Emerson Wireless 1420 Gateway

EMERSON

NOTICE

This guide provides basic guidelines for the Emerson Gateway. It does not provide instructions for diagnostics, maintenance, service, or troubleshooting. Refer to the Emerson Gateway Reference Manual for more information and instructions. This guide and the manual are available electronically on www.emerson.com.

⚠ WARNING

Explosions could result in death or serious injury.

Installation of device in an explosive environment must be in accordance with appropriate local, national, and international standards, codes, and practices.

Avoid contact with the leads and terminals. High voltage that may be present on leads can cause electrical shock. Review the Product Certifications section for any restrictions associated with a safe installation.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

This device may not cause harmful interference.

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

This device must be installed to ensure a minimum antenna separation distance of 8-in. (20 cm) from all persons.

Contents

1   Wireless considerations

1.1   Power up sequence

The Emerson Wireless Gateway (Gateway) should be installed and functioning properly before power modules are installed in any wireless field devices. Wireless field devices should also be powered up in order of proximity from the Gateway beginning with the closest. This will result in a simpler and faster network installation.

1.2   Antenna position

The antenna should be positioned vertically, and be approximately 3 ft. (1 m) from large structures or buildings to allow for clear communication to other devices.

1.3   Mounting height

For optimal wireless coverage, the Gateway or remote antenna is ideally mounted 15 to 25 ft. (4,6 to 7,6 m) above ground or 6 ft. (2 m) above obstructions or major infrastructure.

1.4   Gateway redundancy

If the wireless Gateway was ordered with redundancy (Gateway Redundancy code RD), refer to Appendix D in the Emerson Wireless Gateway Reference Manual for additional installation instructions.

2   General considerations

2.1   PC requirements

Operating system (optional software only)

- Microsoft® Windows™ XP Professional, Service Pack 3

- Windows Server 2003 Service Pack 2

- Windows Server 2003 R2 Service Pack 2

- Windows Server 2008 (Standard Edition), Service Pack 2

- Windows Server 2008 R2 Standard Edition, Service Pack 1

- Windows 7 Professional, Service Pack 1

- Windows 7 Enterprise, Service Pack 1

Applications

- Internet Explorer® 6.0 or higher

- Mozilla Firefox® 1.5 or higher

- .Net Framework 2.0 (for OPC proxy only)

Hard disk space

- AMS Wireless Configurator: 1.5 GB

- Gateway Setup CD: 250 MB

3   Initial connection and configuration

3.1   DeltaV™ ready

If the Gateway was ordered DeltaV Ready (Data Protocols Code 5), then skip to Physical installation, and connect the Gateway to a DeltaV 10.3 or newer control network.

3.2   Initial connection and configuration

To configure the Gateway, a local connection between a PC/laptop and the Gateway needs to be established.

Powering the Gateway

Bench top power will be needed to power the Gateway by wiring a 24 VDC (nominal) power source, with at least 250 mA, to the power terminals.
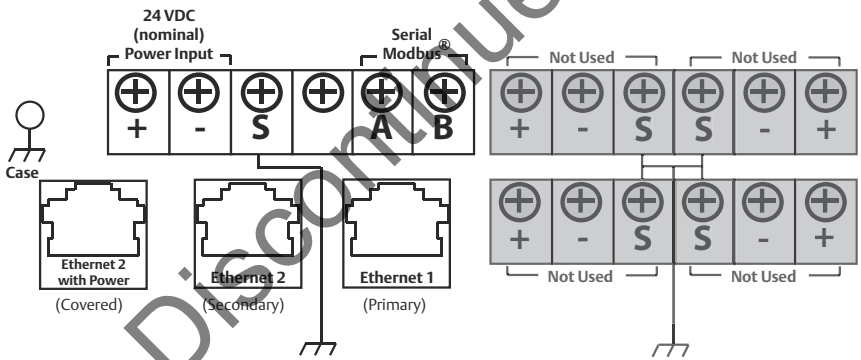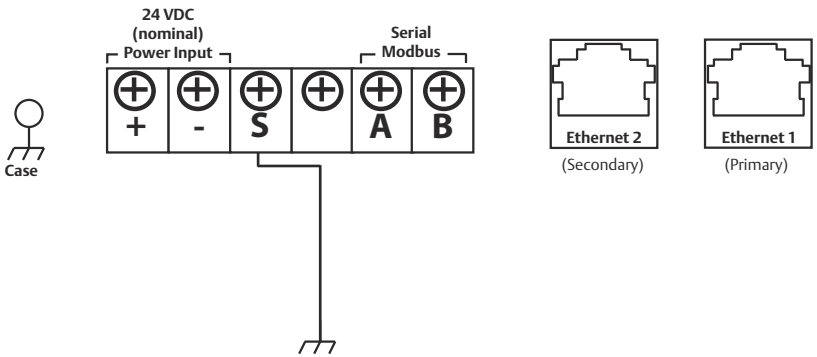
Figure 3-1: Legacy Gateway Terminal Block Diagram

Figure 3-2: Power over Ethernet (PoE) Terminal Block Diagram

Note
Figure 3-1 depicts the terminal block of legacy Gateways prior to the introduction of PoE capabilities. Figure 3-2 shows the terminal block arrangement of a PoE version of the Gateway. If the Gateway will be powered via the standard 24 volt power input terminals, and no PSE is desired, it is not necessary to change the default settings of the PoE jumper matrix.

Note
The Gateway enclosure case should always grounded in accordance with national and local electrical codes. The most effective grounding method is a direct connection to earth ground with minimal impedance.

Discontinued

Figure 3-3: Emerson 1420 PoE Jumpering Matrix (Located on 1420 Board)

Black fill below indicates jumper.

