



VC6000 Series

Quick Reference Guide



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Warranty

Subject to the terms of Motorola's hardware warranty statement, the VC6000 series products are warranted against defects in workmanship and materials for a period of one year from the date of shipment. For the complete Motorola hardware product warranty statement, go to: www.motorola.com/enterprisemobility/warranty.

Patents

This product is covered by one or more patents. For patent information go to: www.motorola.com/enterprisemobility/patents.

Introduction

The Motorola VC6000 series is a rugged vehicle or fixed-mount computer. It is specifically designed for the harsh conditions of the mobile environment areas.

The VC6000 also serves as a stationary indoor host computer for communication and control of outdoor VC6000 series.

The computer enables real-time data access, collection, capture and report of information related to the driver's workflow, status and location.

The fixed-mount computer consists of a touch-screen with an integrated QWERTY keyboard. Data can be entered using the touch-screen or keyboard.

The computer has multiple communication capabilities that include: Wireless Local Area Network (WLAN), Wireless Wide Area Network (WWAN), Bluetooth™ and a Global Positioning System (GPS) receiver.

Bluetooth technology is used for cordless connection of peripheral devices such as printers, bar code scanners, handsfree speakers and headsets to the computer. Cellular and WiFi radios are used to exchange voice and data with wide and local area networks. Among its many communication interfaces, the computer contains an internal GPS module, ensuring reliable and accurate vehicle location.

The VC6000 Vehicle Computer series is designed only for industry and commercial use. In indoor applications, the VC6000 can serve as a fixed-mount office computer for communication and data collection.

The VC6000 is not designed to operate as portable lap-top computer.

The computer, antenna(s) and other accessories of the VC6000 require a professional installation performed by trained and licensed personnel. For proper installation requirements, contact your professional installer, VAR, or antenna manufacturer.

Model Configurations

This guide covers the configuration of the following VC6000 series models:

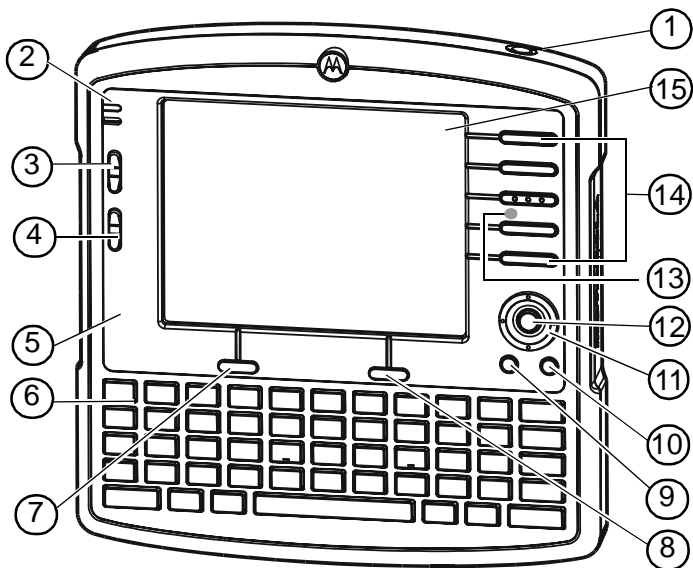
Configuration \ Model	VC6000	VC6096
Operating System	Windows Mobile 6.1 Classic	Windows Mobile 6.1 Professional
GPS	No	Yes
Bluetooth	Yes	Yes
Wireless LAN	No	Yes (802.11 a/b/g)
Cellular radio (HSDPA, UMTS, GSM, GPRS, EDGE)	No	Yes (Voice and data)
Vehicle Telemetry	No	Yes

The vehicle computer features:

- Ergonomic design with a color LCD touch screen
- Windows Mobile 6.1 operating system
- Internal Bluetooth radio to enable wireless connection to a Bluetooth printer, bar code scanner, headset and other Bluetooth peripherals.
- Connection to WLAN in 802.11a/b/g standards (VC6096 only)
- Connection to WWAN using a Global System for Mobile communication (GSM) cellular radio and High-Speed Downlink Packet Access (HSDPA) (VC6096 only)
- 10/100 Ethernet port for connection to Local Area Network (LAN)
- Vehicle motion and location detection via the vehicle telemetry and the GPS receiver (VC6096 only)
- Serial RS232 interface
- Full speed USB ports
- Wide-range of input power (10 V DC to 33 V DC) to accommodate a wide range of vehicles
- Reliable operation in cold environments, as low as -20 °C (- 4 °F)
- Maximum operational temperature 60 °C (140 °F)

