MW810 Mobile Workstation

Model F5208, Release 1.2

User Guide

MOTOA⁴™

Contents

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MOTOROLA MW810 MOBILE
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O) Dispatch to remote site locations.
P) Loading of software upgrades or fixes into the devices.

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B) that Motorola will have sole control of the defense of such suit and all negotiations for its settlement or compromise; and
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Post-warranty Service

Repair Service Advantage (RSA) programs are available at additional cost, with options of 1-year RSA (covering year 4) and 2-year RSA (covering years 4 and 5).
The 3-year RSA option is no longer available.
All other warranty terms and conditions remain the same.

How to identify the workstation release number

This manual relates to MW810 Mobile Workstation releases 1.1 and 1.2. The release number reflects the type of hardware and software installed inside the MW810 Mobile Worksta-tion.

When receiving the MW810 Mobile Workstation, the release information is included with the documentation attached to the shipping package.

To identify the release number after installing the worksta-tion:

1. When using Windows 7, click Start In the search box and enter msinfo32. Your workstation's CPU type will appear in the processor description.

2. When using Windows xp, click the Start menu and select Run and enter msinfo32. Your workstation's CPU type will appear in the processor description.

For release 1.1, one of the following CPU types should be displayed:

- Intel® Core™2 Duo (Merom) T7400 4 MB L2 2.16 GHz 667 MHz
- Intel® Core™2 Duo (Merom) T5500 2 MB L2 1.66 GHz 667 MHz
- Intel® Celeron® M 430 1 MB L2 1.73 GHz 533 MHz

For release 1.2, one of the following CPU types should be displayed:

- Intel® Core™2 Duo T9400, 2.53 GHz 1066 MHz
- Intel® Core™2 Duo P8400, 2.26 GHz 1066 MHz
- Intel® Celeron® M575, 2 GHz 667 MHz

Using this Manual

Before using this manual and the products it describe, be sure to read the Safety instructions, Warranty information and the FCC information that follows.

Who Should Use this Manual

This manual is intended for staff that operates the MW810 Mobile Workstation in vehicles. This manual assumes that reader is familiar with basic Windows operations. When this is not the case, be sure to read the documentation that came with your version of Windows.

Related Manuals

This manual describes the MW810 Mobile Workstation and provides basic knowledge about the device.

Please note that although this manual refers to hardware and software components supplied with the MW810 Mobile Workstation, it does not provide full component descriptions. For additional information refer to the following publications:

Publication Number	Description
R3-14-2051	MW810 Mobile Workstation Specification Sheet
6802984C84	Motorola MW810 Mobile Workstation, 8.4" Display, Installation Manual

Publication Number	Description
6802981C80	Motorola MW810 Mobile Workstation, User Guide
6802983C72	Motorola MW810 Mobile Workstation, Quick Reference Guide (English)
6802983C71	Motorola MW810 Mobile Workstation, Quick Reference Guide (Multilingual)
6802983C01	Motorola MW810 Mobile Workstation, Product Safety and RF Exposure for mobile workstation with two-way radios installed in vehicles leaflet (multilingual)
6802982C80	Motorola MW810 Mobile Workstation, Vehicle Installation Manual
6802982C85	Motorola MW810 Mobile Workstation R1.2, 12.1" Display Owner's Guide (included on the FIELD SUPPORT KIT Software CD - FVN5613)
6802982C81	Motorola MW810 Mobile Workstation, CPU Owner's Guide (included on the FIELD SUPPORT KIT Software CD - FVN5613)
6802987C40	Motorola MW810 Mobile Workstation, CPU Box Release 1.2 Owner's Guide (included on the FIELD SUPPORT KIT Software CD - FVN5613)
6802983C00	Motorola MW810 Mobile Workstation, Software Development Kit (included on the FIELD SUPPORT KIT Software CD - FVN5613)
6802982C90	MW810 Mobile Workstation, Field Support Kit, User's Guide (included on the FIELD SUPPORT KIT Software CD - FVN5613)
6802982C95	MW810 Mobile Workstation Series, Maintenance Programming Software Owners Guide (included on the FIELD SUPPORT KIT Software CD - FVN5613)

For the latest version of this guide and other MW810 Mobile Workstation manuals go to: www.motorola.com/enterprise-mobility/manuals

This manual is designed to supplement the on-line or context-sensitive help provided with each software application. Please review this information to ensure proper use of the product. For software and operation system issues, refer to Microsoft® Windows® 7 or XP Professional documentation.

Notational Conventions

Throughout this publication, you will notice the use of cautions and notes. These notations are used to emphasize that safety hazards exist, and care must be taken.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. CAUTION may also be used to alert against unsafe **Caution** practices and property-damage-only accident hazards.

Do not proceed beyond a CAUTION until the indicated conditions are fully understood and met.

FCC Information

FCC Interference

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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

For detailed product safety and RF exposure, refer to Safety and General Information leaflet, Motorola publication number 6802983C01.

Changes or modifications made in the CPU Box or Display, not expressly approved by Motorola, will void the user's authority to operate the equipment.
Caution

FCC Grant of Equipment Authorization Release 1.2

MW810 Mobile Workstation Option No	Radio Type	Frequency Range MHz	FCC Grant ID	Power Output
VA00672AA (802.11a/b/g/n)	WLAN US	2412.0 - 2462.0 2422.0 - 2452.0 5180.0 - 5240.0 5260.0 - 5320.0 5500.0 - 5700.0 5755.0 - 5795.0 5745.0 - 5825.0	PD9533ANM	0.07 0.13 0.045 0.11 0.11 0.068 0.063

MW810 Mobile Workstation Option No	Radio Type	Frequency Range MHz	FCC Grant ID	Power Output
VA00507AA (802.11a/b/g/n) Two connectors	WLAN US	2412.0 - 2462.0 2422.0 - 2452.0 5180.0 - 5240.0 5260.0 - 5320.0 5500.0 - 5700.0 5755.0 - 5795.0 5745.0 - 5825.0	PD9533ANM	0.07 0.13 0.045 0.11 0.11 0.068 0.063
VA00685AA (VERIZON)	GPRS, EGPRS, UMTS, CDMA 1x, CDMA 1x EVDO, Rev0, RevA WCDMA, HSDPA, HSUPA	824.2 - 848.8 1850.2 - 1909.8	N7NGOBI2	1.919 0.874
VA00687AA (AT&T)	GPRS, EGPRS, UMTS, CDMA 1x, CDMA 1x EVDO, Rev0, RevA WCDMA, HSDPA, HSUPA	824.2 - 848.8 1850.2 - 1909.8	N7NGOBI2	1.919 0.874
VA00539AB	GPRS, EGPRS, UMTS, CDMA 1x, CDMA 1x EVDO, Rev0, RevA WCDMA, HSDPA, HSUPA	824.2 - 848.8 1850.2 - 1909.8	N7NGOBI2	1.919 0.874
VA00024AP (802.11a/b/g)	WLAN US	2412.0 - 2462.0 5180.0 - 5240.0 5260.0 - 5320.0 5745.0 - 5825.0	PD9WM3945ABG	0.318W 0.048W 0.068W 0.1W
VA00447AA ((802.11a/b/g no antenna)	WLAN US	2412.0 - 2462.0 5180.0 - 5240.0 5260.0 - 5320.0 5745.0 - 5825.0	PD9WM3945ABG	0.318W 0.048W 0.068W 0.1W
VA00468AA (802.11a/g/n)	WLAN US	2412.0 - 2462.0 5180.0 - 5240.0 5260.0 - 5320.0 5745.0 - 5825.0	PD94965AGN	0.242W 0.123W 0.048W 0.087W
VA00468AC (802.11a/g/n)	WLAN US	2412.0 - 2462.0 5180.0 - 5240.0 5260.0 - 5320.0 5745.0 - 5825.0	PD94965AGN	0.242W 0.123W 0.048W 0.087W
VA00048AD	DataTAC	TX 806 - 824 RX 851-869	PQS-BM28001	1.914W
VA00048AE	DataTAC	TX 806 - 824 RX 851-869	PQS-BM2800D	2W
VA00016AF (AT&T)	GPRS, EGPRS, UMTS, HSDPA US	824.2 - 848.8 1850.2 - 1909.8 1900 - 1980	N7NMC8775	1.57W 0.9W 0.2W
VA00387AA (VERIZON)	EVDO, CDMA	CDMA800: 824.7-848.31 CDMA1900: 1851.25-1908.75	N7N-MC5725	0.326W 0.305W
VA00259AB (SPRINT)	EVDO, CDMA	CDMA800: 824.7-848.31 CDMA1900: 1851.25-1908.75	N7N-MC5725	0.326W 0.305W
VA00017AB	Bluetooth Radio Module - Spread Spectrum Transmitter	2402.0 - 2480.0	QDS-BRCM1018	0.0025W

Workstation Radio Configurations

The MW810 Mobile Workstation can be configured for simultaneous transmission by the following radio pairs:

