Setup & Configure ProtoAir for Local Wi-Fi Network

MSA Safety
1000 Cranberry Woods Drive
Cranberry Township, PA 16066 USA

U.S. Support Information:
+1 408 964-4443
+1 800 727-4377
Email: smc-support@msasafety.com

EMEA Support Information:
+31 33 808 0590
Email:
smc-support.emea@msasafety.com

For your local MSA contacts, please go to our website www.MSAsafety.com
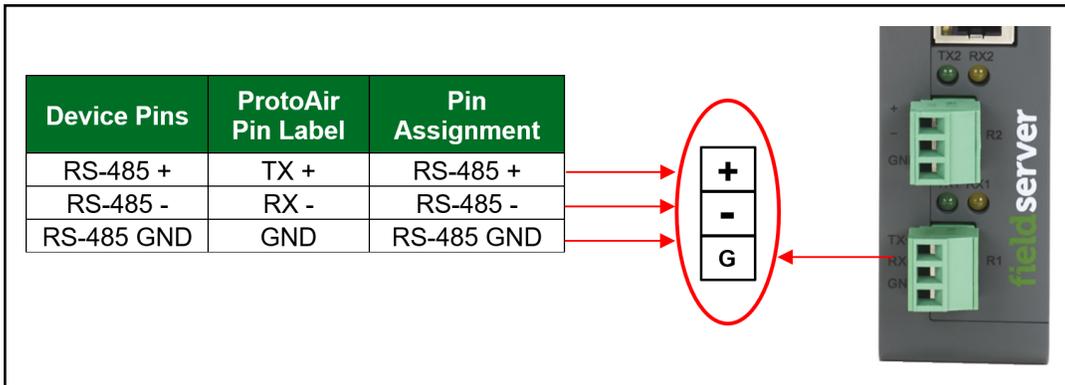
1   Prerequisites

Prior to installation the following is needed:

- Wi-Fi connectivity to the local network must be available at the site.
- The site's Wi-Fi SSID and password.
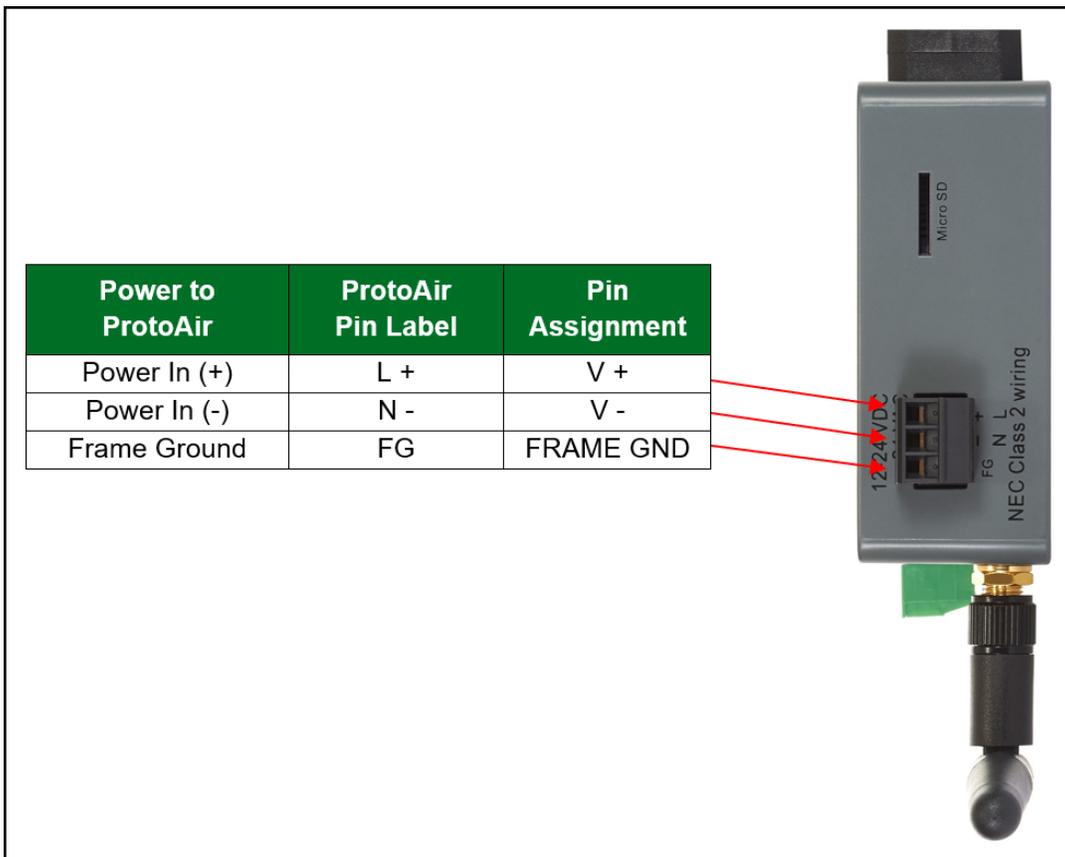- Customer device(s) that will connect to the gateway.

NOTE: The instructions in this document are simplified for ease of use. For detailed instructions, check the ProtoAir Start-up Guide supplied with the ProtoAir.

