FEDERAL SIGNAL
Safety and Security Systems

Informer-IP Series C

Models: I-IP-IO, I-IPW, I-IP15, I-IP15X, I-IP100AC, I-IP100DC, I-IP100ACX, I-IP100DCX, I-IP2, I-IPSIU

Setup, Program, and User Manual

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Limited Warranty

This product is subject to and covered by a limited warranty, a copy of which can be found at www.fedsig.com/SSG-Warranty. A copy of this limited warranty can also be obtained by written request to Federal Signal Corporation, 2645 Federal Signal Drive, University Park, IL 60484, email to info@fedsig.com or call +1 708-534-3400.

This limited warranty is in lieu of all other warranties, express or implied, contractual or statutory, including, but not limited to the warranty of merchantability, warranty of fitness for a particular purpose and any warranty against failure of its essential purpose.

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Contents

Tables

Safety Messages

⚠ WARNING

It is important to follow all instructions shipped with this product. This device is to be installed by trained personnel who are thoroughly familiar with the country's electric codes and will follow these guidelines as well as local codes and ordinances, including any state or local noise-control ordinances.

After installation, service, or maintenance, test the system to confirm that it is operating properly. Test the system regularly to confirm that it will be operational in an emergency.

Each Informer device has its own Installation Manual. See fedsig.com for online manuals.

General Description

Introduction

This manual describes how to set up, configure, program, and use Informer-IP devices. Each Informer device has its own Installation Manual. See fedsig.com for online manuals.

This manual covers the following Informer devices:

- Informer-IP Desk Mount (I-IP-IO)
- Informer-IP Wall Mount (I-IPW)
- Informer15 Speaker (I-IP15 and I-IP15X)
- Informer100 Speaker (I-IP100AC, I-IP100DC, I-IP100ACX, and I-IP100DCX)
- Informer-PA for Public Address Interface (I-IP2)
- Informer Sensor Interface Unit (I-IPSIU)

Federal Signal Informers can be set up in a wide variety of networks and configurations. This manual provides a standard setup and programming process for Informer products. See the Commander® Software Reference Manual or contact Federal Signal for special applications using Informer devices. Appendix B contains configuration tables for documenting how your Informers and Commander® are programmed.

This manual does not pertain to Informer Series A or B products. See "Getting Technical Support and Service" on page 93 for Federal Signal's contact information for Series A or B I-IP15 upgrade instructions. Other Series A or B Informer models are not hardware compatible with Series C software.

Informer Series C Overview

The Federal Signal Informer series IP products incorporate industry-standard Web, SIP phone, and Modbus® PLC interfaces to simplify integration with existing systems. The products can be purchased as part of a pre-integrated Commander® IP solution with a touch screen HMI that can simplify configuring, controlling, and monitoring thousands of unique alert and notification scenarios. Commander® includes options for digital and analog RF, Cellular, Satellite, and CommanderOne® cloud services for messaging and automated NOAA Weather alerting. CommanderOne® iOS and Android® mobile applications keep you connected with controlling, monitoring, and messaging wherever you go.

Store over 4000 WAV files containing tones, music, or voice messages on a removable SD card in the Informers. The WAV files can be configured to play when a local input is activated or remotely using the SIP, Modbus®, and Commander® interfaces. The Informer indoor and outdoor speakers include four digital inputs. These inputs can be configured to directly activate the speaker to play a string of 1-19 WAV files and control integrated relay output(s) or initiate predefined macros to activate multiple speakers when the Commander® application is purchased. The inputs can be remotely monitored and configured to activate other speakers when integrated with the Commander® HMI. The Informers are remotely configurable and can obtain software updates through the speaker's web page and the optional Commander® software application.

Automatic Volume Level Control

The Informer speakers can be configured to automatically adjust the speaker's output level when the local ambient noise level changes. Configure the maximum level and ambient attenuation settings on the Informer's web page.

NOTE: Automatic volume control is not available with the I-IP2 and I-IPSIU products.

Digital Inputs

The Informers have digital inputs that can be activated using a dry contact closure. Configure the inputs from the Informer's web page. See "2. Configuring the RTU Settings" on page 23. Each input can be configured to play 1-19 WAV files when the input is activated. The WAV files to be played are entered by index number in a comma-separated list, for example, 1,2,6. Relay outputs can be selected to close when the input is active and remain closed until the associated WAV file(s) have finished playing.

The inputs can be configured for normally open or normally closed contacts and assigned a priority level of 1 to n (n = number of inputs available in the product). The inputs can be configured for momentary or continuous operation, or they can be disabled. Momentary inputs will play the associated WAV file one time when the state changes to active. Continuous configured inputs will continue to play the associated WAV files and open or close associated relay output(s) as long as the input is active. If multiple continuous inputs are active, the WAV files and relay outputs associated with each input will activate in sequence. Lower-priority inputs are ignored, while higher-priority inputs are active. If an equal or greater priority momentary input is activated while a continuous input is active, the momentary input will interrupt the WAV file and relay controls associated with the continuous input. The continuous input(s) will resume control when the WAV file(s) associated with the momentary input finish playing. Equal or higher priority momentary inputs will override other active momentary controls.

The digital inputs may also be configured using the Commander® application. The Commander® application will override web page configurations.

Web page configurations must be applied, and the Informer must be rebooted before the changes take effect.

Table 1 Input and Output Configuration

Product Family	Number of Inputs	Number of Outputs
I-IP-IO	N/A	N/A
I-IP15	4	2
I-IP100	4	2
I-IP2	N/A	N/A
I-IPSIU	16	4

Informer SIP Telephone Interface

The Informers can register with a standard SIP phone server and automatically answer calls for live voice paging. Once a call is established with the Informer, the Informer will listen for commands initiated from the phone's keypad. Keypad commands can be configured to activate locally stored WAV files, control relay outputs, and execute preprogrammed functions, including volume control, relay output sequences, and tone and voice message sequences.

To configure SIP setting, use the Informer's integrated web server's web page. SIP SDP, secure SDP TLS, RTP, and RTP Telephone Events (RFC2833/4733) are supported. The Informers include a configurable Jitter Buffer, Quality of Service (QoS), and support redundant SIP servers to ensure high reliability for emergency communications.

Federal Signal offers complete SIP server and Gateway options that include paging to speakers' groups by dialing a single phone extension. Single-button paging stations and touchscreen phones with configurable call buttons are also available.

Informer Control using IP Phone Keypad

When a SIP phone call has been established with a Federal Signal Informer IP product, the Informer is able to decode DTMF characters sent as RTP Telephone Events to activate the Informer's locally stored WAV files and preprogrammed functions. The DTMF Telephone Events are initiated by pressing the 0-9, * (asterisk), and # (pound) keys on the phone's keypad on a SIP phone system that supports Telephone Events per RFC2833/4733. DTMF audio from the control signals will not be heard from the Informer, and handset audio will be interrupted while the Telephone Event is active to prevent unwanted noise while control commands are being initiated. The Informer uses the DTMF * and # as start and stop Framing Characters to frame numeric control commands. The * (asterisk) character is used to frame WAV file playback commands, and the # (pound) character is used to frame the Informer function control commands. These commands are explained in the Control Command sections.

When the first DTMF (Start) framing character is received, the Informer starts reading the control number digits for 5 seconds or until the second (Stop) framing character is received or until an illegal character is received. Each digit received restarts the 5-second timer. When the second framing character is received, the valid digits read will determine the control command number. One to four digits, including the valid digit numbers 0-9, may be entered. If any character other than the framing characters or valid digit number

is received or the 5-second character entry period expires, the framing character and any valid digits read are treated as noise and discarded. Leading 0 (zeros) digits are allowed but not required.

When a valid command is received, the Informer acknowledges the receipt by sending three short beeps, hanging up, and playing the WAV file or activating the function. Acknowledgment beeps are not heard if more than one speaker is included in a group call (phone page).

NOTE: Not all SIP servers will be able to relay acknowledgment beeps if more than one speaker is included in a group call (phone page).

WAV File Control Commands

The Informer can store over 4000 WAV files containing tones, music, or voice messages on a removable SD card. The WAV files are stored in numerical order and can be commanded to play by the WAV file index number.

NOTE: There are over 160 standard messages included on the SD card. See “Appendix C Standard DV Messages” on page 109 for a complete list.

Valid WAV File Control Commands

The format of the SIP phone command is **number*.

Examples of valid WAV file Control Commands: *1*, *0010*, *4093*

Invalid WAV File Control Commands

Examples of illegal WAV file Control Commands.

Table 2 Examples of Illegal WAV Files

Invalid WAV Files Control Commands	Why
*1	Missing end of frame character. The entry is discarded 5 seconds after 1 is received.
111*	Missing start of frame character before 111. The entry is discarded 5 seconds after * is received.
*1#	# is not a legal framing character for WAV file control and cannot be used in a command with a * framing character. The entry is discarded 5 seconds after # is received.
#1*1*	# is not a valid WAV file framing character. #1 is discarded, but *1* is accepted to activate WAV file number one.
#1#	#1# is a Function Control command that activates Function #1 and is not a WAV file command.
1A	A is not a legal digit. The entry is discarded 5 seconds after * is received.
5000	Valid WAV file index numbers are limited to 1-4093. The entry is discarded 5 seconds after * is received.

When a valid command is received to play a WAV file, the Informer acknowledges the receipt by sending three short beeps, hanging up, and playing the WAV file.

Function Control Commands

Function Control commands are used to activate functions that have been preconfigured into the Informer. Functions can be configured to control audio volume, activate relay outputs, play tones, and WAV files. Functions configured with Commander® can also include delays and repeat loops.

The input functions can be configured on the Informer's web page and activated by initiating local digital inputs on the Informer or by using the Modbus® and SIP interfaces. Up to 50 functions can be configured using the Federal Signal Commander® software application. If Commander® is used to program the Informer, Commander® will override the web page configuration and change the Digital Inputs Mode options to Commander® on the RTU Settings page.

NOTE: I-IPSIU inputs cannot be configured to run local functions; instead, they can execute Commander® Activation Templates.

Valid Function Control Commands

The format of the SIP phone command is *#number#*.

Examples of valid Function Control Commands: #1#, #0010#, #50#

Invalid Function Control Commands

Examples of illegal Function Control Commands.

Table 3 Examples of Illegal Function Control Commands

Invalid Function Control Commands	Why
#1	Missing end of frame character. The entry is discarded 5 seconds after 1 is received.
111#	Missing start of frame character before 111. The entry is discarded 5 seconds after # is received.
*1#	* is not a legal framing character for function control and cannot be used in a command with a # framing character. The entry is discarded 5 seconds after # is received.
#1*1*	#1 does not include a valid end of frame character for function control. *1* is a valid WAV file command that plays WAV file number one.
1	*1* is a WAV file control command that activates WAV file #1, but it is not a Function Control command.
#1A#	A is not a legal digit. The entry will be discarded.
#500#	Valid function numbers are limited to 1-50. The entry is discarded 5 seconds after the # stop character is received.

When a valid function command is received, the Informer acknowledges the receipt by sending three short beeps, hanging up, and activating the function.

Modbus TCP

Modbus® TCP can directly control and monitor speakers from an existing PLC over an Ethernet network. This interface provides direct control of WAV files and relay output(s) in the speaker. The interface also provides the ability to monitor the speaker's digital inputs and activation status.

Digital Coil Registers are used to monitor Activation Status, Digital Input Status, and Time Synchronization Status. Analog Registers are used to play WAV files and activate preprogrammed functions. Preconfigured programs and WAV files can be activated, relay outputs can be controlled, and speaker status can be monitored.

The number of inputs and outputs for each Informer model are listed in "Table 1 Input and Output Configuration" on page 9.

Supported Protocols

Use the interface that supports the Modbus® TCP protocol. Configure the Modbus® interface on the unit's web page. There are two configuration options:

- Enable or Disable the Modbus® interface
- The TCP port number

NOTE: Most systems use the default Modbus® port number of 502.

Table 4 Coil Registers (1-9999) Read-Write

Coil data address	Coil number (0x)	Function	Value
0	1	Activation Status	0 = activation not detected, 1 = activation detected (Status resets with each new function)
1	2	Input #1	0 = closed, 1 = open (State follows the physical input port)
2	3	Input #2	0 = closed, 1 = open (State follows the physical input port)
3	4	Input #3	0 = closed, 1 = open (State follows the physical input port)
4	5	Input #4	0 = closed, 1 = open (State follows the physical input port)
5	6	Time synchronization status	0 = pass, 1 = fail

The software versions listed below are the minimum versions that support the Series C Modbus® interface. A firmware upgrade will be required to use the Modbus® interface if the RTU firmware is below these minimum requirements.

- DIGI v2.1.0.44
- IP15 v2.3.0.11
- IP100 v5.2.0.30

Table 5 Analog Output Holding Registers (40001-49999+) Read-Write

Analog Output data address	Register Number (4x)	Function	Value
0	40001	Activate function code	Function code number to activate
1	40002	Activate digital voice message (unit must be armed)	Digital voice message number to activate
2	40003	Activate tone function (unit must be armed)	1 = Wail, 2 = Pulsed Wail, 3 = Alternate Wail, 4 = Steady, 5 = Pulsed Steady, 6 = Alternate Steady, 7 = Auxiliary
3	40004	Activate utility function Arm clears attenuation values (full volume). Attenuation values must be set after arming unit.	0 = Arm, 1 = Disarm, 2 = Master Reset, 3 = Cancel, 4 = Quiet Test
4	40005	Power Attenuation (must be set following arm)	0-20 dB
5	40006	Ambient Attenuation (must be set following arm)	0 = Disabled, 50-80 dB
6	40007	Relay 1 Mode (time values, if applicable, must be set first)	0 = Off, 1 = On, 2 = Timed, 3 = Latched
7	40008	Relay 1 On Time	0-255 seconds
8	40009	Relay 1 Off Time	0-255 seconds
9	40010	Relay 1 Total Time	0-65535 seconds
10	40011	Relay 2 Mode (time values if applicable must be set first)	0 = Off, 1 = On, 2 = Timed, 3 = Latched
11	40012	Relay 2 On Time	0-255 seconds
12	40013	Relay 2 Off Time	0-255 seconds
13	40014	Relay 2 Total Time	0-65535 seconds
9999	50000	None	15920 (do not use)
10000	50001	None	12557 (do not use)

Notes

Digital voice messages are WAV files.

Arming the unit clears attenuation values (full volume). If attenuation is desired when activating digital voice messages (address 1) or tones (address 2), the attenuation values (address 4,5) must be set after the units are armed.

Activating digital voice (address 1) and tone (address 2) clears the activation status. The unit will report local activation and report the last function RTU as Digital Voice, PA, or Siren Tone to Commander® (v15.8.0.33+). Commander® will report the Last Activation faults.

Modbus with Commander

Modbus® TCP can also be used to connect PLCs to the Commander® HMI (Human Machine Interface). Commander® can be used to configure the speakers over the network and provide control and status monitoring. Commander® offers a configurable HMI that simplifies the activation of unique notification messages created with simplified touch screen menu selections for events, locations, actions, etc.

Both digital (coils) and analog registers are supported. Preconfigured programs and WAV files can be activated, relay outputs can be controlled, and speaker status can be monitored.

Table 6 Commander Modbus Map

Output Coil Address (0x)	Coil number (0x)	Function	Value
0	1	Cancel	1 = Cancel
1-30	2-31	Hotkeys 1-30	1 = Active (one shot)
31-999	32-1000	Template number 1-969 (Template number = ADDRESS - 30)	1 = Active (one shot)

Table 7 Register Number (3x)

Analog Input Register Address	Register Number (3x)	Function	Value
0	30001	Last activation number RTUs pending	Number of sites pending (not reported)
1	30002	Last activation number RTUs pass	Number of sites reported with not faults
2	30003	Last activation number RTUs fail	Number of with reported with faults
3	30004	Last activation total number RTUs	Total number of sites included in last activation

Table 8 Register Number (4x)

Analog Input Register (4x)	Register Number (4x)	Function	Value
0	40001	Activate Hotkey	Hotkey number to activate. Zero = Cancel All
1	40002	Activate template	Template number to activate

Additional Commander® Features:

- Remote system configuration, programming, and digital voice message uploading
- Create activation templates to simplify system activation
- Send messages to scrolling message displays
- Event logging and reporting
- Email users when specific events occur

- Automated activations
- CommanderOne® cloud interface

CommanderOne Enabled

CommanderOne® is a secure cloud service offered by Federal Signal that allows remote communication with Commander® through a website or the CommanderOne® app for iPhone and Android® mobile phones.

CommanderOne® Highlights:

- High-security, multi-factor authentication with multiple activation security levels
- High capacity messaging using email, SMS, and push notifications
- Remote triggering of events within Commander®
- System status monitoring of speakers on a GIS map
- Weather monitoring on a GIS map with automated system activation options
- Automated System Alarms

Configuring Informers Using the Web Interface

Informer products can operate as autonomous devices controlled by contact closures without connecting to a network server or becoming part of a supervised network with remote configuration, control, and status monitoring. Use the Informer's internal web server to configure network settings, volume control, remote input configuration, access security, Modbus®, and SIP interfaces. More advanced configuration and programming require Federal Signal's Commander® software application and SmartMsg Centerpoint server. All configuration starts with the IP network interface.

1. Configuring the Network Interface

Before using an Informer on your network, a System Administrator must perform configurations. The System Administrator must be familiar with IP network equipment, this manual, and optionally the Commander® Software Reference Manual. Proper configuration settings are required for the network to be able to reliably communicate with the device and create a redundant, fail-safe network architecture for your system.

You can statically address the Informer or configure it for DHCP. For permanent installations and good network management, it is recommended to reserve static IP addresses for all Informer devices on the network. The factory default setting places the Informer on a static IP address of 10.10.10.1 with a subnet mask of 255.255.0.0 on port 16887. If the configuration information is lost, restore the unit to this factory default setting with a hardware reset.

Reserve static (typically private) IP addresses on your network for each Federal Signal network server and for each Informer and any other Federal Signal network equipment such as sirens, SIU, or PA interface devices. If the Informers are used with the Commander® application, you must reserve a unique numeric site ID number for use by the Commander® software to identify each Commander® Control Station, Informer, and siren devices. Do not duplicate IP addresses or site ID numbers on the network at any time, or network errors occur. Informer and Siren Site ID numbers start at number 001 and are numbered sequentially. Commander® Control Station Site ID numbers start at number 900.

Configuring the Network Interface through the Web Browser

If the configuration details are lost or changed incorrectly, restore the Informer to factory default settings. See "9. Restoring Configuration to Factory Defaults" on page 44.