Features

Front Features



- | | |
|---|--------------------------------|
| 1. Reset Button with system indication LED ¹ | 9. Home key |
| 2. Two green LEDs driven by application ² | 10. Back key |
| 3. Volume up/down key (6 levels) | 11. Navigation key |
| 4. Brightness up/down key | 12. Select key |
| 5. Microphone (embedded) | 13. Speaker (embedded) |
| 6. Full QWERTY keypad | 14. Function keys ⁴ |
| 7. Left soft key ³ | 15. Touch screen |
| 8. Right soft key ³ | |

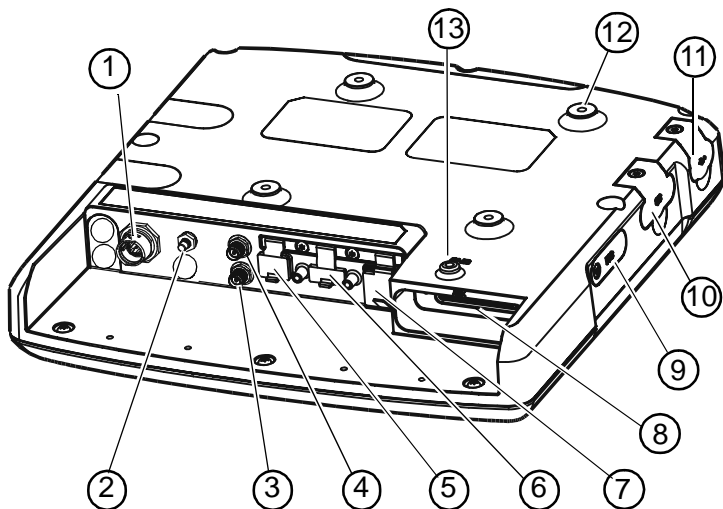
¹ See "System Indication LED" on page 17.

² For LED indications, refer to your enterprise application manual.

³ For key function, refer to the text displayed on the screen.

⁴ For operation, refer to your enterprise application guide.

Back Features



- | | |
|--|--------------------------------------|
| 1. PWR - Power connector | 8. Auxiliary port ^{2, 3} |
| 2. GPS antenna connector | 9. SIM card slot ² |
| 3. WWAN antenna connector | 10. SD memory card slot ² |
| 4. WLAN antenna connector ¹ | 11. USB port, type A ² |
| 5. Mini USB port, type B ² | 12. M4 screw mounting bosses |
| 6. USB port, type A ² | 13. M4 Ground screw boss |
| 7. 10/100 Ethernet port ² | |

¹ Rotate counterclockwise to fasten connector.

² Keep covered when not in use.

³ Includes: 8 digital inputs, 8 digital outputs, 2 analog inputs, 2 pins for debugging, 2 full RS232, CAN2.0 - J1939 (Telemetry), J1708 (Telemetry).

Unpacking

The following items are contained inside the shipping box:

- VC6000 series
- Hardware Kit (including five M4 installation screws)
- This guide

✓ **NOTE** A hardware kit that contains optional accessories is provided separately inside the shipping box.

Optional Accessories

Part Number	Description
FLN4048	Combination Antenna
8508851K59	External GPS Antenna
0102246H51	Indoor Power Supply
50-16000-2212	AC Cord (USA)
3087568V83	VC6096 WWAN RF Cable (3m, 9.8ft.)
3087568V84	VC6096 WLAN RF Cable (3m, 9.8ft.)
3071815Y17	VC6096 Cigarette Lighter Cable (CLA) Power Supply Cable
3071815Y13	VC6096 Vehicle Power Cable
3071815Y15	9-Pin Deutsch Cable
3071815Y23	9-Pin Deutsch Cable (J1939 protocol)
3071815Y24	9-Pin Deutsch Cable (J1708 protocol)
3071815Y14	6-Pin Deutsch Cable
3089906V60	50 Pin Cable
3089906V63	9-Pin Deutsch Telemetry Cable
3089906V61	6-Pin Deutsch Telemetry Cable
3071815Y25	9-Pin Deutsch Telemetry Cable (J1708 protocol)
3071815Y26	9-Pin Deutsch Telemetry Cable (J1939 protocol)

Installation

Installing a SIM Card (VC6096 only)

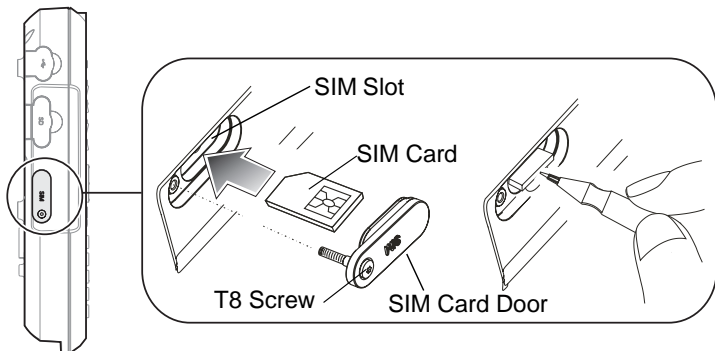
Before using the VC6000 series in a cellular network, make sure that the VC6000 series is equipped with a Subscriber Identity Module (SIM) card, obtained from your service provider. The SIM card is a small smart card that fits into the VC6000 series. The SIM card holds the personalized information about the VC6096, including network activation and phone book entries.

