

PROFESSIONAL DIGITAL TWO-WAY RADIO SYSTEM



MOTOTRBO™ CONNECT PLUS CONTROLLER

XRC CONTROLLER QUICK REFERENCE GUIDE



Declaration of Conformity

This declaration is applicable to your radio only if your radio is labeled with the FCC logo shown below.

Declaration of Conformity



Responsible Party

Name: Motorola Solutions, Inc.

Address: 1303 East Algonquin Road, Schaumburg, IL 60196-1078, U.S.A.

Phone Number: 1-800-927-2744

Hereby declares that the product:

Model Name: **XRT 9000 / XRT 9100**

conforms to the following regulations:

FCC Part 15, subpart A

Class B Digital Device

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 in a residential area, the user is required to correct the interference at his own expense.



NOTICE: The user is cautioned that changes or modifications not expressly approved by Motorola could result in the equipment being noncompliant with FCC Class A requirements and void the user's authority to operate the equipment.

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Limited Warranty

MOTOROLA COMMUNICATION PRODUCTS

What This Warranty Covers and For How Long

MOTOROLA SOLUTIONS INC. (“MOTOROLA”) warrants the MOTOROLA manufactured Communication Products listed below (“Product”) against defects in material and workmanship under normal use and service for a period of time from the date of purchase as scheduled below:

XRC 9000 Controller	Two (2) Years
XRC 9100 Controller	Two (2) Years

Motorola, at its option, will at no charge either repair the Product (with new or reconditioned parts), replace it (with a new or reconditioned Product), or refund the purchase price of the Product during the warranty period provided it is returned in accordance with the terms of this warranty. Replaced parts or boards are warranted for the balance of the original applicable warranty period. All replaced parts of Product shall become the property of MOTOROLA.

This express limited warranty is extended by MOTOROLA to the original end user purchaser only and is not assignable or transferable to any other party. This is the complete warranty for the Product manufactured by MOTOROLA. MOTOROLA assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of MOTOROLA. Unless made in a separate agreement between MOTOROLA and the original end user purchaser, MOTOROLA does not warrant the installation, maintenance or service of the Product.

MOTOROLA cannot be responsible in any way for any ancillary equipment not furnished by MOTOROLA which is attached to or used in connection with the Product, or for operation of the Product with any ancillary equipment, and all such equipment is expressly excluded from this warranty. Because each system which may use the Product is unique, MOTOROLA disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

General Provisions

This warranty sets forth the full extent of responsibilities of Motorola regarding the Product. Repair, replacement or refund of the purchase price, at the option of Motorola, is the exclusive remedy. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT SHALL MOTOROLA BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.

State Law Rights

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY.

This warranty gives specific legal rights, and there may be other rights which may vary from state to state.

How to Get Warranty Service

You must provide proof of purchase (bearing the date of purchase and Product item serial number) in order to receive warranty service and, also, deliver or send the Product item, transportation and insurance prepaid, to an authorized warranty service location. Warranty service will be provided by Motorola through one of its authorized warranty service locations. If you first contact the company which sold you the Product, it can facilitate your obtaining warranty service. You can also call Motorola at 1-888-567-7347 US/Canada.

What This Warranty Does Not Cover

- 1 Defects or damage resulting from use of the Product in other than its normal and customary manner.
- 2 Defects or damage from misuse, accident, water, or neglect.
- 3 Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment.
- 4 Breakage or damage to antennas unless caused directly by defects in material workmanship.
- 5 A Product subjected to unauthorized Product modifications, disassemblies or repairs (including, without limitation, the addition to the Product of non-Motorola supplied equipment) which adversely affect performance of the Product or interfere with Motorola's normal warranty inspection and testing of the Product to verify any warranty claim.
- 6 Product which has had the serial number removed or made illegible.
- 7 Rechargeable batteries if:
 - any of the seals on the battery enclosure of cells are broken or show evidence of tampering.
 - the damage or defect is caused by charging or using the battery in equipment or service other than the Product for which it is specified.
- 8 Freight costs to the repair depot.
- 9 Product, does not function in accordance with MOTOROLA's published specifications or the FCC type acceptance labeling in effect for the Product at the time the Product was initially distributed from MOTOROLA.
- 10 Scratches or other cosmetic damage to Product surfaces that does not affect the operation of the Product.
- 11 Normal and customary wear and tear.