Login

To configure the network interface through the web browser:

1. Before installing Informer devices on an IP network, connect your PC to the Informer device using a LAN cable. Turn on the Informer device.
2. Change your Local Area Connection (Ethernet) adapter address to the following:

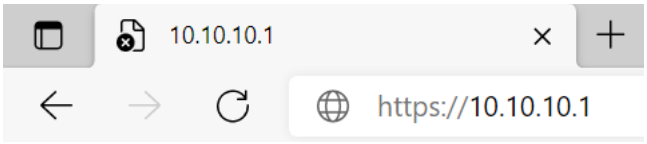
   ```
   IP Address: 10.10.10.10

   Subnet Mask: 255.255.0.0

   Default Gateway: 10.10.10.10
   ```

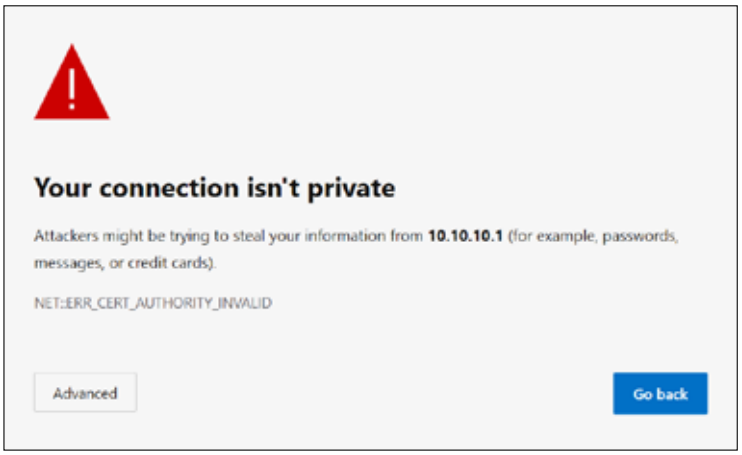
   This will allow you to access the Informer at its default IP address (10.10.10.1).

3. Enter the default 10.10.10.1 IP address or the preconfigured static address for the Informer into your web browser to view the device's web page.



Your browser displays a security warning screen.

NOTE: Your screens may look different depending on the browser selected. The following example is from Microsoft® Edge.



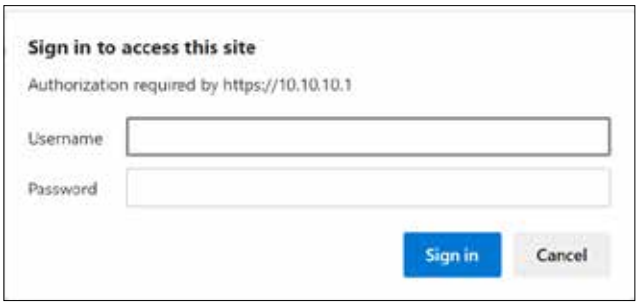
HTTPS is a secure, encrypted connection.

4. Click Advanced. The following dialog box appears.

Your connection is secure, encrypted, and digitally signed. The server issued the certificate. Certificates issued by the server are referred to as self-signed certificates. See "6. Uploading Certificates" on page 41 for information on how to install your own certificate if required.

5. Click the Continue link at the bottom of the screen.

   The Login window appears.



6. Enter the Username:

   `admin (or preconfigured Username)`

   NOTE: If you change the Username or Password, record them in Appendix B, “Table 11 Informer Network Configuration” on page 96.

7. Enter the Password:

   `fedsig (or preconfigured Password)`

   NOTE: The password is case sensitive.

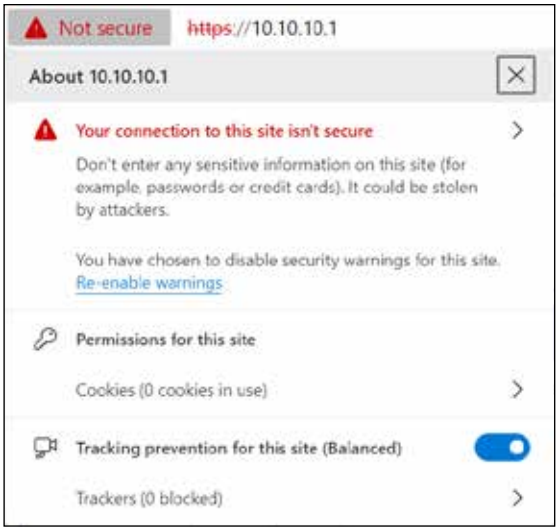
8. Click Sign in.

   The Home page appears.

9. View your search bar.

   NOTE: Depending on the browser you are using, your dialog boxes may look different.

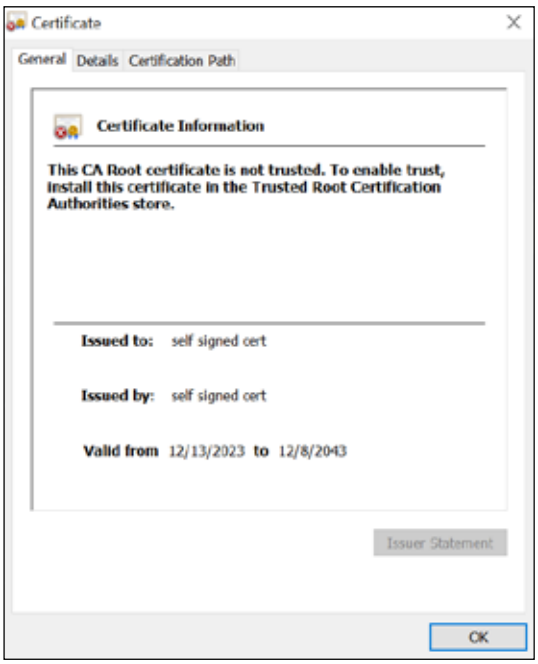
10. Click the Not secure icon to open a menu about the site. The following is a typical example.

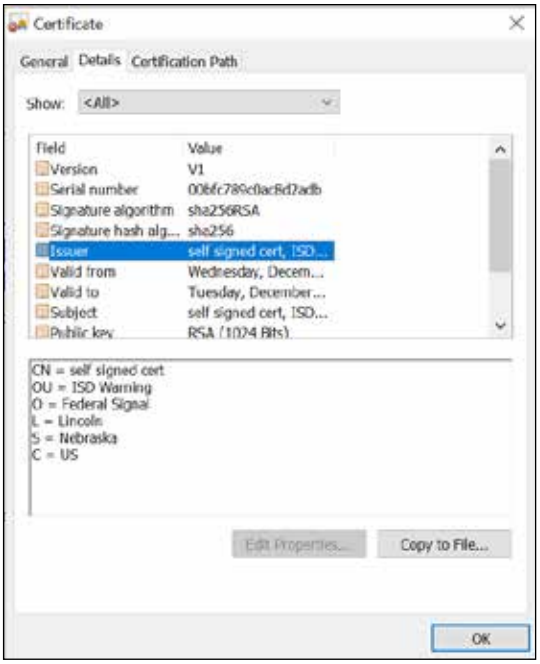


An error occurs when a web browser cannot verify the certificate installed on a site. Rather than connect users to your website, the browser displays an error message.

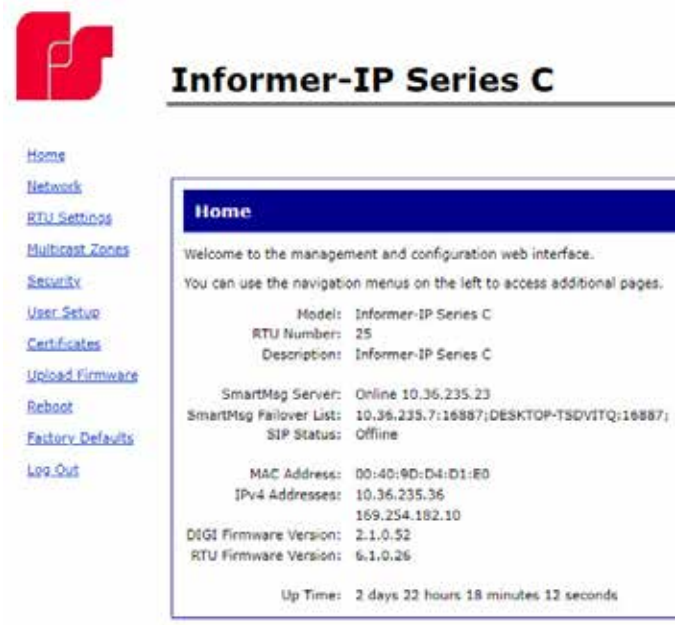
11. Click the arrow to display the next dialog box.

12. Click the certification icon. The following displays the General and Details tabs. The Details tab shows a self-signed certificate, making this a secure connection.





The following describes the Home page.



The Home page displays a summary of the current configuration settings for the RTU. The Navigation Menu (blue hyperlinks on the left) is used to access other System Management web pages. Use the Help hyperlink to access the user manual from any web page.

NOTE: It may take up to 1 minute to update all the fields on the Home page after applying power or resetting the RTU. Click the Home menu to refresh and update the page.

Fields	Description
Model	The RTU model of the device. This field will be blank for a few minutes following power up or master reset.
RTU Number	The RTU's assigned identity.
Description	The RTU's description.
SmartMsg Server	The RTU's assigned default SmartMsg server.
SmartMsg Failover List	The RTU's SmartMsg Failover List. This field is blank until the unit successfully connects to the server and retrieves the failover list.
SIP Status	The RTU's SIP connection status. When the RTU is registered with a SIP server, the status will be Online, and the SIP server's IP address will be displayed. Offline will be displayed when the RTU is not registered with a SIP server.
MAC Address	The MAC Address of the device.
IPv4 Addresses	The RTU's assigned IPV4 address or its domain name.
DIGI Firmware Version	The firmware version of the DIGI Connect ME 9210 module.
RTU Firmware Version	The firmware version of the RTU.
Up Time	The elapsed time since power up or reboot.

13. Record the MAC and IP address in Appendix B to ensure the device can be managed in the future.

Changing the Network Settings

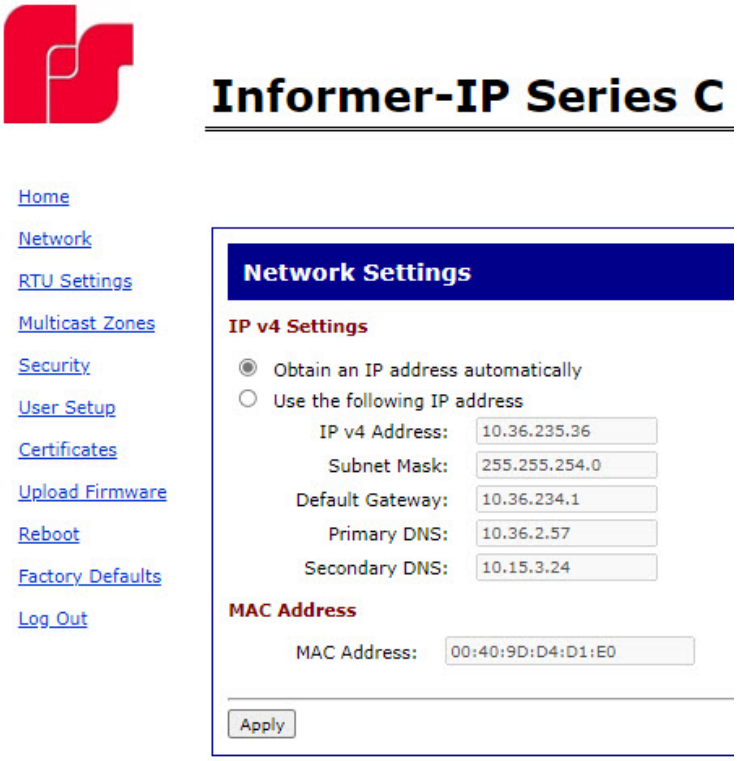
You can configure the RTU to obtain an IP address automatically using DHCP and AutoIP, or you can assign a Static IP address. Coordinate the static IP addresses with the system Network Manager to prevent address duplication.

You cannot leave the Default Gateway blank when a static IP address is assigned. A valid IP address is required. Use the server's IP address as the gateway if making a direct Ethernet connection to the device.

After changes are made, click the Apply button and Reboot the RTU to begin using the new configuration settings. Reboot the RTU by cycling power or from the Reboot web page.

Use a MAC/IP address discovery tool to locate the IP address of the RTU if the network configuration settings are lost, misconfigured, or if DHCP is used. You must use the tool on the same side of a network router as the RTU. Contact Federal Signal Customer Support; see "Getting Technical Support and Service" on page 93 with the discovery tool.

1. Select Network. The Network Settings page appears.



Fields	Description
Obtain an IP address automatically	When the device is rebooted, it obtains new network settings automatically from the network DHCP server.
Use the following IP address	Supplies static settings. You must enter an IP Address, Subnet Mask, and Gateway. A DNS server address is only required if domain names are used instead of IP addresses.
IP Address or Domain Name	The RTU's assigned IPV4 address or its domain name in the IP address field.
Subnet Mask	The RTU's assigned subnet mask.
Default Gateway	The RTU's network gateway for routing IP traffic.
Primary DNS	The Primary Domain Name Server for the network. (Must be entered if the RTU is required to connect to a server by its domain name.)
Secondary DNS	The Secondary Domain Name Server for the network.
Apply	Saves your settings. You must reboot for changes to take effect.

2. Select the Use the following IP address option button.
3. Enter the static IP Address, Subnet Mask, and Default Gateway for the Informer device.
4. Click Apply.
5. Reboot the device for the IP address change to take effect.

NOTE: If the Informer will be used autonomously without residing on an IP network, use the default settings network to configure the Informer. If the Informer is connected to a network, the factory default IP settings must be changed to work with the IP network that the product will be connected to. Consult with your Network Manager to ensure the settings adhere to your network policy.

Once the IP address is changed, configuration is only possible when the Informer and the configuration computer are placed on the same network together. Reconfigure the configuration computer's IP settings before returning to the same network. You now need to log in to the web page with the new IP address after the address is changed.

NOTE: You can use DHCP to simplify Informer deployment, but MAC address discovery tools may not traverse routers, and maintenance may be more difficult.

2. Configuring the RTU Settings

When the RTU is used with Commander®, the device's RTU Number and Description need to be entered, and SmartMsg must be enabled. All devices in the system must have a unique RTU number numbered sequentially, starting with 001. If Commander® is not going to be used, SmartMsg should not be enabled, and a unique RTU number does not need to be entered.

NOTE: The number of relay outputs differs between Informer models, and configuration examples are not shown for every model.

SmartMsg

Use the SmartMsg check box to enable or disable the SmartMsg network interface. To use the interface, check the box and enter the IP address of the SmartMsg server. The port is preconfigured to 16887. When applied, the RTU attempts to log in to the SmartMsg server. If a server connection is lost for over 10 minutes, the unit performs a hardware and software reset; therefore, to prevent interruption of other system services, disable the interface if not in use.

Modbus

Use the Modbus® check box to enable or disable the Modbus® interface. You can change the default port number if needed. The default Modbus® port number is 502. You can use this interface in conjunction with the SmartMsg interface, but disable the interface if not required for system operation.

SIP

Use the SIP check box to enable or disable the SIP interface. You can use this interface in conjunction with SmartMsg and Modbus®, but disable it to prevent the device from resetting if a SIP server is not available.

Digital Inputs

You can configure Digital Inputs to run a function or play a sequence of digital voice messages and close relay outputs. Inputs that have been programmed from Commander® for local activation cannot be configured from the webpage and will be unavailable.

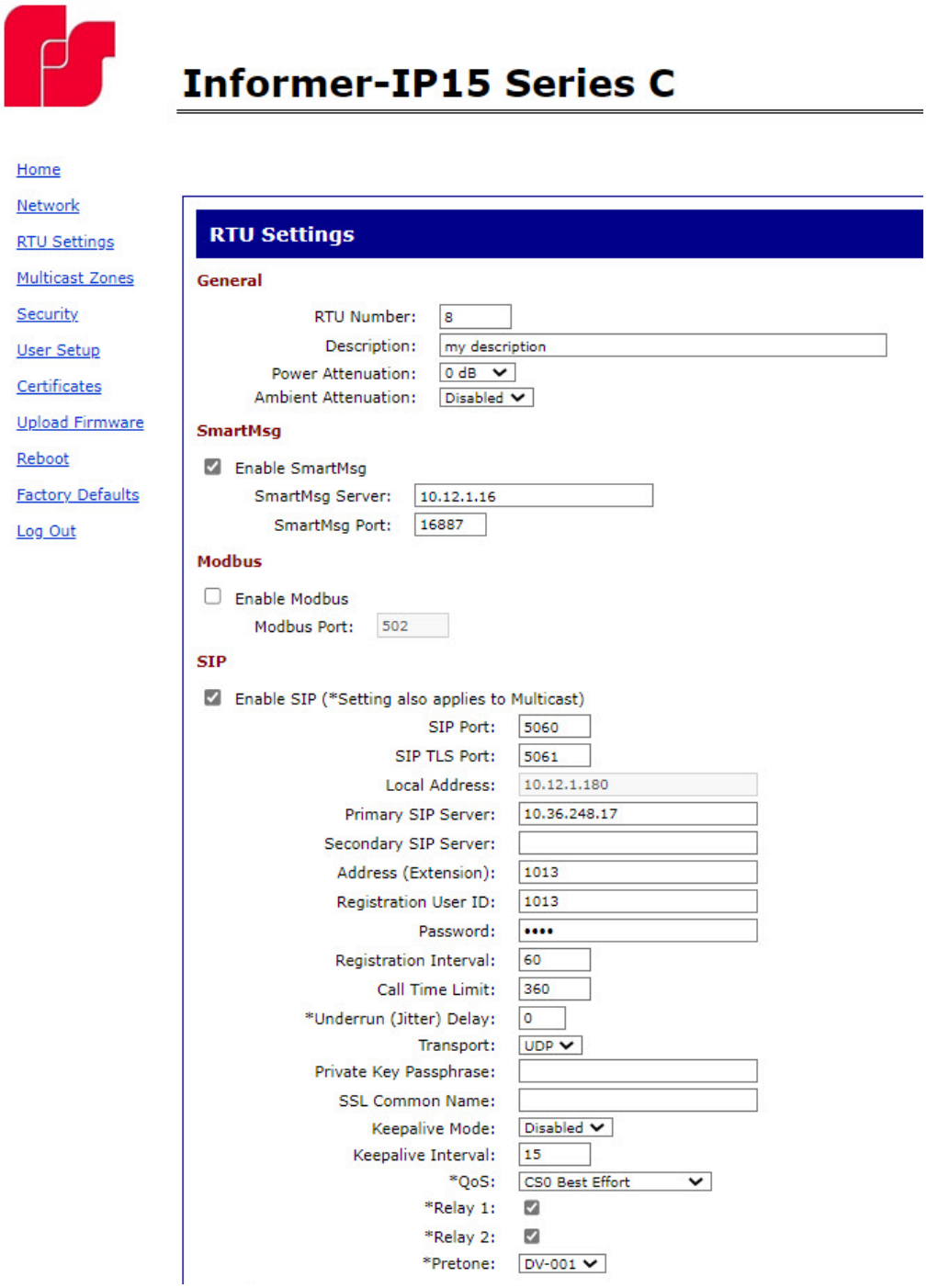
After changes are made, click the Apply button, and then reboot the RTU from the Reboot web page to begin using the new configuration settings. See the following screen captures to configure the RTU Settings of the Informer.