2 Install the Gateway

1. If a serial protocol is used by the customer device(s), wire the ProtoAir R1 Port to the customer device(s).

Device Pins	ProtoAir Pin Label	Pin Assignment
RS-485 +	TX +	RS-485 +
RS-485 -	RX -	RS-485 -
RS-485 GND	GND	RS-485 GND

2. Screw the Wi-Fi antenna onto the ProtoAir.

3. Apply power.

Power to ProtoAir	ProtoAir Pin Label	Pin Assignment
Power In (+)	L +	V +
Power In (-)	N -	V -
Frame Ground	FG	FRAME GND

3   Connect to the ProtoAir

1. Connect a Cat-5 Ethernet cable (straight through or cross-over) between the local PC and ProtoAir.
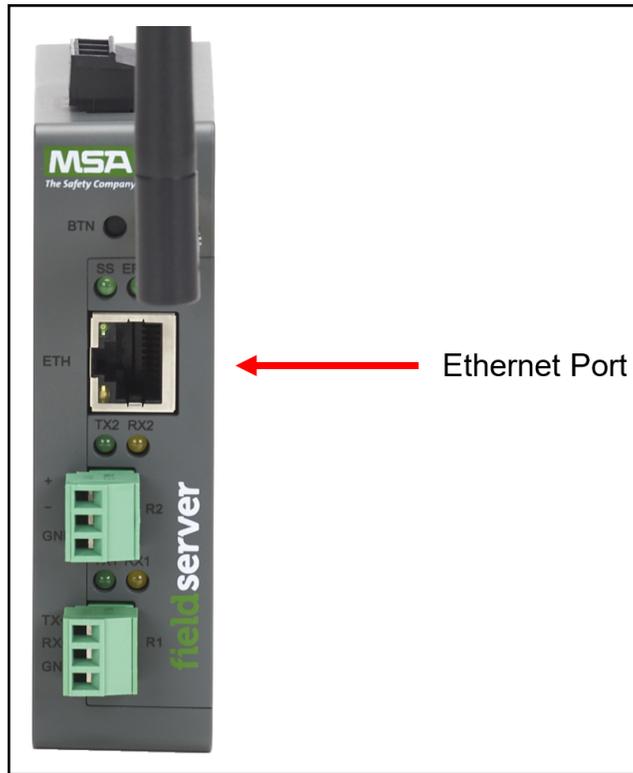
2. Check that the IP Addresses of the ProtoAir and PC are on the same subnet. If not, change the IP Address of the PC to be on the same subnet.

3. Open a browser and enter the IP Address of the ProtoAir on the local PC.

4   Configure the ProtoAir

1. Go to the Web Configurator page.

For a ProtoAir that uses the optional application engine platform:

   a.   On the Login page, enter the Username and Password.

   b.   Click the Settings tab and then click the Configure tab that appears.

   c.   Click the Profile Configuration button to open the Web Configurator page.

For the standard ProtoAir, the Web Configurator page is the landing page.

2. Enter the appropriate protocol configuration.

NOTE: Protocol specific parameters are only visible when the associated protocol is selected.

3. Ensure that all parameters are entered for successful operation of the gateway.

4. Scroll to the bottom of the page and click on the Add button under the "Active Profile" header.

5. Select the appropriate profile and enter the device's Node ID, then click Submit.

6. Add additional profiles if needed.

5 Configure the ProtoAir Wi-Fi Settings

1. Click the "Diagnostic & Debugging" button to open the FS-GUI page.

2. Go to the Navigation Panel and click Setup, then click Network Settings.
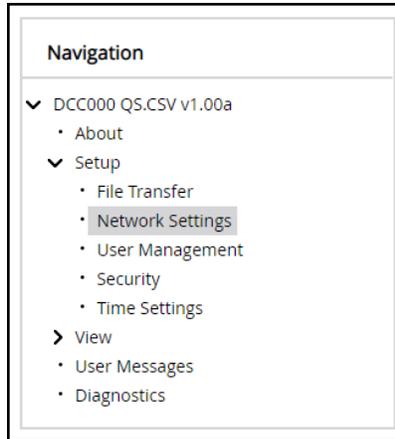
3. Click on the Wi-Fi Client tab.

4. Set the Wi-Fi Status to ENABLED and the DHCP Client State to ENABLED.

5. Enter the Wi-Fi SSID and Wi-Fi Password for the local Wi-Fi network. Click the Update Settings button and then the System Restart button (once prompted).

ETH 1	WiFi Client	WiFi Access Point	Routing

☑ Enable

SSID

FieldSVR

Password (Optional)

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☑ Enable DHCP

IP Address

10.40.50.37

Netmask

255.255.255.0

Gateway

10.40.50.1

Domain Name Server 1 (Optional)

10.5.4.77

Domain Name Server 2 (Optional)

10.40.2.24

Cancel   Save

Network Status

Connection Status	✔ Connected
MAC Address	A0:CC:2B:FF:AB:59
WiFi BSSID	78:BC:1A:52:C8:42
WiFi Channel	2,462
WiFi Tx Msgs	1,484
WiFi Rx Msgs	1,799
WiFi Tx Msgs Dropped	0
WiFi Rx Msgs Dropped	16
WiFi Pairwise Cipher	CCMP
WiFi Group Cipher	CCMP
WiFi Key Mgmt	WPA2-PSK
WiFi Link	19.5 MBit/s MCS 2
WiFi Signal Level	-86 dBm

6. Go to the Routing tab and set the default connection to Wi-Fi, then click Save.

ETH 1	WiFi Client	WiFi Access Point	Routing

Set up the IP routing rules of your FieldServer for internet access and access to other networks.

If you want to reach another device that is not connected to the local network, you can add a rule to determine on which gateway the device must be routed to.

Interface	Destination Network	Netmask	Gateway IP Address	Priority ⑦
WiFi Client ⌄	Default	-	10.40.50.1	255
ETH 1 ⌄	10.40.50.10	255.255.255.255	10.40.50.1	100 🗑

+ Add Rule

Cancel   Save