MW810 Mobile Workstation Option Number.	Radio Type
VA00024AP	WLAN US
VA00048AD	DataTAC
VA00024AP	WLAN US
VA00048AE	DataTAC
VA00024AP	WLAN US
VA00016AF	GPRS, EGPRS, UMTS, HSDPA US
VA00024AP	WLAN US
VA00387AA	EVDO, CDMA
VA00468AC	WLAN US
VA00048AD	DataTAC
VA00468AC	WLAN US
VA00048AE	DataTAC
VA00468AC	WLAN US
VA00016AF	GPRS, EGPRS, UMTS, HSDPA US
VA00468AC	WLAN US
VA00387AA	EVDO, CDMA
VA00468AD	WLAN Europe
VA00016AG	GPRS, EGPRS, UMTS, HSDPA Europe
VA00468AD	WLAN Europe
VA00016AQ	GPRS, EGPRS, UMTS, HSUPA Europe
VA00468AC	WLAN US
VA00259AB	EVDO, CDMA
VA00468AA	WLAN US
VA00048AD	DataTAC
VA00468AA	WLAN US
VA00048AE	DataTAC
VA00468AA	WLAN US
VA00016AF	GPRS, EGPRS, UMTS, HSDPA US
VA00468AA	WLAN US
VA00387AA	EVDO, CDMA
VA00468AB	WLAN Europe
VA00016AG	GPRS, EGPRS, UMTS, HSDPA Europe
VA00468AB	WLAN Europe
VA00016AQ	GPRS, EGPRS, UMTS, HSUPA Europe
VA00468AA	WLAN US

MW810 Mobile Workstation Option Number.	Radio Type
VA00259AB	EVDO, CDMA
VA00024AN	WLAN Europe
VA00016AG	GPRS, EGPRS, UMTS, HSDPA Europe
VA00024AN	WLAN Europe
VA00016AQ	GPRS, EGPRS, UMTS, HSDPA Europe
VA00024AP	WLAN US
VA00259AB	EVDO, CDMA
VA00672AA	WLAN,802.11 a/g/n
VA00539AB	GPRS/EGPRS, CDMA/EVDO, WCDMA/HSPA
VA00672AA	WLAN,802.11 a/g/n
VA00016AQ	GPRS, EGPRS, UMTS, HSUPA Europe

European Union Notification

The CE mark is the official marking required by the European Community for all Electric and Electronic equipment that will be sold, or put into service for the first time, anywhere in the European community.

Conformity for RoHS Compliance

This Motorola product is in compliance with the essential requirements and other relevant provisions of Directive 2002/95/EC, Restriction of the use of certain Hazardous Substances (RoHS) in electrical and electronic equipment.

Equipment Disposal

Please do not dispose of Electronic and Electric Equipment or Electronic and Electric Accessories with your household waste. In some countries or regions, collection systems have been set up to handle waste of electrical and electronic equipment. In European Union countries, please contact your local equipment supplier representative or service center for information about the waste collection system in your country.

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Safety Instructions

Reduce the risk of fire or electric shock by following basic safety instructions:

Caution

- Do not connect or disconnect cables while your MW810 Mobile Workstation is turned on.
- Protect your MW810 Mobile Workstation from liquids. Keep your MW810 Mobile Workstation away from water.
- Do not use any power cord where input or output pins show signs of corrosion or overheating.
- Be sure that all power cord connections are securely plugged into receptacles.

- Never coil a power cord.
- Always route a power cord, communication, and antenna cables to avoid damaged.

Avoid damage to the MW810 Mobile Workstation by following basic safety instructions:

- Your MW810 Mobile Workstation generates heat when turned on. Never block or cover ventilation openings.
- The MW810 Mobile Workstation is very sensitive to uncontrolled shut down. Never turn off the MW810 Mobile Workstation by turning off the power supply or by disconnection of the power cable.
- The CPU Box has an internal CMOS battery. The CMOS battery can degrade if your MW810 Mobile Workstation is unused for more than 3 months. Leaving a battery in a discharged state could shorten the lifetime of the battery.
- Hard disk drive performance and lifetime could be shortened if your MW810 Mobile Workstation is not used for long periods. Do not leave the MW810 Mobile Workstation unused for more than 3 months.
- Your MW810 Mobile Workstation automatically shuts down when the internal temperature exceeds the upper limit of the valid range. The MW810 Mobile Workstation returns to normal operation when it cools down.
- Your MW810 Mobile Workstation dissipates heat during normal operation. When your MW810 Mobile Workstation is functioning, do not allow it to come in contact with any part of your body for an extended period of time since this may cause discomfort.
- Forcing SIM or PC cards into computer slots at an angle may damage slot connectors.
- Normally, if the system does not respond, you can turn the MW810 Mobile Workstation off by holding the power button pressed for 6 seconds or more. Be aware, this method of hardware power off may damage your Hard Disk Drive.
- Do not insert or remove cards when the MW810 Mobile Workstation is in Suspend mode. Before you insert or remove a card, make sure that you exit all software applications that access the card.

What is the MW810 Mobile Workstation?

The MW810 Mobile Workstation series is one of Motorola's highest-performing and most rugged data communication and computing solutions. It is specifically designed for the harsh conditions of the mobile environment, which is not suitable for conventional notebook or desktop computers.

The MW810 Mobile Workstation is a versatile three-piece design with separate display (12.1" or 8.4"), Central Processing Unit (CPU) Box and a keyboard. A choice of configurations enables fitting the workstation to a variety of vehicle types and customizing installations to meet specific owner needs and specifications.

The MW810 Motorola is a multipurpose mobile computer with capability to provide seamless mobility. The workstation supports multiple internal radios, providing reliable connectivity across a number of dissimilar public and private data networks. Among its many communication interfaces, the workstation incorporates video (option) and audio inputs, as well as an internal GPS or Dead Reckoning GPS module options, ensuring reliable and accurate vehicle location notification.

An optional Automatic License Plate Recognition (ALPR) system enables to capture license plate images from up to four imaging sources installed in a vehicle. The plate numbers are compared against data base or hot list.

The workstation is powered by a family of high-tier processors with extensive memory.

In addition to the basic multiple port connections option (the "No I/O Expansion board" option), the MW810 Motorola is available with three optional expansion boards:

1. The "COMM & Video I/O Expansion Board"

This option enables the connection of an additional display (DVI) supporting simultaneous operation of two independent users, each using a different display and keyboard. This option also adds two Ethernet ports, one USB port, one RS232 serial port and enables analog video camera input.

2. The "Serial & USB I/O Expansion Board"

This option supports three additional RS232 serial ports and two USB 2.0 ports.

3. The "ALPR Expansion Board"

This option supports interfacing up to four PIPS P632 digital ALPR cameras, an additional display (DVI), two Ethernet ports and one USB 2.0 port.

4. The "COMM & 3X3 WLAN I/O Expansion Board"

This option enables the connection of an additional display (DVI) supporting simultaneous operation of two independent users, each using a different display and keyboard. This option also adds two Ethernet ports, one USB port, one RS232 serial port and a third WLAN connector for diversity antenna when 802.11a/b/g/n radio module is installed.

The CPU Box

The CPU Box is a high-performance computing platform for mission-critical applications with numerous computing, data storage, and communication capabilities. It is designed to be permanently mounted and serve as a hub to the computing and communications network in the vehicle.

Key features of the CPU Box:

- Windows 7 or Windows XP Operating System (OS)
- Intel® Core™ 2 duo processor
- Extendable system memory – 2 slots for DDR2 SODIMM modules
- Removable 250GB Hard Disk Drive, optional 64/80GB Solid State Disk
- A wide range of internal / external interfaces such as USB 2.0, Ethernet 1GB, RS-232, audio, analog video, PC Card
- Optional Wireless LAN (WLAN) connection using Intel® Wireless WiFi adapters (802.11 a/b/g or IEEE 802.11a/b/g/n)

- Optional Wireless Wide-Area Network (WWAN) modules offering complete wireless data solutions over HSUPA-capable UMTS and CDMA networks.
- Built-in GPS receivers, including dead reckoning intelligence when satellite data is missing (option)
- Compliance with Trusted Platform Module (TPM) 1.2 specification requirements
- Vehicle ignition sense for using the vehicle key to turn the workstation ON/OFF
- Programmable general purpose inputs/outputs
- Simultaneous use by two independent users, each using a separate display and keyboard
- Custom-designed cables/adaptors for connection to the MW810 Display, external 3rd party LCD, CRT or flat screen displays
- Rugged mechanical design

The Display

The MW810 Motorola offers three optional rugged displays:

- 12.1" XGA high brightness display: TFT-technology display with 1200 NIT (1200 cd/m2) LCD backlighting to ensure viewing under bright light conditions.
- 12.1" XGA standard brightness display: TFT-technology display with 400 NIT (400 cd/m2) LCD backlighting.
- 8.4" SVGA high brightness display: TFT-technology display with 800 NIT (800 cd/m2) LCD backlighting.

The displays offer the following features:

- Screen made of tempered glass, with a protective film to prevent glass shattering in the event of breakage
- Touch screen activated even with a gloved finger
- Integrated Smart Card Reader compartment (only on 12.1" displays). Integrated Smart Card reader slot allows a smart card to be completely water tight sealed.
  Note: The Smart Card reader does not include a user application.
- Sealing against moisture

- Optional built-in Bluetooth radio (only 12.1"Display) to provide wireless connection to personal area peripherals such as headset, mouse, printer etc.
- Three USB 2.0 ports on 12.1" displays and two on 8.4"Display for connectivity to external USB devices

Getting the MW810 Mobile Workstation Running

This section guides you through procedures to get the MW810 Mobile Workstation ready for operation.