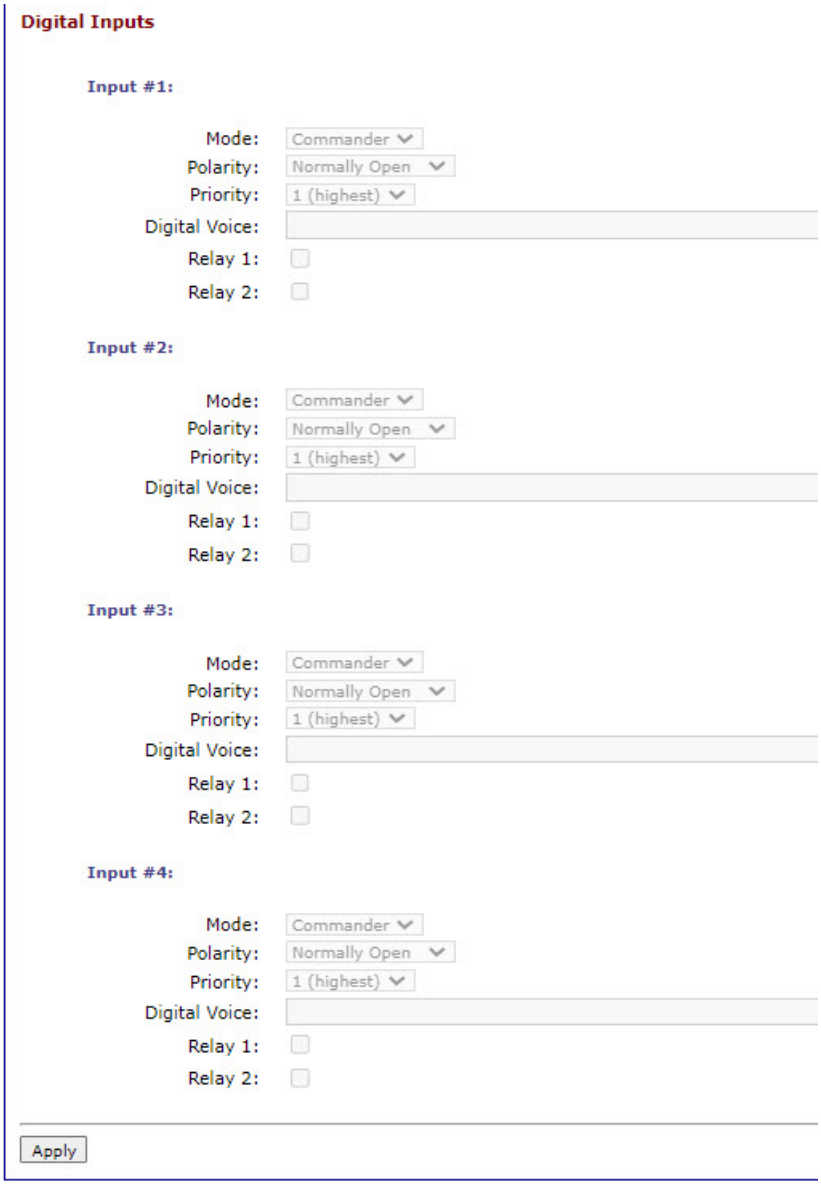
NOTE: To configure the RTU settings for I-IPSIU see “Configuring the RTU Settings for the I-IPSIU” on page 29.

To configure the RTU Settings of the Informer:

1. Select RTU Settings.

The RTU Settings page appears.





Fields	Description
General	
RTU Number	The RTU's assigned identity. All devices in the system must have a unique RTU Number. The number must be a positive integer.
Description	Use this 48-character text field to describe the RTU. This can be the physical address of the site or any other text string. The description field has a 255-character limit and can be scrolled to view additional characters.
Power Attenuation	Use to set the default volume level. The selected level applies to SIP audio and all other functions unless overridden by Commander®. The selected value defines dB attenuation from full volume: 0 dB is full volume, and 20 dB is minimum volume.

Fields	Description
Ambient Attenuation	Use to set the default Ambient Attenuation Threshold. The selected level applies to SIP audio and all other functions unless overridden by Commander®. The sound level will start attenuating when the ambient SPL drops below this threshold.
SmartMsg	
Enable SmartMsg	Check to enable the SmartMsg interface.
SmartMsg Server	The RTU's assigned default SmartMsg Server IP Address or DNS name.
SmartMsg Port	The port is preconfigured to 16887.
Modbus	
Enable Modbus	Check to enable the Modbus® interface.
Modbus Port	The RTU's assigned Modbus® TCP port number. The default is 502.
SIP	
Enable SIP	Check to enable the SIP interface
SIP Port	The RTU's assigned SIP port number. The default is 5060.
SIP TLS Port	The RTU's assigned TLS SIP port number. The default is 5061
Local Address	Displays the RTU's IP address.
Primary SIP Server	The RTU's assigned primary SIP server.
Secondary SIP Server	The RTU's assigned secondary SIP server. If your system does not use a failover server, leave this field blank.
Address (Extension)	The RTU's assigned Address or Extension number. This field is required.
Registration User ID	Username for registration. If this field is blank, the Address (Extension) will be used for the Registration User ID.
Password	The RTU's assigned SIP password.
Registration Interval	The RTU's assigned SIP registration interval in seconds. Enter a value between 10 and 3600.
Call Time Limit	The RTU's assigned SIP call limit duration in seconds. The call is dropped automatically when the time limit is reached. This prevents a speaker from staying busy if a phone is left off the hook or on hold unintentionally. Enter a value between 10 and 3600.
Underrun (Jitter) Delay	Underrun occurs when a device runs out of data during live streaming PA or VoIP causing the audio to cut out. The underrun delay setting defines the length of data buffering to use before playback begins. The buffer size is adjustable from 0–15 seconds. The buffer duration can be set to 0 on high-speed networks designed for VoIP traffic. Wireless networks and networks without QoS may require additional buffering to eliminate jitter and lost audio.
Transport	The RTU's assigned SIP transport protocol. For TLS, optional certificates can be uploaded from the Certificates page.

Fields	Description
Private Key Passphrase	The RTU's assigned private key passphrase. Leave this field blank if a private key certificate is not provided or does not require a passphrase.
SSL Common Name	The Common Name associated with the SIP Server's SSL certificate. This field must be left blank if a CA certificate is not provided or if it is desired to not validate the server certificate.
Keepalive Mode	If enabled, the RTU will send a keepalive message to the server at the specified interval.
Keepalive Interval	The keepalive interval in seconds. Enter a value between 10 and 3600.
QoS	The differentiated services code point value assigned to signaling messages from the RTU.
Relay 1	Turns on Relay 1 during a SIP call.
Relay 2	Turns on Relay 2 during a SIP call.
Pretone	The Pretone feature allows a prerecorded digital voice message to be played at the start of an incoming SIP or Multicast session before live audio begins. Typically, this is used to gain attention before speaking. While the Pretone is playing, up to 30 seconds of public address audio will be buffered and play out after the Pretone message. It is good practice to limit the duration of Pretone messages to 3-5 seconds. To enable Pretone, select a digital voice message from the dropdown list. To disable, select None (default setting). When making an announcement with the Pretone feature, users should make a call, wait approximately one second for the call to be established, make the announcement, and then hang up. The Pretone will play followed by the announcement.
Digital Inputs	
Mode	The digital input mode. Available options: • Disabled: The digital input is not configured for local activation. • Commander: The digital input is configured for local activation from Commander®. This selection is for display only, and if selected the mode will revert to Disabled. • Momentary: The selected digital voice message(s) will play one time when the state changes from Inactive to Active. • Continuous: The selected digital voice message(s) will play continuously while the input is Active. If more than one input is configured for Continuous mode, the WAV file(s) and relay output(s) associated with each input will activate in sequence as long as the inputs are active.
Polarity	The polarity of the digital input active state. Normally Open: Active state is input Closed. Normally Closed: Active state is input Open.

Fields	Description
Priority	The Priority assigned to the digital input. For Momentary mode, an input of equal or higher priority interrupts an active Continuous mode input and stops and overrides currently active Momentary mode input. When multiple Continuous mode inputs area active with different priorities, the lower priority inputs are skipped until the higher priority inputs become inactive. The highest priority is 1, and the lowest is 4.
Digital Voice	List of digital voice messages to play when the input becomes active. This field must be a comma-delimited list of 1 - 19 digital voices indices (for example, 1,2,3,4).
Relay 1	Turns on Relay 1 when the input is active.
Relay 2	Turns on Relay 2 when the input is active. The relays will remain on while the DV messages are playing in Momentary mode. The relays will remain on as long as the input is active in Continuous mode.
Apply	Saves your settings. You must reboot for changes to take effect.

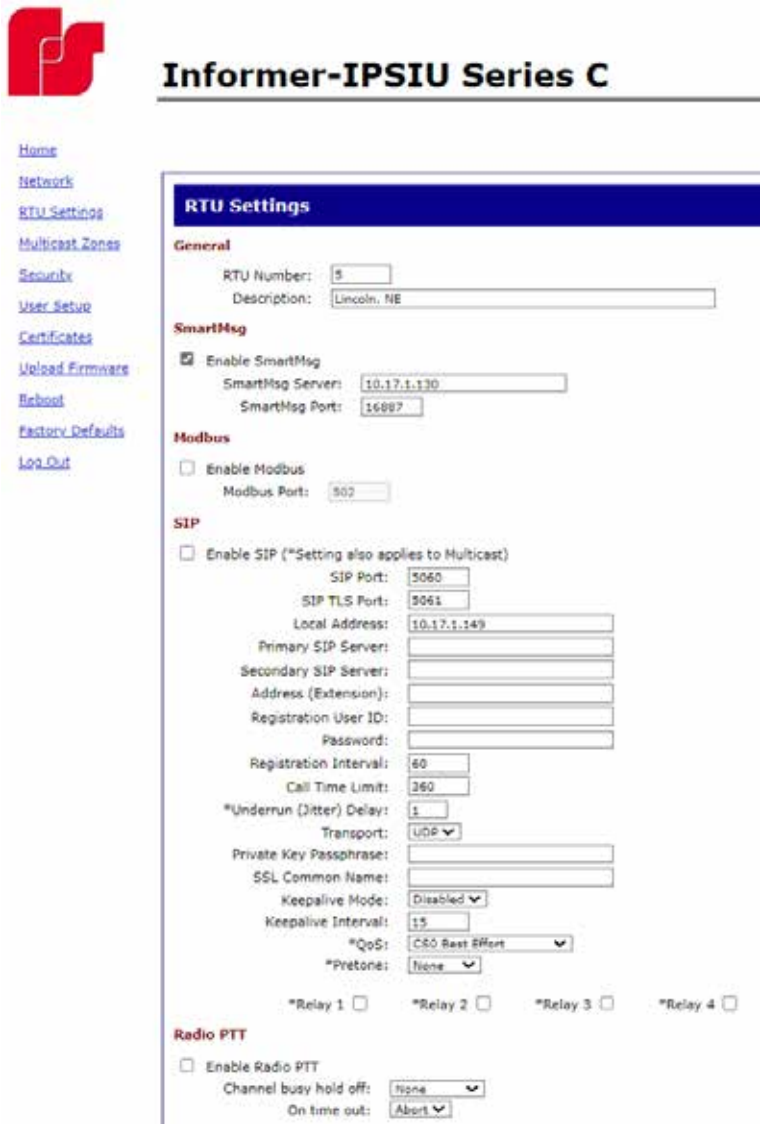
2. Enter the RTU Number.
3. Enter a description of the RTU.
4. In the Power Attenuation box, type or select a the default volume level.
5. In the Ambient Attenuation box, type or select the ambient attenuation threshold.
6. Click Enable SmartMsg to enable the SmartMsg interface.
7. Click Enable Modbus to enable the Modbus® interface.
8. Click Enable SIP to enable SIP.
9. Enter the fields for the Digital Inputs #1 through #4 to assign that Digital Input to play digital voice messages. Inputs that have been programmed from Commander® for local activation cannot be configured from the webpage and will be unavailable.
10. Click Apply.
11. Reboot the device for the IP address change to take effect.

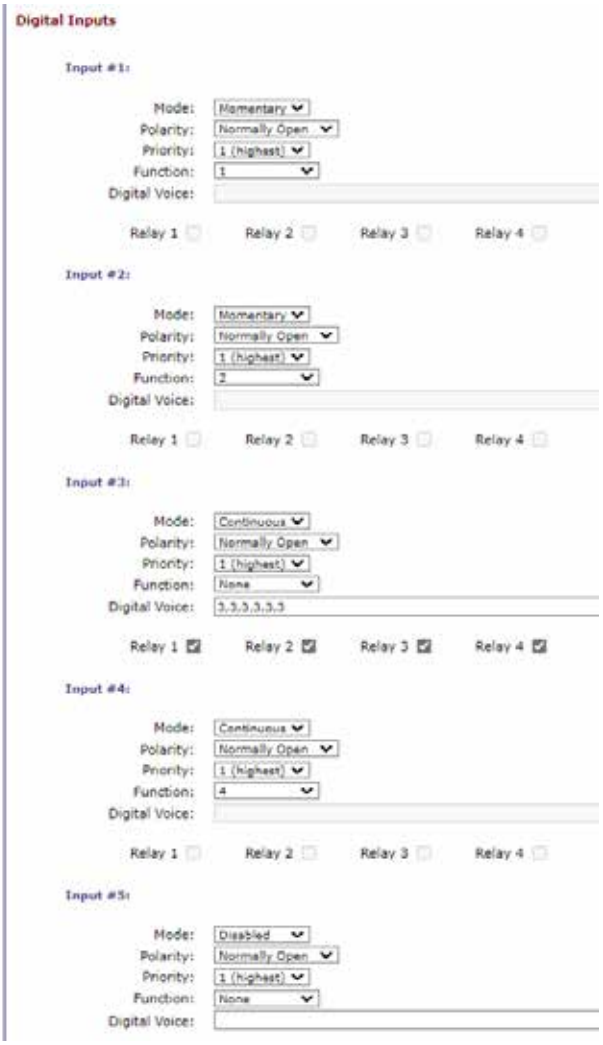
Configuring the RTU Settings for the I-IPSIU

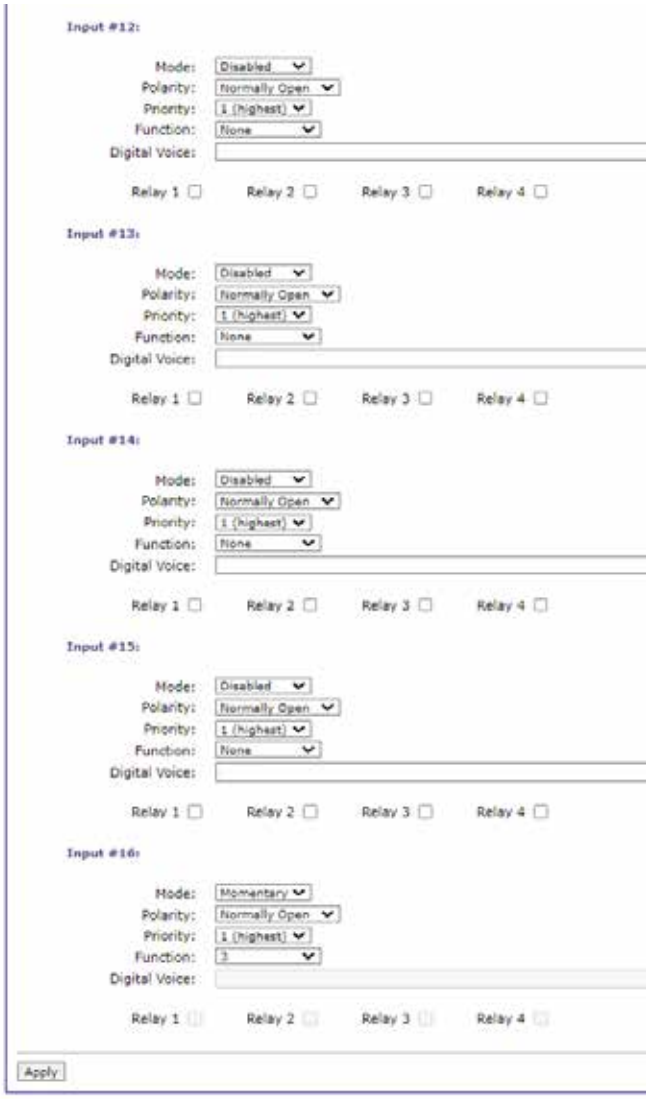
To configure the RTU Settings of the I-IPSIU:

1. Select RTU Settings.

The RTU Settings page appears.




Digital Inputs
Input #1:
Mode: Momentary
Polarity: Normally Open
Priority: 1 (highest)
Function: 1
Digital Voice:
Relay 1 Relay 2 Relay 3 Relay 4
Input #2:
Mode: Momentary
Polarity: Normally Open
Priority: 1 (highest)
Function: 2
Digital Voice:
Relay 1 Relay 2 Relay 3 Relay 4
Input #3:
Mode: Continuous
Polarity: Normally Open
Priority: 1 (highest)
Function: None
Digital Voice: 3.3.3.3.3.3
Relay 1 Relay 2 Relay 3 Relay 4
Input #4:
Mode: Continuous
Polarity: Normally Open
Priority: 1 (highest)
Function: 4
Digital Voice:
Relay 1 Relay 2 Relay 3 Relay 4
Input #5:
Mode: Disabled
Polarity: Normally Open
Priority: 1 (highest)
Function: None
Digital Voice:



Fields	Description
General	
RTU Number	The RTU's assigned identity. All devices in the system must have a unique RTU Number. The number must be a positive integer.
Description	Use this 48-character text field to describe the RTU. This can be the physical address of the site or any other text string. The description field has a 255-character limit and can be scrolled to view additional characters.
SmartMsg	
Enable SmartMsg	Check to enable the SmartMsg interface.
SmartMsg Server	The RTU's assigned default SmartMsg Server IP Address or DNS name.
SmartMsg Port	The port is preconfigured to 16887.

Fields	Description
Modbus	
Enable Modbus	Check to enable the Modbus® interface.
Modbus Port	The RTU's assigned Modbus® TCP port number. The default is 502.
SIP	
Enable SIP	Check to enable the SIP interface
SIP Port	The RTU's assigned SIP port number. The default is 5060.
SIP TLS Port	The RTU's assigned TLS SIP port number. The default is 5061
Local Address	Displays the RTU's IP address.
Primary SIP Server	The RTU's assigned primary SIP server.
Secondary SIP Server	The RTU's assigned secondary SIP server. If your system does not use a failover server, leave this field blank.
Address (Extension)	The RTU's assigned Address or Extension number. This field is required.
Registration User ID	Username for registration. If this field is blank, the Address (Extension) will be used for the Registration User ID.
Password	The RTU's assigned SIP password.
Registration Interval	The RTU's assigned SIP registration interval in seconds. Enter a value between 10 and 3600.
Call Time Limit	The RTU's assigned SIP call limit duration in seconds. The call is dropped automatically when the time limit is reached. This prevents a speaker from staying busy if a phone is left off the hook or on hold unintentionally. Enter a value between 10 and 3600.
Underrun (Jitter) Delay	Underrun occurs when a device runs out of data during live streaming PA or VoIP causing the audio to cut out. The underrun delay setting defines the length of data buffering to use before playback begins. The buffer size is adjustable from 0–15 seconds. The buffer duration can be set to 0 on high-speed networks designed for VoIP traffic. Wireless networks and networks without QoS may require additional buffering to eliminate jitter and lost audio.
Transport	The RTU's assigned SIP transport protocol. For TLS, optional certificates can be uploaded from the Certificates page.
Private Key Passphrase	The RTU's assigned private key passphrase. Leave this field blank if a private key certificate is not provided or does not require a passphrase.
SSL Common Name	The Common Name associated with the SIP Server's SSL certificate. This field must be left blank if a CA certificate is not provided or if it is desired to not validate the server certificate.
Keepalive Mode	If enabled, the RTU will send a keepalive message to the server at the specified interval.
Keepalive Interval	The keepalive interval in seconds. Enter a value between 10 and 3600.

