Installation and Reference Guide

Package contains the parts shown below:

Ethernet Cross Over Cable supplied

MCS Total Solution for all your Control Needs

Energy Efficient and RoHS Compliant

Revision/Disclaimer Page

Date	Author	Description of Changes
1/6/15	DEW	Setup Manual
1/8/15	DEW	Added wiring diagram

The MCS Commitment is to provide practical solutions for the industries needs and to be both a leader and partner in the effective use of microprocessor controls.
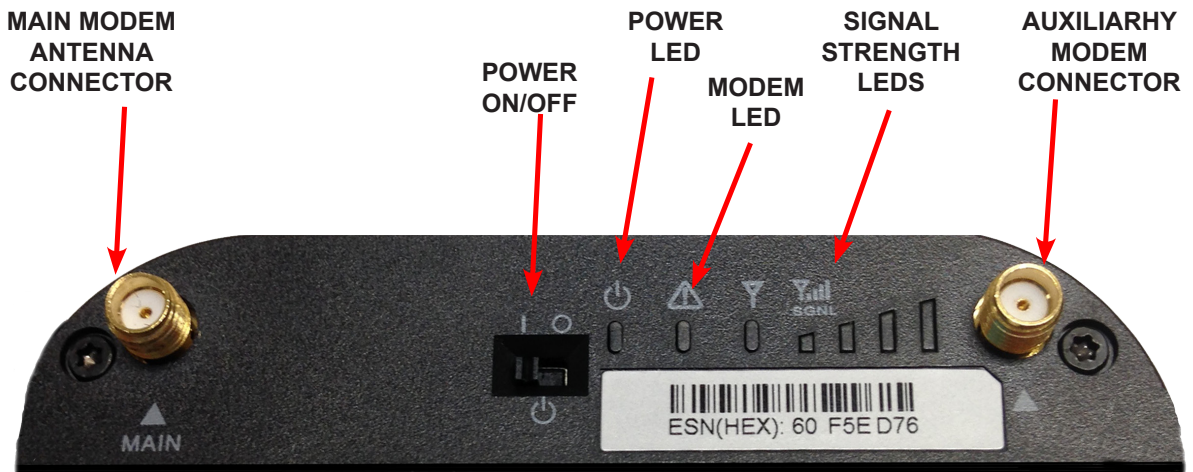
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www.mcscontrols.com

Table of Contents

1.   MCS-WIRELESS-3G INTERFACE

MAIN MODEM ANTENNA CONNECTOR

POWER ON/OFF

POWER LED

MODEM LED

SIGNAL STRENGTH LEDS

AUXILIARHY MODEM CONNECTOR

Modem Antennas: The **MCS-WIRELESS-3G** comes with two modem antennas to enhance reception for the embedded modem. These antennas are simple to attach and adjust.