Unpacking

Unpack your shipment and check the contents to ensure that you have received all the specified items. Save the packing carton and anti-static plastic bag for future storage and shipping. Both the shipping carton and the anti-static bags protect the MW810 Mobile Workstation components from physical and electrostatic damage.

After unpacking the shipping carton, the following items should be found:

- CPU Box
- Display
- Keyboard
- Power cords
- CPU-to-Display(s) cable(s)
- Field Support Kit CD with all MW810 Mobile Workstation related drivers and publications - FVN5613
- Quick Reference Guide - 6802983C72 (English) or 6802983C71 (Multilingual)
- This User Guide - 6802981C80
- Motorola MW810 Mobile Workstation, Vehicle Installation Manual - 6802982C80
- RF Safety and General Information leaflet - 6802983C01
- CD with Windows 7 or Windows XP OS

Inspect all the items. If any item is missing or damaged, notify your Motorola Customer Service representative immediately.

Starting the Computer

Your computer OS is already installed on the hard disk or solid state disk drive.

After ensuring proper installation of the MW810 Mobile Workstation, perform the following steps to turn on the MW810 Mobile Workstation:

- Verify that the main power switch (MAIN SWITCH), located at the rear panel of the CPU Box, is in ON position (see Figure 2).
- Press the power button on the front panel of the CPU Box or display- both buttons perform identical function.
- Wait for the boot process to start and for Windows desktop to appear.

NOTE: The MW810 Mobile Workstation can be configured so that the vehicle ignition switch, the power button located on the CPU front panel, or the display power button can turn it on, each one on it's own or in combination and with selectable time-delay. The computer starts up with the OS existing on the storage device. The computer automatically loads (boot) the OS after you turn it on. For more information, refer to CPU Box Owner's Manual P/N 6802982C81 for release 1.1 or 6802987C40 for release 1.2. (the manuals are included on the FIELD SUPPORT KIT Software CD - FVN5613.

Shutting Down the Computer

When you finish a working session, you can stop the computer by turning off the power or leaving the computer in Standby or Hibernation mode.

Turning Off

Use the Windows OS Shut Down dialog box to turn off the MW810 Mobile Workstation.

NOTE: The MW810 Mobile Workstation can be configured so that the vehicle ignition switch, the power button located on the CPU front panel, or the display power button can turn it off.

> ⚠️ Remember to save important information before turning off your workstation.
>
> **Caution** Be aware, that rapid turning OFF and ON can damage your Hard Disk Drive. If you need to turn the MW810 Mobile Workstation ON immediately after turning it Off, always wait for the shut down process to complete.

Taking a Look at the MW810 Mobile Workstation

CPU Box - Front Panel Components

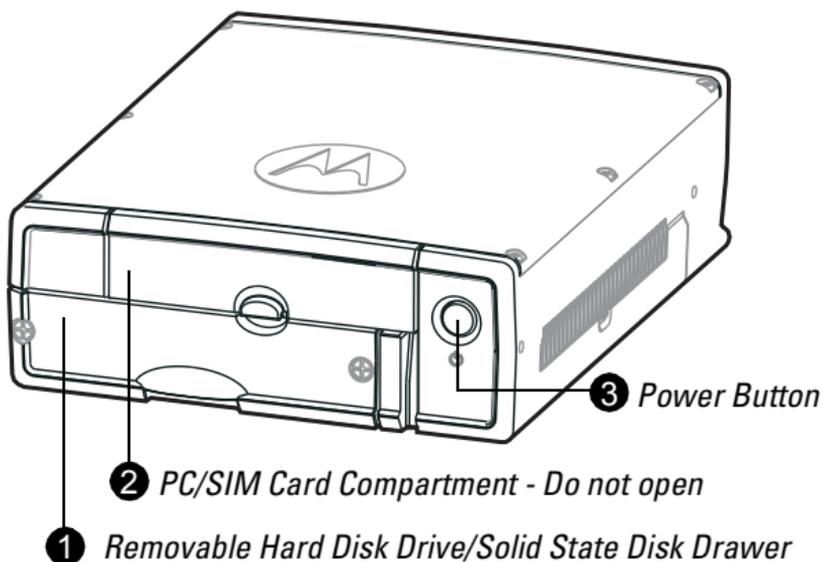Figure 1 shows the front panel components of the CPU Box.

Figure 1. CPU Box - Front Panel Components

❶ Power Button

The Power Button turns the MW810 Mobile Workstation power ON and OFF (CPU Box & display). The button may also be configured for entering Standby or Hibernation modes.

Note that the MW810 Mobile Workstation may also be configured to be turned ON/OFF depending on the state of the vehicle ignition switch.

Before powering on the CPU, ensure that the Main power switch on the rear panel of the CPU Box is in ON position (see page 8).

❷ PC/SIM Card Compartment

The compartment contains a Personal Computer card (PCMCIA type II) slot for memory devices, radio modems, etc. and SIM card of the internal WWAN radio. The compartment is completely sealed when the cover is closed. Do not open this compartment unless service is required.

### ❸ Removable Hard Disk Drive/Solid State Disk Drawer

The Hard Disk Drive (HDD)/Solid State Disk (SSD) is installed inside a removable drawer. The drawer is secured to the CPU Box by two screws. For more information refer to"Removable Hard Disk Drive/ Solid State Disk" on page 12.
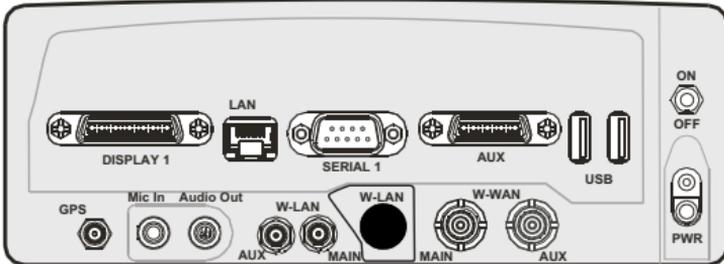
CPU Box - Rear Panel Components

Figure 2 and Figure 3 show the CPU Box rear panel options (for connection details, refer to MW810 Mobile Workstation, Vehicle Installation Manual p/n 6802982C80).
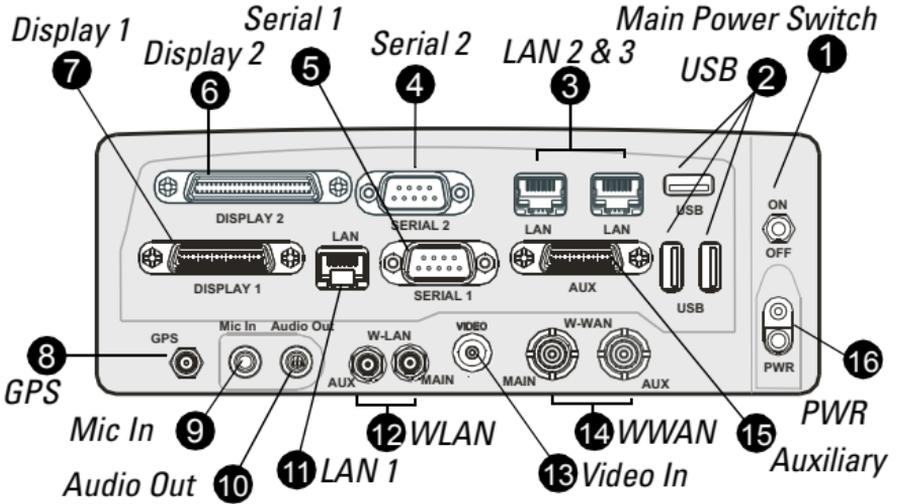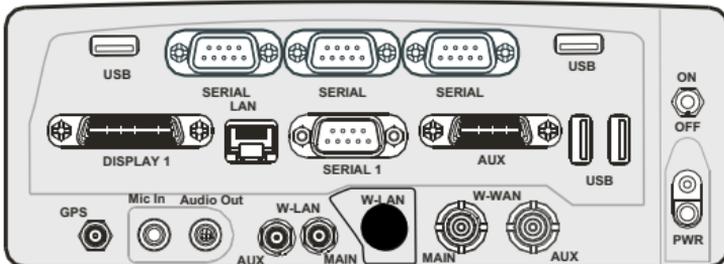

CPU Box - COMM & Video I/O Expansion Board Option
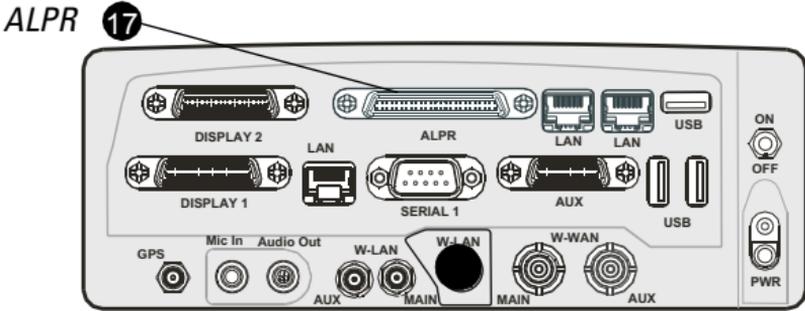
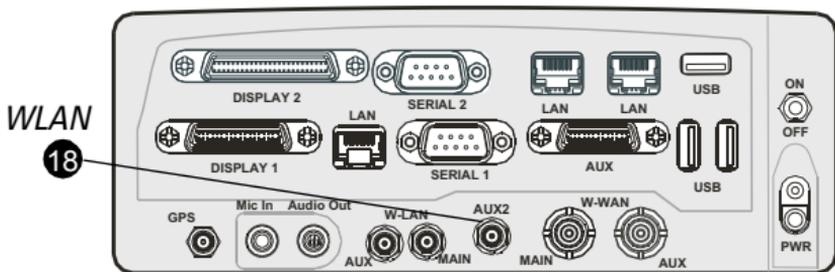*CPU Box - ALPR Expansion Board Option*

CPU Box - No I/O Expansion Board Option

CPU Box - Serial & USB I/O Expansion Board Option

Figure 2. CPU Box - Rear Panel Components

CPU Box - COMM & 3X3 WLAN I/O Expansion Board Option

Figure 3. CPU Box - Rear Panel Components

❶ **Main Power Switch**

Maintenance power switch. Use this switch to turn off the workstation during maintenance operations. In daily use, the switch should be kept in ON position.