Patent and Software Provisions

MOTOROLA will defend, at its own expense, any suit brought against the end user purchaser to the extent that it is based on a claim that the Product or parts infringe a United States patent, and MOTOROLA will pay those costs and damages finally awarded against the end user purchaser in any such suit which are attributable to any such claim, but such defense and payments are conditioned on the following:

- 1 that MOTOROLA will be notified promptly in writing by such purchaser of any notice of such claim;
- 2 that MOTOROLA will have sole control of the defense of such suit and all negotiations for its settlement or compromise; and
- 3 should the Product or parts become, or in MOTOROLA's opinion be likely to become, the subject of a claim of infringement of a United States patent, that such purchaser will permit MOTOROLA, at its option and expense, either to procure for such purchaser the right to continue using the Product or parts or to replace or modify the same so that it becomes noninfringing or to grant such purchaser a

credit for the Product or parts as depreciated and accept its return. The depreciation will be an equal amount per year over the lifetime of the Product or parts as established by MOTOROLA.

MOTOROLA will have no liability with respect to any claim of patent infringement which is based upon the combination of the Product or parts furnished hereunder with software, apparatus or devices not furnished by MOTOROLA, nor will MOTOROLA have any liability for the use of ancillary equipment or software not furnished by MOTOROLA which is attached to or used in connection with the Product. The foregoing states the entire liability of MOTOROLA with respect to infringement of patents by the Product or any parts thereof.

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Governing Law

This Warranty is governed by the laws of the State of Illinois, USA.

Computer Software Copyrights

Open Source Software Legal Notices

This Motorola Product contains Open Source Software. For information regarding licenses, acknowledgements, required copyright notices, and other usage terms, refer to the Documentation for this Motorola Product at:

<https://businessonline.motorolasolutions.com/>

Go to:

Motorola Online>Resource Center>Product Information>Manuals>MOTOTRBO>Connect Plus

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Chapter 1

Introduction

The XRC is a powerful multiprocessor computer designed to provide call processing and real-time resource management. It is designed as an Ethernet Internet Protocol (IP) device that can be configured for MOTOTRBO Connect Plus single site or multisite trunking operation. The XRC can support up to twenty-nine (29) voice/data channels per site and up to two hundred and fifty (250) RF sites when ordered for multi-site operation.* The XRC 9000 is the original controller hardware platform. The XRC 9100 provides the same features as the XRC 9000, along with faster processing, more memory, and external heat dissipation.

There are more similarities than differences between the XRC 9000 and XRC 9100. Wherever a statement or feature description applies to both hardware platforms, the term "XRC" is used.

MOTOTRBO Connect Plus is the next generation professional digital trunking communications solution that provides more performance, productivity and value for your business. MOTOTRBO Connect Plus uses 2:1 TDMA technology with a control channel slot based architecture which provides the following key trunking features*:

- PTT-ID
- Radio ID, Group ID, and ESN Validation
- Group Call, Multigroup Call, and Site All Call
- Network Wide All Call initiated by an XRT Client
- Emergency Call
- Emergency Alert
- Private Call/ Call Alert
- Dynamic Site Assignment
- Site Registration
- Site Restriction (network roaming privileges, configurable per Connect Plus subscriber)
- Automatic Roaming
- User Priority Levels
- Busy Queuing
- Remote Monitor
- Radio Check
- Text Messaging Capability with "Store and Forward"
- GPS updates for Automatic Vehicle Location (AVL) – with additional 3rd party software applications
- Over-the-air update capability for site/network frequency information, Connect Plus Option Board Codeplug, and Connect Plus Option Board Firmware files
- Centralized Network and Fault Management
- Redundant Trunking Controller (free option upon purchasing second XRC per site)
- Control Channel Rollover and Failover
- Repeater Call Hang Times configured with the Connect Plus Network Manager
- Auto Fallback
- Remote Repeater Programming

- Packet Data Call
- Telephone Interconnect Capable (requires the XRI Interconnect Gateway and other additional hardware)
- Priority Monitor Scan
- Fast GPS to enhance speed and throughput of periodic location updates.
- Generic Data Call
- Indoor Location Tracking for supporting subscriber radios. Requires additional third party software application.
- Talk Group Restriction by site
- Permanent Talk Group Registration by site
- Digital Base Station Identification (BSI) for supporting repeaters. Analog BSI when Digital BSI is not supported.



NOTICE: *Refer to the MOTOTRBO Connect Plus System Planner for more details on system configurations and trunking features.

Chapter 2

Installation



WARNING: This equipment must be provided with a proper AC protective earth (PE) ground connection.

2.1

Unpacking and Checking Equipment

The device comes wrapped in a plastic bag and secured in Styrofoam protective packaging.