ETHERNET CONNECTIONS

COMPUTERS OR LOCSAL DEVICES (LAN DEFAULT

ETHERNET DATA SOURCE (WAN DEFAULT

POWER PLUG IN

USB (STANDARD-A)
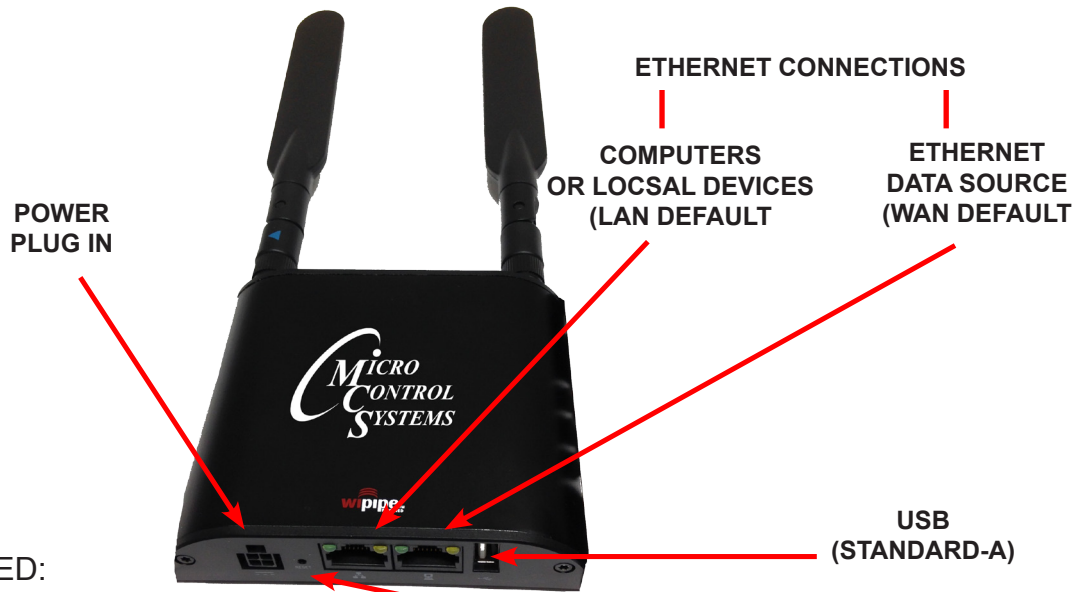
RESET

Power LED:
• Blue = On
• No light = Off **Modem LED:**
   • Green = On and operating normally
   • Blinking Green = Connecting
   • Amber = No Cellular Connection
   • Blinking Amber = Cellular data connection error
   • No light = Off

Additional LED Indications:

Factory reset button detected	Modem LEDs blink amber twice
Error during USB firmware upgrade	Modem LEDs blink red

2.   INSTALL

2.1   LOCATION- DRY/INDOORS

1) Attach the bracket to the wall (indoors, dry location) or other surface with screws.
   NOTE: Screws are not provided because the type of screw required depends on the
   mounting surface.
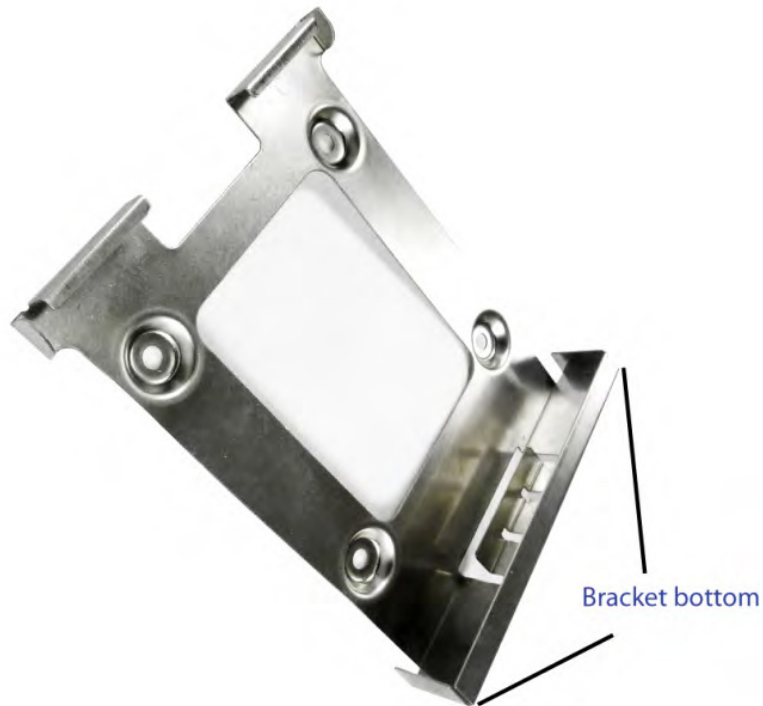
Bracket bottom

2.2.   ATTACHING THE MCS-WIRELESS-3G TO THE MOUNTING BRACKET

2) Place the router's edge against the bottom of the bracket.

3) Press the router down firmly, then push it inside the bracket. It should latch.

3. REMOVING FROM MOUNTING BRACKET

3.1 Removing the MCS-WIRELESS-3G from the Mounting Bracket

From the top of the bracket, press down firmly on the router using your thumb(s) and pull the device out.