⚠️ **Caution**   Do not switch off before shutting down the OS.

❷ **USB**

Two USB 2.0 ports for connection of external USB devices, with up to 500mA load per port.

NOTE: Be aware, USB devices connected to the USB ports should be compliant with the operating system. Otherwise the system does not operate properly.

❸ **LAN 2 & 3**

10/100 Base-T Ethernet LAN port for LAN cable or Ethernet device. The port includes Link and Active indicators. The ALPR expansion board option has two 1GB/s ports.

❹ **Serial 2**

Additional standard RS232 serial port.

❺ **Serial 1**

RS232 serial port. Connects to standard RS232 serial devices such as Motorola VRM modem, printer, mouse, etc. The connection requires a COTS (Commercial Off-The-Shelf) cable (not included).

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❻ Display 2

Connection of Secondary display cable. The cable carries DVI, RGB ("COMM & Video I/O Expansion Board" only), USB and audio signals to the screen. On ALPR panel, Display 2 is DVI only.

❼ Display 1

Connection of a Primary display cable. The cable carries RGB, USB and audio signals to the screen.

❽ GPS

Connection to GPS antenna when an optional GPS module is installed inside the CPU Box.

❾ Mic In

Input jack for sound recording microphone.

❿ Audio Out

Stereo headphones connection output. This output is also used for external speakers, with a built-in power amplifier.

⓫ LAN 1

1GB/s Base-T Ethernet LAN port for LAN cable or Ethernet device. The port includes a Link and Active indicators.

⓬ WLAN

Connection to RF antenna(s). To improve the quality and reliability of a wireless link, install two antennas when internal WLAN radio with RX space diversity is used. When only one WLAN antenna is installed, connect the antenna cable to the WLAN connector marked "Main".

Important: The WLAN connectors are reverse polarity SMA.

⓭ Video In

Standard Composite Video input for connecting external VCR or video camera.
Important: The Video In input is supported only when the COMM & Video I/O Expansion Board is installed (see Figure 2).

⑭ WWAN

mini-UHF AUX antenna cable for the UMTS/HSDP/HSUPA/ CDMA EV-DO radio modems. RX diversity antenna is supported. Note that UMTS radio also supports two WWAN antennas.

⑮ AUX

Connection to vehicle ignition switch, general purpose I/Os (digital Inputs and Outputs), 5VDC and car battery voltage outputs, vehicle speed and direction inputs from the vehicle data bus to optional dead reckoning GPS receiver.

⑯ PWR

Power cord inlet coming from the battery system of the vehicle or an Uninterruptible Power Supply (UPS).

⑰ ALPR

ALPR connector interface to up to four imaging sources, each contains one infrared camera and one color camera.

Important: The ALPR interface connector is available only when the ALPR Expansion Board is installed (see Figure 2). The ALPR system requires camera(s), software, camera cables and a splitter cable (all are not included).

⑱ WLAN

Optional connection to a third WLAN diversity antenna to improve the quality and reliability of a wireless link. This antenna connector is available only when Intel® Wireless WiFi Link 5300 802.11a/b/g/n internal radio module is installed.

Important: The type of WLAN connector is reverse polarity SMA. To secure the connector, turn counterclockwise. To release the connector, turn clockwise.

CPU Box - Bottom Side View

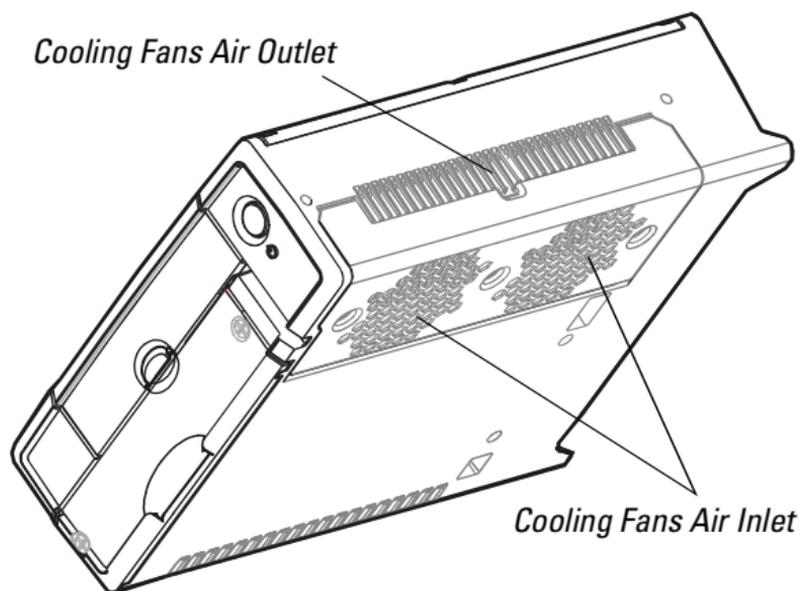Figure 4 shows a bottom side view of the CPU Box.

Cooling Fans Air Outlet

Cooling Fans Air Inlet

Figure 4. CPU Box - Bottom Side View

⚠️ **Caution** The Cooling Fans Inlet and Outlet ensure proper air circulation to prevent overheating of the CPU Box. Never cover or block the air inlet or outlet of the cooling fans.

Removable Hard Disk Drive/Solid State Disk

Your computer is supplied with a removable Hard Disk Drive (HDD) or Solid State Disk (SSD), located inside the HDD/SSD Drawer and configured as drive C. The HDD is equipped with a built-in heater that automatically turns on at low temperatures. When the temperature drops below 41°F (5°C), a built-in heater starts operating to maintain the HDD in working conditions. If HDD temperature is below 41°F (5°C) during boot-up, a message is issued indicating that the heater is starting to operate and slightly delaying start-up.

NOTE: The SSD does not require/include a heater to operate at low temperatures.

Removing the HDD/SSD Drawer from the CPU Box is easy:

1. Shut-down the MW810 Mobile Workstation.
2. Switch-off the Main Power switch located at the rear panel of the CPU Box (see Figure 2).

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3. Remove the two screws securing the HDD/SSD Drawer to the CPU Box (see Figure 5).
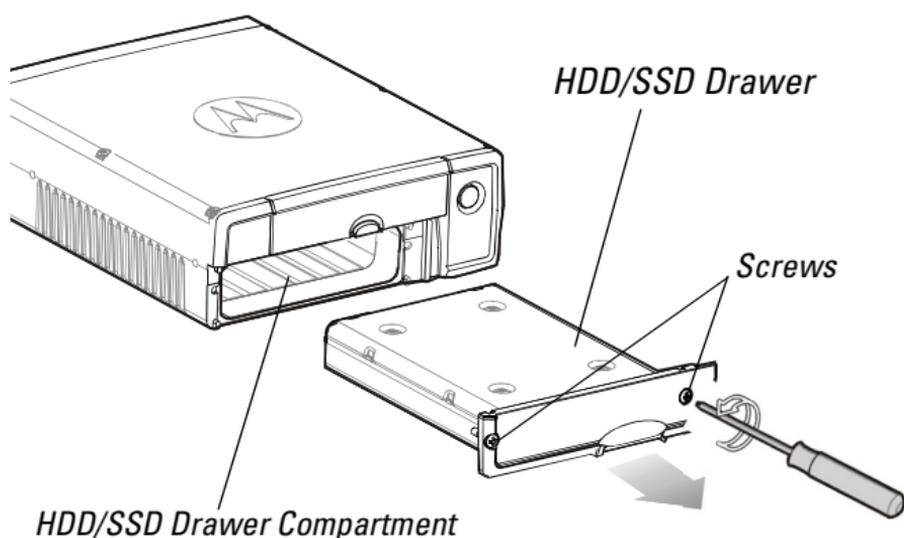4. Pull-out the HDD/SSD Drawer from the HDD/SSD Drawer Compartment in the CPU Box.

Figure 5. CPU Box - Removable Hard Disk Drive/Solid State Disk Drawer

⚠ **Caution**

1. Never try to remove the HDD/SSD Drawer before shutting down the computer and switching off the Main power switch on the rear panel of the CPU Box. Doing so can result in loss of data, and can damage the computer and the sensitive circuitry of the HDD.
2. Make regular backups of data files from your HDD to an external flash disk or other storage media.
3. Once the HDD/SSD Drawer is removed from the HDD/SSD Drawer Compartment, the CPU Box is not sealed. In such condition, do not expose the CPU Box or HDD/SSD Drawer to sand, dust, liquid or extreme humidity.

