

**MICROSCAN®**

# *MS-Connect 210*

## *Ethernet Quick Start Guide*



[illegible]

Diagram illustrating the wiring connections for the J26 module, showing various components and their interconnections.

**RELAY K1:** J1 (10VDC - 28VDC), J2 (PWR+, PWR-, CHASSIS, CHASSIS, CHASSIS, CHASSIS, PWR+, PWR-), J3 (CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J4 (PWR+, PWR-, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J5 (PWR+, PWR-, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J6 (OUTPUT1+, OUTPUT1-, OUTPUT2+, OUTPUT2-, OUTPUT3+, OUTPUT3-), J7 (OUTPUT1+, OUTPUT1-, OUTPUT2+, OUTPUT2-, OUTPUT3+, OUTPUT3-), J8 (OUTPUT1+, OUTPUT1-, OUTPUT2+, OUTPUT2-, OUTPUT3+, OUTPUT3-).

**RELAY K2:** J1 (10VDC - 28VDC), J2 (PWR+, PWR-, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J3 (CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J4 (PWR+, PWR-, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J5 (PWR+, PWR-, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J6 (OUTPUT1+, OUTPUT1-, OUTPUT2+, OUTPUT2-, OUTPUT3+, OUTPUT3-), J7 (OUTPUT1+, OUTPUT1-, OUTPUT2+, OUTPUT2-, OUTPUT3+, OUTPUT3-), J8 (OUTPUT1+, OUTPUT1-, OUTPUT2+, OUTPUT2-, OUTPUT3+, OUTPUT3-).

**RELAY K3:** J1 (10VDC - 28VDC), J2 (PWR+, PWR-, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J3 (CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J4 (PWR+, PWR-, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J5 (PWR+, PWR-, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS, CHASSIS), J6 (OUTPUT1+, OUTPUT1-, OUTPUT2+, OUTPUT2-, OUTPUT3+, OUTPUT3-), J7 (OUTPUT1+, OUTPUT1-, OUTPUT2+, OUTPUT2-, OUTPUT3+, OUTPUT3-), J8 (OUTPUT1+, OUTPUT1-, OUTPUT2+, OUTPUT2-, OUTPUT3+, OUTPUT3-).

**POWER:** 3 AMP SLO-BLO, POWER LED (RED = ERROR, GREEN = OK), FUSE, POWER ON/OFF, ETH 422/485, SW7.

**ETH:** ETH 422/485, SW7.

**J26:** J11 (INPUT1+, INPUT1-, DEFAULT, PWR-, PWR+, PWR-, TRIGGER+, TRIGGER-, NEW MASTER+, NEW MASTER-, RX-, RX+, TX-, TX+, CHASSIS, SGNL GND), J10 (INPUT1+, INPUT1-, DEFAULT, PWR-, PWR+, PWR-, TRIGGER+, TRIGGER-, NEW MASTER+, NEW MASTER-, RX-, RX+, TX-, TX+, CHASSIS, SGNL GND), J9 (INPUT1+, INPUT1-, DEFAULT, PWR-, PWR+, PWR-, TRIGGER+, TRIGGER-, NEW MASTER+, NEW MASTER-, RX-, RX+, TX-, TX+, CHASSIS, SGNL GND).

**OPTIONAL ETHERNET MODULE:** PIN 2=RX232, PIN 3=TX232, PIN 5=SGNL GND.

**ETHERNET MODULE:** 9, 6, 5, 1, 10VDC - 28VDC, J16, SW3, COMM SWITCHES.

**TRIG LOCKOUT:** J14 (CHASSIS, RX232, SGNL GND, TX232, CHASSIS, CTS, RTS, RX232, SGNL GND, TX232, RX232, 5V+, HHGND), J13 (CHASSIS, RX232, SGNL GND, TX232, CHASSIS, CTS, RTS, RX232, SGNL GND, TX232, RX232, 5V+, HHGND), J15 (CHASSIS, RX232, SGNL GND, TX232, CHASSIS, CTS, RTS, RX232, SGNL GND, TX232, RX232, 5V+, HHGND).