To install the SIM card:

1. Remove the T8 screw that secures the SIM card door and open the door.
2. Position the SIM Card with the contacts facing the back of the VC6000 series, and insert into the SIM Slot. The SIM Card corner notch fits into the slot only one way (See figure below).
3. Use a pen to push the SIM Card inwards to lock.
4. Place the SIM Card Door and secure the T8 screw.

✓ **NOTE** The VC6000 series powers on only if the screw is fully secured.

5. Torque the screw to 3.4 kgf-cm (3 in-lbs).



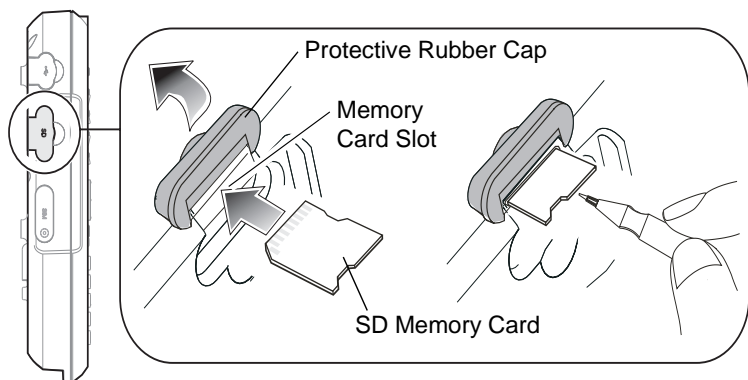
CAUTION Ensure to torque the screw to seal the VC6000 series properly. Otherwise, sealing can be compromised.

Installing an SD Memory Card

A Secure Digital (SD) memory card provides secondary non-volatile data storage. Up to 2GB memory cards can be used. The card slot is located on the side panel of the VC6000 series.

To install the memory card:

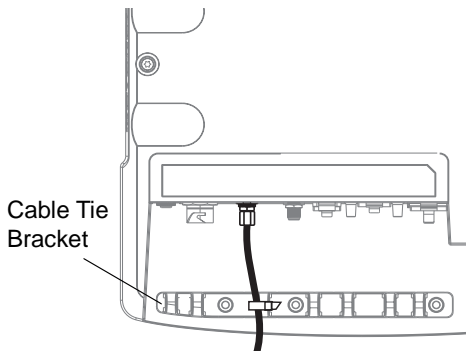
1. Lift up the protective rubber cap that covers the Memory Card Slot.
2. Position the SD Memory Card with the contacts facing the back of the VC6000 series and insert into the Memory Card Slot. The corner notch of the SD Memory Card fits into the Memory Card Slot only one way.
3. Use your pen to push the SD Memory Card inwards to lock.
4. Replace the Protective Rubber Cap to seal the Memory Card Slot.



Mounting the VC6000 series

Guidelines for Routing Cables

- Establish a neat route for the cable, staying clear of moving parts or hot surfaces.
- Fix the cable to an existing cable runs inside the vehicle using cable ties.
- When the cabling must go through a panel, use a suitable cable guard.
- When fixing a conduit or a cable on the outside of a vehicle, use P-Clips. Either drill and tap the hole or use a nut and bolt to secure the clip.
- Ensure the cable does not have tight bends. The minimum recommended radius is 6.35 cm (2.5 inches).
- Ensure cables do not swing or chafe on the structure. This often requires using cable ties approximately every one foot, and ensuring the cables do not flex often, especially where they connect to the VC6000 series.
- If you must re-position the VC6000 series occasionally, ensure there is enough slack in the cable to accommodate movement without putting tension on the cable.
- Take the power from as close to the battery terminals as possible, and avoid using existing wiring.
- Ensure that all fuses are as close as possible to the power source.
- Use plastic cable ties to secure the cables to the cable tie bracket of the VC6000.



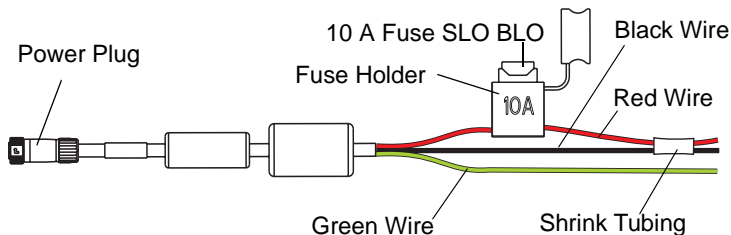
Connecting the Vehicle Power Cable



CAUTION DO NOT install the VC6000 series in a vehicle with a positive ground electrical system.