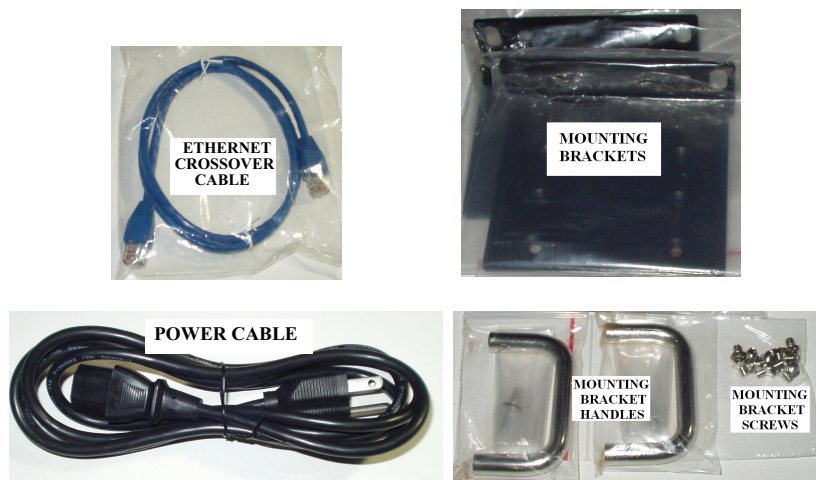
Procedure:

- 1 Unpack all the individual parts.

The packaging comes with the following list of items:

- The device.
- Power cable terminating in 120 Volt, male, 3-prong connector, if specified in order.
- Ethernet Crossover Cable.
- Quick Start Guide CD.
- Mounting kit:
 - (2) Handles with screws.
 - (2) Rack mounting brackets.
 - (1) Bag of (12) Rack mounting screws.
 - Compact Flash holding plate (the 9000 model only)

Figure 1: List of Supplied Items



- 2 Inspect the unit for any shipping damage.

If you discover any damages, contact Motorola Solutions immediately. Keep the original packing material in case you need to ship the equipment.

2.2

Initial Power Up

2.2.1

Power Requirements

Input Voltage	100 to 240 VAC auto-ranging (47 to 63 Hz for AC power)
Power Consumption	9000 Model: 50 Watts 9100 Model: 40 Watts

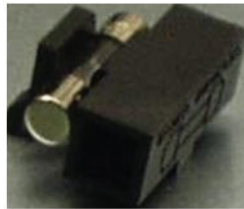
2.2.2

Fuse

The fuse is located underneath the AC Power Input connector (located on the right side of the rear panel).

The fuse can be replaced by using a small flathead screwdriver to remove the fuse holder.

Figure 2: Fuse



2.2.3

Connecting the Power Cable

When and where to use:



IMPORTANT: Power should not be applied until all cables are attached and the unit is ready to operate.

Procedure:

- 1 Attach the cable-mounted female connector of the power cord to the panel-mounted male connector (inlet) of the device.
- 2 Attach the male end of the power cord to a properly grounded 100/240 VAC, 50/60 Hz outlet, UPS, power strip, or wall socket.

The following image is the Power Input Connector on the 9000 model. The 9100 model uses the same style Power Input Connector.

Figure 3: Power Input Connector

2.2.4

On/Off Switch

The device activates once it has power applied through the power cord.

A short press of the On/Off switch powers the device up or down. Powering down by this method can take up to 30 seconds.

A long press of the On/Off switch powers down the device immediately. However, this method should be avoided, if at all possible (see the following caution).



NOTICE: If the device is powered down with the On/Off switch and then, the power is removed from the unit (unplugging the cord, power failure, etc), the device automatically powers up when power is restored to the unit.



CAUTION: Immediate shutdown (long press of the On/Off switch) can result in loss and/or corruption of data. This method should only be used if the normal power-down is unsuccessful. Any sudden loss of power (such as removing the power cord) can result in loss and/or corruption of data. This is why it is critical to utilize a UPS with the device.

2.3

Getting Acquainted with the 9000 Model

The sections which follow introduce the front panel and rear panel of the 9000 model device.

2.3.1

Front Panel

This section explains the indicators and ports found in the front panel of the device.

2.3.1.1

Front Panel Photo

The following image shows the front panel of the XRC 9000:

Figure 4: XRC 9000 Front Panel

2.3.1.2

Indicators

2.3.1.2.1

Power LED

On the front panel of the device is a green LED marked with the POWER symbol. The LED illuminates when power is properly supplied to the unit and the POWER switch is turned to the on position.

Figure 5: Power LED



2.3.1.2.2

Storage Activity LED

The yellow LED is located on the left side of the front panel and below the Power LED.

The yellow LED indicates the storage (Hard Drive) activity, eg., the LED lights up when the Hard Drive is being accessed.

Figure 6: The 9000 model Storage Activity LED



2.3.1.2.3

Reset Switch

The reset switch is located in the middle of the unit and is marked with the Reset sign.

It is recessed into the unit to avoid an accidental press.

Figure 7: The 9000 model Reset Switch



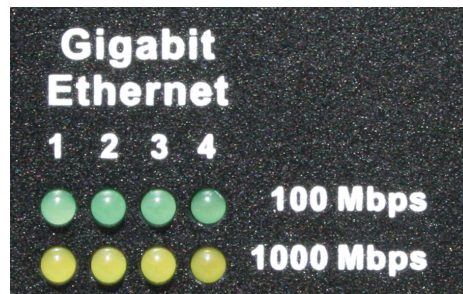
2.3.1.2.4

Network Activity LEDs

There are two rows of LEDs located on the right side of the front panel, marked with the Gigabit Ethernet sign.