Fields	Description
QoS	The differentiated services code point value assigned to signaling messages from the RTU.
Pretone	The Pretone feature allows a prerecorded digital voice message to be played at the start of an incoming SIP or Multicast session before live audio begins. Typically, this is used to gain attention before speaking. While the Pretone is playing, up to 30 seconds of public address audio will be buffered and play out after the Pretone message. It is good practice to limit the duration of Pretone messages to 3-5 seconds. The speaker will automatically stop a long-running Pre-tone at 30 seconds to ensure the audio buffer is not exceeded. To enable Pretone, select a digital voice message from the dropdown list. To disable, select None (default setting). When making an announcement with the Pretone feature, users should make a call, wait approximately one second for the call to be established, make the announcement, and then hang up. The Pretone will play followed by the announcement.
Relay *n*	Turns on the selected relay during a SIP call. The number of relays available varies depending on the unit type.
Digital Inputs	
Mode	The digital input mode. Available options: • Disabled: The digital input is not configured for local activation. • Momentary: The selected digital voice message(s) will play one time when the state changes from Inactive to Active. • Continuous: The selected digital voice message(s) will play continuously while the input is Active. If more than one input is configured for Continuous mode, the WAV file(s) and relay output(s) associated with each input will activate in sequence as long as the inputs are active.
Polarity	The polarity of the digital input active state. Normally Open: Active state is input Closed. Normally Closed: Active state is input Open.
Priority	The Priority assigned to the digital input. For Momentary mode, an input of equal or higher priority interrupts an active Continuous mode input and stops and overrides currently active Momentary mode input. When multiple Continuous mode inputs area active with different priorities, the lower priority inputs are skipped until the higher priority inputs become inactive. The highest priority is 1, and the lowest is 4.
Function	The Function to run when the input becomes active. The Commander® application must configure the selected function. If a Function is selected, the Digital Voice and Relay fields are not applicable and are disabled.
Digital Voice	List of digital voice messages to play when the input becomes active. This field must be a comma-delimited list of 1-19 digital voices indices (for example, 1,2,3,4).
Relay 1	Turns on Relay 1 when the input is active.
Relay 2	Turns on Relay 2 when the input is active.

Fields	Description
Relay 3	Turns on Relay 3 when the input is active.
Relay 4	Turns on Relay 4 when the input is active. The relays will remain on while the DV messages are playing in Momentary mode. The relays will remain on as long as the input is active in Continuous mode.
Apply	Saves your settings. You must reboot for changes to take effect.

2. Enter the RTU Number.
3. Enter a description of the RTU.
4. In the Power Attenuation box, type or select a the default volume level.
5. In the Ambient Attenuation box, type or select the ambient attenuation threshold.
6. Click Enable SmartMsg to enable the SmartMsg interface.
7. Click Enable Modbus to enable the Modbus® interface.
8. Click Enable SIP to enable SIP.
9. Enter the fields for the Digital Inputs #1 through #4 to assign that Digital Input to play digital voice messages. Inputs that have been programmed from Commander® for local activation cannot be configured from the webpage and will be unavailable.
10. Click Apply.
11. Reboot the device for the IP address change to take effect.

3. Configuring the Multicast Zones

The Multicast Transmit Zone (siren audio) streams siren audio to a multicast IP Address. To configure, enter a valid multicast IP Address, Port Number, and check the Enable box.

The Multicast Transmit Zone (microphone audio) streams microphone audio to the multicast IP address when the speaker is not receiving a page, playing a WAV file or a tone. This feature allows phones and other VoIP devices to listen to the background audio.

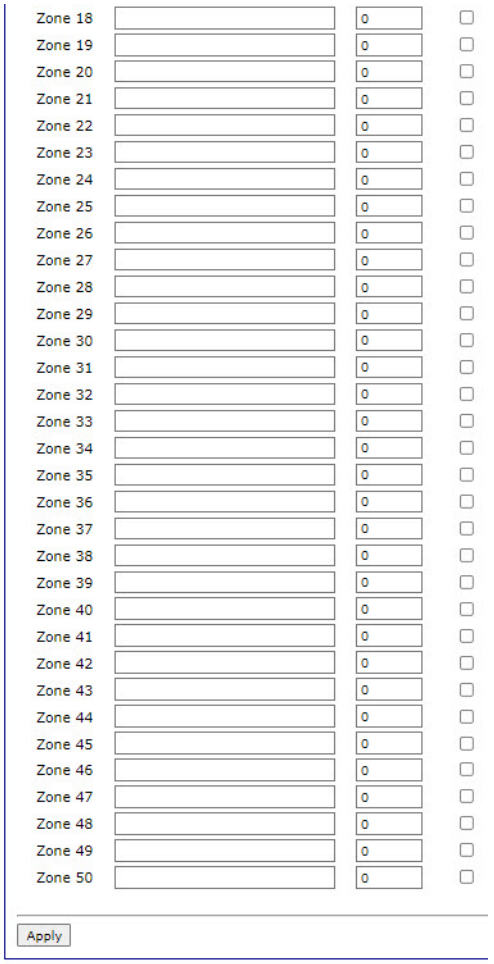
The Informer100 will receive audio from up to 50 multicast receive zones (Rx Zones). To configure a zone to receive public address messages, enter a valid multicast IP Address, Port Number, and check the Enable box for the zone.

NOTE: Multicast Transmit Zone (microphone audio) is only available in Informer15 and Informer100 speakers.

To configure a multicast zone to receive public address messages:

1. Select Multicast Zones.

The Multicast Zones page appears.



Fields	Description
Priority Settings	
Lower numbered zones preempt higher numbered zones	Allows pages in a lower numbered zone to interrupt a higher numbered zone.
Individual calls preempt multicast zones	Allows individual calls to interrupt multicast pages.
Multicast Transmit Zone (siren audio)	All audio sources except for incoming Multicast Receive Zones are routed to the Multicast TX Zone. Configure only one RTU per Zone with a Multicast TX Zone to prevent Multicast audio contention. Do not allow other devices to multicast to the same address and port (Multicast Zone) at the same time the Informer-IP is multicasting.
IP Address	Multicast IP address between 234.0.0.0 and 239.255.255.255.
Port	Port number between 1 and 65535.
Enabled	Check to send activation audio to this zone.

Multicast Transmit Zone (microphone audio)	The Multicast Transmit Zone (microphone audio) streams microphone audio to the multicast IP address when the speaker is not receiving a page, playing a WAV file or a tone. This feature allows phones and other VoIP devices to listen to the background audio.
IP Address	Multicast IP address between 234.0.0.0 and 239.255.255.255.
Port	Port number between 1 and 65535.
Enabled	Check to send activation audio to this zone.
Multicast Receive Zones	If Zone priority is not configured or if two zones are configured with the same priority, the RTU only listens to audio from the first source that started multicasting until the RTU detects the original source has stopped sending RTP audio. This prevents audio contention if two sources attempt to multicast to the same address and port at the same time. If Zone priority is enabled, audio from the highest priority zone overrides all other multicast zone traffic.
IP Address	Multicast IP address between 234.0.0.0 and 239.255.255.255.
Port	Port number between 1024 and 65535.
Enabled	Check to subscribe to this zone.
Apply	Saves your settings. You must reboot for changes to take effect.

2. Enter a valid multicast IP Address, Port Number, and check the Enabled box for the zone.
3. Click Apply.
4. Reboot the device for the IP address change to take effect.

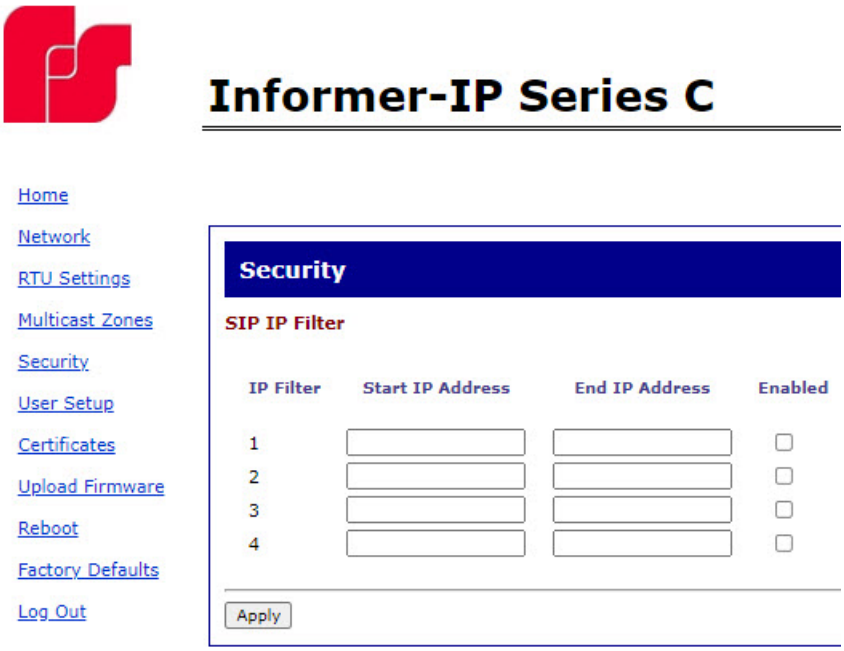
4. Configuring Security

Configure up to four IP address filters to limit access to incoming SIP calls. If one or more filters are enabled, the source IP address of the caller must be within one of the enabled filter ranges, or the call is rejected. When using a SIP server, the source IP address is the SIP server or proxy server. **NOTE**: The IP Address Filter does not apply to Multicast paging.

To configure security:

1. Select Security.

   The Security page appears.



Field	Description
SIP IP Filter	
Start IP Address	Starting IP Address in dotted-decimal format.
End IP Address	Ending IP Address in dotted-decimal format. The ending IP address must be a greater value than the starting IP address.
Enabled	Check the box to enable this filter. If all filters are disabled, the system will accept any IP address. If one or more filters are enabled, the source IP address must be within one of the enabled filter ranges.
Apply	Saves your settings. You must reboot for changes to take effect.

2. Enter the starting IP Address in dotted-decimal format.
3. Enter the ending IP Address in dotted-decimal format.
4. Click Enabled.
5. Click Apply.
6. Reboot the device for the IP address change to take effect.

5. Configuring the User Setup

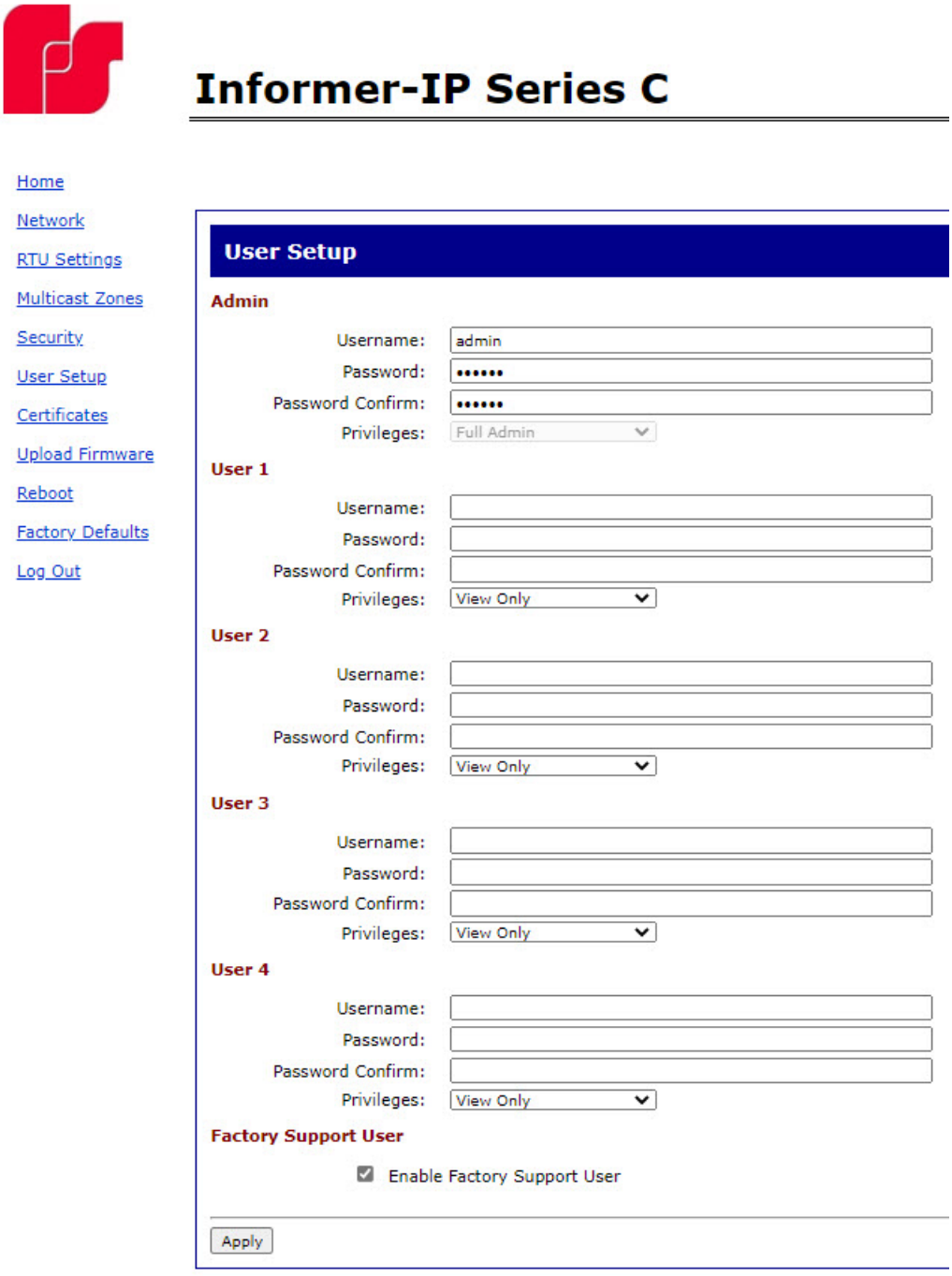
User Setup allows Full Admin privileged users to create users, passwords, and assign security privileges.

You cannot delete the Admin user or change the security privilege for the Admin user. You can change the Admin user's username and password.

To create users and enable the factory support user:

1. Select User Setup.

The User Setup page appears.



Fields	Description
Username	Enter the name of the user (case sensitive).
Password	Enter the user's password (case sensitive).
Password Confirm	Enter the user's password again. The Password Confirm must match the Password.
Privileges	In the Privilege list, select one of the following: • Full Admin: Has unrestricted access to all configuration screens • View and Configuration: Can configure all settings except User Setup • View Only: Can only view the Home screen
Enable Factory Support User	Check to enable the factory support user. When enabled, a hidden static user and password is enabled for Federal Signal technical support. You can disable this user.
Apply	Saves your settings. You must reboot for changes to take effect.

2. For the Admin fields, enter the default Username:

   `admin (This is the default username.)`

3. For the Admin fields, enter the Password:

   `fedsig (This is the default password.)`

   NOTE: The password is case sensitive.

4. Enter the fields for Users 1 through 4 to create optional users. Each username requires a password and a security privilege.

5. Click Enable Factory Support User to enable a hidden static user and password for Federal Signal Technical Support.

6. Click Apply to save changes.

7. Reboot the device to load the changes into the RTU.

6. Uploading Certificates

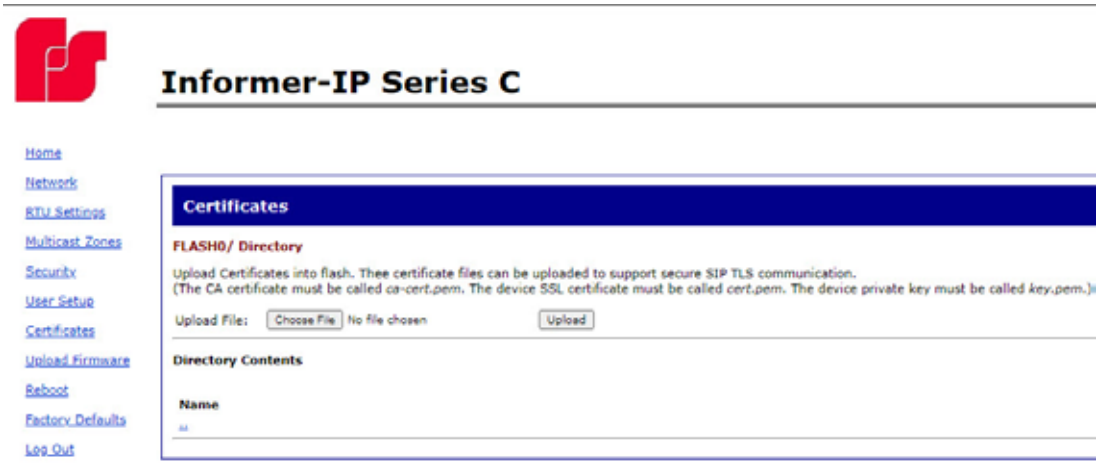
Use the Certificates page to upload certificates and key files to support secure https. Certificate files are optional; if not provided, the device will generate its own self-signed certificate. Three certificate types are supported. The device SSL certificate must be called cert.pem, the device key must be called key.pem, and the CA certificate must be called ca-cert.pem. If you provide certificate files you must provide both the cert.pem and key.pem files. The ca-cert.pem is optional.

File type	Filename
Device SSL certificate	cert.pem
Device private key	key.pem
CA certificate	ca-cert.pem

To upload a certificate file:

1. Select Certificates.

The Certificates page appears.



Fields	Description
Choose File	Choose the new ca-cert.pem, cert.pem or key.pem file.
Upload	Upload the new file.

2. Click Browse to select the new ca-cert.pem, cert.pem, or key.pem file.

3. Click Upload to upload the new file.

4. Reboot the device for the changes to take effect.

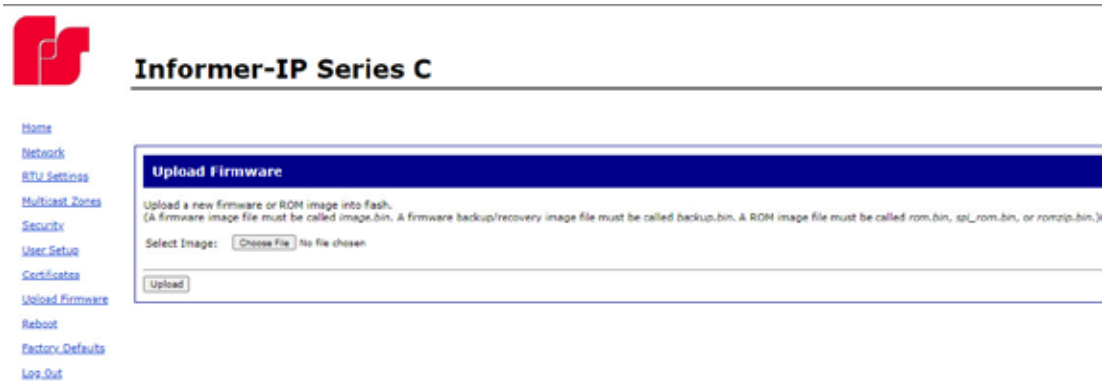
7. Uploading Firmware

Use the Upload Firmware page to load a new operating system into the Digi® Ethernet module. The Home page displays the current version of the firmware.

To upload new firmware:

1. Select Upload Firmware.

   The Upload Firmware page appears.



Fields	Description
Choose File	Click Choose File to open a dialog box. Select the new image.bin file to upload.
Upload	Click the Upload button to upload the new image.bin file.

2. Click Browse to open a dialog box to select the new image.bin file to upload.

File type	Filename
Firmware image file	image.bin
Firmware backup or recovery image	backup.bin
ROM image	rom.bin, spi_rom.bin, or romzip.bin

3. Click the Upload button to upload the new image.bin file.

   IMPORTANT: To prevent operating system corruption, power must not be interrupted during the upload process.