PoE PD on port 1
(Default jumpering for production. Used for no PoE also)

PoE PD on port 2

PoE PSE on port 1

PoE PSE on port 2

Legend:

ETH1 Ethernet port 1 selected for PD or PSE

ETH2 Ethernet port 2 selected for PD or PSE

PD   Gateway derived its power off the Ethernet port selected

PSE   The Gateway is powered via the standard 24 volt power input terminals and provides power via the selected Ethernet port to another device with a compatible PD port.

EN   Enabled; this enables the PSE operation

DIS   Disabled; this disables the PSE operation

Note
Electrostatic discharge (ESD) protection required when swapping PoE jumpers.

Note
Only one port and one mode of operation (PD or PSE) can be selected at a time; any other combination of jumpers is invalid.

Note
IEEE 802.3af-2003 PoE standard provides up to 15.4 W of DC power (minimum 44 V DC and 350 mA) to each device. Only 12.95 W is assured to be available at the powered device as some power is dissipated in the cable. IEEE 802.3at-2009 PoE standard also known as "PoE+" or "PoE plus", provides up to 25.5 W of power. The 2009 standard prohibits a powered device from using all four pairs for power.

For more information on PoE and frequently asked questions, reference the Emerson Wireless Gateway white paper.

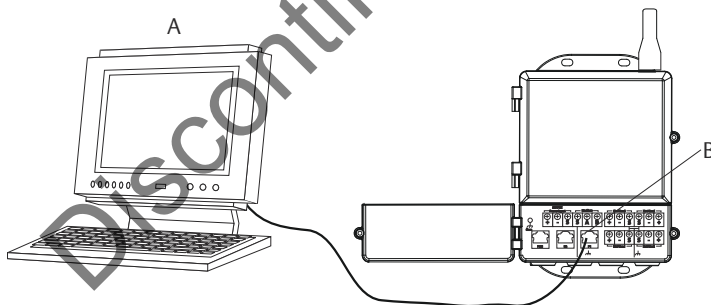## 3.3   Establishing a connection

Note
For information on connecting a Windows 7 PC, see Technical Note (document number 00840-0900-4420).

Procedure

1. Connect the PC/laptop to the Ethernet 1 (Primary) receptacle on the Gateway.

Figure 3-4: Gateway PC/Laptop Connection

A	PC/laptop
B	Ethernet 1 receptacle

> **⚠ CAUTION**
>
> Do not connect to the Ethernet 2 with power (covered) port. This port supplies power and could damage the PC/laptop.

2. To establish the PC/laptop settings, navigate to **Start → Settings → Network Connections**.

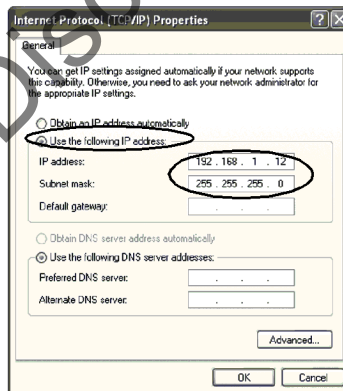   a) Select **Local Area Connection**.

b) Right click to select **Properties**.

c) Select **Internet Protocol (TCP/IP)**, then select the **Properties** button.
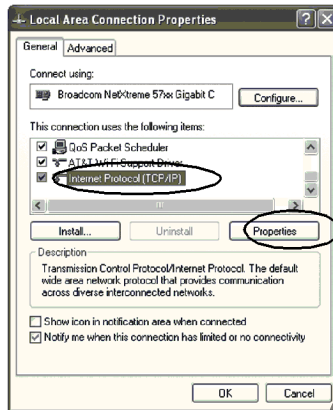
Note

If the PC/laptop is from another network, record the current IP address and other settings so the PC/laptop can be returned to the original network after the Gateway has been configured.

d) Select the **Use the following IP address** button.

e) In the *IP address* field, enter 192.168.1.12.

f) In the *Subnet mask* field, enter 255.255.255.0.

g) In the *Internet Protocol (TCP/IP) Properties* window, select **OK**.

h) In the *Local Area Connection Properties* window, select **OK**.

Note

Connecting to the Gateway's secondary Ethernet port requires different network settings. Refer to Table 3-1 for additional network settings.

**Table 3-1: Default IP Addresses**

	Gateway	PC/laptop
Ethernet 1	192.168.1.10	192.168.1.12
Ethernet 2	192.168.2.10	192.168.2.12
Ethernet 1 (DeltaV Ready)	10.5.255.254	10.5.255.200
Ethernet 2 (DeltaV Ready)	10.9.255.254	10.9.255.200

Table 3-2: Subnet Settings

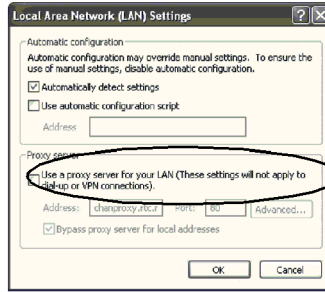| Subnet mask	
Default	255.255.255.0
DeltaV	255.254.0.0

3. Disable proxies.

   a) Open a standard web browser (Internet Explorer, Mozilla Firefox, or other).