The LEDs indicate if there is activity on the Ethernet LAN ports on the rear panel of the unit. The LED illuminates continuously when carrier is present but no messages are being passed. The LED blinks when messages are present.

- The green LED lights up if any of the LAN ports have activity at a 100 Mbps communications rate.
- The yellow LED lights up if any of the LAN ports have activity at a 1000 Mbps communications rate.

Figure 8: The 9000 model Network Activity LEDs

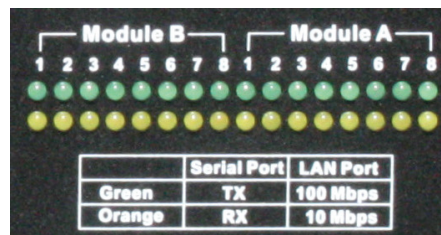
2.3.1.2.5

Expansion Network Activity LEDs

There are two rows of LEDs located on the right middle side of the front panel that are marked with the Module A and Module B signs.

The LEDs indicate if there is activity on the Serial ports on the rear panel of the unit. The LED illuminates continuously when carrier is present but no activity is being passed. The LED blinks when activity is present.

- The green LEDs light up for transmit activity on the serial ports.
- The orange LEDs light up for receive activity on the serial ports.

Figure 9: The 9000 model Expansion Network Activity LEDs

2.3.1.3

Ports

2.3.1.3.1

Universal Serial Bus (USB)

There are two USB ports located on the right side of the front panel. The USB port is used for memory expansion, where applicable.

Figure 10: Universal Serial Bus (USB)

2.3.1.3.2

Memory Card (Compact Flash port)

The memory card slot is located on the right side of the front panel.



NOTICE: This slot is currently not supported.

Figure 11: The 9000 model Memory Card Slot



2.3.2

Rear Panel

This section explains the ports found in the rear panel of the device.

2.3.2.1

Rear Panel Photo

The following image shows the rear panel of the device.

Figure 12: XRC 9000 Rear Panel



2.3.2.2

Ports

2.3.2.2.1

Video (VGA) Port

The VGA port is located on the left side of the rear panel. It can be used to attach a display monitor to the unit.

Figure 13: Video (VGA) Port



2.3.2.2.2

PS/2 Port

The PS/2 port is located on the left side of the rear panel and to the right of the VGA port. It is used for connecting a keyboard or a mouse.

Figure 14: PS/2 Port



2.3.2.2.3

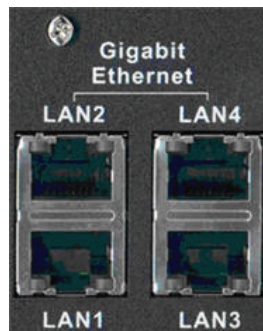
Ethernet Ports (4)

There are four Network Gigabit Ethernet LAN ports (numbered 1 to 4) located on the left side of the rear panel. These ports are used to connect to the repeaters, switches, or any other network device.



NOTICE: Currently, only LAN1 and LAN2 ports are supported by Connect Plus. LAN1 is used for connecting to the site's LAN Ethernet Switch. LAN2 is used for directly connecting two controllers in a Redundant Controller configuration.

Figure 15: The 9000 model Ethernet Ports



2.3.2.2.4

COM Ports

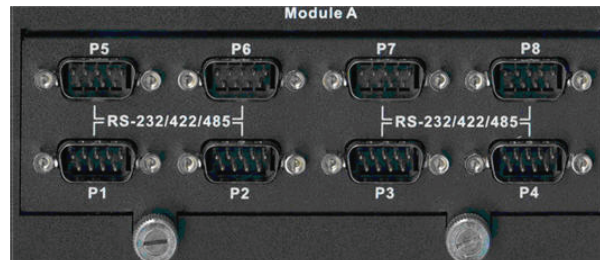
This is a module with 8 COM ports.

The slot containing a bank of COM ports is located on the rear panel.



NOTICE: Only P1 (COM1) port is currently supported by Connect Plus for external serial connections.

Figure 16: The 9000 model COM Ports



2.4

Getting Acquainted with the 9100 Model

The sections which follow introduce the front panel and rear panel of the 9100 model device.

