Rosemount™ 708 Wireless Acoustic Transmitter

WirelessHART IEC CE

ROSEMOUNT™

EMERSON.

Safety messages

NOTICE

This guide provides basic guidelines for the Rosemount 708. It does not provide instructions for detailed configuration, diagnostics, maintenance, service, troubleshooting, or installations. Refer to the Rosemount 708 Wireless Acoustic Transmitter Reference Manual for more instruction. This guide and the manual are available electronically on Emerson.com.

⚠ WARNING

Explosions could result in death or serious injury.

Installation of this transmitter in an explosive environment must be in accordance with the appropriate local, national, and international standards, codes, and practices. Review the approvals section of the Quick Start Guide for any restrictions associated with a safe installation.

Before connecting a communication device in an explosive atmosphere, ensure the instruments in the segment are installed in accordance with intrinsically safe or non-incendive field wiring practices.

⚠ WARNING

This device complies with Part 15 of the Federal Communication Commission (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.

The power module may be replaced in a hazardous area. The power module has surface resistivity greater than one gigaohm and must be properly installed in the wireless device enclosure. Care must be taken during transportation to and from the point of installation to prevent electrostatic charge build-up.

Polymer enclosure has surface resistivity greater than one gigaohm. Care must be taken during transportation to and from the point of installation to prevent a potential electrostatic charging hazard.

⚠ WARNING

Physical access

Unauthorized personnel may potentially cause significant damage to and/or misconfiguration of end users' equipment. This could be intentional or unintentional and needs to be protected against.

Physical security is an important part of any security program and fundamental in protecting your system. Restrict physical access by unauthorized personnel to protect end users' assets. This is true for all systems used within the facility.

NOTICE

Shipping considerations for wireless products

The unit was shipped to you without the power module installed. Remove the power module prior to shipping.

Each power module contains one "D" size primary lithium battery. Primary lithium batteries are regulated in transportation by the U.S. Department of Transportation, and are also covered by IATA (International Air Transport Association), ICAO (International Civil Aviation Organization), and ARD (European Ground Transportation of Dangerous Goods). It is the responsibility of the shipper to ensure compliance with these or any other local requirements. Consult current regulations and requirements before shipping.

Contents

1   Transmitter overview

Figure 1-1: Rosemount 708 Wireless Acoustic Transmitter
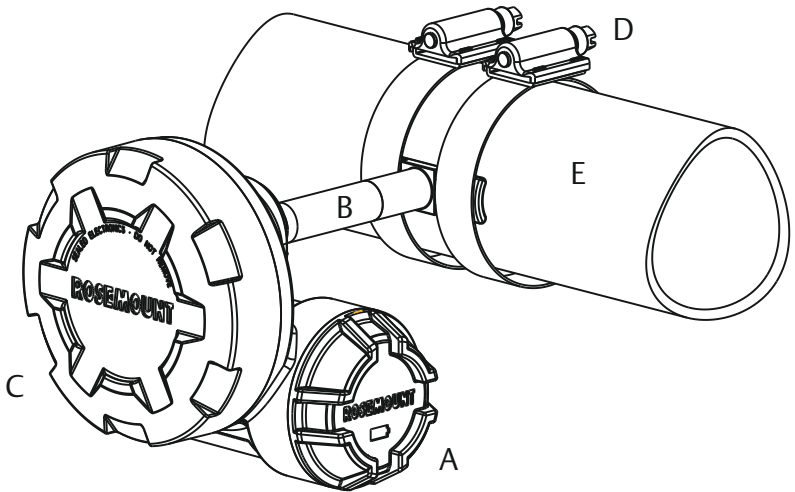
A. *Power module cover — power module is inside device; unscrew cap for access*
B. *Waveguide — acoustic and temperature sensors*
C. *Electronics cover — cover is sealed and cannot be removed*
D. *Stainless steel mounting bands — used to connect the acoustic transmitter to the piping*
E. *Pipe — the acoustic transmitter is installed directly to the pipe*

2   Installation

2.1   Installation considerations

2.1.1   General installation considerations

The Rosemount 708 Acoustic Wireless Transmitter measures the level of ultrasonic acoustic noise and waveguide temperature. The transmitter converts the acoustic and temperature measurements into output data and alerts.

2.1.2   Wireless considerations
Power-up sequence

Make sure the Emerson Wireless Gateway is installed and functioning properly before powering any wireless devices. Install the power module, SmartPower™ Solutions, model number 701PGN Green Power Module, into the Rosemount 708 Transmitter to power the device. This results in a simpler and faster network configuration. Enabling **Active Advertising** on the Gateway ensures new devices are able to join the network faster. For more information, see the Emerson Wireless 1410 Gateway Reference Manual.

**Figure 2-1: Power module installation**
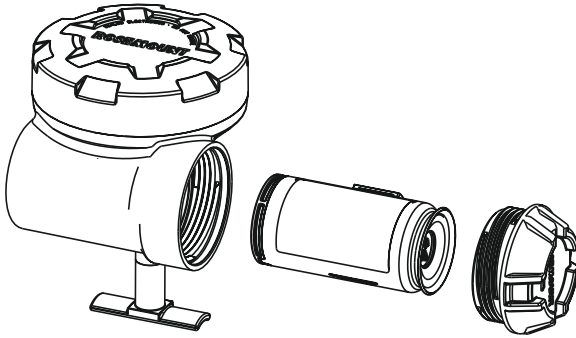
Antenna position

The antenna is internal to the acoustic transmitter.