12.1" Display Front-right Components

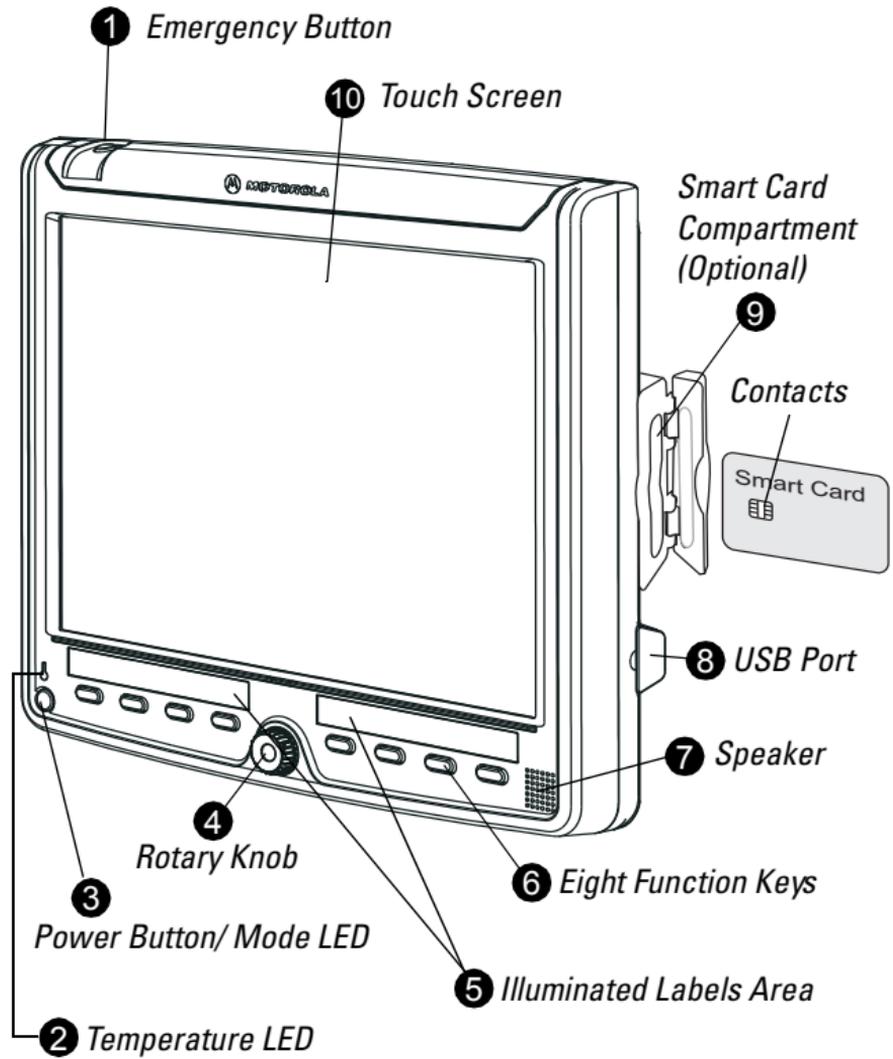Figure 6 shows the front-right components of the 12.1″ Display.

Figure 6. Display - Front and Right Side Components

❶ Emergency Button

Press this illuminated Emergency button to signal an emergency event to a dispatcher. The functionality of this button is set by the ExtraKey software utility, installed in the MW810 Mobile Workstation. The Emergency button can be used as soon as the MW810 Mobile Workstation OS starts.

❷ Temperature LED

The Temperature LED shows the temperature status of the display.
Steady Yellow: Display temperature is low - display heater is On.

<u>Steady Red:</u> Display temperature is high - save your work and shut down. Resume operation only after the display cools down.

❸ Power Button/Mode LED

Power Button

The Power Button turns ON/OFF the workstation power (CPU Box and display). The function of the Power Button on the display and the Power Button on the CPU Box are identical.

With a complete MW810 Mobile Workstation, the behavior of the Power Button depends on the power configuration scheme. The MW810 Mobile Workstation operating system provides several power configuration schemes that can be selected by your System Administrator. Each power scheme manage how your computer uses power by saving energy, maximizing system performance or achieving a balance between the two. For example, pressing the power button may cause the workstation to switch mode to Standby or Hibernate.

NOTE: If the display is used with the MW810 Mobile Workstation CPU Box, the Main power switch on the rear panel of the CPU Box should be switched On before using the Power Button.

Mode LED

<u>Steady Green:</u> Normal operation, the display is receiving proper video signals.

<u>Steady Yellow:</u> The display is not receiving proper video signals. (check cable connections between the CPU Box and the display)

NOTE: When the video cable between the display and the CPU Box is disconnected, a **No Cable** message pops-up on the screen for 3 seconds and then disappears. The Mode LED turns steady yellow.

❹ Rotary Knob

The Rotary Knob is used for controlling the brightness, volume and On Screen Display (OSD) functions.

<u>BRIGHTNESS, VOLUME & OSD Menu Adjustment</u>

Press once on the Rotary Knob to activate the on-screen display control. Scroll the knob left or right to select BRIGHTNESS, VOLUME, or OSD menu adjustment. (See "On-Screen Display (OSD) Menu" on page 31).

<u>Automatic Screen Adjustment</u>

Hold the Rotary Knob pressed for at least 3 seconds for auto adjustment of screen image distortions. This function is valid only for display with RGB video input.

❺ **Illuminated Labels Area**

Use this illuminated area for attaching description labels to each Function Key. Custom-made labels can be ordered through: http://israel.motorola.com/DesignCenter/LabelStrip.html

❻ **Eight Function Keys**

The eight Function Keys facilitate specific operations. The function of each key is set via a pre-installed software Utility, called ExtraKey (See "ExtraKey Application" on page 24).

The Function Keys can be set to:

• Operate like a standard keyboard hot-key
• Launch any application (like Notepad or Calculator)
• Turn the display backlight On/Off
• Enter the Standby mode
• Enter Hibernation mode (when enabled)
• Mute display speaker
• CPU audio (mixer) up
• CPU audio (mixer) down

❼ **Speaker**

Sound and alert speaker.

❽ **USB Port 1**

See "12.1" Display - Rear Components" on page 17

❾ **Smart Card Compartment**

Environmentally sealed Smart Card Compartment.

To install the Smart Card:

1. Open the door of the Smart Card Compartment.
2. Insert the Smart Card into the Smart Card Compartment (For contacts orientation, see Figure 6.)
3. Gently press the Smart Card into the Smart Card Compartment until a "click" is heard ensuring the Smart Card is fully engaged and locked inside the Smart Card Compartment.
4. Close the door of the Smart Card Compartment.

To remove the Smart Card:

1. Open the door of the Smart Card Compartment.
2. Gently press the Smart Card into the Smart Card Compartment until a "click" is heard ensuring the Smart Card unlocked.
3. Remove the Smart Card.
4. Close the door of the Smart Card Compartment.

❿ Touch Screen

The touch screen is a touch-sensitive device that allows you to communicate with the computer by controlling the location of the pointer on the screen with a finger or a Stylus and making a selection.

⚠️ **Caution**   Do not use a sharp object such as a ballpoint pen or pencil on the touch screen. Doing so may damage the touch screen surface.

Important: Re-calibration of the touch screen is required when you detect a discrepancy between the touched and displayed positions. Use the touch panel setting utility in the Windows control panel for calibrating the touch screen.

12.1" Display - Rear Components

Figure 7. shows the rear components of the 12.1" Display. (for detail installation instructions, refer to MW810 Mobile Workstation, Vehicle Installation Manual p/n 6802982C80).
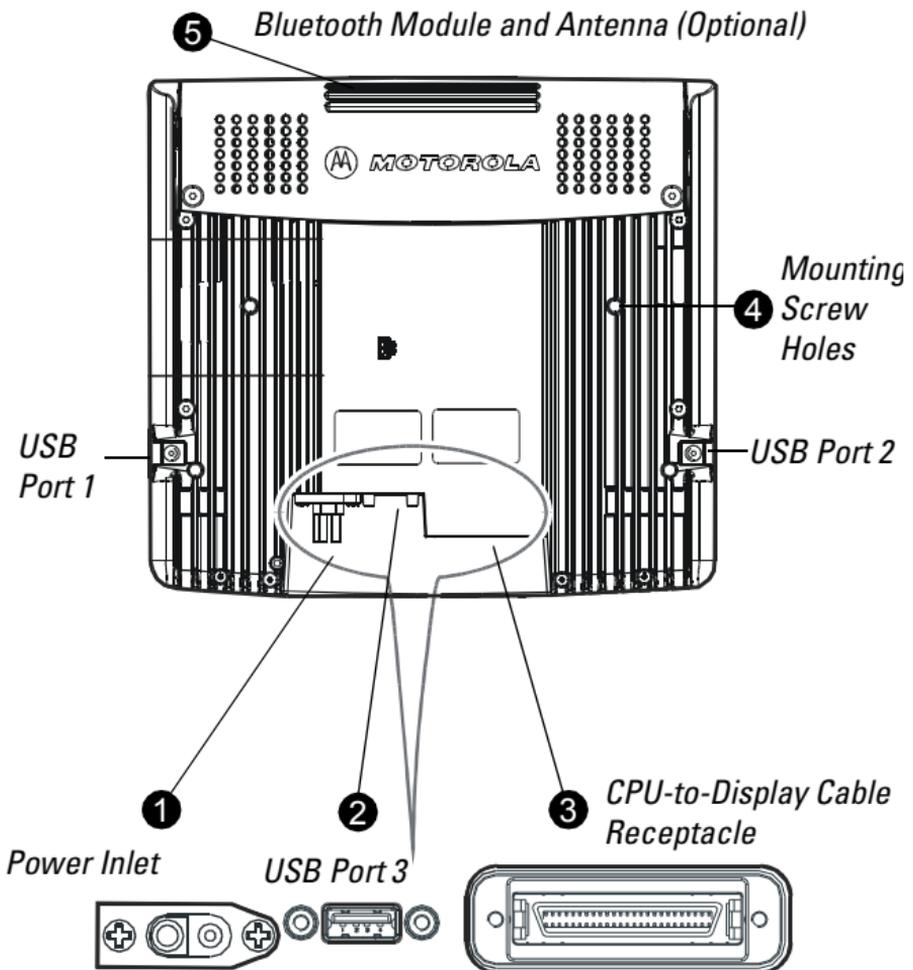