2.4.1

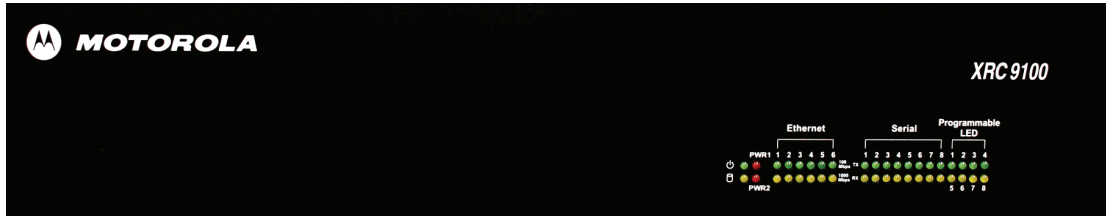
Front Panel

This section explains the indicators and ports found in the front panel of the device.

2.4.1.1

Front Panel Photo

The following image shows the Front Panel of the 9100 model.



2.4.1.2

Indicators

2.4.1.2.1

Power LED

On the front panel of the device is a green LED marked with the POWER symbol. The LED illuminates when power is properly supplied to the unit and the POWER switch is turned to the on position. If the LED does not illuminate, check to see if the fuse is blown.

Figure 17: The 9000 model Power LED



2.4.1.2.2

Storage Activity LED

The yellow LED, located on the right side of the front panel and below the Power LED.

The yellow LED indicates the storage (Hard Drive) activity. The yellow LED lights up when the Hard Drive is being accessed.

Figure 18: The 9100 model Storage Activity LED



2.4.1.2.3

PWR1 and PWR2 LEDs

PWR1 and PWR2 are red LEDs that are not currently used.

They are located to the immediate right of the Power and Storage Activity LEDs.

2.4.1.2.4

Ethernet Activity LEDs

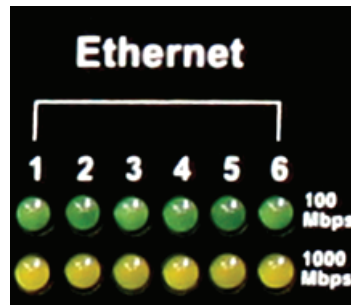
The six pairs of Ethernet LEDs are labeled 1-6.

The number above the LED corresponds to the Ethernet port number (LAN1-LAN6) on the Rear Panel of the device. For each Ethernet port, there is a green LED and a yellow LED. The LED illuminates

continuously when carrier is present but no messages are being passed. The LED blinks when messages are present.

- The green LED lights up if the corresponding Ethernet port has activity at a 100 Mbps communications rate.
- The yellow LED lights up if the corresponding Ethernet port has activity at a 1000 Mbps communications rate.

Figure 19: Ethernet Activity LEDs



2.4.1.2.5

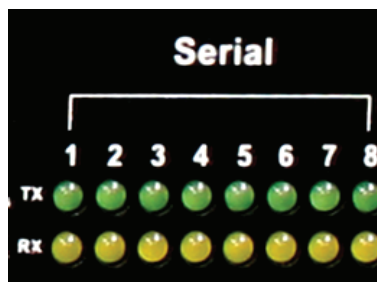
Serial Activity LEDs

The eight pairs of Serial LEDs are labeled 1-8.

The number above the LED corresponds to the Serial port number (P1-P8) on the Rear Panel of the device. For each Serial port, there is a green LED and a yellow LED.

- The green LED lights up for transmit (TX) activity on the corresponding Serial port.
- The yellow LED lights up for receive (RX) activity on the corresponding Serial port

Figure 20: Serial Activity LEDs



2.4.1.2.6

Programmable LEDs

The eight LEDs located in the area labeled “Programmable LED” are not currently used.

2.4.2

Rear Panel

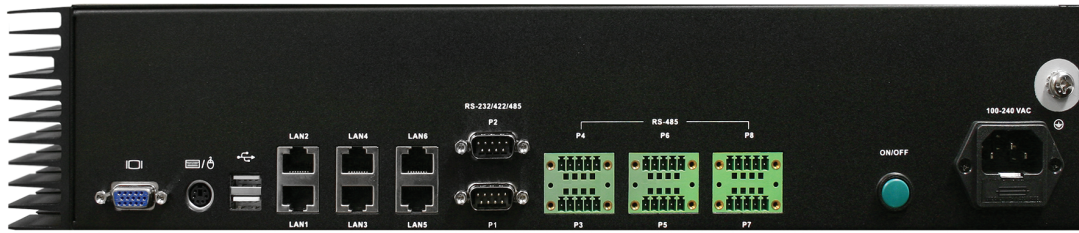
This section explains the ports found in the rear panel of the device.

2.4.2.1

Rear Panel Photo

The following image shows the rear panel of the 9100 model.

Figure 21: XRC 9100 Rear Panel



2.4.2.2 Ports

2.4.2.2.1 Video (VGA) Port

The VGA port is located on the left side of the rear panel. It can be used to attach a display monitor to the unit.

Figure 22: Video (VGA) Port



2.4.2.2.2 PS/2 Port

The PS/2 port is located on the left side of the rear panel and to the right of the VGA port. It is used for connecting a keyboard or a mouse.