To achieve optimal range, position the transmitter with the waveguide horizontal and the power module closest to the ground as shown in Figure 2-2. Good connectivity can also be achieved in other orientations. The antenna should also be approximately 3 ft. (1 m) from any large structure, building, or conductive surface to allow for clear communication to other devices. Refer to best practices for additional information on optimal mounting locations of device.

Figure 2-2: Antenna position
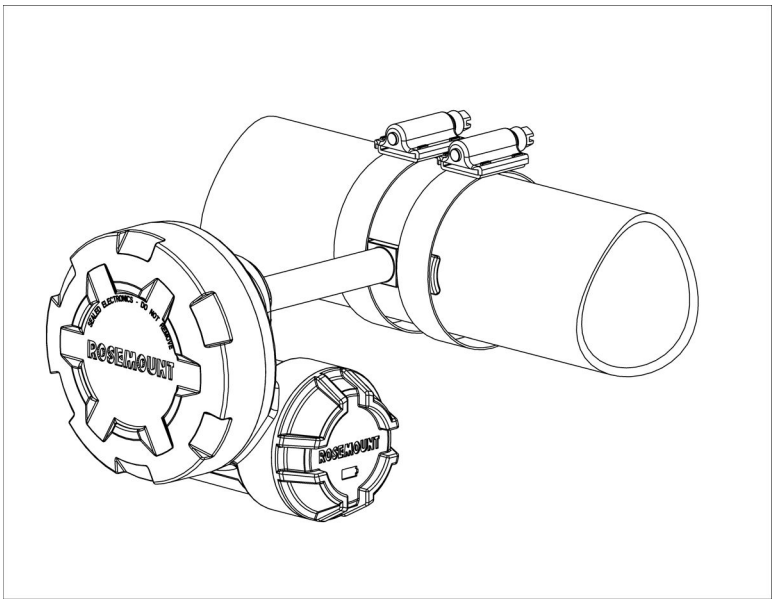
Recommended practices

When mounting the device, consider recommended practices to achieve the best wireless performance. See Rosemount 708 Wireless

Acoustic Transmitter Reference Manual for more information on recommended practices.

Field Communicator connections

The power module needs to be installed in the device for the Field Communicator to interface with the Rosemount 708 Transmitter.

This transmitter uses the green power module, order model number 701PGNKF. Field communication with this device requires a HART®-based Field Communicator using the correct Rosemount 708 device driver (DD). Field Communicator connections are located on the power module. The power module is keyed and can only be inserted in one orientation. Refer to Figure 2-3 for instructions on connecting the Field Communicator to the transmitter.

Figure 2-3: Connection diagram
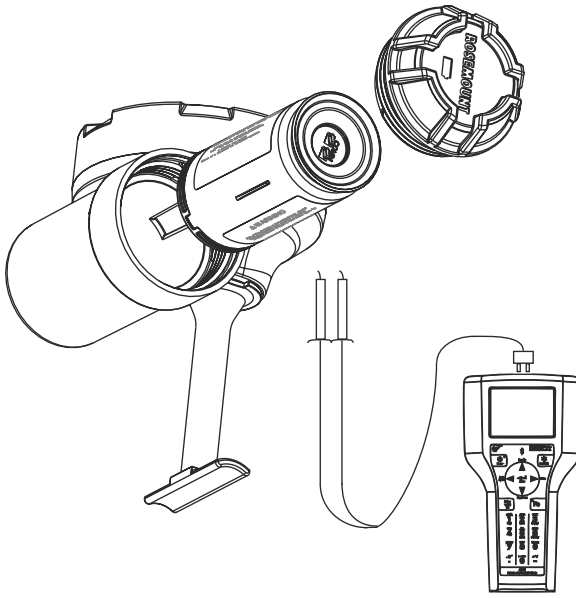
2.1.3   Mechanical considerations
Location

When choosing a location and position, consider access to the power module compartment for easy power module replacement.

2.1.4   Electrical considerations
Electronics cover

⚠ WARNING

The electronics cover is sealed and cannot be removed.

Do not attempt to unscrew the cover.

Power module

The Rosemount 708 Transmitter is self-powered. The power module contains one "D" size primary lithium/thionyl chloride battery. Each battery contains approximately 0.2 oz. (5.0 g) of lithium.

NOTICE

Under normal conditions, the battery materials are self-contained and are not reactive as long as the battery and the power module are maintained.

Take care to prevent thermal, electrical, or mechanical damage. Protect contacts to prevent premature discharge.

NOTICE

The power module may be damaged if dropped from heights exceeding 20 ft. (6.1 m).

Use caution when handling the power module.

2.1.5   Environmental considerations

Verify the operating atmosphere of the transmitter is consistent with the appropriate hazardous locations certification.

Temperature effects

The transmitter will operate within specifications for ambient temperatures between –40 and 185 °F (–40 and 85 °C).

Heat from the process is transferred to the transmitter housing. If the process temperature is high, the ambient temperature will need to be lower to account for heat transferred to the transmitter housing. See Table 2-1 for ambient temperature derating. Refer

to Table 2-2 for High Temperature option (HT01) for ambient temperature derating.