4. Reboot the device for the changes to take effect.

8. Rebooting Device and Loading Configuration Settings

Use the Reboot page to reboot the device and load new configuration settings.

To reboot the device and load new configuration settings:

1. Select Reboot.

The Reboot page appears.

2. Click the Reboot button to reboot the device and load new configuration settings.

The login prompt appears within 20 seconds after the reboot.

9. Restoring Configuration to Factory Defaults

You can restore the factory default settings with or without restoring the network parameters.

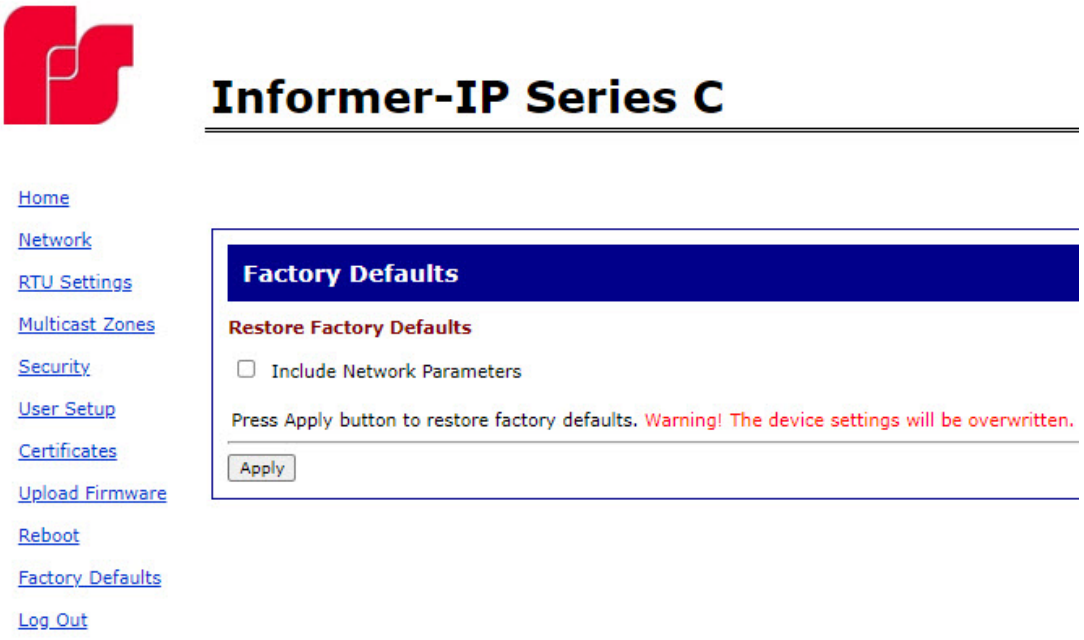
Default Settings

RTU Number: 1
Description: my description
SmartMsg disabled
Modbus disabled
Smartmsg Server: 10.10.10.10
IP Address: 10.10.10.1
Subnet Mask: 255.255.0.0
Default Gateway: 10.10.10.10
Primary/Secondary DNS: 0.0.0.0/0.0.0.0
Admin user name: admin
Admin user password: fedsig
User 1 - User 4 username/password: blank
Factory Support User: Enabled

To restore configuration to factory defaults:

1. Select Factory Defaults.

   The Factory Defaults page appears.



Fields	Description
Include Network Parameters	Check to include network parameters. **IMPORTANT**: This changes the IP address of the RTU to factory default settings and makes the device inaccessible over a production network.

Fields	Description
Apply	Restores your settings to the factory defaults. **IMPORTANT**: Your current settings will be overwritten.

2. Click Apply to restore your settings to the factory defaults.
3. Reboot the device for the changes to take effect.

If the configuration details are lost or changed incorrectly, and it becomes necessary to restore the Informer to factory default settings, perform a Power-On Factory Default procedure.

Restoring the Informer-IP and I-IPW to Factory Default

The Informer-IP and I-IPW can be restored to the factory default by either using the web pages or the RESET button.

Using the Web Pages

To restore the configuration to the factory default by using the web pages:

1. Navigate to the IP address of the Informer using a web browser and log in.
2. Select Factory Default. Include or exclude Network Settings.
3. Click Apply to restore your settings to the factory defaults.
4. Reboot the device for the changes to take effect.

Using the RESET Button

To restore the configuration to the factory default by using the RESET button:

1. Remove the power from the Informer.
2. Hold down the RESET button and apply power to the Informer.
3. Wait for the Informer to chirp (about 5 seconds) and release the button.
4. Informer performs a factory default after 10 seconds.

You need to reenter all local configuration settings before placing the Informer into service.

Restoring the Informer100, I-IP15, I-IP2, and I-IPSIU to Factory Default

The Informer100, I-IP15, I-IP2, and I-IPSIU can be restored to the factory default by either using the web pages or Factory Default Jumper.

Using the Web Pages

To restore the configuration to the factory default by using the web pages:

1. Navigate to the IP address of the Informer using a web browser and log in.
2. Select Factory Default. Include or exclude Network Settings.
3. Click Apply to restore your settings to the factory defaults.
4. Reboot the device for the changes to take effect.

Using Factory Default Jumper

To restore the configuration to the factory default using the factory default jumper:

IMPORTANT: Factory Default Jumper is initially required for digital inputs programming on the webpage to be successful.

1. Apply power to the Informer for at least 60 seconds to allow it to boot.
2. Short JP11 for the I-IP100 or JP5 for the I-IP15 on the control board for 10 seconds, and then remove the short. See Figures 1 and 2.
3. Wait 60 seconds for the Informer to reboot with the factory default settings.

You must reenter all local configuration settings before placing the Informer into service.

Figure 1 Informer100 Controller Board (Location of JP11)

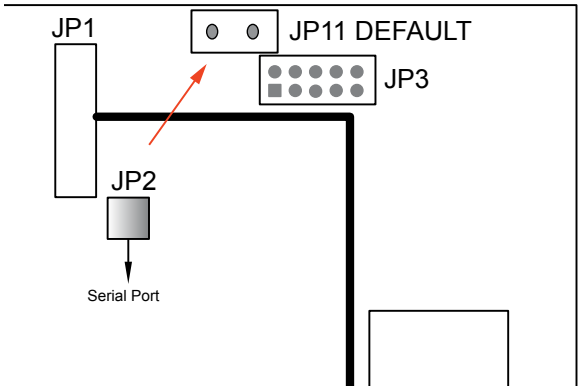
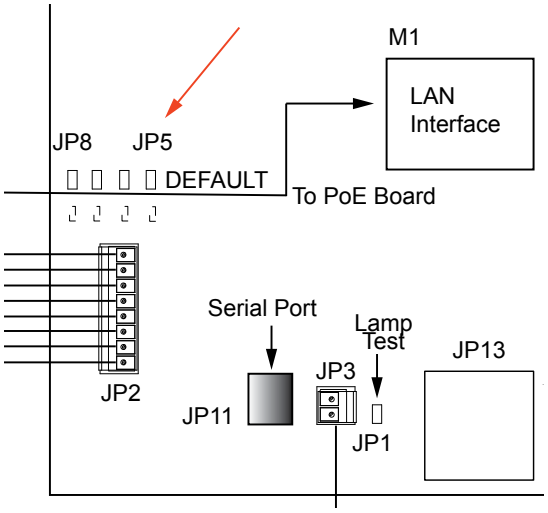


Figure 2 Informer15 Controller Board (Location of JP5)



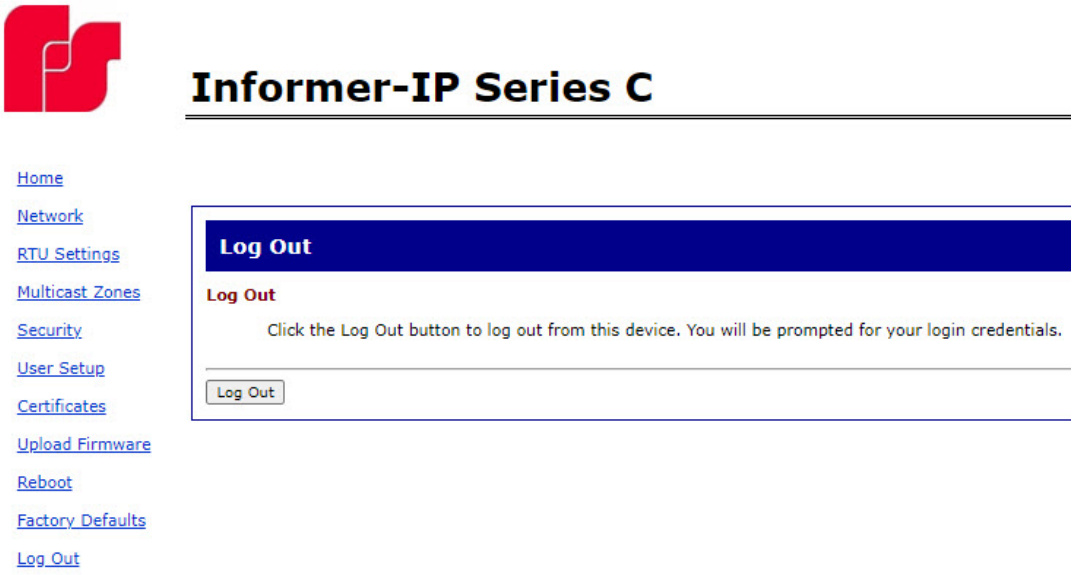
10. Logging Out of the Web Interface

Use the Log Out page to log out before the five-minute session timer expires.

To log out of the web interface:

1. Select Log Out.

The Log Out page appears.



2. Click the Log Out button to log out.

Configuring Informers Using Commander Software (Optional)

The Federal Signal Commander® Software System is a software-based system that enables you to monitor, control, and activate your warning system. The following procedures are for setting up and programming the Informer with the Commander® software.

1. Verify SmartMsg CenterPoint Software

SmartMsg CenterPoint software is required for networked systems with Commander® software.

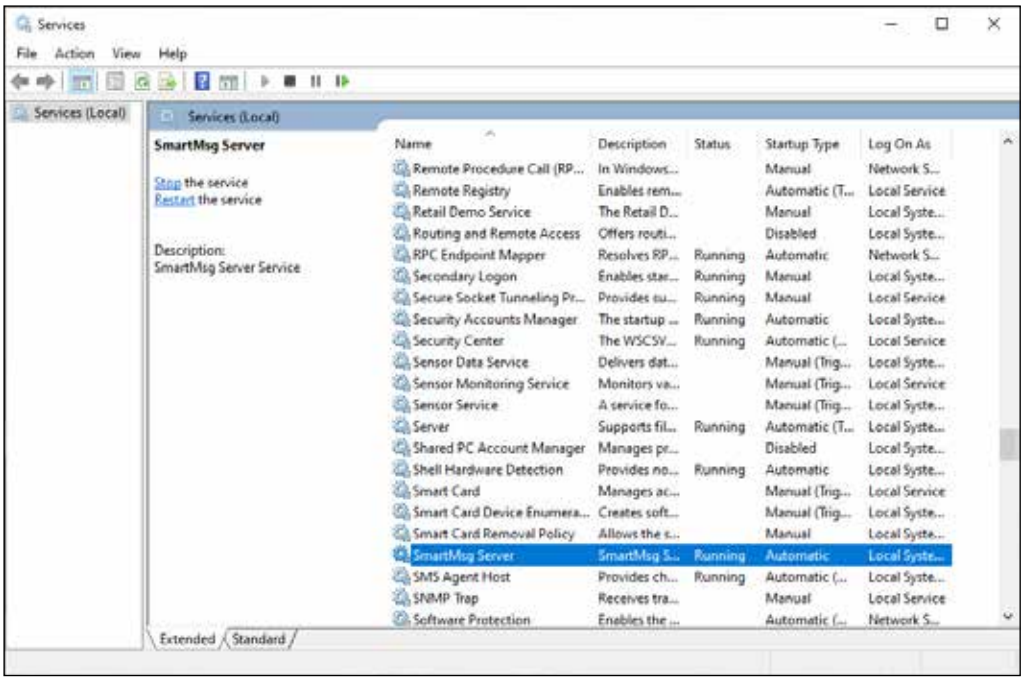
The following procedure is for the typical network communication system with SmartMsg and Commander® software installed on the same PC. Larger installations, over 50 RTUs, can improve performance by installing SmartMsg on a remote server with a different IP address.

Verify SmartMsg is installed on the PC/server running Commander®, and the service is started in Network Services. If SmartMsg is not installed, consult your local System Administrator.

NOTE: SmartMsg is only required if the Commander® HMI has been purchased.

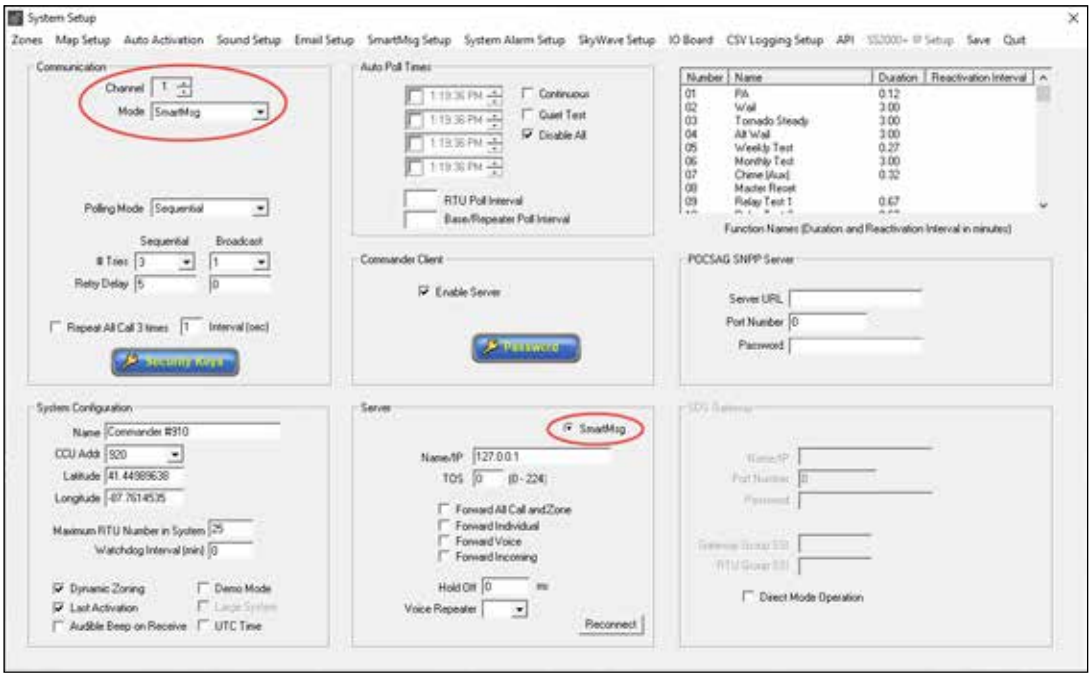
To verify SmartMsg software:

1. Open Windows Services on the PC running Commander®.
2. Verify SmartMsg Server is started. If SmartMsg Server is not started, click Start the service and reboot Commander®.



3. From the Commander® main window, click System Setup. The System Setup dialog box appears.

4. Under Communication, in the Mode list, select SmartMsg. Verify under SmartMsg Server that Name/IP is the hostname or IP address of the server (Primary Server) running SmartMsg server (application).



5. Click Save.

6. Verify SmartMsg Active message appears at the bottom of the main Commander® window.

2. Using SmartMsg CenterPoint Software

SmartMsg CenterPoint software is required for networked systems with Commander® software. To verify the Informer is registered with the SmartMsg CenterPoint server:

1. Open the CenterPoint application. This application is typically installed under C:\Program Files (x86)\Federal Signal Corporation\CenterPoint

2. Under the Users tab, each Informer that was added is displayed as a Siren_*n.*

   where n = contact number (See Assigning System Server and Unit ID)

   Examples:

   ```
   Contact 009 = Siren_9

   Contact 112 = Siren_112
   ```

   If the Informer device is not shown in the CenterPoint users list, contact Technical Support for further information.

3. Configuring the Security Code and Encryption Key (Optional)

Security is an important part of any networking system. Federal Signal provides two types of security for Commander® and Informers as defined below:

- Security Code: Security codes are often used with radio-based systems, where two separate siren or informer networks are adjacent, and there is concern that activation of one system might inadvertently activate the neighboring system. Security codes can also be used in IP-based systems for an added measure of security.
- Encryption Key: Federal Signal provides 128-bit and 256-bit encryption options for Informer devices. The use of 128-bit encryption is required for backward system compatibility with all previous versions of products.

Security codes and Encryption keys are stored in the Informers when they are initially programmed. This is typically done during setup by using the Federal Signal Universal Programmer and the USB Flasher software package.

These keys are then entered into Commander® and must match the values already loaded in the Informers. Mismatches are reported as communications errors.

To change the Security Key and Encryption Key:

1. Start the Commander® application. From the Commander® main window, click System Setup.

The System Setup dialog box appears.

2. Click Security Keys.

The Security Keys dialog box appears.

Fields	Description
Security Code	A 16-bit code (0-65535) is programmed into each Informer and Commander® control system. The Informer and Commander® Security Code must match for successful communication. The Informer Security Code is programmed during initial programming and into Informers by using the Universal Programmer. If the Informer and Commander® security codes do not match, a communication fail error occurs. This feature helps prevent unauthorized system access and activation. A code value of 65535 is defined as an open system. Base stations and sirens programmed with this value communicate with any other siren or base station regardless of its code value.
Encryption Key	The Encryption Key performs scrambling of the data transmission. Like the Security Code, the Encryption Key is assigned to each Informer in the system and must be the same for successful communication. There is no open setting for the Encryption Key. The key values must match.

Usually, the Security Code and Encryption Key are set at system commissioning and are not changed again. If it becomes necessary to change either the Security Code or Encryption Key, you must flash all Informers in the system with the new settings. Only trained personal should perform this procedure.

Commander® systems support two modes of encryption:

- Legacy (128 bit): Supported with all Informers.
- AES (256 bit) AES conforms to the Advanced Encryption Standard (FIPS PUB 197): Supported with all Series C Informers.

4. Configuring RTUs in Commander

You first must assign the Informer its Station Name, its Station Address, and its latitude and longitude. This information is used if Commander® generates text or email with notification of activation location. Longitude and Latitude is used to locate the Informer on maps within CommanderOne®. In addition, identify the unit type of the Informer (for example, Informer-IP or Informer-IP100) for Commander® software to recognize an RTU as an Informer unit.

Commander® Software version 15.8.0.36 or greater is required for complete compatibility with every Informer Series C model. Software upgrades are available at no additional cost to all customers subscribed to a software maintenance plan. Contact Technical Support for upgrade assistance. See “Getting Technical Support and Service” on page 93.

Initial Informer Setup

To configure the RTU in Commander®:

1. From the Commander® main window, click System Setup.

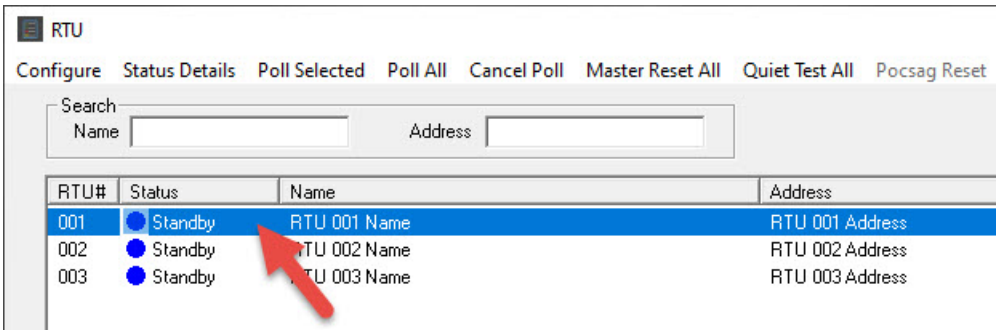
   The System Setup dialog box appears.