4. BASIC SETUP

4.1 QUICK START

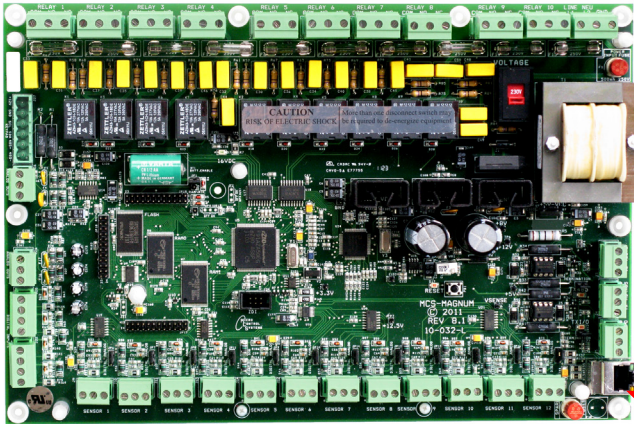Attach the modem antennas, thumb tight only.

4.2 CONNECT TO MCS-MAGNUM

4.3 NETWORK ADDRESS ON MCS-MAGNUM

THE NETWORK ADDRESS FOR YOUR NEW MCS-WIRELESS-3G HAS BEEN FACTORY SET AND IS SUPPLIED WITH THE UNIT. YOU MUST SET THE NETWORK ADDRESS ON YOUR CONTROLLER TO MATCH THIS FACTORY ADDRESS.

4.4 CONNECTING CROSS OVER CABLE

Connect the end of the supplied CROSSOVER ETHERNET CABLE to the **ETHERNET DATA SOURCE** connector on the rear of the **MCS-WIRELESS-3G** and the other end to the IO port on the **MCS-MAGNUM CONTROLLER**.

Ethernet Cross Over Cable supplied

4.5 POWER SUPPLY

Plug the power supply into an electrical outlet and connect it to the router. Make sure the power is switched on.

O = OFF
I = ON

4.6 ACTIVATE YOUR MODEM

A wireless broadband data plan has been added to your **MCS-WIRELESS-3G** through Verizon Wireless. **THIS IS A FACTORY PRE-INSTALL.**

If there are any problems or questions about the intallation of the data plan, please consult MCS support at: support@mcscontrols.com