Table 2-1: Ambient temperature derating

Process temperature		Max ambient	
°C	°F	°C	°F
260	500	41	106
240	464	45	113
220	428	49	120
200	392	53	127
180	356	57	135
160	320	61	142
140	284	64	147
120	248	58	136
100	212	72	162
85	185	75	167

Table 2-2: Ambient temperature derating - HT01

Process temperature		Max ambient	
°C	°F	°C	°F
550	1022	41	106
520	968	45	113
490	914	47	117
460	860	49	120
430	806	51	124
400	752	53	127
370	698	56	133
340	644	58	136
310	590	60	140
280	536	62	144
260	500	63	145

2.1.6   Mounting installation considerations

Procedure

1. Inspect mounting bands periodically and re-tighten if necessary.

    Some loosening may occur after initial installation due to thermal expansion/contraction.

2. Ensure the waveguide is in direct contact with the pipe.

3. Insulate process piping to minimize ambient temperature effects (see Figure 2-8).

    Insulation thickness over the top of the waveguide foot should not exceed 1 in. (2.54 cm).

4. For best results, mount the transmitter within 6 in. (15.24 cm) of the equipment being monitored.

5. The stainless steel mounting bands could be affected by stress corrosion and potentially fail when in the presence of chlorides.

6. Install the transmitter such that steam or other high temperature fluids do not directly impinge the housing of the device.

7. If installing the device on a steam trap, install the device on the upstream side of the trap.

2.2   Mount the transmitter

For high temperature mounting, see Mount transmitter in a high temperature application.

Procedure

1. Locate the Rosemount 708 Transmitter on a horizontal section of piping as close as possible to the equipment to be monitored. Align the waveguide of the transmitter as shown in Figure 2-4.

2. Ensure the mounting location is free of foreign matter and corrosion to ensure good contact between the piping and waveguide.

3. Tighten each clamp to 90 in.-lb. (10.2 N-m). Trim the excess clamp band material to prevent unwanted acoustic noise.

4. If commissioning the device, install the power module (see Power module).

5. Ensure the power module cover is fully tightened to prevent moisture ingress.

The lip of the polymer power module cover should be in contact with the surface of the polymer enclosure to ensure a proper seal. Do not over tighten.

Example
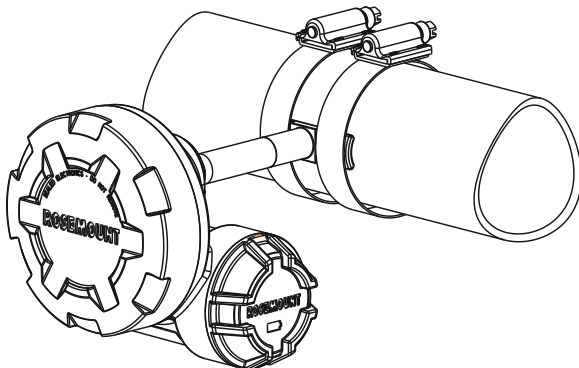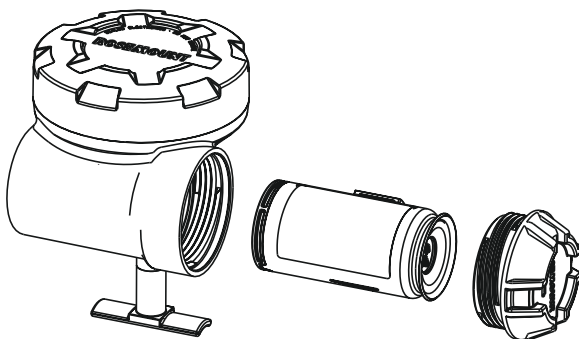
Figure 2-4: Transmitter orientation

Figure 2-5: Power module installation

NOTICE

Wireless devices should be powered up in order of proximity from the Gateway, beginning with the closest device to the Gateway. This will result in faster network formation.

2.2.1 Mount transmitter in a high temperature application

Use high temperature mounting hardware when process temperatures exceed 500 °F (260 °C).

Procedure

1. Place the foot of the transmitter between the standoff mounting hardware plates as shown in Figure 2-6.
2. Press standoff plates together so plates and transmitter foot are aligned.
3. Tighten each screw to 90 in.-lb. (10.2 N-m).
4. Locate the Rosemount 708 Transmitter and high temperature mounting hardware on a horizontal section of the piping as close as possible to the equipment being monitored.
5. Ensure the mounting location is free of foreign matter and corrosion to ensure good contact between the piping and mounting hardware.
6. Insert the U-bolt through the standoff mounting hardware.
7. Tighten each nut to 90 in.-lb. (10 N-m) (see Figure 2-7).
8. If commissioning the device, install the power module (see Figure 2-5).
9. Ensure the power module cover is fully tightened to prevent moisture ingress.

   The lip of the polymer power module cover should be in contact with the surface of the polymer enclosure to ensure a proper seal. Do not over tighten.