Bluetooth Module and Antenna (Optional)

❺

Mounting Screw Holes ❹

USB Port 1

USB Port 2

❶   ❷   ❸ *CPU-to-Display Cable Receptacle*

Power Inlet   *USB Port 3*

Figure 7. 12.1" Display - Rear Components

❶ **Power Inlet**

12V/24V power supply inlet from the vehicle battery system.

❷ **USB Ports**

Three USB 2.0 ports.

USB ports 1 and 2 are for temporary connection of external USB devices with up to 500mA load per port.

USB port 3 is normally used to connect the MW810 Mobile Workstation keyboard. The port receptacle has two threaded bosses for securing the USB connector.

NOTE: Be aware, USB devices connected to the USB port should be compliant with the operating system. Otherwise the system does not operate properly.

Keep the USB ports of the display unit sealed by using the rubber plugs attached to the display.

❸ **CPU-to-Display Cable Receptacle**

Signal cable 50 pin receptacle for connecting the display to the CPU Box.

The cable connector is secured to the display by two screws.

❹ **Mounting Screw Holes**

Four M4 threaded screw holes for securing the display to a mount.

❺ **Bluetooth Antenna**

Internal Bluetooth Module and Antenna (optional) for internal V2.0 plus EDR (Enhanced Data Rate) Bluetooth module.

8.4" Display Front-right Components

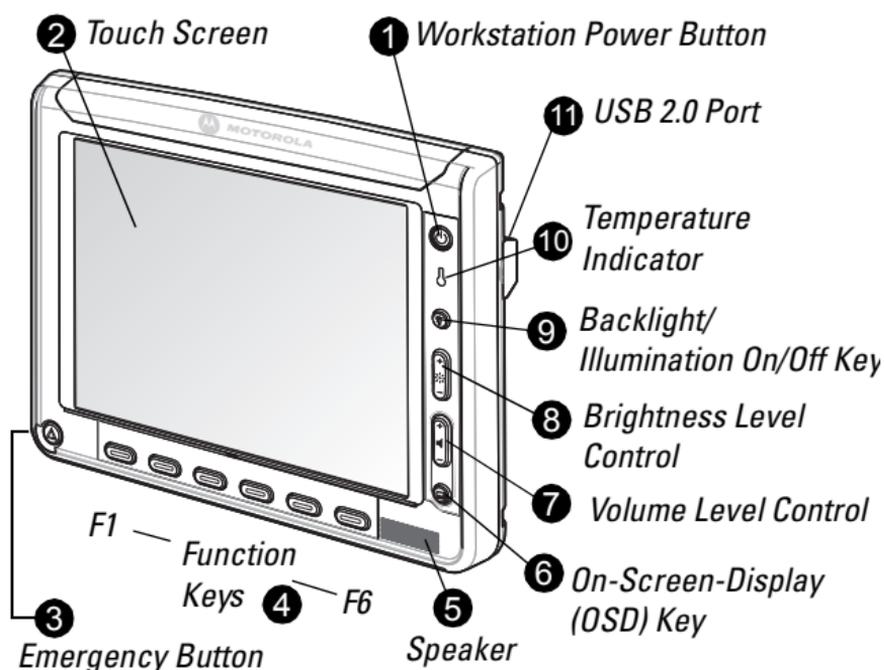Figure 8 shows the front-right components of the 8.4" Display.

Figure 8. 8.4" Display - Front-Right Side Components

❶ Workstation Power Button

The Workstation Power Button is commonly used to turn on or shutdown the workstation (CPU box and display). If the power button is used to perform "hard power off", holding the Power button pressed for more than six seconds may damage your OS or hard drive.

Note that this button has identical function to the Power button on the front panel of the CPU box.

The function of this button can be defined by the Windows OS.

<u>Steady green:</u> Workstation is on, vehicle power is ok and video signals are received from CPU box.

<u>Steady yellow:</u> Workstation is in Suspend mode or no input video signals are received from the CPU box.

Note: During Suspend mode, the workstation enters a power-saving mode, the display back-light turns off and the

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workstation speed slows down. The workstation radios remain powered on.

To resume from Suspend mode, press any control button, touch screen, keyboard or touch pad. The workstation returns to the initial state that existed prior to the Suspend mode (previous display, indications, etc.)

❷ Touch Screen

SVGA, 800x600 pixels screen with analog RGB or DVI video input. The screen is illuminated by 800 NIT (800 cd/m2 typical) high brightness LED backlighting.

The touch screen (8 wire resistive), can be accurately activated with either a bare or glove-clad finger or a stylus pen. The screen is made of tempered glass and is covered by a protective film to contain shattered glass in the event of breakage.

❸ Emergency Button

Press the illuminated amber Emergency button to send an emergency message to a dispatcher or any host computer via the user's 2-way radio system. The Emergency button is functional as soon as the OS is running. The button illumination dims during Suspend mode.

❹ Function Keys

The six Function keys are used to carry out specific functions. Note that the functionality of the keys is set by the ExtraKey application provided with the MW810 Mobile Workstation CPU Box (See "ExtraKey Application" on page 24).

❺ Speaker

The speaker is used for voice and alert sounds. The speaker volume is adjusted by using the volume level control on the display or any Windows application. The last volume setting is saved and restored after Windows restart.

❻ On-Screen-Display (OSD)

The OSD menu key is used to pop-up the OSD menu and adjust the display appearance and performance.

To pop-up the OSD panel on the screen, press once on the OSD key. Use the Volume level control keys to scroll between the OSD menu items. Press once on the OSD key to select a specific menu item (See "On-Screen Display (OSD) Menu" on page 31).

❼ Volume Level Control

Tap or press and hold the up/down keys to set volume level.

Note that the up/down keys are also used for the On-Screen-Display (OSD) operation.

❽ Brightness Level Control

Tap or press and hold the up/down keys to set screen Back-light / illumination level.

❾ Backlight/Illumination On/Off key

The Backlight/illumination On/Off key turns on/off the back-light of the screen and the illumination of the control keys. The illumination of the Workstation Power Button and Emergency button are unchanged.

Steady blue: Screen backlight and key illumination are off.

NOTE: The blue backlight/illumination on/off indicator may not lit at low brightness level.

Steady Yellow: Screen backlight and key illumination are on.

❿ Temperature Indicator

Steady red: Display temperature is extremely high or low.

Off: Normal operation.

⓫ USB Port

USB (2.0) port to support USB devices with up to 500mA current load.

NOTE: Be aware, USB devices connected to the USB port should be compliant with the operating system. Otherwise the system does not operate properly.

8.4" Display - Rear Components

Figure 9. shows the rear components of the 8.4" Display. (for detail installation instructions, refer to MW810 Mobile Workstation, Vehicle Installation Manual p/n 6802982C80).
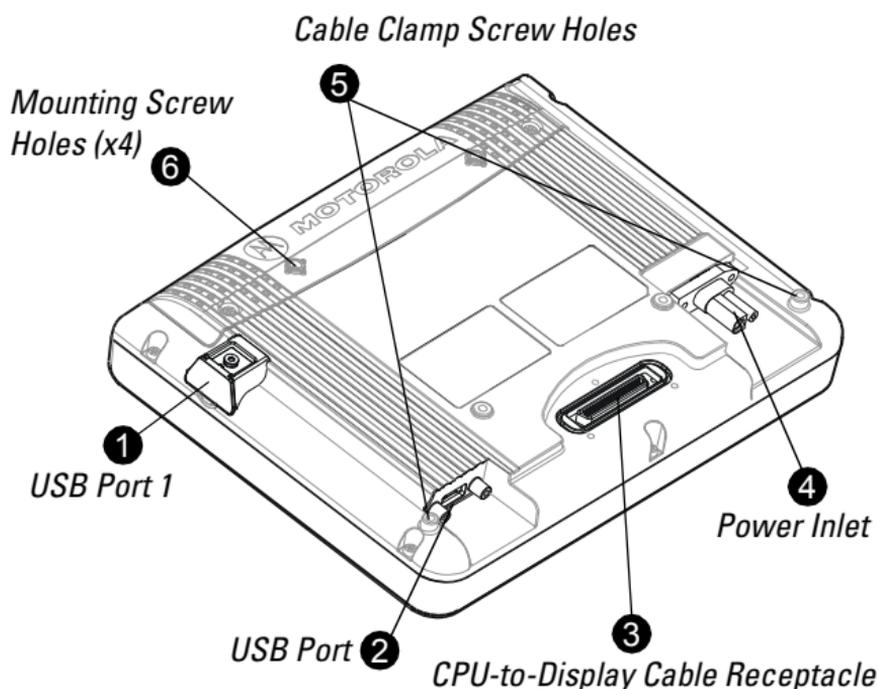

Cable Clamp Screw Holes

Mounting Screw Holes (x4)

USB Port 1

USB Port 2

CPU-to-Display Cable Receptacle

Power Inlet

Figure 9. 8.4" Display - Rear Components

❶ **USB Port**

USB 2.0 port for temporary connection of external USB devices with up to 500mA current load.