Figure 23: PS/2 Port



2.4.2.2.3 Universal Serial Bus (USB)

Two USB ports are located on the left side of the rear panel and to the right of the PS/2 port. The USB ports are used for memory expansion, where applicable.

Figure 24: The 9100 model Universal Serial Bus (USB)

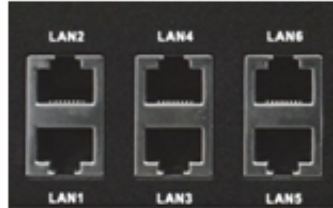


2.4.2.2.4

Ethernet Ports (6)

There are six Gigabit Ethernet LAN ports (labeled LAN1 to LAN6) are located on the rear panel and to the right of the USB ports.

Figure 25: Ethernet Ports



2.4.2.2.5

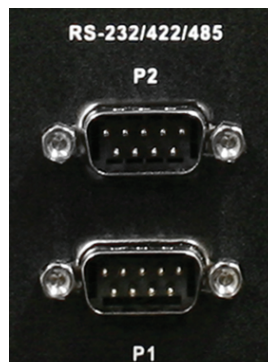
RS-232/422/485 Serial Ports (P1-P2)

There are two RS-232/422/485 Serial (COM) Ports labeled P1 and P2. They are located on the rear panel and to the right of the Ethernet LAN ports.



NOTICE: Only P1 (COM1) port is currently supported by Connect Plus for external serial communications.

Figure 26: RS-232/422/485 Serial Ports (P1-P2)

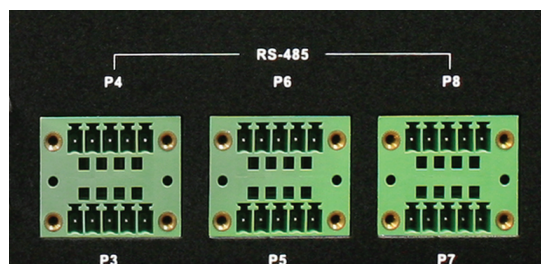


2.4.2.2.6

RS-485 Serial Ports (P3-P8)

There are six RS-485 Serial (COM) Ports labeled P3 through P8. These ports are located on the rear panel and to the right of the P1 and P2 Serial Ports. They are not currently used.

Figure 27: RS-485 Serial Ports (P3-P8)

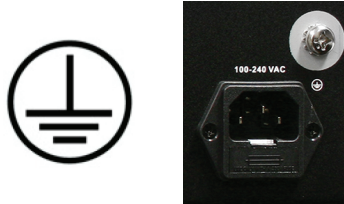


2.4.2.2.7

Grounding Connection

The device panel provides a screw as a grounding point. The screw is identified with the symbol for Earth Ground and is located above and to the right of the Power Input.

Figure 28: Grounding Connection



2.5

System Connections

This section describes how to connect the device into a Connect Plus system.

Each Connect Plus site requires at least one XRC Controller. Beginning with Connect Plus Release 1.1, the customer can purchase a second XRC Controller per site to serve as backup to the primary XRC. The secondary controller provides backup capability, but it does not increase the number of repeaters and calls that can be managed per site.

If the site will employ a Redundant Controller configuration, read the Redundant Controller section of the MOTOTRBO Connect Plus System Planner. In the System Planner, you will find diagrams illustrating connections, important operational information, and the steps that must be followed when configuring and deploying Redundant Controllers at the site.



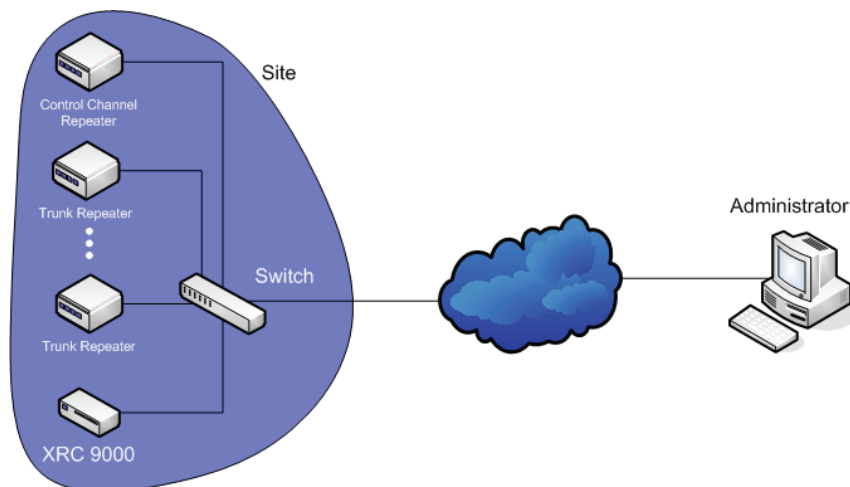
NOTICE: The devices labeled "XRC 9000" in the Single Site Block Diagram and Multisite Block Diagram can be either a 9000 model or a 9100 model.