Example

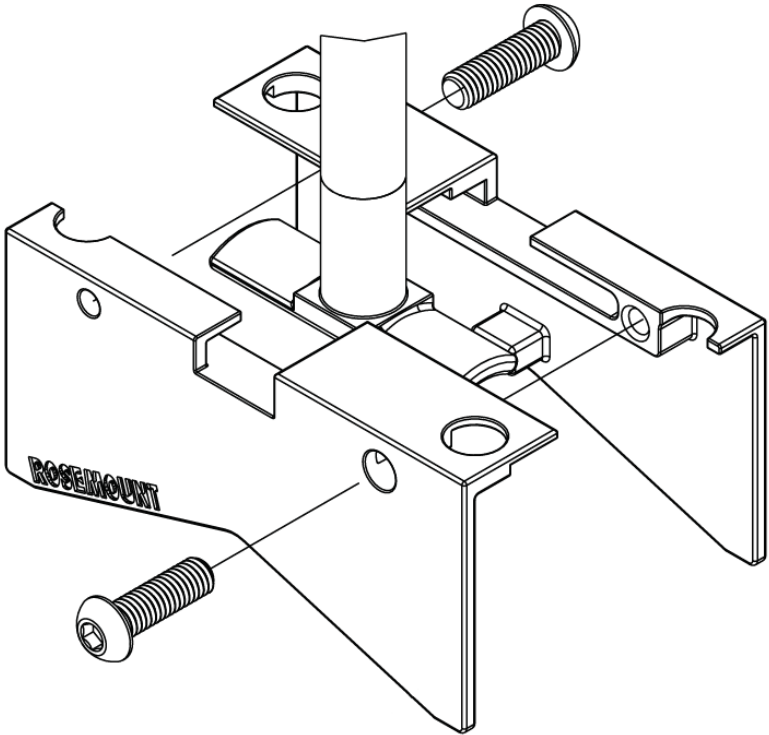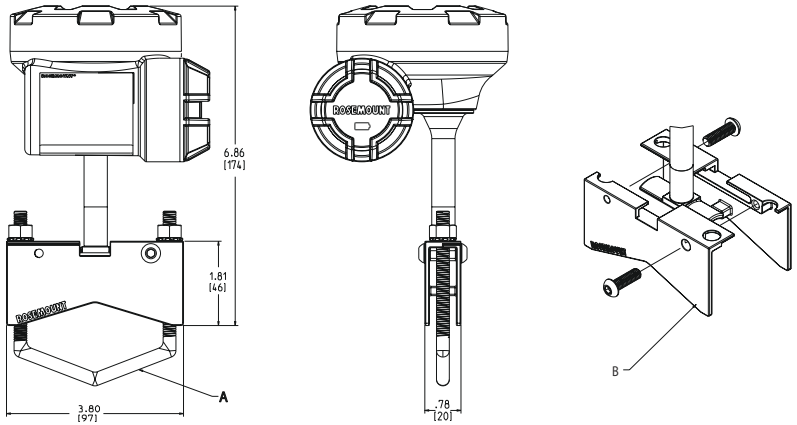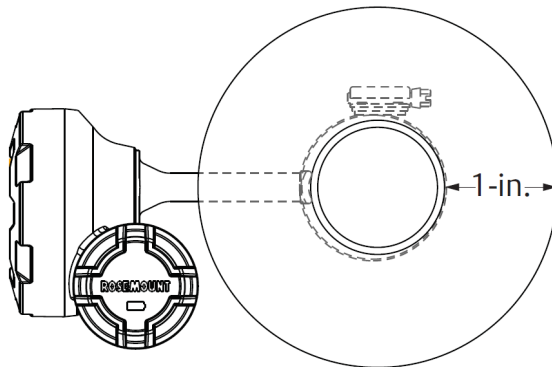**Figure 2-6: High temperature mounting kit: hardware for bracket mounting**

Figure 2-7: Rosemount 708 Transmitter with high temperature mounting kit

A. For pipe sizes ½ to 1¼-in.
B. Bracket mounting

Dimensions are in inches (millimeters).

Figure 2-8: Piping insulation, side view

3   Configuration

3.1   Safety messages

Instructions and procedures in this section may require special precautions to ensure the safety of the personnel performing the operations.

⚠ WARNING

Failure to follow these installation guidelines could result in death or serious injury.

Ensure only qualified personnel perform the installation.

⚠ WARNING

Electrical shock could cause death or serious injury.

Use extreme caution when making contact with the leads and terminals. Device must be installed to ensure a minimum antenna separation distance of 8 in. (20 cm) from all persons.

3.2   Device configuration

Remove the power module cover and connect to the HART® communication terminals for configuration.

The Rosemount 708 Acoustic Wireless Transmitter will receive HART communication from a Field Communicator or AMS Device Manager. When using a Field Communicator, use the **Send** key (**F2**) to send configuration changes to the transmitter. When using AMS Device Manager, click **Apply** to send configuration changes to the transmitter.

3.2.1   Configure the device using AMS Device Manager

AMS Device Manager is capable of connecting to devices directly, using a HART® modem, or remotely using the Gateway.

Procedure

- To configure the Rosemount 708 Transmitter, double click (or right click and select **Configure/Setup**) on the device icon that will appear below either the HART modem or Gateway connection tree.

3.3 Device network configuration

To communicate with the Gateway (and ultimately the host system), the transmitter must be configured to communicate with the wireless network.

Using a Field Communicator or AMS Device Manager, enter the network ID and join key so they match the network ID and join key of the Gateway and other devices in the network. If they do not match, the acoustic transmitter will not communicate with the network. To obtain the network ID and join key from the Gateway, go to **Systems Settings → Network → Network Settings** page on the web server, shown in Figure 3-1.