   b) Navigate to **Tools → Internet Options → Connections → LAN Settings**.
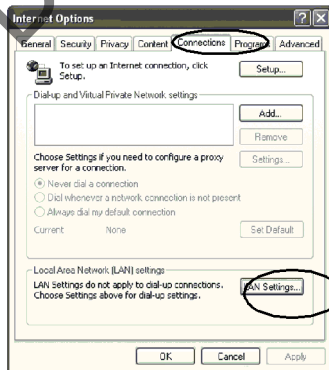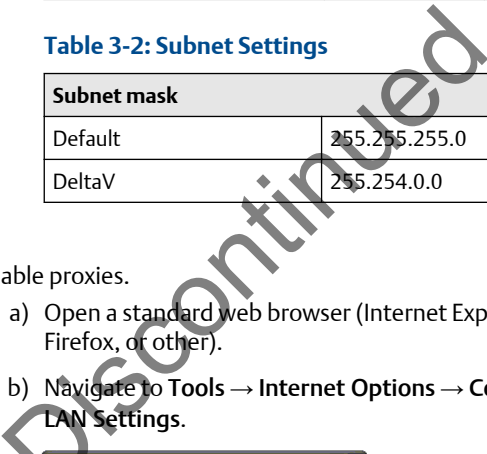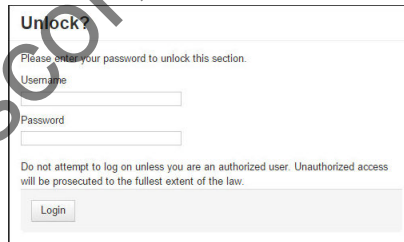

   c) Uncheck the box under *Proxy Server*.

3.4   Configure the Gateway

To complete initial configuration for the Gateway:

Procedure

1. Access the default web page for the Gateway at https://192.168.1.10.

   a) In the *User name* field, enter **admin**.

   b) In the *Password* field, enter **default**.

Figure 3-5: Gateway Log In Screen

2. Navigate to **System Settings → Gateway → → Ethernet Communication** to enter the Network Settings.

   a) Configure a static IP Address or set for DHCP and enter a Hostname.

   b) Restart application at **System Settings → Gateway → Backup And Restore → Restart App**.
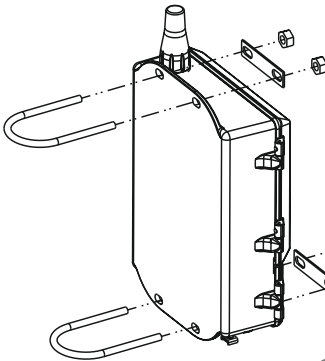
3. Disconnect the power and Ethernet from the Gateway.
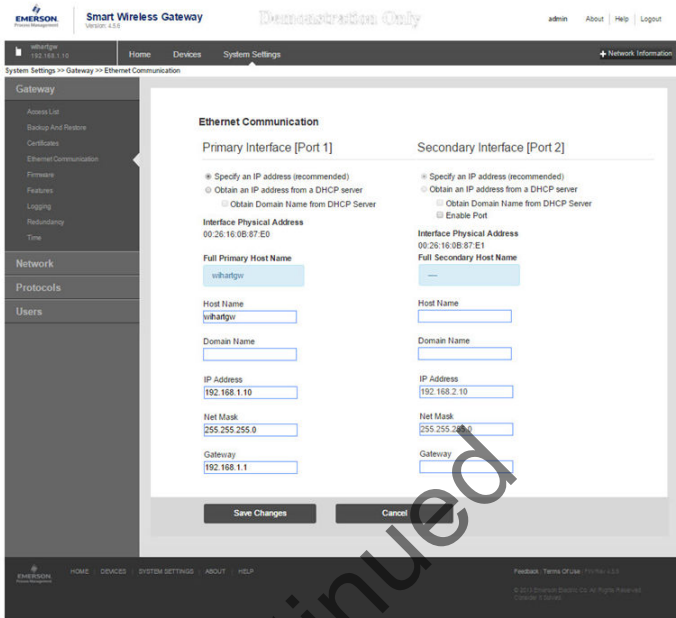
4   Physical installation

4.1   Pipe mount

Tools needed:

- 2-in. (51 mm) mounting pipe or mast

- Two 5/16-in. (7,9 mm) u-bolts supplied with Gateway

- 1/2-in. socket-head wrench

For installing the Gateway with a pipe mount:

Procedure

1. Insert one u-bolt around the pipe, through the top mounting holes of the Gateway enclosure, and through the washer plate.

2. Use a 1/2-in. socket-head wrench to fasten the nuts to the u-bolt.

3. Repeat Step 1 and Step 2 for the second u-bolt and lower mounting holes.

4.1.1   Best practice

If the Gateway was ordered with output code 2, run a secondary Ethernet cable when installing cable conduit from the Gateway to a convenient indoor location to simplify future configuration changes.

4.2   Remote antenna (optional)

The remote antenna options provide flexibility for mounting the Gateway based on wireless connectivity, lightning protection, and current work practices.

⚠ WARNING

When installing remote mount antennas for the Gateway, always use established safety procedures to avoid falling or contact with high-power electrical lines.

Install remote antenna components for the Gateway in compliance with local and national electrical codes and use best practices for lightning protection.

Before installing consult with the local area electrical inspector, electrical officer, and work area supervisor.

The Gateway remote antenna option is specifically engineered to provide installation flexibility while optimizing wireless performance and local spectrum approvals. To maintain wireless performance and avoid non-compliance with spectrum regulations, do not change the length of cable or the antenna type.

If the supplied remote mount antenna kit is not installed per these instructions, Emerson is not responsible for wireless performance or non-compliance with spectrum regulations.

The remote mount antenna kit includes coaxial sealant for the cable connections for the lightning arrestor and antenna.