2.5.1

Single Site Block Diagram

The following diagram shows the system connections of the XRC in a single site.

Figure 29: System connections of the XRC in a single site



2.5.2

PC Connection for Initial Configuration

There are multiple methods to connect to the device. The two most common methods are described in the following sections.

2.5.2.1

Ethernet Port Connection of the Device

The Network Parameters of the PC will have to be temporarily changed to match the default Network Parameters of the device. Once the Network Parameters of the device are set for your network, then the Network Parameters of the PC can be returned to their original settings. See [PC Connection for Initial Configuration on page 25](#)

2.5.2.2

Connecting the Device to the Ethernet Switch

Procedure:

Connect the device to the switch after mounting it in the rack.

2.5.2.3

Direct Connection: PC to Device

Plug one end of a Category 5 Ethernet crossover cable into the LAN1 port, located on the left side of the rear panel of the device. Plug the other end of the cable into any available Ethernet port on the PC.

Figure 30: Connect the PC to the device using a LAN cable



2.5.2.4

Connecting to the Device Through An Ethernet Switch

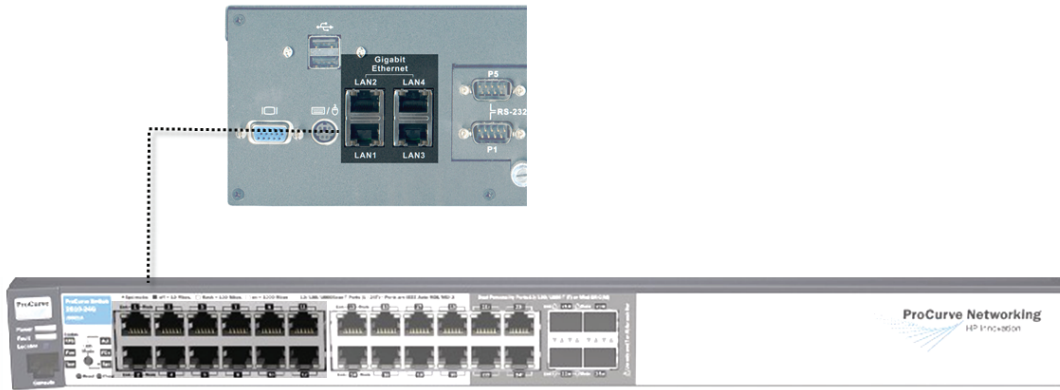
Prerequisites: Minimum switch requirements:

- 100 Mbps ports
- At least 16 ports
- Managed (recommended but not required)
- Capable of accepting gratuitous ARP responses (for sites that incorporate redundant XRC Controllers)

Procedure:

- 1 Plug one end of a straight-through Category 5 Ethernet cable into the LAN1 port located on the left side of the rear panel of the device.
- 2 Plug the other end of the cable into any available port on the Ethernet Switch.
- 3 Plug one end of a straight-through Category 5 Ethernet cable into the LAN port located on the computer running the Network Manager Connection Tool.
- 4 Plug the other end into the site Ethernet switch.

The following illustration shows the device connection to an Ethernet Switch. The 9100 model also connects to the LAN Ethernet switch via its LAN1 port.



2.5.3

Mounting the Device In A Rack

The device can be mounted in a system rack.

Prerequisites: There are different types of racks, as follows:

- Rails and base only



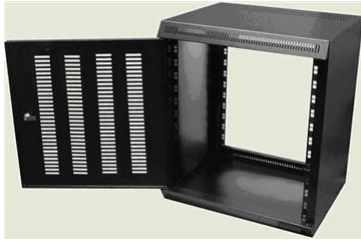
- Enclosure without a door



- Enclosure without a door on wheels



- Enclosure with a door



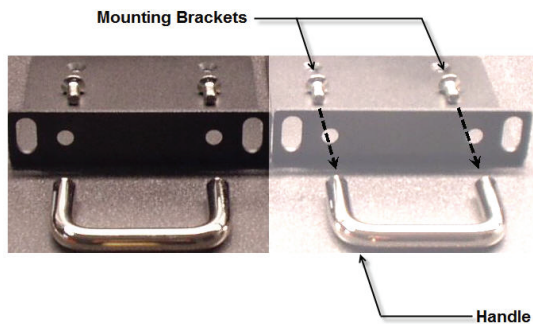
- Enclosure with a glass door



Select the mounting type that is suitable for your environment.

Procedure:

- 1 Using four screws, attach the handles to the mounting brackets by fastening them via the through holes.



- 2 Attach the mounting brackets with the handles to the device.