Figure 3-1: Gateway Network Settings
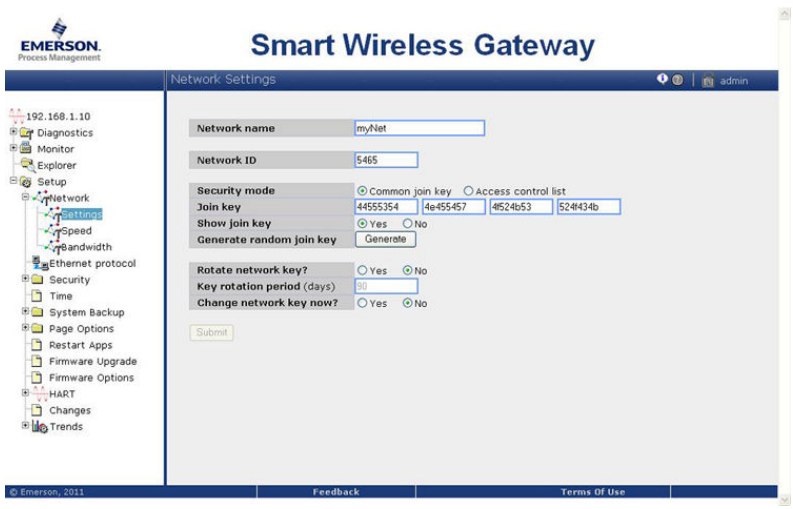
3.3.1 Configure the network using AMS Device Manager

Procedure

1. Right click on the acoustic transmitter and select **Configure**.
2. When the menu opens, select **Join Device to Network** and follow the method to enter the network ID and join key.

3.3.2   Field Communicator

Use the following fast key sequence to change the network ID and join key in the wireless device.

Function	Key sequence	Menu items
Join Device to Network	2, 1, 2	Network ID, Set Join Key

3.3.3   Fast key sequences

Table 3-1 lists the fast key sequences for common transmitter functions.

Table 3-1: Rosemount 708 fast key sequences

Function	Key sequence	Menu items
Device Information	2, 2, 5	• Tag • Long Tag • Descriptor • Message • Date • Country • SI Unit Control
Guided Setup	2, 1	• Basic Setup • Join Device to Network • Configure Update Rates • Alert Setup
Manual Setup	2, 2	• Wireless • Sensor • HART • Security • Device Information • Power
Wireless	2, 2, 1	• Network ID • Join Device to Network • Broadcast Information

3.4   Remove power module

Procedure

- After the device has been configured, remove the power module and replace the power module cover.

  Only insert the power module when the device is ready for commissioning.

3.5   HART® menu tree

Figure 3-2: Field Communicator Menu Tree

Home
1 Overview
2 Configure
3 Service Tools

Overview
1 Device Status
2 Communication Status
3 Input Conditions
4 Acoustic Sensor
5 Waveguide Temperature
6 Update Rate
7 Device Information

Communication Status
1 Join Status
2 Wireless Mode
3 Join Mode
4 Number of Available Neighbors
5 Number of Advertisements Heard
6 Number of Join Attempts

Identification
1 Tag
2 Long Tag
3 Model
4 Serial Number
5 Date
6 Descriptor
7 Message
8 Model Number

Model Number
1 Model Number 1
2 Model Number 2
3 Model Number 3

Device Information
1 Identification
2 Revisions
3 Radio
4 Alert Type and Security

Revisions
1 Universal
2 Field Device
3 Hardware
4 Software
5 DD

Radio
1 Manufacturer
2 Device Type
3 Device Revision
4 Software Revision
5 Hardware Revision
6 Transmit Power Level
7 Minimum Broadcast
    Update Rate

Configure
1 Guided Setup
2 Manual Setup
3 Alert Setup

Guided Setup
1 Basic Setup
2 Join Device to Network
3 Configure Update Rate
4 Install and Learn
    Alert Setup
5 Guided User Alert Setup

Configuration
1 Acoustic Alert Limit
2 Temperature Alert Limit

Acoustic Alert Limit
1 High Alert
2 Low Alert

Temperature Alert Limit
1 High Alert
2 Low Alert

Alert Type and Security
1 Configuration
2 Security

Security
1 Write Protect
2 Over the Air Upgrade

Manual Setup
1 Wireless
2 Sensor
3 HART
4 Security
5 Device Information
6 Power

Wireless
1 Network ID
2 Join Device to Network
3 Broadcast Information

Broadcast Information
1 Configuration Update
    Rate
2 Message 1
3 Message 2
4 Message 3

Sensor
1 Waveguide Temperature
2 Electronics Temperature

Waveguide Temperature
1 Setup
2 Sensor Limits
3 Measurement

Setup
1 Units

Sensor Limits
1 Maximum
2 Minimum

Measurement
1 Waveguide Temperature
2 Waveguide Temperature
    Status

HART
1 Measurement and Status
    Log

Security
1 Write Protect
2 Over the Air Upgrade

Device Information
1 Tag
2 Long Tag
3 Descriptor
4 Message
5 Date
6 Country
7 SI Unit Control

Electronics Temperature
1 Setup
2 Sensor Limits
3 Measurement

Setup
1 Units

Sensor Limits
1 Maximum
2 Minimum

Measurement
1 Electronics Temperature
2 Electronics Temperature
    Status

Alert Setup
1 High Acoustic
2 Low Acoustic
3 High Temperature
4 Low Temperature

Power
1 Power Mode

High Acoustic
1 Configure High Acoustic Alert
2 Mode
3 Variable
4 Alert Direction
5 Units
6 Alert Limit
7 Dead Band

Service Tools
1 Alerts
2 Variables
3 Trends
4 Communications
5 Maintenance
6 Simulate