⚠️ **Caution** Do not use USB for permanent connections. Always remove USB accessories from these ports when driving. Propelled device can cause serious injury.

Keep the USB ports of the display unit sealed by using the rubber plugs attached to the display.

❸ **Keyboard USB Port**

USB 2.0 port used to connect the MW810 Mobile Workstation keyboard with up to 500mA current load. The Keyboard USB Port has two threaded bosses for securing the USB connector of the keyboard to the display.

❸ **CPU-to-Display Cable Receptacle**

Signal cable 50 pin receptacle for connecting the display to the CPU Box.

The cable connector is secured to the display by three screws.

❹ **Power Inlet**

Power supply inlet from the vehicle battery system.

❺ **Cable Clamp Screw Holes**

Cable clamp screw holes for left or right hand CPU-to-Display cable exit.

❻ **Mounting Screw Holes**

Four M4 threaded screw holes for securing the display to a mount. Left and right hand CPU-to-Display cables are available, corresponding to right- or left-side driving, respectively.

Software Tools

The operation of the Display is controlled by the OS and software utilities installed on your CPU Box. When using the Display with the CPU Box, the software utilities are already installed on the workstation. For more information about the software utilities, refer to CPU Box Owner's Manual P/N 6802982C81 for release 1.1 or 6802987C40 for release 1.2 (The manuals are included on the FIELD SUPPORT KIT Software CD - FVN5613).

When the Display is shipped as stand-alone, software utilities are provided with the package and should be installed on your computer.

ExtraKey Application

The Extrakey application allows a Function Key to operate as follows:

- Operate like a standard keyboard hotkey
- Launch any application (like Notepad or Calculator)
- Display Backlight on/off (note: There is already a dedicated key for this on this display)
- Enter system into standby mode
- Enter into hibernation mode (when enabled)
- Mute display speaker
- CPU audio (mixer) up
- CPU audio (mixer) down

Launch the Extrakey from the computer Control Panel, or left-click the ExtraKey icon to pop-up a menu and select Configuration.

Each display function key can be mapped either to a keyboard hot key (such as Ctrl + X, F1 etc.), to a file (as a shortcut), or to the display switch:
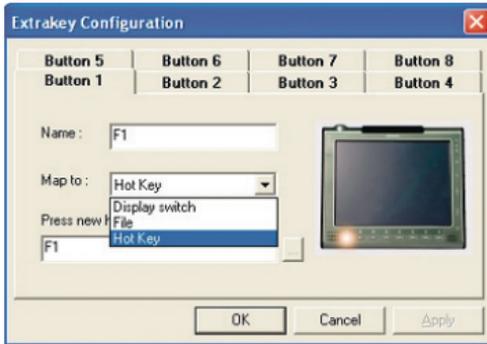
Figure 10. ExtraKey Application - Configuration Screen

Setting a Function key to operate as a keyboard hotkey

1. In the **Name** field, set a name for the function key.
2. Select **Hot Key** from the **Map to** drop-list.
3. Move the cursor to **Press new hotkey** field and right-click once to activate.
4. Press the desired key on the keyboard.

Setting a Function key to operate as a windows shortcut

1. In the **Name** field, set a name for the function key.
2. Select **Hot Key** from the **Map to** drop-list.

3. Enter the full path name of the file to be opened or click the button to browse.

Working with Two Display Units

The MW810 Mobile Workstation is designed and equipped to support two displays (MW810 Mobile Workstation or any standard display), functioning simultaneously, using Windows modes of operation called Extended Mode and Twin Mode. For setting Extended or Twin Mode, refer to Microsoft Windows documentation.

In **Extended Mode**, the CPU box can support a single task shared by two users, each using a separate display and keyboard.

In **Twin Mode**, the CPU box can support the simultaneous work of two independent users, each using a separate display and keyboard.

In Twin Mode, Display 1 serves as primary display and Display 2 as secondary. Unlike the Extended Mode, where the same Windows desktop is shown on both displays, the Windows desktop of the Twin Mode extends to two separate desktops.

The separate desktops enable two users to work independently with two different displays, sharing the same CPU Box.

When working with two display units, the following issues should be considered:

• Setting screen resolution

In Extended and Twin modes, both displays should be set to the same resolution. When different displays are used, the resolution should be set to the lower of the two displays. Setting different resolutions may cause one screen to show the resolution of the other screen.

• Using the touch screen

In Twin Mode, only the touch screen of the primary display should be used. Note that the touch screen of the secondary

display should be disabled in the Device Manager under Mouse folders -> HID mouse.

• Using USB data storage devices for workstation boot

A USB storage device can be used to boot the workstation. When this method is used, only one display (primary or secondary) should be connected.

The Keyboard

The MW810 Mobile Workstation has an 85-key USB 1.1 keyboard, which can be connected directly to either the CPU Box or display. The keyboard functions as a full size desktop keyboard. A touch pad with two side-buttons provides standard left and right mouse functionality.

Keyboard Illumination

Illumination level

To change illumination level of the keyboard backlight, press the Fn key and tap on the left or right arrow keys. The level of illumination changes repeatedly from off to maximum in seven steps. The current illumination level is memorized when CPU is turned off.

The keyboard incorporates a power saving feature that automatically turns off the keyboard backlighting after a keyboard illumination time-out has expired. Striking any key restores backlighting.

Duration of the keyboard illumination

To set duration of the keyboard illumination, press the Fn key and tap on the arrow up or down keys. The up and down arrow keys repeatedly increases/decreases the period of illumination in seven steps of 10 minutes (maximum of 70 minutes).

Special Characters

Special characters such as "` " are displayed by pressing simultaneously CTRL + ALT + special character key.

Keypad mode

A 15-key numeric keypad is embedded on the typewriter keys as shown in the following example (English):

Figure 11. 15-key Numeric Keypad

Touch Pad

The touch pad uses the standard Microsoft mouse driver. The user can adjust the pointer speed in the "Basics" dialog box of the "Mouse Properties" section of "Control Panel" to his/her personal preference. Tapping with your finger simulates a left mouse button "click". Two taps simulates a "double click". Use the buttons on each side of the touch pad the same way you use standard mouse buttons.

To use the touch pad:

- Place your finger on the pad and move your finger in the direction you want the cursor to move. The faster you move your finger, the faster the cursor moves across the screen.
- Roll your finger from side to side to move the cursor short distances.
- Quickly tap your finger on the touch pad to click on an item.
- Tap your finger twice to double-click on an item.
- Tap and hold to drag, draw, and highlight.

MW810 Mobile Workstation Basic Operations

Power On

The MW810 Mobile Workstation can be turned on either from the vehicle ignition switch or by pressing the power button on the front panel of the CPU Box or display. The OS automatically loads.

Important: When the ambient temperature inside the vehicle is beyond the operational range, the workstation indicates an operational failure and does not power on. Do not try to turn on the workstation until it cools down.

The MW810 Mobile Workstation does not power up when the voltage level of the car battery is below the Low Battery threshold. If battery voltage falls below the Battery Cranking Threshold for 20 seconds or more, the MW810 Mobile Workstation executes critical shut down and power itself off.

Power Off

The MW810 Mobile Workstation can be turned off either from the vehicle ignition switch or by pressing the power button on the front panel of the CPU Box or the display.

⚠️ **Caution**
- Remember to save important information before turning off your workstation.
- If your workstation fails to respond, shut your workstation down by holding the Power Button on the front panel of the CPU Box or display pressed for at least 6 seconds. Beware, this uncontrolled hardware power off may damage the CPU hard disk.

Hibernation

Place your computer in Hibernation mode when you are away from the MW810 Mobile Workstation for an extended time or overnight. When you restart the computer, your workstation is restored exactly as you left it. To find more on how to use Hibernation mode, refer to Microsoft Windows help.

Hibernate mode saves everything in memory on disk and then turns off your computer. When you restart your computer, your desktop is restored exactly as you left it. It takes longer

to bring your computer out of Hibernation than out of Standby.

Standby

If you plan to be away from your computer, place your computer in Standby mode.

In Standby mode the MW810 Mobile Workstation switches to a low-power mode where devices use less power.

The CPU can initiate the standby manually or automatically after a period of inactivity. Inactivity means not making any entry on your computer during a pre-defined time period. In the Standby mode the memory is saved, while internal components are turned off.