To connect the power cable:

1. Disconnect the power terminals from the vehicle battery.
2. Connect the black wire to the vehicle's negative power source.
3. Connect the green wire to the vehicle's ignition switch.
4. Connect the red wire to the vehicle's positive power source. Place a 10 A SLO BLO fuse inside the fuse holder, connected in-line with the Red Wire approximately 4" from the cable end, as shown below.
5. Connect and turn clockwise to lock the Power Plug to Power Connector (PWR) of the VC6000 series (see *Back Features on page 4*). The length of the cable is 9.8 ft (3 m).



6. When routing wires, slide Shrink Tubing over wires as required.
7. Connect the power terminals of the Vehicle Power Cable to the terminals of the vehicle battery.

Cigarette Lighter Cable

The Cigarette Lighter Cable is a power extension cord that plugs into a cigarette lighter outlet of the vehicle. The maximum length of the cable is 8.2 ft (9.1 m).

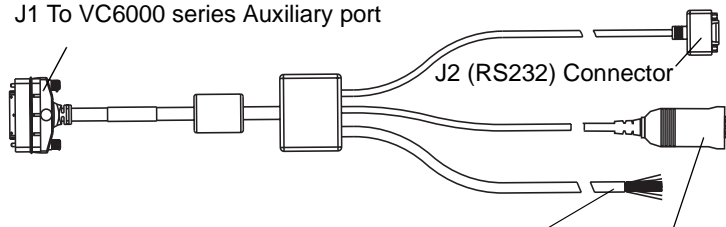


Connecting the Telemetry Cable

Telemetry Cable

1. Plug the J1 connector into the Auxiliary port of the VC6000 series (see *Back Features on page 4*) and fasten the connection screws of the connector.
2. Plug connectors J2 and J3 to the telemetry receptacles of your vehicle data bus.
3. Connect the I/O Wires as required.

J1 To VC6000 series Auxiliary port



I/O Wires: 8 digital inputs, 8 digital outputs, 2 analog inputs, Debug (2 wires for debugging). See label on wires. Maximum current through wires 0.5 A

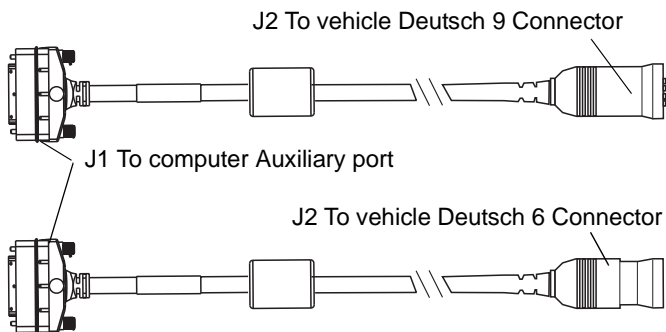
J3 Deutsch 6 or 9 pin Telemetry Connector

✓ **NOTE** For Input/Output (I/O) Wires connections, refer to the VC6000 Series Product Reference Guide.

Deutsch 6 and 9 Telemetry Cables

1. Plug the J1 into the Auxiliary port of the VC6000 series (see *Back Features on page 4*) and fasten the connection screws of the connector.

2. Plug connectors J2 to the telemetry receptacles of the vehicle data bus.



Grounding



CAUTION The VC6000 series should operate only in negative ground electrical systems. Check the ground polarity of the vehicle before starting the VC6000 series installation to verify that the polarity is correct. Accidentally reversing the polarity will not damage the VC6000 series, but will cause the cable fuse to blow.

Mounting the Combination Antenna (VC6096 only)

The Combination Antenna is an optional omni-directional WWAN and WLAN antenna used with the VC6096. The antenna mounts inside/outside the vehicle cabin or indoors/outdoors.

The antenna has two external RF connectors that connect to the VC6096 via two low loss RF coax cables.

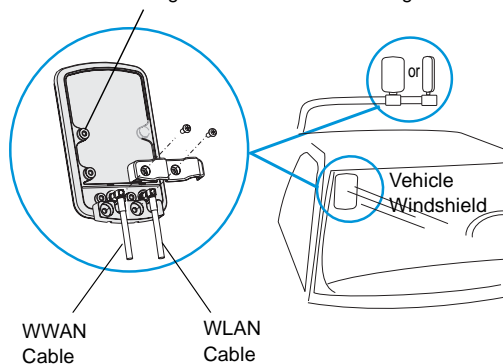


CAUTION To avoid damage to the VC6000 series, make sure to disconnect the power cable from the VC6000 series before connecting the antenna cable. When installing the antenna cable, make sure to connect the antenna side of the cable before connecting to the VC6000 series.

