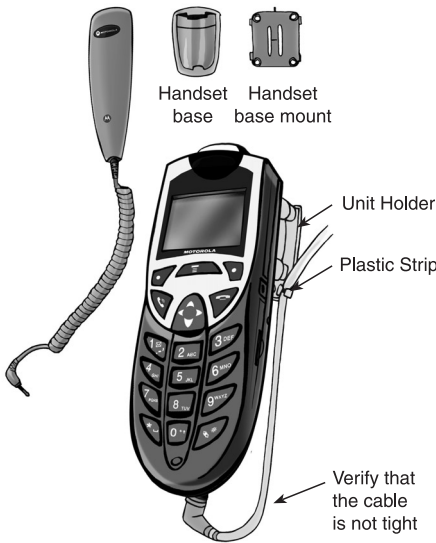
Motorola Proprietary 9

Connections summary

Wire color	Function	Connect to...	Ensure...
RED	To supply steady (+) power source.	12V steady power. An additional fuse is supplied that must be connected to the positive (+) pole.	The use of a 2A/250V fuse.
BLACK	To supply steady (-) power source.	Vehicle body	That the contact point is only connected to the vehicle body.
GREEN	To switch the phone on when the car ignition is turned on, and off when the car ignition is turned off.	IGN voltage	The appropriate voltage using voltmeter. Ensure the use of a 2A/250V fuse.
ORANGE	To mute the car stereo system when receiving or dialing a call.	Car stereo system Entertainment Mute connection (optional)	That the connection between the Fixed Mobile Car Phone and car stereo system should be done by an authorized installer only. sink should be up to 150mA.
WHITE	To operate car lights/horn to indicate incoming call.	Car lights/horn connections (optional)	That the connection between the Fixed Mobile Car Phone and the car lights/horn should be done by an authorized installer only. sink should be up to 300mA.

Motorola Proprietary 10

Privacy Handset/Headset



Mount the privacy handset using the plastic base and connect the handset jack to the socket at the bottom of the main control unit.

Attach the privacy handset cable to the head control unit's holder using plastic strip.

Motorola Proprietary 11

Heavy vehicles with 24v

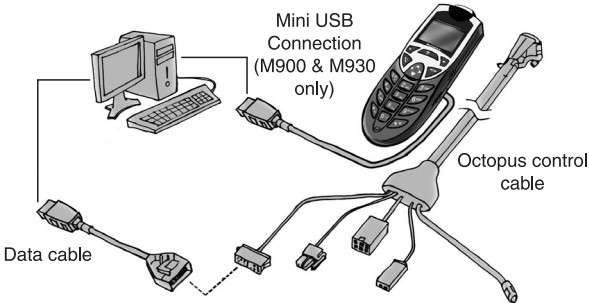
When installing the Fixed Mobile Car Phone in trucks or in any other heavy vehicle with 24 volt battery, connect the RED wire via 24VDC to 12VDC (50W) voltage converter.

The Ignition line (GREEN) in M900 & M930 can be connected directly to the truck ignition switch (24V) and in M800 **must** be connected to 12V only.

Data connection/maintenance cable

The Data connection wire in M800 and the mini USB connection in M900 & M930 enable using the fixed mobile car phone as a modem or to synchronize data with external computers using Motorola MPT program.

The data connections also enable authorized technicians to maintain the fixed mobile car phone for technical service purposes (Software programming).



Special functions

Smart key

The Smart Key is the blue illuminated key on the top side of the main control unit. This special button, designed as a mouse key is a multiple operations button which enables the user to voice activate Name & Number dialing, notice incoming calls, record voice memos and end or receive phone calls by clicking on the button once.

Volume keys

The volume keys, located on the left hand side of the main control unit enable the users to adjust audio volume during a call and to adjust the ringer volume during stand by. While installing the phone in the vehicle don't place the main control unit close to the car dashboard or to any other component that might interrupt with the volume keys operation.

Soft keys and shortcuts

The two soft keys located on the lower part of the phone display enable users to customize their phone and set useful menus for their convenience and intuitive location on their phone display.

The navigation key enables the users to launch pre-defined menus (phone book, browser, volume level setup) in a very quick and intuitive way instead of entering the phone menus. The navigation key setup may vary from model to model.



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