Find a location where the remote antenna has optimal wireless performance. Ideally this will be 15–25 ft. (4,6 to 7,6 m) above the ground or 6 ft. (2 m) above obstructions or major infrastructure. To install the remote antenna use one of the following procedures:

4.3   Installation of WL2/WN2 option (outdoor applications)

Procedure

1. Mount the antenna on a 1.5 to 2-in. pipe mast using the supplied mounting equipment.
2. Connect the lightning arrestor directly to the top of the Gateway.
3. Install the grounding lug, lock washer, and nut on top of the lightning arrestor.
4. Connect the antenna to the lightning arrestor using the supplied coaxial cable ensuring the drip loop is not closer than 1 ft. (0,3m) from the lightning arrestor.
5. Use the coaxial sealant to seal each connection between the wireless field device, lightning arrestor, cable, and antenna.
6. Ensure the mounting mast, lightning arrestor, and Gateway are grounded according to local/national electrical code.
7. Place any spare lengths of coaxial cable in 12-in. (0,3 m) coils.

Figure 4-1: Installation of WL2/WN2 Option
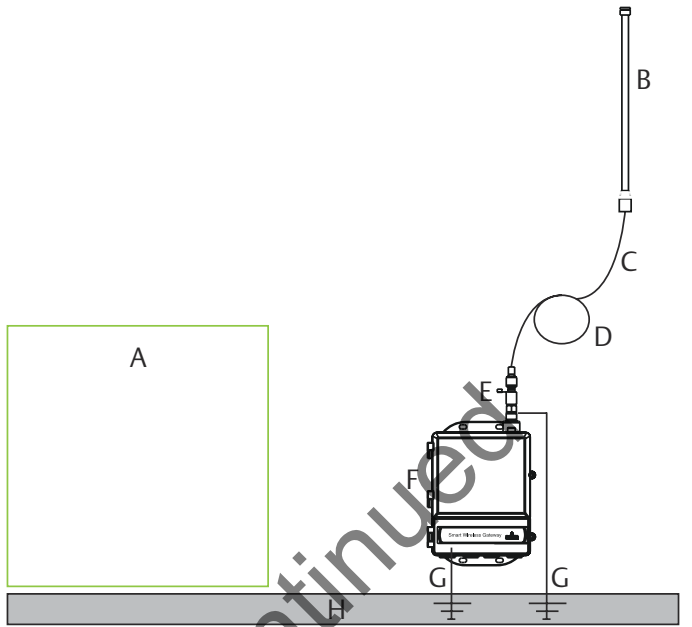
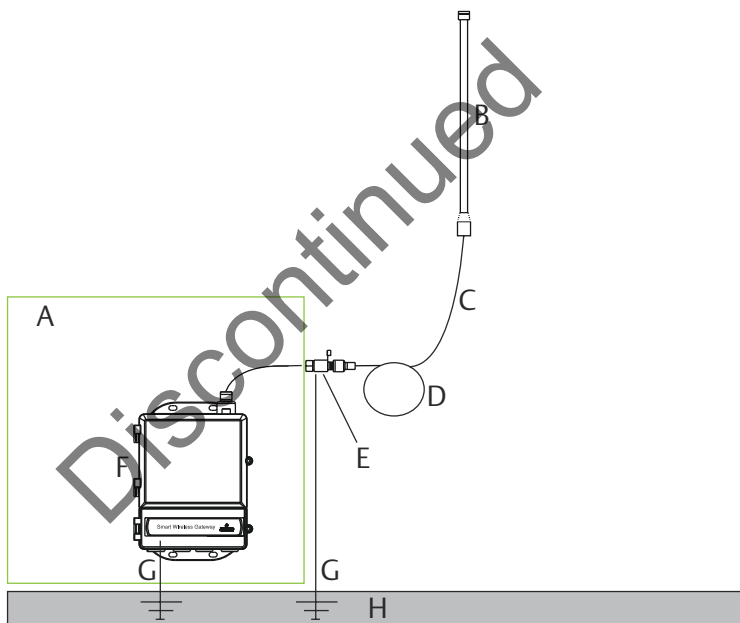|			
A	Control building	**E**	Lightning arrestor
B	Remote antenna	**F**	Gateway
C	Cable	**G**	Ground
D	Drip loop	**H**	Earth

4.4   Installation of WL3/WL4 option (indoor to outdoor applications)

Procedure

1. Mount the antenna on a 1.5 to 2-in. pipe mast using the supplied mounting equipment.

2. Mount the lightning arrestor near the building egress.

3. Install the grounding lug, lock washer, and nut on top of the lightning arrestor.

4. Connect the antenna to the lightning arrestor using the supplied coaxial cable ensuring the drip loop is not closer than 1 ft. (0,3m) from the lightning arrestor.

5. Connect the lightning arrestor to the Gateway using the supplied coaxial cable.

6. Use the coaxial sealant to seal each connection between the Gateway, lightning arrestor, cable, and antenna.

7. Ensure the mounting mast, lightning arrestor, and Gateway are grounded according to local/national electrical codes.

8. Place any spare lengths of coaxial cable in 12-in. (0,3 m) coils.

Figure 4-2: Installation of WL3/WL4 Option

A	Control building	**E**	Lightning arrestor
B	Remote antenna	**F**	Gateway
C	Cable	**G**	Ground
D	Drip loop	**H**	Earth

Note

Weather proofing is required! The remote mount antenna kit includes coaxial sealant for the cable connections for the lightning arrestor, antenna, and Gateway. The coaxial sealant must be applied to guarantee performance of the wireless field network. See Figure 4-3 for details on applying weather proofing.