Installation guidelines:

1. For best performance, it is recommended to install the antenna outside of the cabin. When installing the antenna in the vehicle cabin or indoors, keep a minimum distance of 70 cm (2.3 ft) between the antenna and the VC6000 series.
2. The antenna should be directed vertically to the horizon to assure maximum exposure.
3. To ensure best performance, the antenna should be mounted as far away as possible from walls, floors and metal containing objects. Keep an obstacle free zone of 10 cm (3.9 inches) from walls, cabinets, air duct, metal-framed windows, doors etc.
4. When mounting the antenna inside the vehicle, it is recommended to install the antenna at the top right hand side of the windshield.

M4 screw mounting bosses used for mounting bracket





WARNING! 1. Keep a minimum lateral distance of 20 cm (8 inches) between the driver/passenger and the antenna. Contact your professional installer, VAR, or antenna manufacturer for proper installation requirements.

2. To ensure safe driving, when mounting the Combination Antenna next to the windshield, do not block the driver's field of view.

Mounting the GPS Antenna (VC6096 only)

The VC6096 is supplied with an internal module of Global Positioning System (GPS).

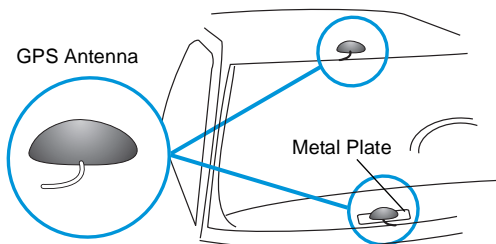
Connect the cable connector of the GPS antenna to the GPS connector at the back of the VC6096.



CAUTION To avoid damage to the VC6000 series, make sure to disconnect the power cable from the VC6000 series before connecting the antenna cable.

Installation guidelines:

1. Recommended GPS antenna - Motorola part number 8508851K59.
2. The GPS antenna must be mounted on the top of the dashboard or vehicle roof. For best performance, install the GPS antenna on the center-line of the vehicle roof.
3. Keep a minimum distance of 40 cm (16 inches) between the Combination antenna and the GPS antenna.
4. The antenna is attached by a magnet to a flat metal surface (minimum 2.75 inches x 2.75 inches, 7 cm x 7 cm). Before mounting the GPS antenna on a dashboard, install a flat Metal Plate on the dashboard to hold the GPS antenna.
5. The antenna should be directed parallel to the horizon to assure exposure to as many satellites as possible.
6. If possible, the antenna location must not be obstructed by any structure or object. When mounting the antenna on a roof ensure at least 3" of clear space around it.



Connecting the VC6000 Series Indoor

When using the VC6000 series indoor, the VC6000 series can be placed on a desk and powered using an Indoor Power Supply Unit.

To connect the VC6000 series indoor:

1. Connect a ground wire between the VC6000 series and the facility ground system.



WARNING: To ensure proper grounding, use a 18AWG ground wire between the VC6000 series Ground Point (GND) and the facility ground system.

The ground wire ring lugs should be connected to the Ground Point (GND) at the back of the VC6000 series using M4 screw.

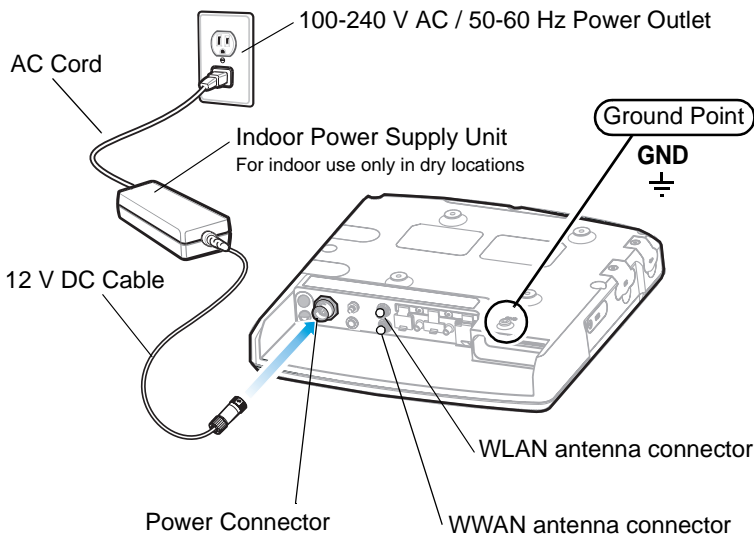
2. Mount the Combination Antenna outdoor. Contact the mast of the antenna, by a metal bonding, to a ground wire that runs directly into the earth, via a deep ground rod. For antenna installation guidelines, See “Mounting the Combination Antenna (VC6096 only)” on page 12.