**SPARE:** J16, SW3, COMM SWITCHES.

**HOST RS232:** J13, J15, HANDHELD.

**AXIS RS232:** J14, J16, SPARE.

**NM LOCKOUT:** J16, SW3, COMM SWITCHES.

**READER DEFAULT:** READER DEFAULT, READER ETHERNET.

**BEOPER ON:** BEOPER ON.

**SW2:** SW2.

**SW1:** SW1.

**SW4:** SW4.

**SW5:** SW5.

**SW6:** SW6.

**SW7:** SW7.

**SW8:** SW8.

**SW9:** SW9.

**SW10:** SW10.

**SW11:** SW11.

**SW12:** SW12.

**SW13:** SW13.

**SW14:** SW14.

**SW15:** SW15.

**SW16:** SW16.

**SW17:** SW17.

**SW18:** SW18.

**SW19:** SW19.

**SW20:** SW20.

**SW21:** SW21.

**SW22:** SW22.

**SW23:** SW23.

**SW24:** SW24.

**SW25:** SW25.

**SW26:** SW26.

**SW27:** SW27.

**SW28:** SW28.

**SW29:** SW29.

**SW30:** SW30.

**SW31:** SW31.

**SW32:** SW32.

**SW33:** SW33.

**SW34:** SW34.

**SW35:** SW35.

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**SW37:** SW37.

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**SW91:** SW91.

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**SW93:** SW93.

**SW94:** SW94.

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**SW97:** SW97.

**SW98:** SW98.

**SW99:** SW99.

**SW100:** SW100.

**SW101:** SW101.

**SW102:** SW102.

**SW103:** SW103.

**SW104:** SW104.

**SW105:** SW105.

**SW106:** SW106.

**SW107:** SW107.

**SW108:** SW108.

**SW109:** SW109.

**SW110:** SW110.

**SW111:** SW111.

**SW112:** SW112.

**SW113:** SW113.

**SW114:** SW114.

**SW115:** SW115.

**SW116:** SW116.

**SW117:** SW117.

**SW118:** SW118.

**SW119:** SW119.

**SW120:** SW120.

**SW121:** SW121.

**SW122:** SW122.

**SW123:** SW123.

**SW124:** SW124.

**SW125:** SW125.

**SW126:** SW126.

**SW127:** SW127.

**SW128:** SW128.

**SW129:** SW129.

**SW130:** SW130.

**SW131:** SW131.

**SW132:** SW132.

**SW133:** SW133.

**SW134:** SW134.

**SW135:** SW135.

**SW136:** SW136.

**SW137:** SW137.

**SW138:** SW138.

**SW139:** SW139.

**SW140:** SW140.

**SW141:** SW141.

**SW142:** SW142.

**SW143:** SW143.

**SW144:** SW144.

**SW145:** SW145.

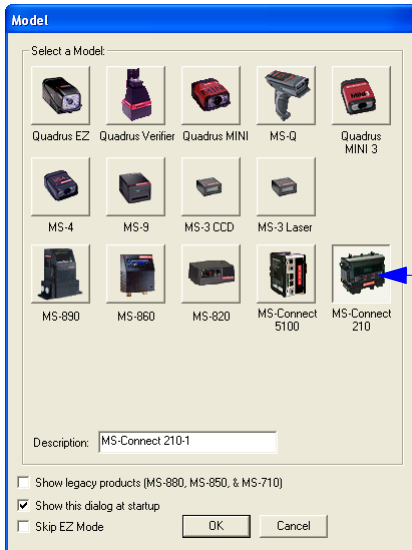
**SW146:** SW146.

**SW1**

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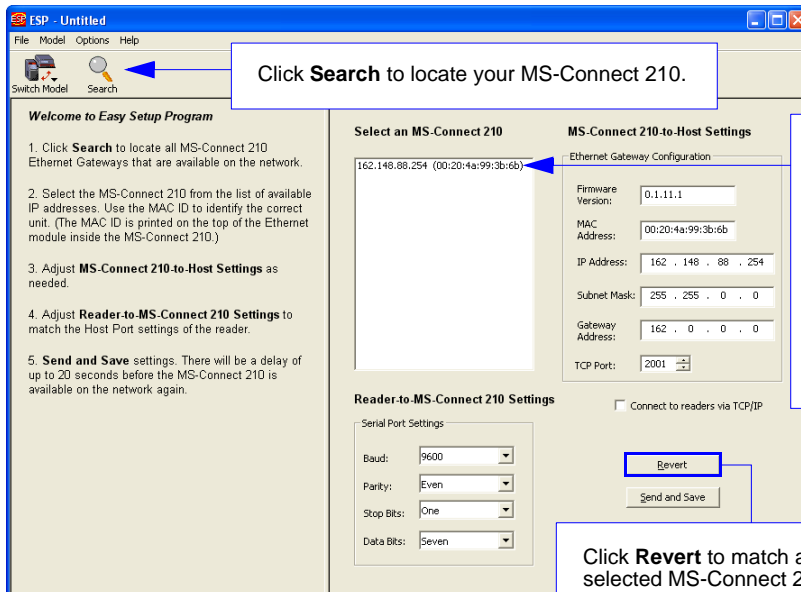
## Step 2 — Select and Identify Device Using ESP