In Standby mode, the display LED indications and screen illumination, function as follows:

- Screen backlight - turns Off
- Yellow Mode LED - dimmed
- Emergency button illumination - dimmed
- Function Keys illumination - turns Off
- Label illumination - turns Off

Entering Standby Manually

Manual methods to enter Standby mode are one of the following:

- Select Standby in the Shutdown Window of the OS. Note that the default setting of the OS does not enable Standby using the power button.
- Press the Power button on the display or CPU Box (if configured)
- Turn the ignition switch off (configuration option)

When the CPU is in Standby, it suspends all connected USB devices. USB device such as keyboard, can be configured to wake up the CPU from Standby mode.

Wake Up from Standby

The MW810 Mobile Workstation wakes upon occurrence of one of following events:

- Pressing the Power button on the display or CPU Box (when configured). Note that the default setting of the OS disable this operation
- Turning the ignition switch off (optional configuration)
- Wake up event from a USB device (If capable and enabled)
- Wake up event from an Ethernet device connected to the CPU Box
- Ring Indication from the RS-232 port

Power Management Tips
- If you use an integrated WWAN radio, switching over to the Standby mode is not recommended as this may lead to a disconnection of the network connection.
- Do not switch off the MW810 Mobile Workstation while it is in Standby mode. Before switching off, restore to normal operation and then turn off the workstation.
- When the CPU is in a Standby or Hibernation mode, do not connect or disconnect any external devices.

Brightness Control

Press once on the rotary knob to activate the on-screen display control. Scroll the knob to select BRIGHTNESS.

Scrolling right/left increases / decreases the brightness level.

Volume Control

Press once on the rotary knob to activate the on-screen display control. Scroll the knob to select VOLUME.

Scrolling right/left increases /decreases the sound level.

NOTE: If your display supports Bluetooth communication, this control monitors the volume level of the audio stream to your Bluetooth device.

On-Screen Display (OSD) Menu

On-Screen Display (OSD) is a control panel, shown on a display screen, that enables the adjustment of the contrast, horizontal and vertical positioning and other screen features. To pop-up the panel on the screen, press once on the rotary knob and scroll the knob to select the OSD menu item.

NOTE: The OSD Main Menu can be set, by your system administrator, to access specific menus. For example, in some OSD Main menus, only the Volume and Brightness control options are enabled.

Exit OSD Menu

OSD setting
Factory Reset
OSD Pattern Generator
OSD Transparency
Sharpness

Volume

Exit current menu

Auto Adjust
Stretch
Horizontal position
Vertical position

Color Temperature
Color Adjustment

Brightness
Contrast
LED Illumination
Night/Day view
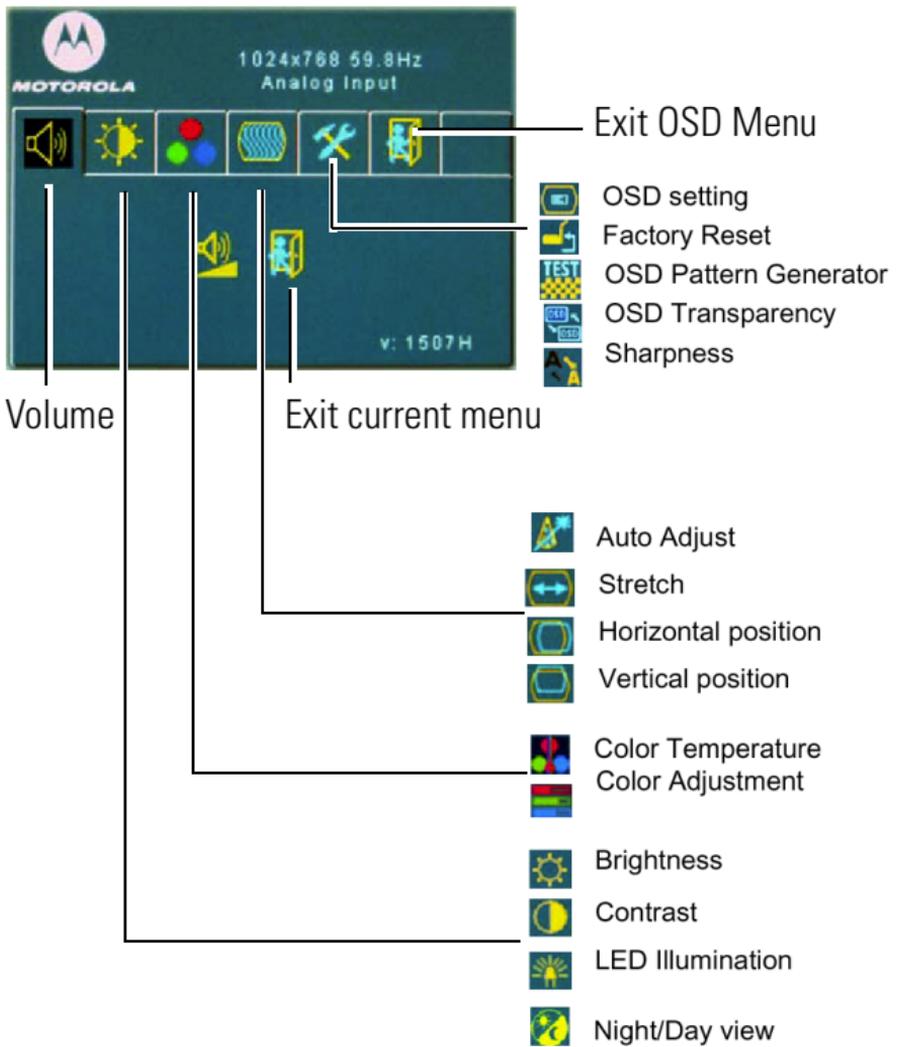
Figure 12. On Screen Display (OSD) Main Menu

Troubleshooting

Many problems can be solved without outside assistance by following the troubleshooting procedures provided via the on-line help or in the device documents, OS and software applications. Most software applications contain troubleshooting procedures and explanation of error information. If you suspect a software issue, refer to the OS or application troubleshooting guides.

NOTE: This manual does not cover OS issues. Please, refer to Microsoft® Windows® documentation.

This section contains helpful hints to follow when you encounter any problem.

Table 1 describes MW810 Mobile Workstation failures which have no user notification.

Table 1: MW810 Mobile Workstation failures without user notification

Problem	Do the following
Cannot turn the workstation off, the system does not respond	Turn off the workstation by pressing and holding the power button for 6 seconds or more. Use either CPU or display power buttons. If the workstation is still not responding, turn OFF and ON the main power switch on the rear side of the CPU unit.

Table 2 describes MW810 Mobile Workstation error messages that warn you about conditions that might prevent normal operation.

Table 2: MW810 Mobile Workstation Error Messages

Message	Do the following
"Vehicle Battery is Low. The system will shutdown in 3 minutes".	The car battery voltage is below the lower operational limit. Please save your work before shutting down
"MW810 Mobile Workstation CPU temperature is high. The system will shutdown in 3 minutes".	The internal temperature is higher than the valid limit. Please save your work before shutting down. Never turn on the MW810 Mobile Workstation until it cools down to normal operating temperature.
"MW810 Mobile Workstation CPU temperature is low. The system will shutdown in 3 minutes".	The internal temperature is below the valid limit. Please save your work before shutting down. Never turn on the MW810 Mobile Workstation until it heats up to normal operating temperature.
"PC Card error was detected. Please remove the PC Card device and then press OK"	Card Bus over-current is discovered. Please refer to service for re-installing the PC Card. Press OK to confirm the operation.
MW810 Mobile Workstation hard drive heater may be malfunctioning.	Heater over-current is discovered. Please, contact your system administrator.

Maintenance

Smart Card Insertion Counter

The total number of smart card insertions can be viewed by using the OSD menu, see "On-Screen Display (OSD) Menu" on page 31.

Cleaning Materials

Use the following materials for cleaning of plastic and glass surfaces:

1. Film-Free glass cleaner (Unisource Worldwide, Inc) http://www.unisourcelink.com.
2. Plasti-Kleen (Hess Advanced Technologies, Inc) spray cleaner.

Cleaning Directions

1. Remove dust and fibers with compressed air/nitrogen or commercial gas duster (Dust-Off®, Memorex®, etc.).
2. Soak wipe with a cleaning solution (if not pre-wetted) and gently clean the surface or contact.

⚠ Avoid spraying cleaner directly on the keyboard; always ensure that no liquid drips on the keyboard.

Caution Do not use water, window cleaner, acetone, aromatic solvent or dry, rough towels to clean the screen.

Getting Assistance From Motorola

If you are in North America and require further technical support, you may call the Motorola System Support Center (SSC) at 1-800 221-7144 and choose the options for Technical Support on Data products. Please be prepared to provide your unit model and serial number or Factory Order number for warranty entitlement verification purposes.

For your convenience, the Motorola website provides up-to-date information about the MW810 Mobile Workstation.

The URL address for the MW810 Mobile Workstation home page is: http://www.motorola.com/MW810

This site includes general information about the MW810 Mobile Workstation, as well as answers to questions regarding operational issues with the MW810 Mobile Workstation. The site also provides the following:

• Recent software / application updates
• Updated embedded firmware for your computer
• The latest MW810 Mobile Workstation drivers
• Frequently Asked Questions (FAQ)

To search for MW810 Mobile Workstation manuals, go to: www.motorola.com/enterprisemobility/manuals

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