WARNING! Keep a minimum lateral distance of 20 cm (8 inches) between the VC6000 series user and the antenna. Contact your professional installer, VAR, or antenna manufacturer for proper installation requirements.

3. Connect the WWAN plug of the Combination Antenna cable to the WWAN antenna connector at the back of the VC6000 series (VC6096 only).

4. Connect the WLAN plug of the Combination Antenna cable to the WLAN antenna connector at the back of the VC6000 series (VC6096 only).
5. Attach the 12 V DC cable of the Indoor Power Supply Unit to the Power Connector at the back of the VC6000 series and turn clockwise to lock.
6. Connect the AC Cord into the Indoor Power Supply Unit.
7. Connect the AC Cord plug into a 100-240 V AC / 50-60 Hz Power Outlet.



✓ **NOTE** The total length of the power supply cables is 14.1 ft (4.3 m).

Optional Mounting

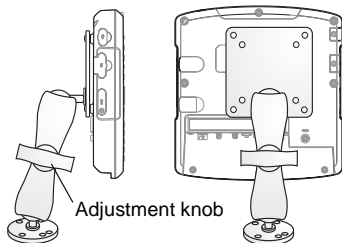
The following mount examples should be used for installing the VC6000 series inside the vehicle. For optional mounting instructions, refer to the documentation provided by the mount manufacturer.



WARNING! Vehicles equipped with air bags - An air bag inflates with great force. DO NOT install the VC6000 series or place objects, including other communication equipment, in the area over the air bag or in the air bag deployment area. If the communication equipment is improperly installed and the air bag inflates, this could cause serious injury.

Free-standing Pedestal Mount

The mount allows the VC6000 series to be easily readjusted to either the driver or passenger sides in the most comfortable location. A single adjustment knob enables adjustment of both upper and lower ball joints

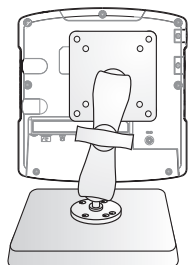


simultaneously. The mount affixes to the VC6000 series using the M4 screws, included inside the Hardware Kit, and to the vehicle's dashboard using self tapping screws or bolts, provided by the mount manufacturer.

Recommended mount: VESA plate RAM mount with 6.35 cm (2.5 inches) diameter base.

Desk Mount

The mount allows the VC6000 series to be easily placed on a desk and adjusted to a most comfortable screen view position. A single adjustment knob enables adjustment of both upper and lower ball joints simultaneously. The mount affixes to the VC6000 series using the M4 screws, included inside the Hardware Kit.



Operating the VC6000 series

System Indication LED

The system indication LED is located inside the Reset Button.

The System Indication LED indicates the following states:

LED State	Indication
Off	Normal operation
Fast flashing amber	<ul style="list-style-type: none">• Critical power event. Input power is out of operating range. The VC6000 series may turn off - save your entries.• Vehicle engine start - no action is required.• Cold reset is active - no action is required.
Slowly flashing amber	Critical temperature event. Ambient temperature is out of operating range -4 °F to 140 °F (-20 °C to 60 °C). The VC6000 series may turn off.

Controlling Screen Brightness

There are five levels of screen brightness (including turning off).

To adjust the brightness of the screen, press the Brightness down button to decrease the brightness or the Brightness up button to increase the brightness. The VC6000 series automatically returns to normal operation after six seconds if the Brightness up/down key is not pressed.

Controlling Keypad Illumination

There are five levels of Keypad Illumination. To adjust the Keypad Illumination:


1. Press the Ctrl key to lock in down position.
2. Press the Brightness up/down key to increase/decrease the keypad illumination. The VC6000 series automatically returns to normal operation after six seconds if the up/down key is not pressed.
3. Press the Ctrl key to unlock in up position.

Standby Mode

Standby mode is a power saving mode enabled only when the vehicle ignition key is switched to the OFF position.

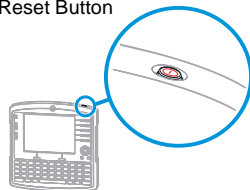
In Standby mode, the screen display and backlight illumination automatically turn off after a period of two minutes when VC6000 series is not active.

Resume from Standby Mode

To resume from Standby mode, press any key, or touch the screen, or momentarily press the Reset Button .

The VC6000 series can be set to automatically resume from Standby mode when: turning On the ignition key, connecting or removing a USB device, pressing a keyboard key, receiving an alarm, pressing the touch screen, communicating over Bluetooth, communicating over WWAN.

Reset Button



Resetting the VC6000 series

If the VC6000 series stops responding to inputs, perform the reset actions in the following order:

Initial Reset

Press and hold the initial reset Button  for one second and release.