When you run **ESP**, you will see the model menu shown below. Select the **MS-Connect 210** by double clicking on the MS-Connect 210 button, or by clicking it once and then clicking **OK**.



Click the button showing the MS-Connect 210.

The **MS-Connect 210** view (shown below) will then appear.



Click **Search** to locate your MS-Connect 210.

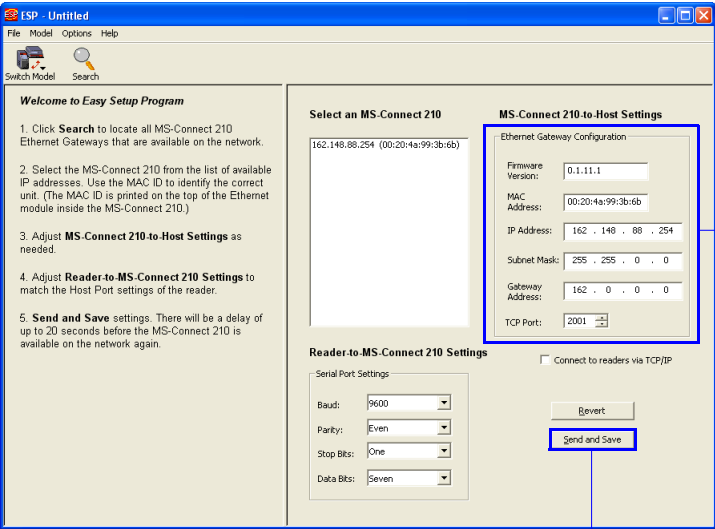
The MS-Connect 210's IP address and MAC address will appear in this field.

**Important:** The unit's MAC address is printed on the top of the Ethernet module inside the box.

Click **Revert** to match all settings to the selected MS-Connect 210's current settings.

# Step 3 — Set Network Parameters

You can use **ESP** to change Ethernet settings. Clicking **Send and Save** updates the settings in the MS-Connect 210's Ethernet module.



The firmware version, MAC address, and IP address will automatically populate the fields shown at left. Select the appropriate Subnet Mask, Gateway address, and TCP port.

Send and Save network parameters.

## Step 4 — Set COM Port Parameters

The serial port settings of the MS-Connect 210 must match those of the reader for Ethernet communication to be successful.

**Welcome to Easy Setup Program**

1. Click **Search** to locate all MS-Connect 210 Ethernet Gateways that are available on the network.
2. Select the MS-Connect 210 from the list of available IP addresses. Use the MAC ID to identify the correct unit. (The MAC ID is printed on the top of the Ethernet module inside the MS-Connect 210.)
3. Adjust **MS-Connect 210-to-Host Settings** as needed.
4. Adjust **Reader-to-MS-Connect 210 Settings** to match the Host Port settings of the reader.
5. **Send and Save** settings. There will be a delay of up to 20 seconds before the MS-Connect 210 is available on the network again.