Alerts
1 Refresh Alerts
2 Active Alerts
3 History

Low Acoustic
1 Configure Low Acoustic Alert
2 Mode
3 Variable
4 Alert Direction
5 Units
6 Alert Limit
7 Dead Band

Variables
1 Input Conditions
2 Input Conditions Status
3 Acoustic Sensor
4 Acoustic Sensor Status
5 Waveguide Temperature
6 Waveguide Temperature
    Status
7 Electronics Temperature
8 Electronics Temperature
    Status
9 Supply Voltage
10 Supply Voltage Status
11 Last Update Time

High Temperature
1 Configure High Temperature Alert
2 Mode
3 Variable
4 Alert Direction
5 Units
6 Alert Limit
7 Dead Band

Trends
1 Acoustic
2 Temperature

Low Temperature
1 Configure Low Temperature Alert
2 Mode
3 Variable
4 Alert Direction
5 Units
6 Alert Limit
7 Dead Band

Communications
1 Join Status
2 Wireless Mode
3 Join Mode
4 Number of Available
    Neighbors
5 Number of
    Advertisements Heard
6 Number of Join Attempts

Maintenance
1 Routine Maintenance
2 Perform Master Reset

History
1 Clear Alert History

Simulate
1 Input
2 Electronics Temperature
3 Supply Voltage

Routine Maintenance
1 Measurement History
2 Install New
    Power Module

4   Verifying operation

There are three methods available to verify operation:

- Field Communicator

- Gateway's integrated web interface

- AMS Suite Wireless Configurator or AMS Device Manager

If the Rosemount 708 Transmitter was configured with the network ID and join key, and sufficient time has passed, the transmitter will be connected to the network. If network ID and join key were not configured, reference Rosemount 708 Wireless Acoustic Reference Manual.

Note

It may take several minutes for the device to join the network.

4.1   Field Communicator

For WirelessHART® transmitter communication, a Rosemount 708 Device Driver (DD) is required. To obtain the latest DD, visit the Emerson Easy Upgrade site at: Software & Drivers.

Use the following fast key sequence to verify the communication status in the wireless device.

Function	Key sequence	Menu items
Communications	3, 4	• Join Status • Wireless Mode • Join Mode • Number of Available Neighbors • Number of Advertisements Heard • Number of Join Attempts

4.2   Emerson Wireless Gateway

Using the Gateway's web interface, navigate to the **_Explorer_** page as shown in Figure 4-1. Locate the device in question and verify all status indicators are good (green).

Figure 4-1: Emerson Wireless Gateway Explorer page
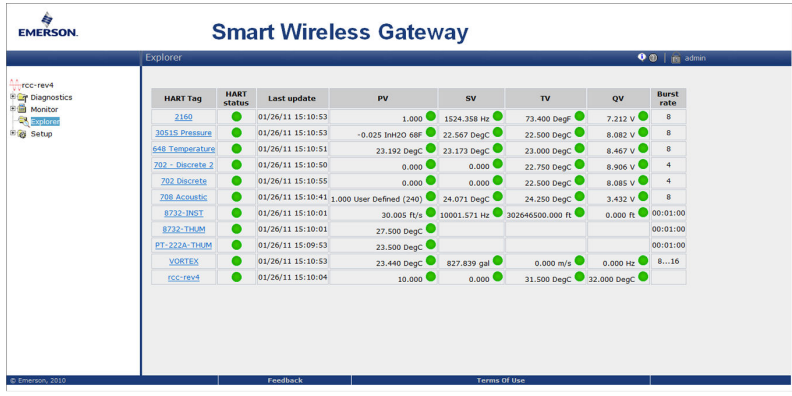
4.2.1 AMS Device Manager

When the device has joined the network, it will appear in the AMS Device Manager as illustrated in Figure 4-2. For *Wireless*HART® transmitter communication, a Rosemount 708 device driver (DD) is required. To obtain the latest DD, visit the Emerson Easy Upgrade site at: Software & Drivers.

Figure 4-2: AMS Device Manager
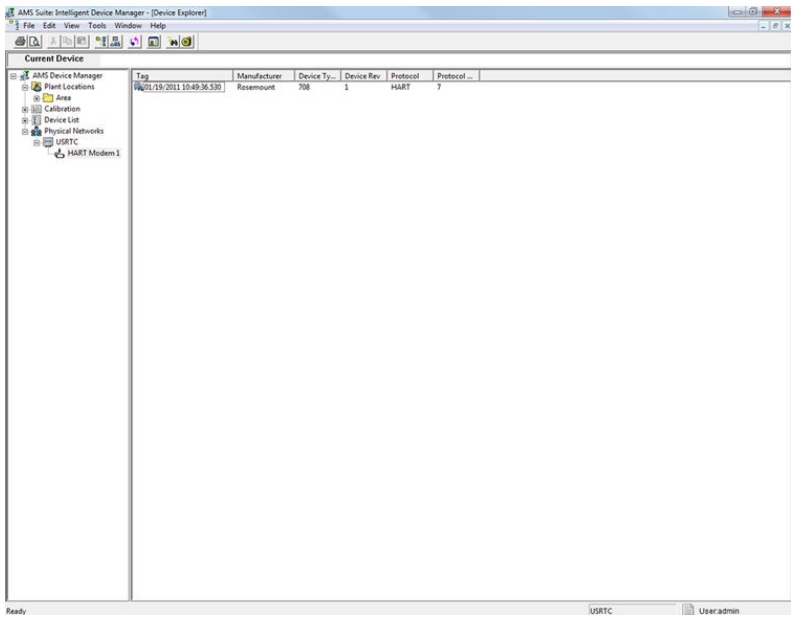
4.2.2 Network connection troubleshooting

If the device is not joined to the network after power up, verify the correct configuration of the network ID and join key and that **Active Advertising** has been enabled on the Gateway. The network ID and join key in the device must match the network ID and join key of the Gateway.