5. MUPLIPLE CONNECTIONS
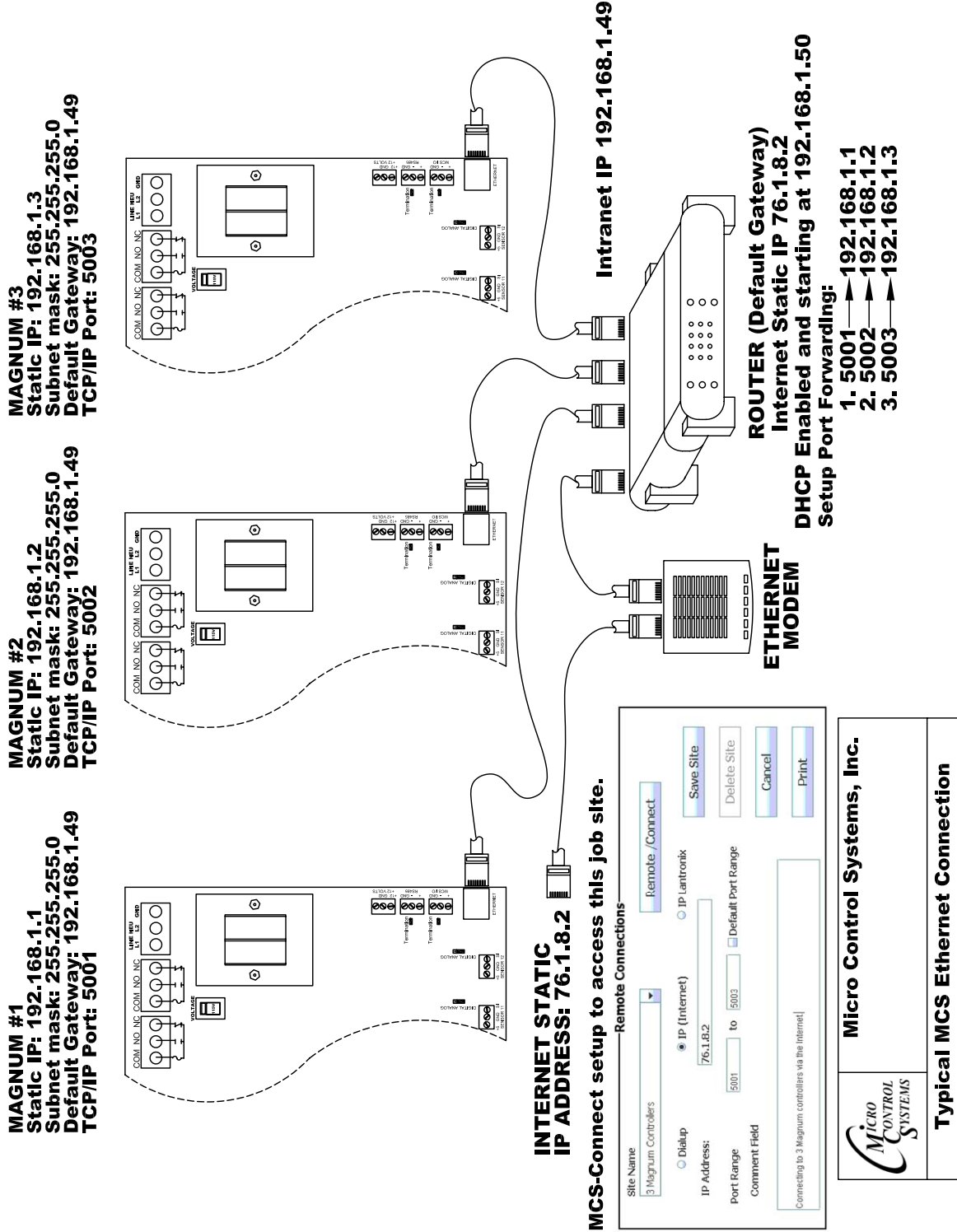
5.1   ETHERNET SWITCH (NOT SUPPLIED)

An Ethernet switch, provides a central connection in an Ethernet network in which each connected device has its own dedicated link with full bandwidth. Switches divide LAN data into smaller, easier-to-manage segments and receive data from the controller. As a result, every port on the switch represents a dedicated 10- or 100-Mbps pathway. Because users connected to a switch do not have to share bandwidth, a switch offers relief from the network congestion a shared hub can cause.

5.2   CONNECTING TO MULTIPLE MCS-MAGNUMS

With the NEW MCS-WIRELESS-3G you can connect multiple **MCS-MAGNUMS** to the **MCS-WIRELESS-3G Modem** using an Ethernet Switch (not supplied) that will enable you to communicate with each **MCS-MAGNUM** anywhere in the Continental United States as long as your **MCS-WIRELESS-3G** is hard wired to an existing ethernet network. (see wiring diagram on page 9).

6. WIRING FOR MULTIPLE MCS-MAGNUMS

6.3 WIRING DIAGRAM

MAGNUM #1
Static IP: 192.168.1.1
Subnet mask: 255.255.255.0
Default Gateway: 192.168.1.49
TCP/IP Port: 5001

MAGNUM #2
Static IP: 192.168.1.2
Subnet mask: 255.255.255.0
Default Gateway: 192.168.1.49
TCP/IP Port: 5002

MAGNUM #3
Static IP: 192.168.1.3
Subnet mask: 255.255.255.0
Default Gateway: 192.168.1.49
TCP/IP Port: 5003

Intranet IP 192.168.1.49

ROUTER (Default Gateway)
Internet Static IP 76.1.8.2
DHCP Enabled and starting at 192.168.1.50
Setup Port Forwarding:
1. 5001 → 192.168.1.1
2. 5002 → 192.168.1.2
3. 5003 → 192.168.1.3

ETHERNET MODEM

INTERNET STATIC IP ADDRESS: 76.1.8.2

MCS-Connect setup to access this job site.

Micro Control Systems, Inc.

Typical MCS Ethernet Connection

7. OPTIONAL EXTERNAL ANTENNA

7.1 HIGH-GAIN EXTERNAL ANTENNA

External Antennas are available where better reception is needed.

Email: support@mcscontrols.com for additional information

***WIDE-BAND
OMMI-DIRECTIONAL***

***Dual-Band Omni-
Directional Antenna***

***MUTI-BAND
OMMI-DIRECTIONAL***

NOTES

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