- 3 Install the device in the rack.
- 4 Adjust the mounting bracket to fit.
Adjustment should not be required for standard EIA racks.
- 5 Using four rack screws, secure the unit to the mounting rails.

Chapter 3

Communicating with the Device

This chapter describes the communication with the device after physical installation and after electrical connections are in place.

Before proceeding, ensure that all the connections are still in place and secure.

3.1

PC Connection for Initial Configuration

There are multiple methods to connect to the device. The two most common methods are described in the following sections.

3.2

Connect Plus Network Manager Connection Tool Software

Microsoft .NET Framework Requirement: A PC can (and frequently does) have multiple versions of Microsoft .NET Framework. To utilize Network Manager versions prior to Connect Plus System Release 1.3, the PC must have at least one of the following .NET Framework versions: 2.0, 3.0 or 3.5.

To utilize a Network Manager version for Connect Plus System Release 1.3 (or later), the PC must have .NET Framework version: 4.0. To see what versions are on your PC, check Control Panel>Add or Remove Programs.

3.2.1

Installing MOTOTRBO Connect Plus Network Manager Connection Tool on the PC

Prerequisites: Download the Installation folder from Motorola Online (MOL). The folder includes two (2) files:

Setup.exe

This is the application that is used to install the MOTOTRBO Connect Plus Network Manager Connection Tool software on your PC.

MOTOTRBO Connect Plus Network Manager Connection Tool Setup.msi

Microsoft Windows Installation file.

Procedure:

- 1 From the Installation folder, double-click the setup.exe file.
- 2 Answer the questions and follow the prompts provided by the Installation Wizard.
- 3 The Installation Wizard provides a message when installation is complete. Follow the prompt to close the message and to exit the Installation Wizard.

3.2.2

Launching the MOTOTRBO Connect Plus Network Manager Connection Tool Software

When and where to use:



IMPORTANT: Do not open more than one instance of the MOTOTRBO Connect Plus Network Manager Connection Tool on the same computer, as this can result in unexpected and undesirable operation.

Procedure:

Launch the MOTOTRBO Connect Plus Network Manager Connection Tool Software through one of the following applications:

- **Desktop Icon**

Double-click on the icon shown as follows. The Setup Wizard creates an icon on the Desktop that is a shortcut to the MOTOTRBO Connect Plus Network Manager Connection Tool Application during installation.



- **Start Menu**

To run the MOTOTRBO Connect Plus Network Manager Connection Tool application through the Start menu, select **Start**, choose **All Programs**, then **Motorola Solutions**, and then select **MOTOTRBO Connect Plus Network Manager Connection Tool**.

- **Program Files Folder**

To run the MOTOTRBO Connect Plus Network Manager Connection Tool Application through the **Program Files** folder, navigate to the Program Files folder, open **Motorola Solutions** folder, locate and open the MOTOTRBO Connect Plus Network Manager Connection Tool folder, and then double-click on the **MOTOTRBO Connect Plus Network Manager Connection Tool.exe**.

3.2.3

Establishing Connection with the Device

3.2.3.1

Device Power Up and Power Down

The device activates once it has power applied through the power cord. When there is no loss of power, normal power-up accomplished with a momentary press of the On/Off switch.

The device can be powered down with a short press of the On/Off switch. This can take up to 30 seconds. This is the recommended method for powering down. If the device is powered down with the On/Off switch, and then the power is removed from the unit (unplugging the cord, power failure, etc.), the device automatically powers up when power is restored to the unit.

If the On/Off switch is pressed with a long press (about 10 seconds) then the unit immediately shuts down. This power-down method should be avoided, if at all possible.



CAUTION: Immediate shutdown (long press of the On/Off switch) can result in loss and/or corruption of data. It should only be used if the normal power-down is unsuccessful. Any sudden loss of power (such as removing the power cord) can result in loss and/or corruption of data. This is why it is critical to utilize a UPS with the device.

3.2.3.2

MOTOTRBO Connect Plus Network Manager Connection Tool

The MOTOTRBO Connect Plus Network Manager Connection Tool program is used to connect your PC to the XRC controller. Upon connecting to the XRC, the Network Manager Connection Tool starts the MOTOTRBO Connect Plus Network Manager, the software program that is used to monitor and

configure the XRC controller. For detailed instructions on connecting to and configuring your XRC, please refer to the MOTOTRBO Connect Plus XRC Controller User Guide.

Beginning with Connect Plus System Release 1.5, the MOTOTRBO Connect Plus Network Manager Connection Tool is also used to connect to the XRI Interconnect Gateway. Also beginning with Connect Plus System Release 1.5, the MOTOTRBO Connect Plus Network Manager is used to configure the XRI Interconnect Gateway. For information on how to connect to and configure the XRI Interconnect Gateway, please refer to the MOTOTRBO Connect Plus XRI Interconnect Gateway User Guide.

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