To obtain the network ID and join key from the Gateway, go to **System Settings → Network → Network Settings** page of the web server (see Figure 4-3). Follow the fast key sequence shown in the following table to change the network ID and join key.

Function	Key sequence	Menu items
Join Device to Network	2, 1, 2	Network ID, Set Join Key

Figure 4-3: Emerson Wireless Gateway Network Settings
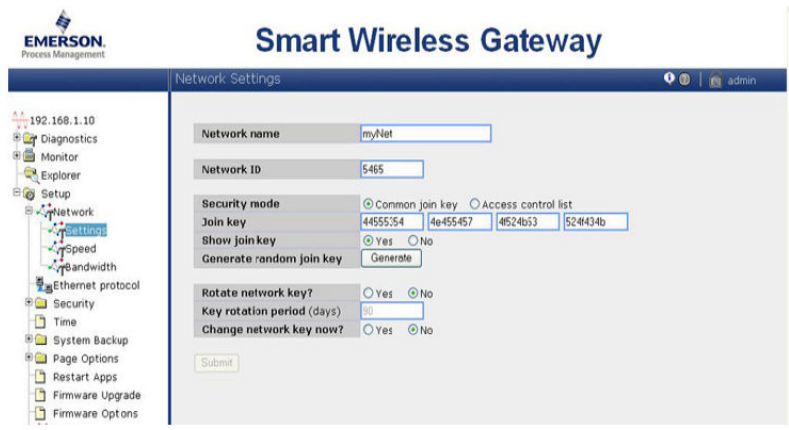
4.3   Operate using a Field Communicator

Note
In order to establish communication with a Field Communicator, power the Rosemount 708 Transmitter by connecting the power module. For more information on the power module, refer to the Emerson Wireless SmartPower™ Solutions Product Data Sheet.

Table 4-1 includes fast key sequences frequently used to interrogate and configure the device.

Table 4-1: Rosemount 708 fast key sequence

Function	Key sequence	Menu items
Device Information	2, 2, 5	• Tag • Long Tag • Descriptor • Message • Date • Country • SI Unit Control

Table 4-1: Rosemount 708 fast key sequence *(continued)*

Function	Key sequence	Menu items
Guided Setup	2, 1	• Basic Setup • Join Device to Network • Configure Update Rates • Alert Setup
Manual Setup	2, 2	• Wireless • Sensor • HART • Security • Device Information • Power
Wireless	2, 2, 1	• Network ID • Join Device to Network • Broadcast Information

Figure 4-4: Field Communicator connections
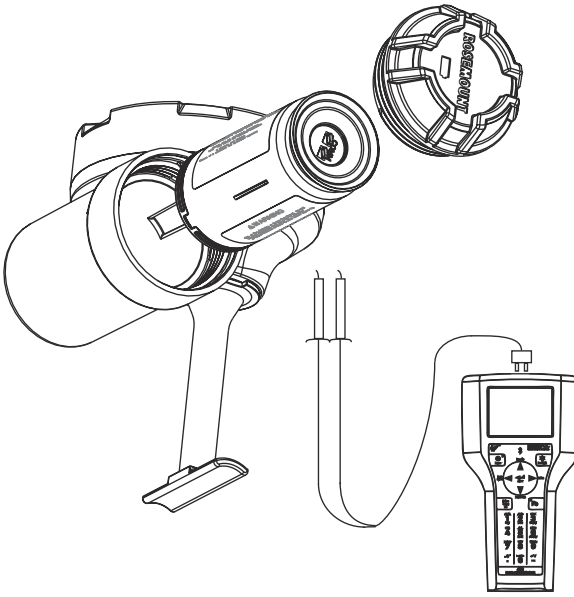
A   Product certifications

Rev 2.8

A.1   European Directive information

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

A.2   Telecommunications compliance

All wireless devices require certification to ensure they adhere to regulations regarding the use of the radio frequency (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.

A.3   Federal Communications Commission (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 7.9 in. (20 cm) from all persons.

A.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).

A.5   Installing 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.

A.6   USA

I5 USA Intrinsically Safe (IS)

Certificate: (FM) 3043245

Standards: FM Class 3600 – 1998, FM Class 3610 – 2010, FM Class 3810 – 2005, NEMA® 250 – 2003, ANSI/IEC 60529 – 2004

Markings: IS CL I, DIV 1, GP A, B, C, D T4;

CL 1, Zone 0 AEx ia IIC T4;

T4 (–40 °C ≤ T_a ≤ +70 °C) when installed per Rosemount drawing 00708-1000;

Type 4X

Special Conditions for Safe Use (X):

1. The Rosemount 708 Wireless Acoustic Transmitter shall only be used with the 701PGNKF Rosemount SmartPower™ Battery Pack.