Figure 4-3: Applying Coaxial Sealant to Cable Connections
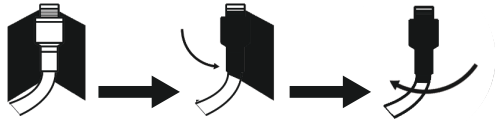

Table 4-1: Remote Antenna Kit Options

Kit option	Antenna	Cable 1	Cable 2	Lightning arrestor
WL2	1/2 Wavelength Dipole Omni-Directional +6 dB Gain	50 ft. (15,2 m) LMR–400	N/A	Head mount, jack to plug Gas discharge tube 0.5 dB insertion loss
WL3	1/2 Wavelength Dipole Omni-Directional +6 dB Gain	30 ft. (9,1 m) LMR–400	20 ft. (6,1 m) LMR–400	In-line, jack to jack Gas discharge tube 0.5 dB insertion loss
WL4	1/2 Wavelength Dipole Omni-Directional +6 dB Gain	40 ft. (12,2 m) LMR–400	10 ft. (3,0 m) LMR–400	In-line, jack to jack Gas discharge tube 0.5 dB insertion loss
WN2	1/2 Wavelength Dipole Omni-Directional +8 dB Gain	25 ft. (7,6 m) LMR–400	N/A	Head mount, jack to plug Gas discharge tube 0.5 dB insertion loss
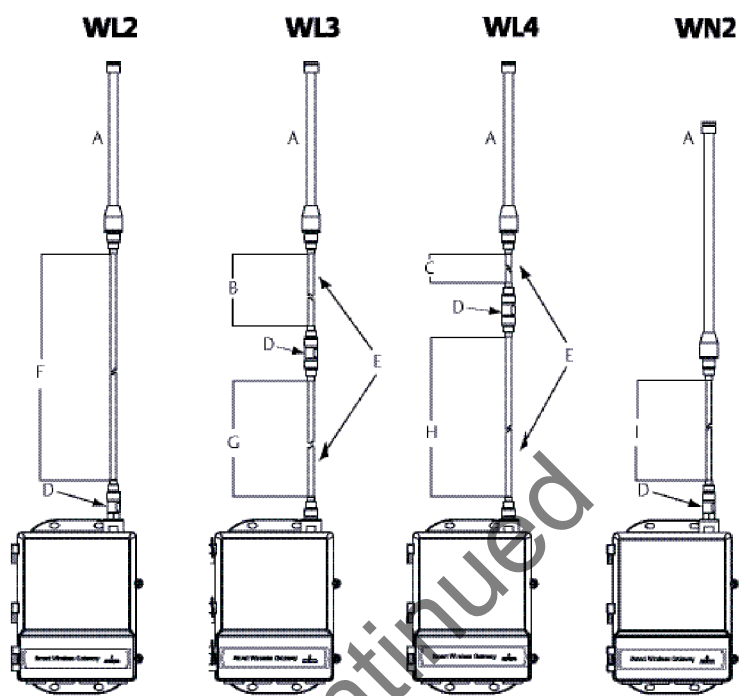
A	Antenna	**F**	50 ft. (15,2 m) cable
B	20 ft. (6,1 m) cable	**G**	30 ft. (9,1m) cable
C	10 ft. (3,0 m) cable	**H**	40 ft. (12,2 m) cable
D	Lightning arrestor	**I**	25 ft. (7,6m) cable
E	Interchangeable cables		

Note
The coaxial cables on the remote antenna options WL3 and WL4 are interchangeable for installation convenience.

5 Connect to the host system

Procedure

1. Wire the Gateway's Ethernet 1 (Primary) or Serial Output connection to the Host System Network or Serial I/O.

2. For serial connections, connect A to A, B to B, making sure all terminations are clean and secured to avoid wiring connection problems.

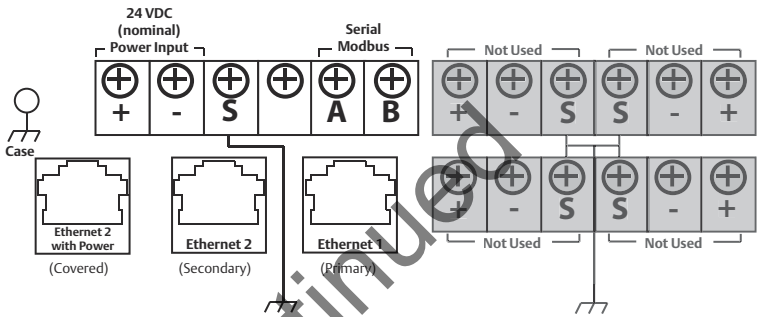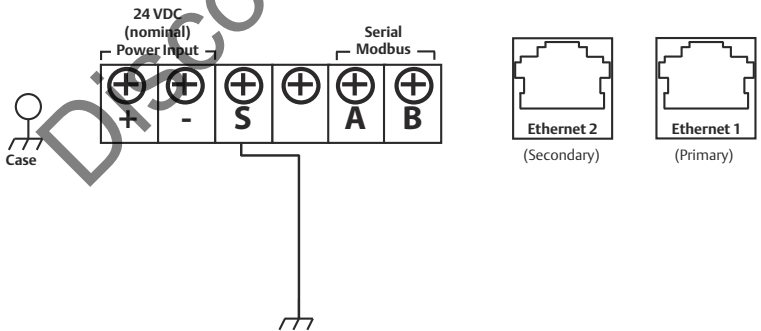**Figure 5-1: Legacy Gateway Terminal Block Diagram**

Figure 5-2: PoE Terminal Block Diagram

⚠ CAUTION

Do not connect the Host System to the Ethernet 2 with power (covered) port on the Gateway to avoid damaging the system.

5.1   Best practice

In accordance with Emerson *Wireless*HART® security guidelines, the Gateway should be connected to the Host System via a LAN (Local Area Network) and not a WAN (Wide Area Network).