Warm Boot

Warm boot may become necessary when an application running on your VC6000 series does not respond after performing initial reset.



CAUTION Warm boot may cause lost of information from programs currently running on the computer.

To perform warm boot:

Press and hold the Reset Button  for five seconds and release.

Cold Boot

Cold boot may become necessary when your VC6000 series is jammed and does not respond after performing warm boot.

Cold boot restarts the VC6000 series by performing an ungraceful shutdown of all running applications and powering off the VC6000 series.

Cold boot resets information stored in all running applications.

Data saved on flash memory or a memory card is not lost.

To perform a cold boot:

Press and hold  +  + Reset Button .

Function Keys

The five function keys on the front right hand side of the panel can be set to perform dedicated functions, such switching between different software application screens. To know more about the function of each key, refer to the application operating manual.

Troubleshooting

Problem	Cause	Solution
The VC6000 series does not power on.	Vehicle ignition key in OFF position.	Switch on the vehicle ignition key to the ON position.
	SIM door is open.	Close the SIM door properly and secure screw.
	Drained vehicle battery.	Charge or replace battery.
	Power cable is disconnected.	Connect the Power cable.
Low Battery level warning is issued.	Vehicle battery voltage dropped below 9 V DC.	Start the vehicle engine to charge the battery. Replace battery.
LCD and Keypad backlight do not function.	Critical Battery level. Vehicle battery Voltage dropped below 8V.	Start the vehicle engine to charge the battery. Replace battery.
Display backlight intensity is reduced.	Display temperature is below 10 °C or above 35 °C (below 50 °F or above 95 °F).	Control the temperature inside the vehicle.
The VC6000 series powers off during operation.	VC6000 series temperature is out of range: -4 °F to 140 °F (-20 °C to 60 °C).	Control the temperature inside the vehicle.

Regulatory Information

All Motorola devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.

This device is approved under Enterprise Mobility business of Motorola, Inc., ("Motorola").

Regulatory Information is available in French, Italian, German, Spanish (Spain), Portuguese, Greek, Turkish, Czech, Danish, Estonian, Finnish, Swedish, Hungarian, Dutch, Norwegian, Polish, Romanian, Slovak, Slovenian, Simplified Chinese. Local language translations are available at the following web site: www.motorola.com/enterprisemobility/manuals.

This device is approved under the Motorola, Inc ("Motorola"). Any changes or modifications to Motorola equipment, not expressly approved by Motorola, could void the user's authority to operate the equipment.

Antennas: Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could cause damage and may violate regulations.



CAUTION Only use Motorola approved and UL Listed accessories.

Do NOT attempt to charge damp/wet mobile computers. All components must be dry before connecting to power source.

Country Approvals

Regulatory markings are applied to the device signifying the radio(s) are approved for use in the following countries: United States, Canada, Australia and Europe 1, 2.

Please refer to the Motorola Declaration of Conformity (DoC) for details of other country markings. This is available at: www.motorola.com/enterprisemobility/doc.

NOTE 1: For 2.4GHz Products: Europe includes, Austria, Belgium, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia,

Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

NOTE 2: The use of 5GHz RLAN's has varying restrictions of use; please refer to the Motorola Declaration of Conformity (DoC) for details.



CAUTION Operation of the device without regulatory approval is illegal.

Health and Safety Recommendations

Ergonomic Recommendations



CAUTION In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment

Vehicle Installation

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles (including safety systems).

Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

An air bag inflates with great force. **DO NOT** place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Position your device within easy reach. Be able to access your device without removing your eyes from the road.

Note: Connection to an alert device that will cause a vehicle horn to sound or lights to flash, on receipt of a call on public roads, is not permitted.

Safety on the Road

Do not take notes or use the device while driving. Jotting down a “to do” list or flipping through your address book takes attention away from your primary responsibility, driving safely.

When driving a car, driving is your first responsibility - Give full attention to driving. Check the laws and regulations on the use of wireless devices in the areas where you drive. Always obey them.

When using a wireless device behind the wheel of a car, practice good common sense and remember the following tips:

1. Get to know your wireless device and any features such as speed dial and redial. If available, these features help you to place your call without taking your attention off the road.
2. When available, use a hands free device.
3. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow, ice, and even heavy traffic can be hazardous.

4. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan calls when your car will be stationary. If you need to make a call while moving, dial only a few numbers, check the road and your mirrors, then continue.
5. Do not engage in stressful or emotional conversations that may be distracting. Make people you are talking with aware you are driving and suspend conversations that have the potential to divert your attention from the road.
6. Use your wireless phone to call for help. Dial the Emergency services, (9-1-1 in the US, and 1-1-2 in Europe) or other local emergency number in the case of fire, traffic accident or medical emergencies. Remember, it is a free call on your wireless phone!. The call can be made regardless of any security codes and depending on a network, with or without a SIM card inserted.
7. Use your wireless phone to help others in emergencies. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call the Emergency Services, (9-1-1 in the US, and 1-1-2 in Europe) or other local emergency number, as you would want others to do for you.
8. Call roadside assistance or a special non-emergency wireless assistance number when necessary. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured, or a vehicle you know to be stolen, call roadside assistance or other special nonemergency wireless number. "The wireless industry reminds you to use your device / phone safely when driving."

Warnings for Use of Wireless Devices

Please observe all warning notices with regard to the usage of wireless devices.

Potentially Hazardous Atmospheres

You are reminded of the need to observe restrictions on the use of radio devices in fuel depots, chemical plants etc. and areas where the air contains chemicals or particles (such as grain, dust, or metal powders)

and any other area where you would normally be advised to turn off your vehicle engine.

Hearing Aids

The wireless device may interfere with some hearing aids. In the event of interference you may want to consult your hearing aid supplier to discuss solutions.

Other Medical Devices

Please consult your physician or the manufacturer of the medical device, to determine if the operation of your wireless product may interfere with the medical device.



FCC / EU RF Exposure Guidelines

Safety Information

The device complies with Internationally recognized standards covering Maximum Permissible Exposure (MPE) related to human exposure to electromagnetic fields from radio devices.

Reducing RF Exposure - Use Properly

It is advisable to use the device only in the normal operating position.

Remote and Standalone Antenna Configurations

To comply with FCC RF exposure requirements, antennas that are mounted externally at remote locations or operating near users at stand-alone desk of similar configurations must operate with a minimum separation distance of 20 cm (8 inches) from all persons.

To satisfy FCC RF exposure requirements, a mobile transmitting device must operate with a minimum separation distance of 20 cm (8 inches) or more from a person's body.

Indoor Power Supply

Use only a Motorola approved power supply P.N 0102246H51, Input:100-240 V AC / 50-60 Hz, output rated: 12 V DC, 5 A maximum.

The power supply is certified to EN60950-1 with SELV outputs. Use of alternative power supply will invalidate any approval given to this device and may be dangerous.

Wireless Devices - Countries

Country Roaming

This device incorporates the International Roaming feature (IEEE802.11d) which will ensure the product operates on the correct channels for the particular country of use.

Ad-Hoc Operation

Ad-Hoc operation is limited to Channels 36-48 (5150-5250 MHz). Use of this band is restricted to Indoor Use Only, any other use will make the operation of this device illegal.

Radio Frequency Interference Requirements

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Radio Transmitters (Part 15)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Radio Frequency Interference Requirements - Canada

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

IMPORTANT: In the band 5150- 5250 MHz, the device may only be used indoors to reduce potential for harmful interference to co- channel mobile satellite systems.

Radio Transmitters

This device complies with RSS 210 of Industry & Science Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

Label Marking: The Term "IC:" before the radio certification only signifies that Industry Canada technical specifications were met.



Marking and European Economic Area (EEA)

The use of 2.4 GHz RLAN's, have the following restrictions:

- Maximum radiated transmit power of 100 mW EIRP in the frequency range 2.400 -2.4835 GHz
- France, equipment is restricted to 2.4 - 2.454 GHz
- Italy requires a user license for outside usage

The use of 5GHz RLAN's has varying restrictions for use within the EEA; please refer to the Motorola Declaration of Conformity (DoC) for details at: www.motorola.com/enterprisemobility/doc

Bluetooth® Wireless Technology for use through the EEA has the following restrictions:

- Maximum radiated transmit power of 100mW EIRP in the frequency range 2.400 -2.4835 GHz
- France, outside usage is restricted to 10mW EIRP
- Italy requires a user license for outside usage.

Statement of Compliance

Motorola, Inc., hereby, declares that this device is in compliance with the essential requirements and other relevant provisions of Directives 1999/5/EC. Declaration of Conformities may be obtained from www.motorola.com/enterprisemobility/doc

Other Countries

2.4GHz Radio Devices:

Mexico - Restrict Frequency Range to: 2.450 - 2.4835 GHz.

Sri Lanka - Restrict Frequency Range to: 2.400 - 2.430 GHz.



Waste Electrical and Electronic Equipment (WEEE)

English: For EU Customers: All products at the end of their life must be returned to Motorola for recycling. For information on how to return product, please go to: <http://www.motorola.com/recycling>.

Service Information

If you have a problem using the equipment, contact your facility's Technical or Systems Support. If there is a problem with the equipment, they will contact the Motorola Enterprise Mobility Support at:

www.motorola.com/enterprisemobility/support.

For the latest version of this guide go to:

www.motorola.com/enterprisemobility/manuals.



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