2. Under the System Configuration section, update the number of RTUs to the total number on your system in the Maximum RTU Number in System box, and then click Save.

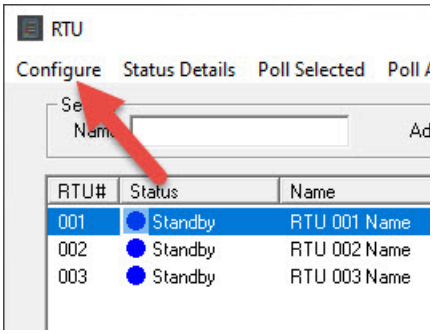
3. From the Commander® main window, click RTU.

The RTU dialog box appears.

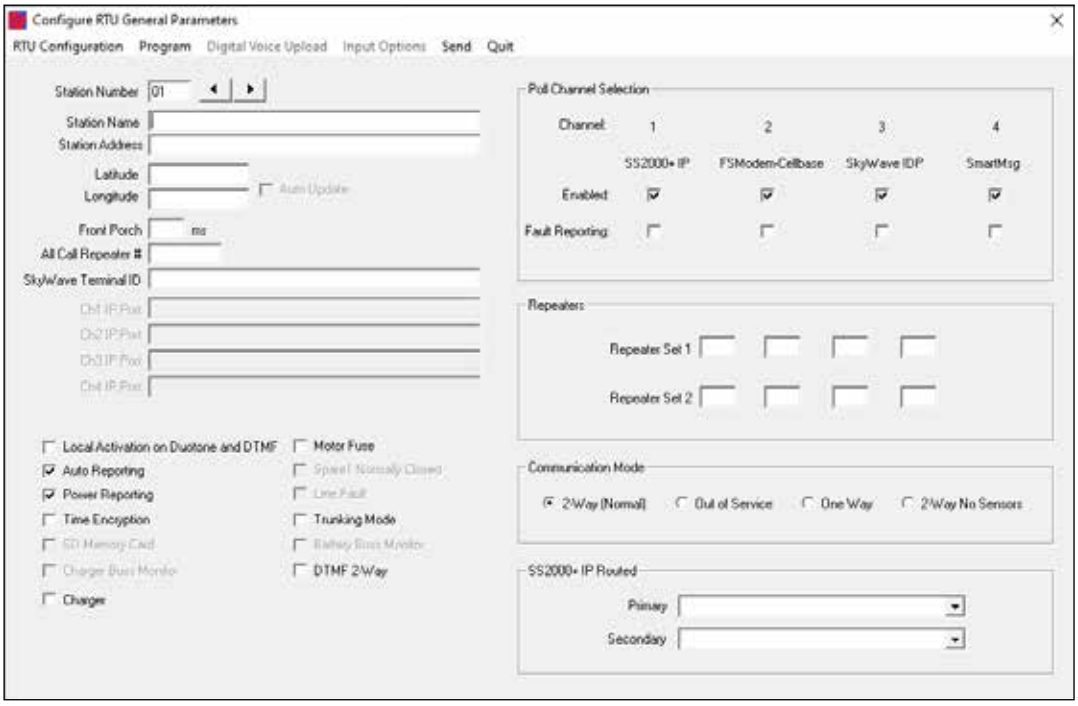
4. Select the unit to configure.



5. Click Configure.



The Configure RTU General Parameters dialog box appears.



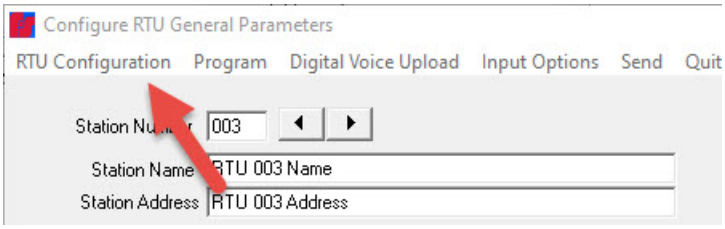
Fields	Description
Station Number	Displays the virtual RTU number of the RTU data currently being displayed. Use the spin box to select the next unit.
Station Name	This data field contains the RTU name. This is usually a local or familiar name of the location of the RTU. The format of this data entry field is any alphanumeric data from 0 to 30 characters long. To change the Station Name, select the current Station Name, and then enter a new name. Enter NOT USED for the station name to cause the respective RTU to be passed during automatic polling. Use this feature if the RTU has not yet been installed or is down for service. This feature is only applicable for sequential polling. For non-sequential polling, all sites are polled even if the station name is set to NOT USED.
Station Address	This data field usually contains the city street address of the RTU. The format of this data entry field is any alphanumeric data from 0 to 30 characters long. To change Station Address, select the current Station Address, and then enter a new address.
Latitude/ Longitude	Latitude and Longitude are used with CommanderOne® to specify the location of siren sites in decimal degrees. These fields are optional and may be left blank when Commander® is not being used with CommanderOne®.

For definitions of all the fields, see RTU > Configure in the Commander Reference manual located in the Commander® software.

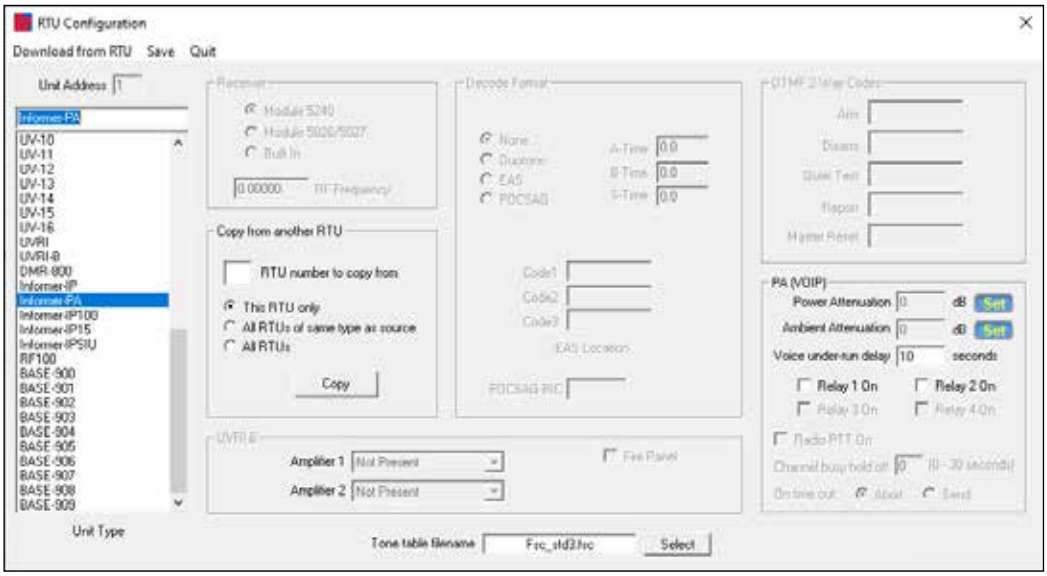
6. Enter the name of the Informer, the address, and the latitude and longitude. This information is used for mapping devices and for naming throughout the Commander® system.

NOTE: Use the table in Appendix B to record Informer's information.

7. Click RTU Configuration.



The following dialog box appears.



Fields	Description
Unit Address	Displays the RTU site number of the selected RTU.
Unit Type	For I-IP-IO and I-IPW, select Informer-IP. For I-IP100AC and I-IP100DC, select Informer-IP100. For I-IP2, select Informer-PA for each Informer-PA. For I-IPSIU, select Informer-IPSIU.

8. For each Informer, select the proper setting from the Unit Type list on the left. For I-IP-IO and I-IPW, select Informer-IP. For I-IP100AC and I-IP100DC, select Informer-IP100. For I-IP2, select Informer-PA for each Informer-PA. For I-IPSIU, select Informer-IPSIU.

NOTE: The I-IP2 has two Informer-PA interfaces inside. You must configure each Informer-PA as a separate RTU.

9. Click Save to store the selection into the Commander® database; click Quit to close and discard changes.

10. Go to step 4 to configure additional units.

5. Uploading WAV Files to the Informers

You can load Informers with WAV files for broadcasting. Federal Signal can provide high-quality voice and/or tone WAV files. You can store WAV files on Commander® or the Informers for automatic notifications.

Upload WAV files to the Informer to allow them to be played by a function during an alert. Use the table in Appendix B to document the WAV file number, name, message, and length.

Identify or create a folder on your hard drive where your custom WAV files are stored. For example, create a folder named Custom WAV Files in the following directory: C:\ProgramData\FederalSignal\Commander\media.

NOTE: The WAV files must be mono, 8 bit, 8 kHz format.

NOTE: See the Mute audio during upload field in the table, which prevents audio from being broadcast over other audio equipment, such as amplified speakers.

To upload WAV files to the Informer:

1. From the Commander® main window, click RTU.

   The RTU dialog box appears.

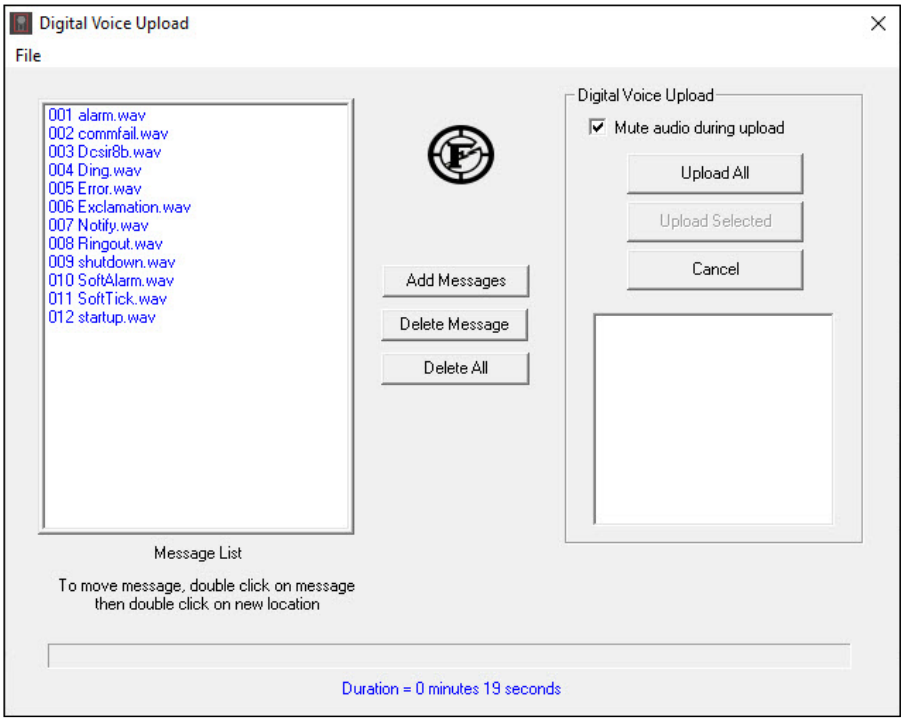
2. Select the unit to configure.

3. Click Configure.

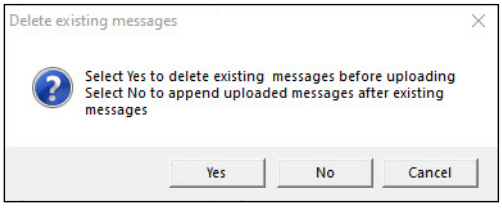
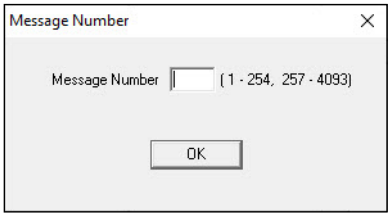
   The Configure RTU General Parameters dialog appears.

4. Click Digital Voice Upload.

   The Digital Voice Upload dialog box appears.



Fields	Description
Add Messages	Opens a dialog box where you can select your WAV files. Go to your Custom WAV File folder if you set one up.
Delete Message	Deletes selected message from Message List.
Delete All	Deletes all messages from the Message List.
Mute audio during upload	When enabled, messages are not audible at the RTU during transmission. When disabled, the message playbacks through the RTU speaker during transmission. **WARNING**: Mute audio during upload check box is enabled by default. Use extreme caution when sending messages with the mute audio option disabled because this could be mistaken for an actual emergency.

Fields	Description
Upload All	Sends all messages in the Message List to the RTU. Messages are sent in real time (one at a time, in the order they appear in the Message List). Change the order of messages in the Message List by double-clicking the message to move, and then double-click the new location. Click Upload All. You are prompted if you want to delete existing messages. If you do not delete existing messages, new messages are appended at the end of the existing messages. For example, if you currently have 10 messages in the RTU, the first new message becomes message number 11. 
Upload Selected	Sends selected message to RTU. Click Send Selected. The Message Number dialog box appears.  Enter the message number of the new uploaded message. This option allows you to replace existing messages without having to upload the entire library.
Cancel	Terminates an upload in progress. The current message is not added to the RTU. Previous messages that were successfully uploaded remain in the RTU.

5. Click Add Messages.

The Open dialog box appears.

6. If you created a custom folder, select your WAV files from the following directory: C:\ProgramData\FederalSignal\Commander\media

7. Click Open.

NOTE: Use the table in Appendix B to record the WAV file number, name, message, and length.

When the messages are uploaded, the name of the WAV file will automatically be placed within the voice.txt file, and this name is shown in Commander®.

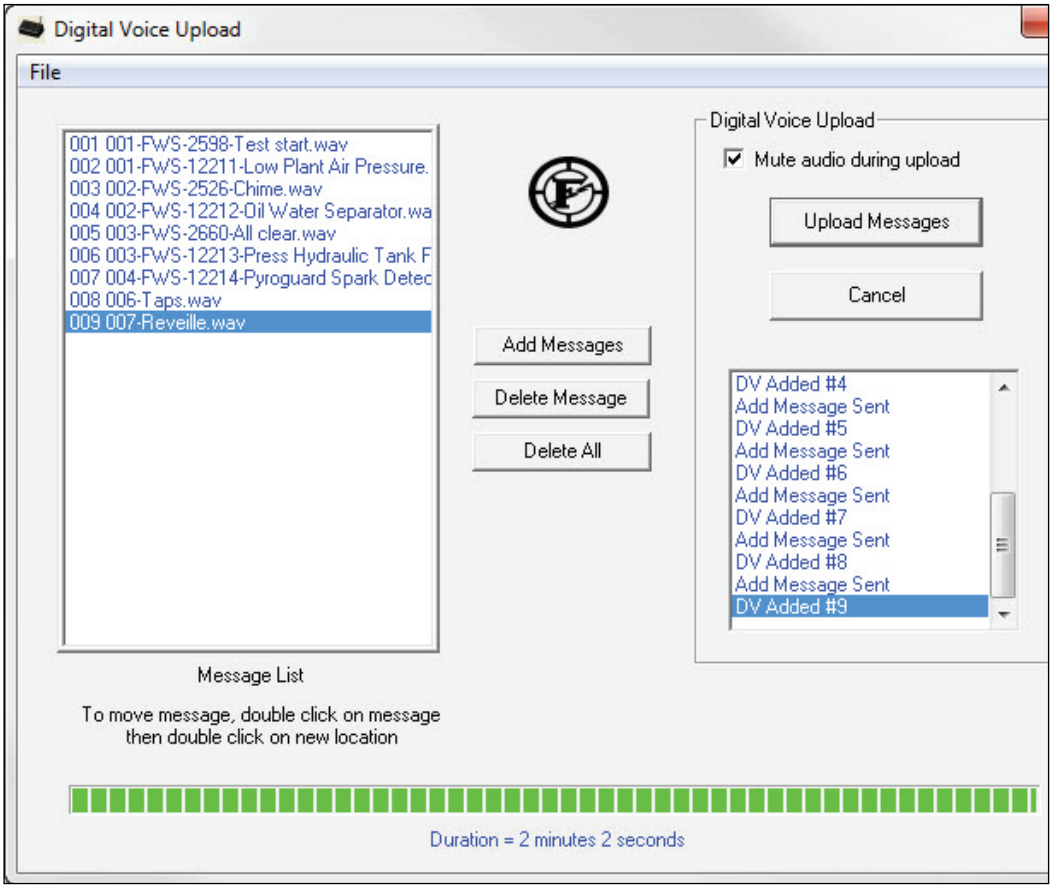
After message upload is complete, rename messages by opening the voice.txt file from the C:\ProgramData\FederalSignal\Commander\data directory.

Open the file voice.txt, name the messages and save.

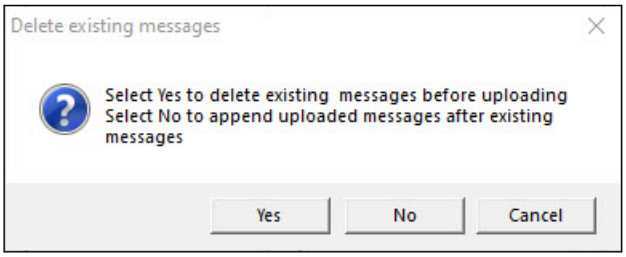
8. Click on Upload All or Uploaded Selected to send message file(s) to the Informer.

NOTE: Do not perform any other activity on the computer during the upload process.

IMPORTANT: If you are unsure of the number and content of messages currently programmed, Federal Signal recommends deleting existing messages when starting a new upload. The upload would then include all messages.



9. After clicking Upload All, the Delete existing messages dialog box appears. Click either Yes, No, or Cancel.



Yes: Deletes all existing messages on the Informer and replaces them with the messages on the Digital Voice Upload dialog box. The first new message becomes message #001.

No: Appends the messages to the existing list. If there were previously three messages recorded and you are adding two additional messages, the two new messages will be DV-4 and DV-5.

Cancel: Aborts the message upload.

The following table describes additional selections in the Digital Voice Upload programming.

Fields	Description
Duration of Messages	The total duration of all messages displays at the bottom of the screen. Series C Informers can store over four hours of audio. Series A and B Informers have a 15-minute storage capacity. If more than 15 minutes of messages are loaded, Out of Limit displays as a warning because the capacity of the RTU has been exceeded or is approaching. **NOTE**: Depending on the content and number of messages, it may be possible to upload more than 15 minutes into the RTU. If more than 8 minutes are uploaded, confirm the last message has been successfully uploaded into the RTU by playing the last message. The absolute maximum duration is 15 minutes 45 seconds.
Message Number	Messages are assigned Message Numbers based on the number of messages currently programmed in the RTU. If there are currently three messages in the RTU, the first new message is assigned number 4. The assigned message number appears in the text box on the right after each message is uploaded. All Series C Informers can store over 4000 WAV files. Series A and B Informer100 can store a maximum of 250 WAV files. Legacy Informer-IP Wall Mount and Desk Mount models have a limit of 100 messages with firmware v1.18.0.2 or earlier.