**Select an MS-Connect 210**

162.148.88.254 (00:20:4a:99:3b:6b)

**MS-Connect 210-to-Host Settings**

Ethernet Gateway Configuration

Firmware Version: 0.1.11.1

TCP Port: 2001

☐ Connect to readers via TCP/IP

**Reader-to-MS-Connect 210 Settings**

Serial Port Settings

Baud: 9600

Parity: Even

Stop Bits: One

Data Bits: Seven

**Send and Save**

**Set Baud Rate, Parity, Stop Bits, and Data Bits to match the corresponding settings in the connected reader.**

**Click here to communicate with readers via TCP/IP connection. Note: This option can also be configured in the ESP Preferences dialog.**

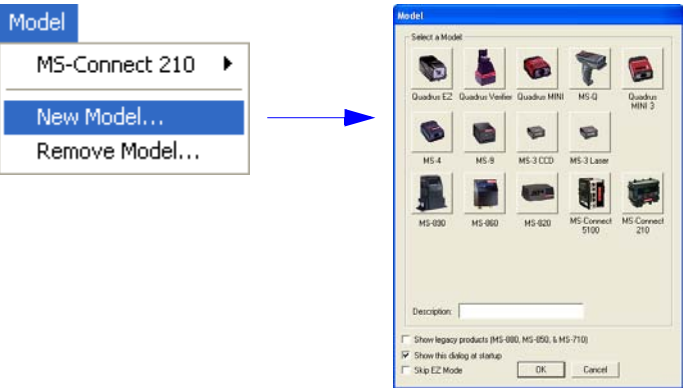
**Send and Save COM port parameters.**

# Step 5 — Select Reader Model and Connect

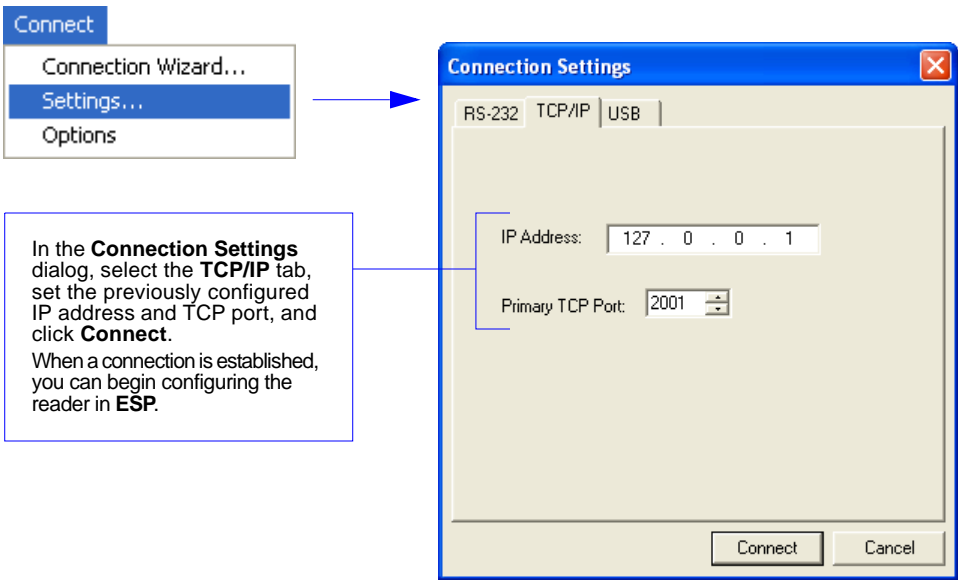
Once the MS-Connect 210's Ethernet and serial port settings are configured, click the **Switch Model** button and select your reader model from the dropdown menu.



If your reader model does not appear on the dropdown menu, select **New Model** to bring up the model menu shown below.



When your reader is selected, select **Settings** from the **Connect** dropdown menu in **ESP's** menu toolbar.



## Step 6 — Configure the Connected Reader

Each Microscan reader has different configuration requirements. Refer to the User's Manual for the Microscan reader or readers being used in your application.



Once the reader is configured, you can begin communicating via Ethernet.

**Important:** If the reader's settings for **baud rate**, **parity**, **stop bits**, or **data bits** are changed, you must reconfigure those settings in the MS-Connect 210 to match the new settings in the reader. See [Set COM Port Parameters](#).

## Step 7 — Begin Active Operation of System

For detailed information about customizing MS-Connect 210 settings for EtherNet/IP™, assigning an IP address without using ESP, or using a star network topology in industrial automation applications, refer to the *MS-Connect 210 User's Manual*.

For further details about implementing EtherNet/IP, visit the Open DeviceNet Vendor Association (ODVA™) website:

<http://www.odva.org/default.aspx>

For additional information about the MS-Connect 210, a specific Microscan reader, Microscan software, application information, or any other questions or concerns, you can submit a Helpdesk Request on the Microscan website:

<http://www.microscan.com/support/helprequest.htm>