Twisted shielded pair cable is generally used to wire the serial connection, and it is standard practice to ground the shield on the serial host side leaving the shield floating on the Gateway side. Insulate the shield to avoid grounding issues.

5.2   Power

Power the Gateway as directed in Powering the Gateway.

6   Software installation (optional)

The 2-disk software pack contains the Security Setup Utility (only required for secure host connections or OPC communications) and AMS Wireless Configurator. The Security Setup Utility is located on Disk 1. To install the software:

Procedure

1. Exit/close all Windows programs, including any running in the background, such as virus scan software.
2. Insert Disk 1 into the CD/DVD drive of the PC.
3. Follow the prompts.

   AMS Wireless Configurator is located on Disk 2. To install the software:

4. Exit/close all Windows programs, including any running in the background, such as virus scan software.
5. Insert Disk 2 into the CD/DVD drive of the PC.
6. Select **Install** from the menu when the AMS Wireless Configurator setup begins.
7. Follow the prompts.
8. Allow AMS Wireless Configurator to reboot PC.
9. Do not remove the disk from the CD/DVD drive.

   Note
   Installation will resume automatically after login.

10. Follow the prompts.

    Note
    If the autorun function is disabled on the PC, or installation does not begin automatically, double click **D:\SETUP.EXE** (where D is the CD/DVD drive on the PC) and select **OK**.

    For more information about the Security Setup Utility and AMS Wireless Configurator, see the Emerson Wireless Gateway Reference Manual (document number 00809-0200-4420).

7   Verify operations

Operation is verified through the web interface by opening a web browser from any PC on the host system network and entering the Gateway IP address or DHCP host name in the address bar. If the Gateway has been connected and configured properly, the security alert will be displayed followed by the log in screen.

Figure 7-1: Gateway Log In Screen
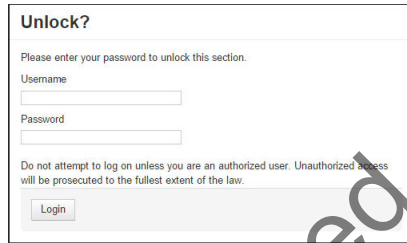
The Gateway is now ready to be integrated into the host system. If wireless field devices were ordered with the Gateway, they were preconfigured with the same network ID and join key information. Once the field devices are powered, they will appear on the wireless network and communications can be verified under the *Explore* tab using the web interface. The time needed for the network to form depends on the number of devices.
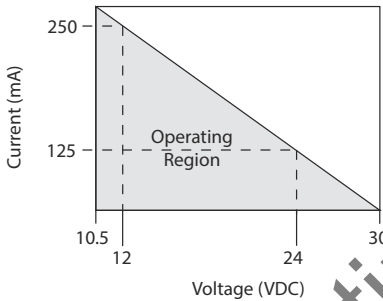
8   Product specifications

8.1   Input power

10.5–30 VDC (must be a Class 2 power supply)

8.2   Current draw

Operating current draw is based on 3.6 W average power consumption. Momentary startup current draw up to twice operating current draw.

Maximum permissible current: 1A

8.3   PoE

Note

The current consumption is for Gateway operation only. If using PSE, calculations will need to be made to include the device being powered.

Input voltage

Normal Operation (no PSE or IEEE 802.3af): 10.5 – 30 VDC

PoE + PSE Operation (IEEE 802.3at): 17.5 – 30 VDC

PSE mode

50 V – 57 VDC Output (per IEEE 802.3at 2009)

25.5 W Maximum

8.4   Radio frequency power output from antenna

Maximum of 10 mW (10 dBm) EIRP

Maximum of 40 mW (16 dBm) EIRP for WN2 High Gain option

8.5   Environmental

Operating temperature range

–40 to 158 °F (–40 to 70 °C)

Operating humidity range

10–90 percent relative humidity

8.6   Physical specifications

Weight

10 lb (4,54 kg)

Material of construction

Housing

Low-copper aluminum, NEMA® 4X

Paint

Polyurethane

Cover gasket

Silicone Rubber

Antenna

Integrated Antenna: PBT/PC

Remote Antenna: Fiber glass

8.7   Communication specifications

Isolated RS485

2-wire communication link for Modbus® RTU multidrop connections

Baud Rate: 57600, 38400, 19200, or 9600

Protocol: Modbus RTU

Wiring: Single twisted shielded pair, 18 AWG

Wiring distance: up to 4,000 ft. (1,524 m)

Ethernet

10/1000base- TXEthernet communication port

Protocols: EtherNet/IP™ Modbus TCP, OPC, HART-IP™, HTTPS (for Web Interface)

Wiring: Cat5Eshielded cable

Wiring distance: 328 ft. (100 m)

Modbus

Supports Modbus RTU and Modbus TCP with 32-bit floating point values, integers, and scaled integers.

Modbus Registers are user-specified.

OPC

OPC server supports OPC DA v2, v3

Ethernet/IP

Supports Ethernet/IP protocol with 32-bit floating point values and integers.

Ethernet/IP assembly input-output instances are user configurable.

Ethernet/IP specifications are managed and distributed by ODVA.

8.8   Self-organizing network specifications

Protocol

IEC 62591 (WirelessHART), 2.4 – 2.5 GHz DSSS

Maximum network size

100 wireless devices @ 8 sec or higher

50 wireless devices @ 4 sec

25 wireless devices @ 2 sec

12 wireless devices @ 1 sec

Supported device update rates

1, 2, 4, 8, 16, 32 seconds or 1 – 60 minutes

Network size/latency

100 Devices: less than 10 sec

50 Devices: less than 5 sec

Data reliability

> 99%

9 Product certifications

Rev 2.1

9.1 European Directive Information

A copy of the EC Declaration of Conformity can be found at the end of the Quick Start Guide. The most recent revision of the EC Declaration of Conformity can be found at Emerson.com/Rosemount.