2. Potential electrostatic charging hazard. See instructions.

A.7   Canada

I6 Canada Intrinsically Safe

Certificate: (CSA) 2439890

Standards: CAN/CSA C22.2 No. 94.2:20, CAN/CSA C22.2 No. 60529:16, CSA C22.2 No. 61010-1-21 + AMD1-18, CAN/CSA C22.2 No. 60079-0:19, CAN/CSA C22.2 No. 60079-11:14 (R2018)

Markings: I.S. CL I, DIV 1, GP A, B, C, D when installed per Rosemount drawing 00708-1001; T3C; Type 4X, IP66/67

Conditions of Acceptability (X):

1. The plastic enclosure of the Model 708 may constitute a potential electrostatic ignition risk and must not be rubbed or cleaned with a dry cloth.

2. The Model 701PGNKF Power Module may be replaced in a hazardous area. The power module has a surface resistivity greater than 1 GΩ and must be properly installed in the wireless device enclosure. Care must be taken during transportation to and from the point of installation to prevent electrostatic charge build-up.

A.8   Europe

I1 ATEX Intrinsic Safety

Certificate	Baseefa11ATEX0174X
Standards	EN 60079-0: 2018, EN 60079-11: 2012
Markings	ⓔⓧ II 1 G Ex ia IIC T4 Ga, T4 (–60 °C ≤ T_a ≤ +70 °C)

Special Conditions for Safe Use (X):

1. The plastic enclosure of the Rosemount 708 may constitute a potential electrostatic ignition risk and must not be rubbed or cleaned with a dry cloth.

2. The Model 701PGNKF Power Module may be replaced in a hazardous area. The power module has a surface resistivity greater than 1 GΩ and must be properly installed in the wireless device enclosure. Care must be taken during transportation to and from the point of installation to prevent electrostatic charge build-up.

A.9   International

I7 IECEx Intrinsic Safety

Certificate	IECEx BAS 11.0091X
Standards	IEC 60079-0: 2017, IEC 60079-11: 2011
Markings	Ex ia IIC T4 Ga, T4 (–60 °C ≤ T_a ≤ +70 °C)

Special Conditions for Safe Use (X):

1. The plastic enclosure of the Rosemount 708 may constitute a potential electrostatic ignition risk and must not be rubbed or cleaned with a dry cloth.

2. The Model 701PGNKF Power Module may be replaced in a hazardous area. The power module has a surface resistivity greater than 1 GΩ and must be properly installed in the wireless device enclosure. Care must be taken during transportation to and from the point of installation to prevent electrostatic charge build-up.

A.10   Brazil

I2 INMETRO Intrinsic Safety

Certificate	UL-BR 16.0128X

Standards	ABNT NBR IEC 60079-0: 2013, ABNT NBR IEC 60079-11: 2013
Markings	Ex ia IIC T4 Ga, T4 (−40 °C ≤ T_a ≤ +70 °C)

Special Condition for Safe Use (X):

See certificate for special conditions.

A.11 China

I3 China Intrinsic Safety

Certificate	GYJ23.1239X
Standards	GB/T3836.1-2021, GB/T 3836.4-2021
Markings	Ex ia IIC Ga T4, −60 ~ +70 °C

A.12 Japan

I4 CML Intrinsically Safe

Certificate:	CML 20JPN2022X
Markings:	Ex ia IIC T4 Ga (−40 °C ≤ T_a ≤ +70 °C)

Special Conditions for Safe Use (X):

See certificate for special conditions.

A.13 EAC - Belarus, Kazakhstan, Russia

IM Technical Regulation Customs Union (EAC) Intrinsic Safety

Certificate	ТОО Т-Стандарт ЕАЭС KZ7500525.01.01.00651
Markings	0Ex ia IIC T4 Ga X T4 (−60 °C ≤ T_a ≤ +70 °C)

Special Condition for Safe Use (X):

See certificate for special conditions.

A.14 Korea

IP Korea Intrinsic Safety

Certificate	13-KB4BO-0145X
Markings	Ex ia IIC T4 T4 (−60 °C ≤ T_a ≤ +70 °C)
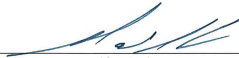
Special Condition for Safe Use (X):

See certificate for special conditions.

A.15   Declaration of Conformity

Figure A-1: Rosemount™ 708 Wireless Acoustic Transmitter

EMERSON. EU Declaration of Conformity   CE

No: RMD 1084 Rev. M

EMC Directive (2014/30/EU)

Harmonized Standards:
EN 61326-1: 2013

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

Harmonized Standards:
EN 300 328 V2.2.2: 2019
EN 301 489-1 V2.2.3
EN 301 489-17 V3.2.4
EN 61010-1: 2010
EN IEC 63211: 2020

ATEX Directive (2014/34/EU)

Baseefa11ATEX0174X – Intrinsic Safety Certificate
Equipment Group II, Category 1 G
Ex ia IIC T4 Ga
Harmonized Standards:
EN IEC 60079-0: 2018
EN 60079-11: 2012

ATEX Notified Body

SGS FIMKO OY [Notified Body Number: 0598]
Takomotie 8
00380 HELSINKI
Finland

ATEX Notified Body for Quality Assurance

SGS FIMKO OY [Notified Body Number: 0598]
Takomotie 8
00380 HELSINKI
Finland

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A.16   China RoHS

含有China RoHS管控物质超过最大浓度限值的部件型号列表 *Rosemount 708*
List of Rosemount 708 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
传感器组件 Sensor Assembly	X	O	O	O	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.

For more information: **Emerson.com/global**

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