6. Programming Functions

Functions are a set of specific instructions for an Informer device. A function can be as simple as turning on a relay for 5 seconds or broadcasting a WAV file. Functions typically use a WAV file; therefore, it is important to have the WAV files defined and loaded prior to defining functions. Functions can also be more elaborate with relay activations, volume level, multiple voice messages, use ambient noise level, and so forth. Functions are stored on each Informer, and Commander® allows for copying functions across Informers.

- Naming Functions: You are able to add a name to the Function Number that appears on the Program dialog box.
- Send Function: As functions are programmed with Commander®, send the program information to the Informer device.
- Copy RTU: Commander® has a copying capability to allow ease of programming. Once an Informer is programmed, if the same program information is to be used across other Informers, use the copy RTU capability. If you use the copy capability, you are still required to Send the programming to each Informer.

Alerts

When the Informer is activated, it performs one of its preconfigured functions (that is, play live streaming audio, play stored WAV file, play a built-in siren tone, control relay outputs). You can program one or more actions into a single function.

The alert tone and voice WAV files are recorded and stored in memory. From the factory, seven Alert Tones are configured in a tone file and are not recorded.

The Informer automatically stops sounding and returns to standby mode when the Control Point sends a Cancel or Reset command. In addition to Canceling the active function, the Reset command resets the status of the Informer.

Relay Outputs

Some Informers are equipped with independently programmable relay outputs. The relay timing is configured and programmed into the Informer from Commander®.

The relay outputs are capable of controlling external devices. See the Informer's Installation Manual for wiring information.

Do not exceed the voltage and current ratings listed in the specification manuals. When using this feature, the relay outputs turn on until one of the following occurs:

- The programmed default timeout occurs
- The Cancel or Reset command is received

You can individually configure the relay outputs to open, close, and cycle based on a preprogrammed sequence. The I-IP100 and I-IPSIU allow relays to be latched until a master reset or the off command is sent. You can also configure relays to turn on when PA VOIP is active.

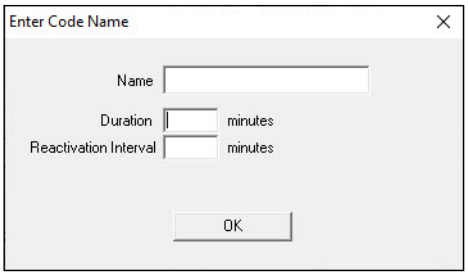
Naming Functions

You can add a name to the Function Number that appears on the Program dialog box.

NOTE: Use the Table in Appendix B to record information.

To name a Function:

1. Open the System Setup dialog box. In the Code Name/Duration section, double-click the row you want to change. The Enter Code Name dialog box appears.



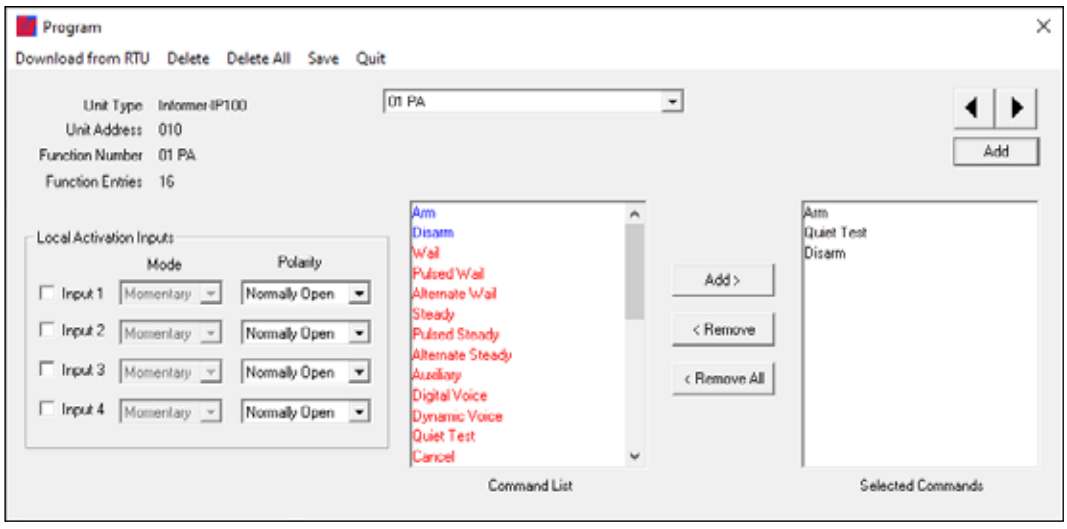
2. Enter the Name and Duration, and then click Save.

Creating Functions

To create functions:

1. From the Commander® main window, click RTU.
2. Select the unit to configure.
3. Click Configure.
4. Click Program.

   The Program dialog box appears.



Fields	Description
Unit Type	Displays the unit type.
Unit Address	Displays the unit address.

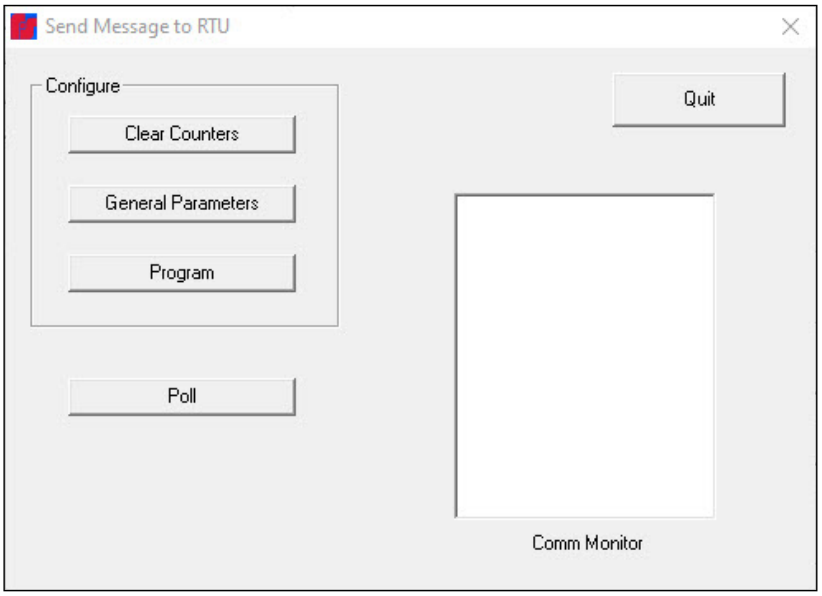
Fields	Description
Function Number	Displays the function number. To change the Function Name, open the System Setup dialog box. In the Code Name/Duration section, double-click the row you want to change. The Enter Code Name dialog box appears. Enter the Name and Duration, and then click Save.
Program Entries	Displays the number of program entries that are currently stored in memory. This number is zero if no program entries are currently stored in memory.
Command List	Contains a list of available commands. To add a function, select the desired function, and then click Add >. The new function is inserted after the selected item in the Selected Commands box.
Selected Commands	Commands are executed in the order they appear in the list. To remove a function, select the desired function from the Selected Commands box, and then click < Remove. Click < Remove All to remove all commands from the Selected Commands box.
Add	Click add to add the function to the RTU.

5. Select the desired function from the Command List.
6. Click Add >. The selected function is inserted in the Selected Commands box.
7. Continue to add functions to the Selected Commands box until completed. Click Save.

   NOTE: Use the Table in Appendix B to record information.
8. If additional Functions are to be created, use the Add button to create a new blank Function. To move between different functions, use the arrow buttons to scroll through the Function Numbers. See “Table 9 Commands Defined” on page 63 for a list of all the commands.
9. Click Save to store Function programming on Commander®.

   The Configure RTU General Parameters dialog box is now active.
10. Click Send to send the program information to the Informer.

The Send Message to RTU dialog box appears.



Fields	Description
Clear Counters	Clears the activation and cancels counters for this RTU.
General Parameters	Sends the following items from the General Parameters screen: • Alarms: Enabled/Disabled. • Power Fail Detect: Enabled/Disabled. • Trunking Mode: Enabled/Disabled. • Front Porch: Dead carrier time before data transmission. • Commander® revision information.
Program	Sends the Informer its personality data, including the following information: • Configuration data from the Configure RTU window of Configure RTU Parameters. • Program data from the Program RTU window of Configure RTU Parameters. • Zone configuration information from the Zone window of Base Status. • Security Code.
Poll	Sends a poll message to the currently selected Informer, and then Commander® waits for poll acknowledgment.
Quit	Terminate the Send Message to RTU window without sending any message.

11. Click Program to store Function programming in the Informer.

12. When programming is completed, click Quit.

Function programming for that Informer is complete.

The following table list the commands with their descriptions.

Table 9 Commands Defined

Command	Description
Arm	The Arm function activates the amplifier in an Informer. The Informer must be armed or activation functions will not operate. Once armed, the Informer remains armed for approximately 10 minutes.
Disarm	Disarms the Informer.
Wail	Sounds Wail siren tone.
Pulsed Wail	Sounds Pulsed Wail siren tone.
Alternate Wail	Sounds Alternate Wail siren tone.
Steady	Sounds Steady siren tone.
Pulsed Steady	Sounds Pulsed Steady siren tone
Alternate Steady	Sounds Alternate Steady siren tone.
Auxiliary	Sounds Auxiliary siren tone. The Auxiliary tone is normally set for Westminster Chimes.
Digital Voice -*n*	Enter the desired digital voice number to run, and then click OK. For Informer devices, enter between 1-4093.
Dynamic Voice	Plays a sequence of digital voice messages specified at the time of activation.
Quiet Test	Performs a self-test of the Informer unit, amplifier, and speakers by sounding an inaudible tone.
Cancel (Use instead of Master Reset)	Terminates active function. Assign a Hotkey to the Cancel Function if performing a master reset is not desired. A Cancel will not reset a Latched relay; a master reset will.
Master Reset	Terminates active function and clears latched status. Typically a Hotkey is assigned as a Master Reset for all Informers.
Phase Off	Not used.
Low Power	Reduces unit power to approximately 20 dB below maximum volume. This selection overrides front panel controls.
High Power	Increases unit to full output. This selection overrides front panel controls.
Power Attenuation (for Informer15, Informer100, and versions 4.1 or later of I-IP-IO and I-IPW)	Set the number of dB SPL to reduce the speaker volume during functions. 0 dB (of attenuation) produces full volume. For example, the Informer100 produces approximately 114 dB SPL at 10 feet with no Power Attenuation. Using Power Attenuation allows a maximum adjustment of 20 dB. If all 20 dB of Power Attenuation is used, the Informer100 produces 94 dB of SPL at 10 feet.
Ambient Attenuation (for Informer15, Informer100 and versions 4.1 or later of I-IP-IO and I-IPW)	Set the noise level threshold for ambient attenuation to begin. As the sound level drops below the Ambient Attenuation setting, the output of the speaker is automatically lowered. The maximum amount of Power and Ambient attenuation is 20 dB

Command	Description
Delay	Delays for a fixed number of seconds. Enter the desired delay time, and then click OK. This function inserts a delay into the function. For example: Activate a relay to turn on a strobe, delay 10 seconds, and then sound voice message alert. Enter between 2-500 seconds.
Relay Cycle	This function specifies relay timing cycle for each relay on the Informer. To change the value, highlight the desired selection and enter a new value. Time values have a resolution of 0.5 seconds. A value of 10.5 specifies a time of 10 and one-half seconds. All values are rounded to the nearest half second. Enter between 0-255 for On and Off. Enter between 0-65535 seconds for Total.
Relay On/Off (The Informer15 and Informer100 use Relays 1 and 2. I-IPSIU uses Relays 1 through 4.)	Relay #1 On: Close relay #1. Relay will automatically open when unit becomes disarmed Relay #1 Off: Open relay #1 Relay #2 On: Close relay #2. Relay will automatically open when unit becomes disarmed Relay #2 Off: Open relay #2 Relay #3 On: Close relay #3. Relay will automatically open when unit becomes disarmed Relay #3 Off: Open relay #3 Relay #4 On: Close relay #4. Relay will automatically open when unit becomes disarmed Relay #4 Off: Open relay #4
Relay Latch	IP100 uses Relay 1 and 2. I-IPSIU uses Relays 1 through 4. Relay #1 Latch: Close relay #1 until Master Reset or until a Relay #1 Off is sent. Relay #2 Latch: Close relay #2 until Master Reset or until a Relay #2 Off is sent. Relay #3 Latch: Close relay #3 until Master Reset or until a Relay #3 Off is sent. Relay #4 Latch: Close relay #4 until Master Reset or until a Relay #4 Off is sent.

Command	Description
Repeat Start –*n* Repeat End	Enter the desired number of times to repeat, and then click OK. All functions between Repeat Start and Repeat End will repeat *n* times. Enter between 0-255. **WARNING**: Do not attempt to use the repeat functions on legacy RTUs.

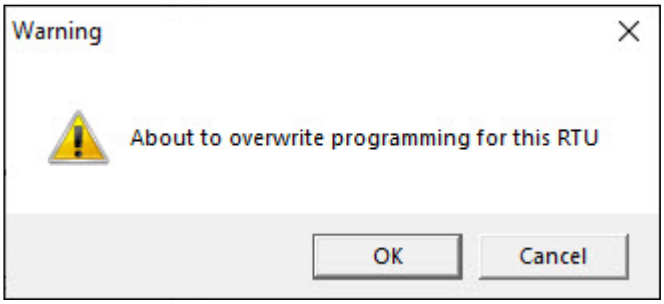
Copying Functions from another RTU

To shorten the time to configure an RTU, you can copy the programming from a source RTU into another RTU. All parameters and program functions are copied except for site name, address, and any stored messages.

To copy the programming from another RTU:

1. From the RTU Configuration dialog box, enter the number of the desired source RTU in the RTU number to copy from the text box.
2. Select the RTU type to configure. For I-IP-IO and I-IPW, select Informer-IP. For I-IP100AC and I-IP100DC, select Informer-IP100.
3. Click Copy.

   The following message box appears.



4. Click OK.
5. Click Save to save the current settings and exit this screen. If there are any errors in your data, an error message box appears.

   The Configure RTU General Parameters dialog box is now active.

   NOTE: It is necessary to send the Program block command to the RTU before changes will take effect at the respective RTU.
6. Click Send.
7. Click Quit to quit the RTU Configuration screen without saving. Configuration parameters remain as they were when the Configuration screen was opened.

7. Configuring Zones

Zones allow many Informers to share a common name. This can simplify activations for commonly used groups. You can use zones for physical groupings such as floors (for example, zone 1 = floor 1, zone 2 = floor 2). Zones can also be named to allow for ease of selection during events. By grouping RTUs into zones, you are able to activate a large number of RTUs at the same time. A single RTU can be in multiple zones.

NOTE: Whenever a change is made to the zone configuration, the Program block must be sent to all RTUs in the system unless Dynamic Zoning is enabled.

Dynamic Zoning

Dynamic Zoning is a method of embedding selected sites in the activation command at the time of transmission. Dynamic Zoning does not require sites to be preconfigured as to which zone(s) they reside in. This allows for more flexibility in zoning and the ability for zones to be created without reprogramming remote sites.

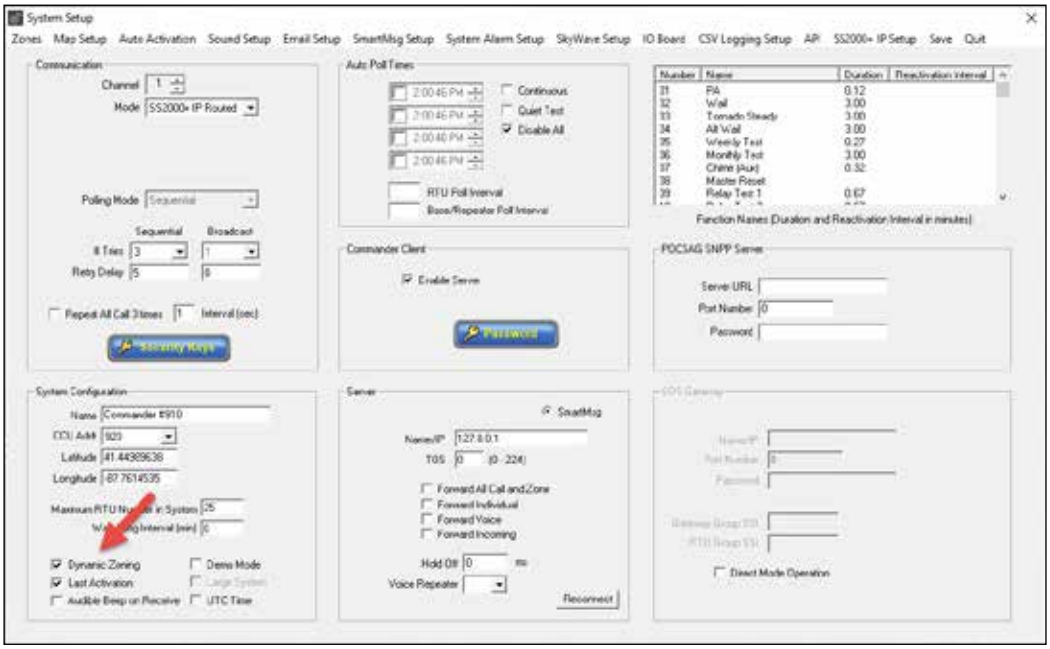
Dynamic zoning requires all sites in your system to support the Dynamic Zoning mode. If one or more sites are running legacy firmware that does not support Dynamic Zoning, Dynamic Zoning must be disabled.

When Dynamic Zoning is disabled, conventional or legacy zoning is used. Conventional zoning is limited to a maximum of 16 zones, and you must program sites with their zone configuration.

To create zones:

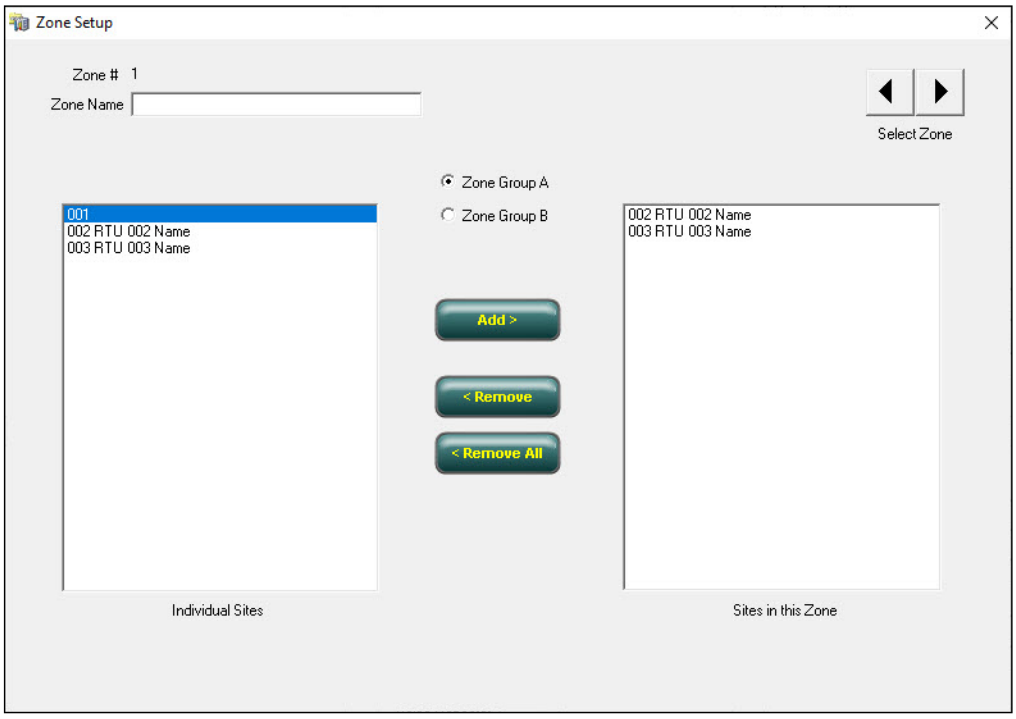
1. From the Commander® main window, click System Setup.