9.2 Telecommunication Compliance

All wireless devices require certification to ensure that they adhere to regulations regarding the use of the RF spectrum. Nearly every country requires this type of product certification.

Emerson is working with governmental agencies around the world to supply fully compliant products and remove the risk of violating country directives or laws governing wireless device usage.

9.3 FCC and IC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: This device may not cause harmful interference. This device must accept any interference received, including interference that may cause undesired operation. This device must be installed to ensure a minimum antenna separation distance of 20 cm from all persons.

9.4 Ordinary Location Certification

As standard, the transmitter has been examined and tested to determine that the design meets the basic electrical, mechanical, and fire protection requirements by a nationally recognized test laboratory (NRTL) as accredited by the Federal Occupational Safety and Health Administration (OSHA).

9.5 Installing Equipment in North America

The US National Electrical Code® (NEC) and the Canadian Electrical Code (CEC) permit the use of Division marked equipment in Zones and Zone marked equipment in Divisions. The markings must be suitable for the area classification, gas, and temperature class. This information is clearly defined in the respective codes.

9.6 USA

N5 U.S.A. Division 2

Certificate CSA 70010780

Standards FM Class 3600 - 2011, FM Class 3611 - 2004, FM Class 3616 - 2011, UL 50 - 11th Ed, ANSI/ISA 61010-1 - 2012

Markings NI CL 1, DIV 2, GP A, B, C, D T4; Suitable for use in CL II, III, DIV 2, GP F, G T4; T4(-40 °C ≤ T_a ≤ +60 °C); Nonincendive outputs to remote antenna when connected per Rosemount drawing 01420-1011; Type 4X

Special Conditions for Safe Use(X):

1. Explosion Hazard. Do not disconnect equipment when a flammable or combustible atmosphere is present.

9.7   Canada

N6 Canada Division 2

Certificate CSA 70010780

Standards CAN/CSA C22.2 No. 0-M91 (R2001), CAN/CSA Std C22.2 No. 94-M91 (R2001), CSA Std C22.2 No. 142-M1987, CSA Std C22.2 No. 213-M1987, CSA C22.2 No. 61010-1 – 2012

Markings Suitable for Class 1, Division 2, Groups A, B, C, and D, T4; when connected per Rosemount drawing 01420-1011; Type 4X

Special Conditions for Safe Use(X)

1. Explosion Hazard. Do not disconnect equipment when a flammable or combustible atmosphere is present.

9.8   Europe

N1 ATEX Type n

Certificate Baseefa07ATEX0056X

Standards EN 60079-0: 2012, EN 60079-15: 2010

Markings ⟨Ex⟩ II 3 G Ex nA IIC T4 Gc, T4(-40 °C ≤ T_a ≤ +65 °C), V_{MAX} = 28 Vdc

Special Conditions for Safe Use(X)

1. The equipment is not capable of withstanding the 500V insulation test required by clause 6.5.1 of EN 60079-15:2010. This must be taken into account when installing the equipment.

2. The surface resistivity of the antenna is greater than 1GΩ. To avoid electrostatic charge build-up, it must not be rubbed with a dry cloth or cleaned with solvents.

ND ATEX Dust

Certificate	Baseefa07ATEX0057X
Standards	EN 60079-0: 2012, EN 60079-31: 2009
Markings	⬡ II 3 D Ex tc IIIC T135 °C Dc, (-40 °C ≤ T_a ≤ +65 °C)

Special Conditions for Safe Use(X)

1. The surface resistivity of the antenna is greater than 1GΩ. To avoid electrostatic charge build-up, it must not be rubbed with a dry cloth or cleaned with solvents.

9.9 International

N7 IECEx Type n

Certificate	IECEx BAS 07.0012X
Standards	IEC 60079-0: 2011, IEC 60079-15: 2010
Markings	Ex nA IIC T4 Gc, T4(-40 °C ≤ T_a ≤ +65 °C), V_{MAX} = 28 Vdc

Special Conditions for Safe Use(X)

1. The apparatus is not capable of withstanding the 500 V electrical strength test as defined in Clause 6.5.1 of IEC 60079-15:2012. This must be taken into account during installation.

2. The surface resistivity of the antenna is greater than 1GΩ. To avoid electrostatic charge build-up, it must not be rubbed with a dry cloth or cleaned with solvents.

NF IECEx Dust

Certificate	IECEx BAS 07.0013
Standards	IEC 60079-0: 2011, IEC 60079-31: 2008
Markings	Ex tc IIIC T135 °C Dc, (-40 °C ≤ T_a ≤ +65 °C)

Special Conditions for Safe Use(X)

1. The surface resistivity of the antenna is greater than 1GΩ. To avoid electrostatic charge build-up, it must not be rubbed with a dry cloth or cleaned with solvents.

9.10 Brazil

N2 INMETRO Type n

Certificate	UL-BR 15.0350X
Standards	ABNT NBR IEC 60079-0:2008 + Errata 1:2011, IEC 60079-15:2012;

Markings   Ex nA IIC T4 Gc, T4(-40 °C ≤ T$_a$ ≤ +65 °C)

Special Conditions for Safe Use(X)

1. See certificate for special conditions.

9.11   Japan

N4 TIIS Type n

Certificate	T64855
Markings	Ex nA nL IIC T4

9.12   EAC – Belarus, Kazakhstan, Russia

NM Technical Regulation Customs Union (EAC) Type n

Certificate	RU C-US.ГБ05.B.00578
Markings	2Ex nA IIC T4 X; T4(-40 °C ≤ T$_a$ ≤ +65 °C) IP66;

9.13   China

N3 China Type n

证书	GYJ20.1367X（CCC 认证）
所用标准	GB3836.1 – 2010, GB3836.8 – 2014
标志	Ex nA IIC T4 Gc

特殊使用条件(X)

1. 产品不能承受 GB3836.8-2014 中规定的 500V 交流有效值试验电压的介电强度试验，安装时需考虑在内。

2. 产品天线为非金属材质，使用时须防止产生静电火花，只能用湿布清理。

使用注意事项

1. 产品使用环境温度范围为：-40℃≤Ta≤65℃ 电气参数：标准版本 1420：Um=28VDC POE 版本 1420：供电端子 Um=30VDC 通过以太网 POE 设备输入（PD 模式）：Um=57VDC 通过以太网 POE 设备输出（PSE 模式）：50～57VDC&25.5W

2. 现场安装时，电缆引入口须选用经国家指定的防爆检验机构检验认可、具有 Ex e IIC Gb 或 Ex nA IIC Gc 防爆等级的电缆引入装置或堵封件，冗余电缆引入口须用堵封件有效密封。电缆引入装置或封堵件的安装使用必须遵守其使用说明书的要求并保证外壳防护等级达到 IP66 (符合 GB/T4208-2017 标准要求)以上。

3. 用户不得自行更换该产品的零部件，应会同产品制造商共同解决运行中出现的故障，以杜绝损坏现象的发生。

4. 产品的安装、使用和维护应同时遵守产品使用说明书、GB3836.13-2013"爆炸性环境 第 13 部分：设备的修理、检修、修复和改造"、GB/T3836.15-2017"爆炸性环境 第 15 部分：电气装置的设计、选型和安装"、GB/T3836.16-2017"爆炸性环境 第 16 部分：电气装置的检查与维护"、GB50257-2014"电气装置安装工程爆炸和火灾危险环境电力装置施工及验收规范"的有关规定。

9.14   Combinations

KD   Combination of N1, N5, and N6

Discontinued

Figure 9-1: Emerson Wireless Gateway 1420 Declaration of Conformity

EMERSON **EU Declaration of Conformity**
No: RMD 1067 Rev. P

We,

Rosemount, Inc.
8200 Market Boulevard
Chanhassen, MN 55317-9685
USA

declare under our sole responsibility that the product,

Rosemount 1420 Smart Wireless Gateway

manufactured by,

Rosemount, Inc.
8200 Market Boulevard
Chanhassen, MN 55317-9685
USA

to which this declaration relates, is in conformity with the provisions of the European Union Directives, including the latest amendments, as shown in the attached schedule.

Assumption of conformity is based on the application of the harmonized standards and, when applicable or required, a European Union notified body certification, as shown in the attached schedule.

_____   Vice President of Global Quality
          (signature)   (function)

_____   1-Feb-19
          Chris LaPoint   (date of issue)
          (name)

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EU Declaration of Conformity
No: RMD 1067 Rev. P

EMERSON.

$C\epsilon$

EMC Directive (2014/30/EU)

Harmonized Standards:
EN 61326-1: 2013

Radio Equipment Directive (RED) (2014/53/EU)

Harmonized Standards:
EN 300 328: V2.1.1
EN 301 489-17: V3.2.0
EN 60950-1: 2006+A11+A12+A1+A2
EN 50371: 2002

ATEX Directive (2014/34/EU)

Baseefa07ATEX0056X – Protection Type n Certificate
Equipment Group II, Category 3 G
Ex nA IIC T4 Gc
Harmonized Standards:
EN 60079-0: 2012 + A11: 2013
EN 60079-15: 2010

Baseefa07ATEX0057X – Dust Certificate
Equipment Group II, Category 3 D
Ex tc IIIC T135°C Dc
Harmonized Standards:
EN 60079-0: 2012 + A11: 2013
EN 60079-31: 2014

Discontinued

Page 2 of 3

EMERSON **EU Declaration of Conformity**
No: RMD 1067 Rev. P

CE

ATEX Notified Body

SGS FIMKO OY [Notified Body Number: 0598]
P.O. Box 30 (Särkiniementie 3)
00211 HELSINKI
Finland

ATEX Notified Body for Quality Assurance

SGS FIMKO OY [Notified Body Number: 0598]
P.O. Box 30 (Särkiniementie 3)
00211 HELSINKI
Finland

Discontinued

Page 3 of 3

含有China RoHS管控物质超过最大浓度限值的部件型号列表 *Rosemount 1420*
List of Rosemount 1420 Parts with China RoHS Concentration above MCVs

部件名称 Part Name	有害物质 / Hazardous Substances					
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr +6)	多溴联苯 Polybrominated biphenyls (PBB)	多溴联苯醚 Polybrominated diphenyl ethers (PBDE)
电子组件 Electronics Assembly	X	O	O	O	O	O
壳体组件 Housing Assembly	O	O	O	X	O	O

本表格系依据SJ/T11364的规定而制作.
This table is proposed in accordance with the provision of SJ/T11364.

O: 意为该部件的所有均质材料中该有害物质的含量均低于GB/T 26572所规定的限量要求.
O: Indicate that said hazardous substance in all of the homogeneous materials for this part is below the limit requirement of
GB/T 26572.

X: 意为在该部件所使用的所有均质材料里，至少有一类均质材料中该有害物质的含量高于GB/T 26572所规定的限量要求.
X: Indicate that said hazardous substance contained in at least one of the homogeneous materials used for this part is above
the limit requirement of GB/T 26572.

Discontinued

Discontinued

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