The System Setup dialog box appears. Under System Configuration, select the Dynamic Zoning check box.



2. Click Zones to create and configure zones.

The Zone Setup dialog box appears.



Fields	Description
Zone #	Displays the zone number.
Zone Name	Enter the name of the zone.
Individual Sites	Contains a list of all sites in your system.
Zone Group A/B	Click either Zone Group A or Zone Group B. Use Group A and B to allow the ability to group zones.
Sites in this Zone	Lists the RTUs that belong to this zone. To remove a site, select desired site, and then click < Remove. Click < Remove All to remove all sites from the selected zone.
Select Zone	The currently selected zone configuration is automatically saved when scrolling to another zone or closing the Zone Setup dialog box.

3. Enter the zone name in the Zone Name field.
4. Select the desired sites, and then click Add >.

   NOTE: Use the table in Appendix B to record information.
5. Zone configuration is automatically saved when scrolling to another zone or closing the Zone Setup dialog box.

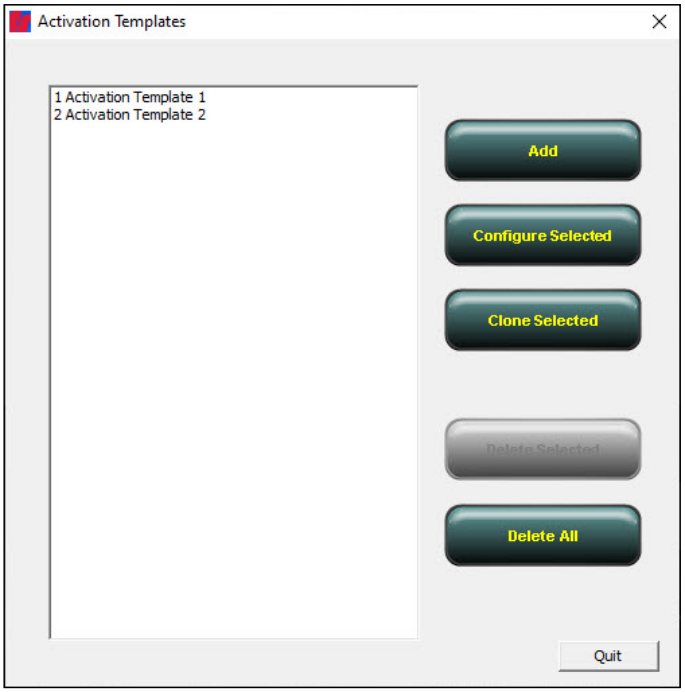
8. Creating Activation Templates

Activation Templates are preset events, which specify sites (Informers) and/or zones with functions. Activation Templates can include sounding sirens, sending smart messages, sending a text to a scrolling message display, and mass notification. When created, you can associate activation templates with Informer inputs.

To create activation templates:

1. From the Commander® main window, select Tools > Activation Template.

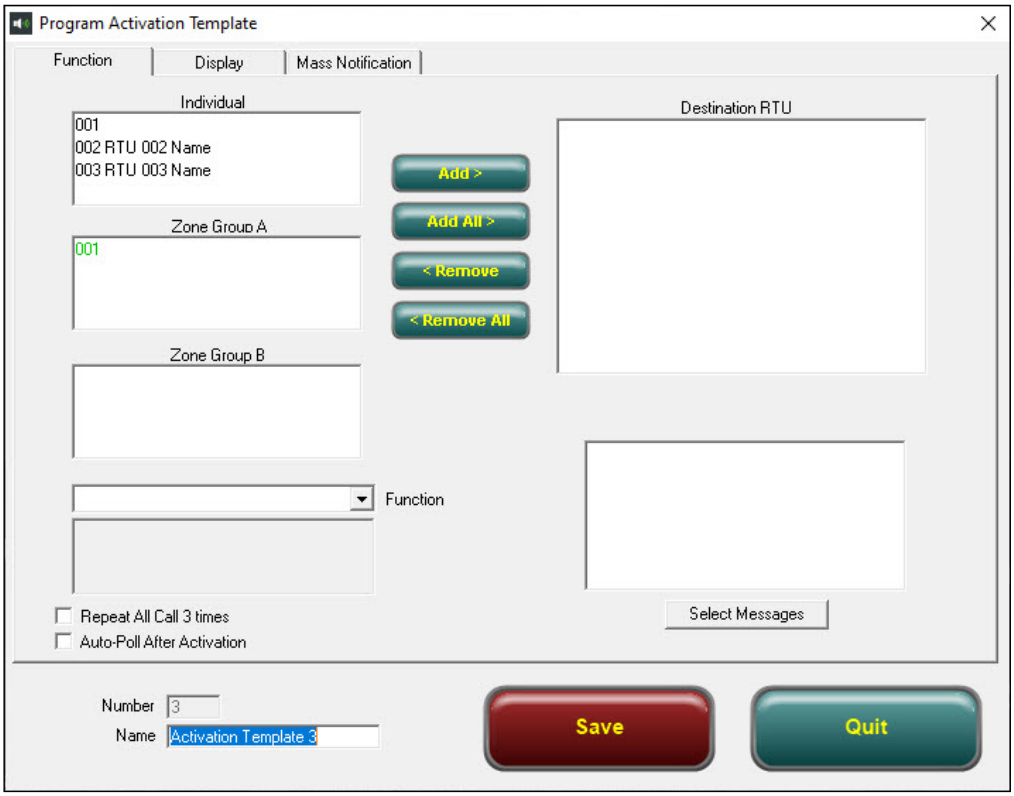
The Activation Templates dialog box appears.



Fields	Description
Add	Opens the Program Activation Template, where you are able to create a new template.
Configure Selected	Opens the Program Activation Template, where you can configure the selected template.
Clone Selected	Creates a new template that is an exact copy of the selected template. Opens the Program Activation Template where you can make changes.
Delete Selected	Deletes the selected template.
Delete All	Deletes all templates.

2. Click Add.

The Program Activation Template dialog box appears.



Fields	Description
Individual	Contains a list of all sites in your system.
Zone Group	Zone Group A and Zone Group B contain preconfigured zones. Zones are a grouping of sites defined using the Zone Setup dialog box.
Function	Displays the function to be sounded. To change this selection, click the Function arrow to see more options. Set the Function to blank (first item in list) when initiating a SmartMsg or Display Text command without executing a siren function. • PA SmartMsg: Converts the SmartMsg body text to audio using text to speech (TTS). • PA Wave File: Plays a previously recorded WAV file. When PA Wave File is selected, the Open dialog box appears to allow the selection of the desired file. The selected filename appears below the Function setting. • PA Text to Speech: Converts the specified text to audio using text to speech (TTS). • Live PA: Activates the microphone or auxiliary input for live public address.
Repeat All Call 3 times	Enables all call repeats. The delay between repeats is configured using the Retry Delay parameter on the System Setup dialog box. **NOTE**: This setting overrides the Repeat All Call 3 times setting on the System Setup dialog box.
Auto-Poll after Activation	Commander® polls each site after sending the activation command.

Fields	Description
Add >	Adds selected sites or zones in your system to the Destination RTU list.
Add All >	Adds all sites in your system to the Destination RTU list.
< Remove < Remove All	Removes selected or all sites.
Destination RTU	Contains the currently selected sites and zones. You can add any number and combination of individual sites and zones.
Dynamic Voice	Displays a list of digital voice messages to be played during the DYNAMIC VOICE function. Messages are annunciated in sequence, starting with the first message in the list and ending with the last. You may program a maximum of 19 messages. If dynamic voice is not used, this list may be left blank. **NOTE**: Dynamic Voice messages are contained in the voice.txt file located in the C:\ProgramData\FederalSignal\Commander\data folder. These messages must correspond to the vocabulary chip installed in the sirens.
Select Message	Adds or modifies the message list. Click Select Messages, and then the Select Messages dialog box appears. Use Add > and < Remove to add or remove messages on the list. Messages are added after the selected item in the Selection list. Double-click an item in the Selection list to remove the message.
Number	Displays the number of the Activation Template being programmed.
Name	Enter the name of the Activation Template.
Save	Updates the Activation Template.
Quit	Closes the Program Activation Template dialog box without updating the Activation Template configuration. A warning message appears.

Fields	Description
Display Tab	Informer devices contain a Display tab to configure the operation of a scrolling message display. The scrolling message display is an optional accessory that attaches to the Informer to display text messages on a large overhead LED display.  Mode: Configures how the message is displayed. Color: Sets the color of the displayed text. Duration: Sets how long the message is displayed: • While Armed: Message is displayed while the unit is armed. Choose this option to display the message for the duration of function activation. • Until Reset: Displays the message until a Master Reset command is sent or the Reset button is pressed. • Timed: Displays message for a fixed-time duration • Display Time/Date when expire: Check to display the time and date during standby. If this option is not checked, the display is blank during standby. Font Selection: • Normal: Standard height and width • Full Height: For multiple-line displays, the height is adjusted to the full height of the display • Wide: Characters displayed slightly wider than the standard font • Double Wide: Characters displayed double the standard width Message: Enter the message to display in the Message box. Keep the messages short and to the point.
Mass Notification Tab	Requires CommanderOne®. Informs CommanderOne® that the activation template was activated. Use it to activate other MNS Systems.

3. Enter the name of the Activation Template in the Name field.
4. Click Add > to add the RTUs from the Individual, Zone Group A, and Zone Group B list boxes.
5. Click the Function arrow to select the function to be sounded.
6. Optional: Select the Repeat All Call 3 times to Enable all call repeats (typically used for radio systems).

7. Select Auto-Poll after Activation for Commander® to poll each site after sending the activation command. Allows system status to be automatically updated after alerts.

8. Optional: Click Select Message to add to a list of digital voice messages to be played during the DYNAMIC VOICE function.

   NOTE: Use the table in Appendix B to record information.

9. Click Save.

9. Configuring Input Options

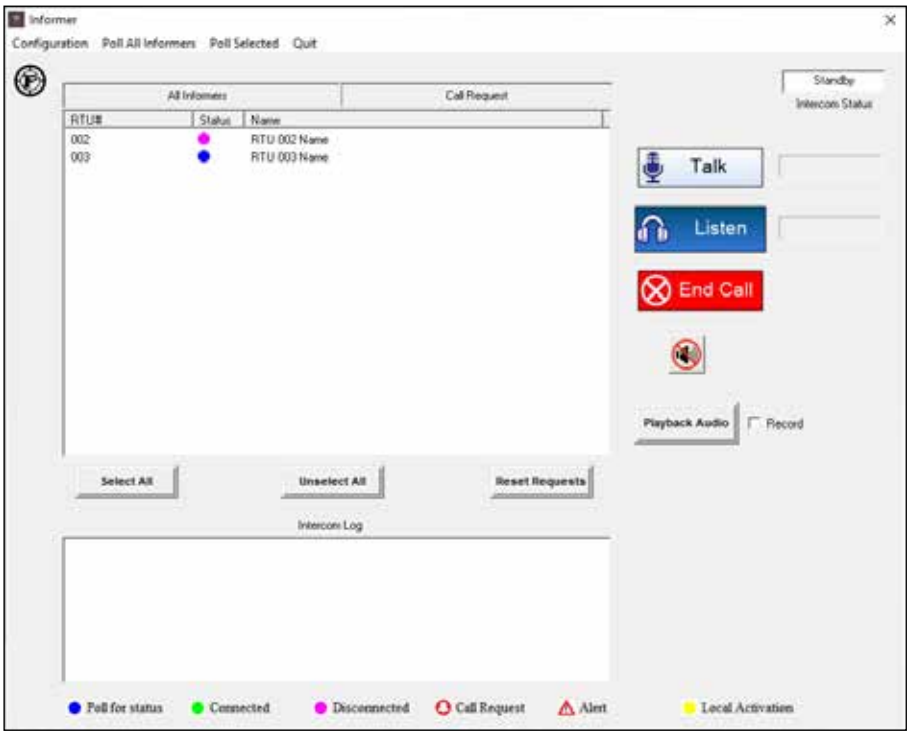
Informers have inputs you can use to initiate system-level alerts or activations. The I-IP-IO and I-IPW devices have an ALERT button and a rear input for a contact closure. Units before January 2019 have a Key Fob for wireless activations. The Informer15 and Informer100 devices have four inputs to use for system-level activations. In addition, the Informer15 and Informer100 devices can assign the inputs to activate local alerts (functions). Using both system and local activations can provide unique alerting capabilities. You can program the Informer15 and Informer100 devices for Local Activation Inputs and then place them into a stand-alone mode where local inputs activate functions/messages. The Informer-PA uses the rear input for fault detection from the local amplifier. The I-IPSIU has 16 inputs for multiple activation capabilities.

NOTE: Informer-PA units do not have activation inputs. The Rear Input is only available for the System Alarm.

To configure input options:

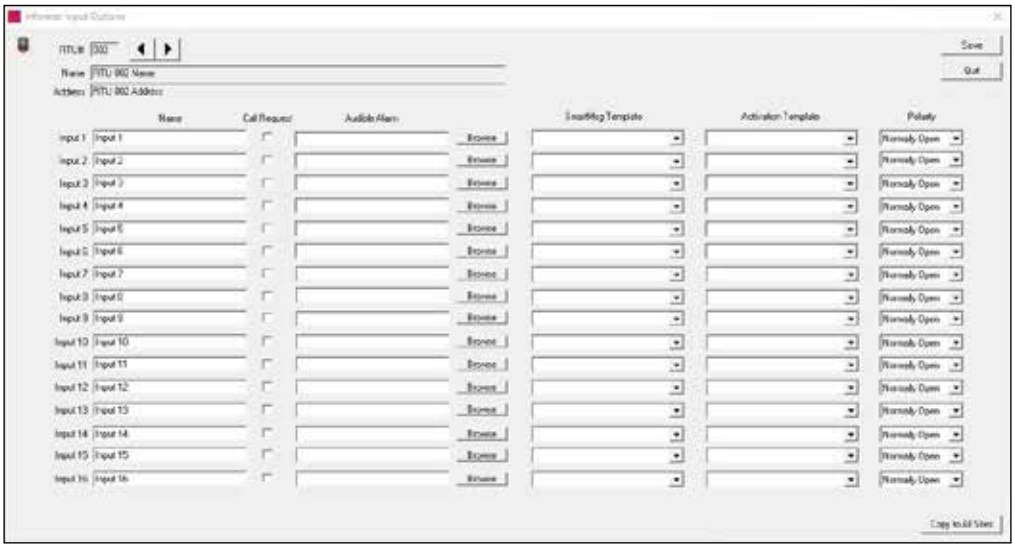
1. From the Commander® main window, click Informer.

   The Informer dialog box appears.



2. Select the RTU number and select Configuration > Input Options.

The following is an example of the Informer Input Options dialog box.



Fields	Description
Name	Allows you to change the name of the Informer inputs. The assigned name appears on the Status Detail screen and all Smart Messages and emails associated with the respective input.
Call Request	If checked, the input is designated a Call Request input. Call Request is defined as a request for communication with Commander®. When Call Request is activated, the Informer dialog box automatically displays, and a Bell icon displays in the status column. **IMPORTANT**: An incoming Call Request does not start a communication session. The base must initiate the communication session by talking or listening to the respective unit.
Audible Alarm	The Audible Alarm column displays the currently selected WAV file to sound when the respective input is triggered. Click Browse to display the Select WAV file dialog box. • To change the current setting, select the desired WAV file. • To disable the audible alarm feature, click Cancel to clear the settings.
SmartMsg Template	The SmartMsg template column displays the SmartMsg that is sent when the respective input triggers. To change the current selection, click the down arrow and select the desired SmartMsg template in the list. To disable the sending of the SmartMsg template, select the blank item at the beginning of the list. **NOTE**: Only templates configured on the SmartMsg server are available for selection.

Fields	Description
Activation Template	Activation Template can be associated with Informer inputs. If Activation Templates were created, they are available for selection in the list. To create, edit, and manage Activation Templates, select Tools > Activation Templates from the main menu.
Polarity	To set the input polarity, click the down arrow and select either Normally Open or Normally Closed. **NOTE**: The Polarity feature may not be available on all unit types and firmware versions. If your unit does not support the polarity feature, the polarity defaults to Normally Open regardless of the setting.
Copy to All Sites	Overwrites existing Informer Input options for all sites.

3. You can specify the name of each input. Click in the text box and change.
4. Click Call Request when the input is activated; the Intercom dialog box automatically displays for the System Operator.
5. Click Browse to select the desired WAV file to be played on Commander® when the associated Input is activated.
6. Select the SmartMsg Template that is sent when the respective input is triggered.

   NOTE: Only templates configured on the SmartMsg server are available for selection.
7. Select the Activation template to be activated with the respective input is triggered.

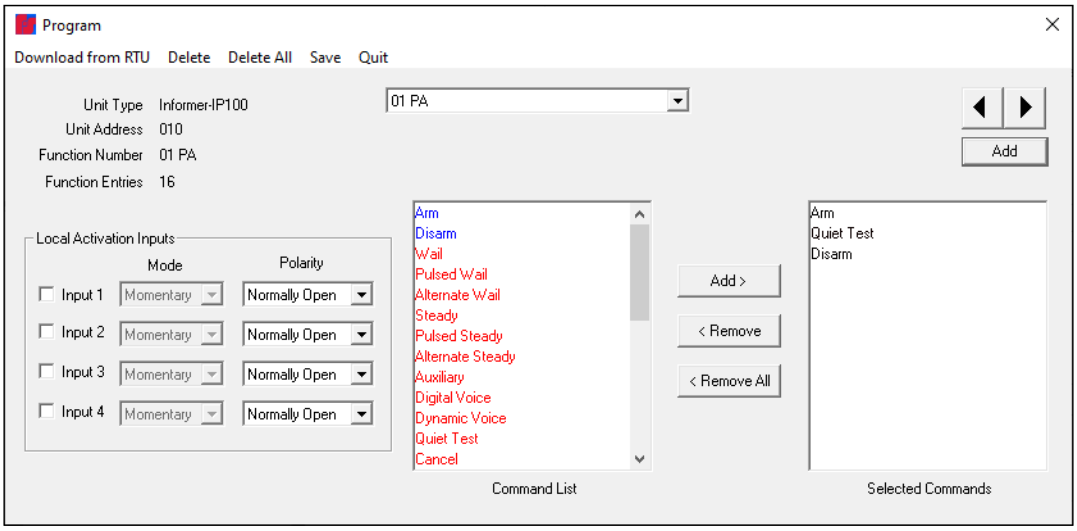
   NOTE: Use the table in Appendix B to record information.
8. Click Save.

Local Activation Inputs (Informer15 and Informer100)

You can program the local inputs on the Informer to activate the Informer for a variety of applications. If you use the local inputs and network the IP100 to other devices, use caution that the System Level activations and Local Activations do not conflict with each other. Configure Local Activation Inputs for Momentary (activated for the duration of the function) or Continuous (activated for the duration of the function or the closure–whichever is longer). In addition, you can configure Local Activation Inputs for normally open or normally closed operations. Create and/or configure functions before selecting Local Activation Input.

1. From the Commander® main window, click RTU.
2. Select the unit to configure.
3. Click Configure.
4. Click Program.

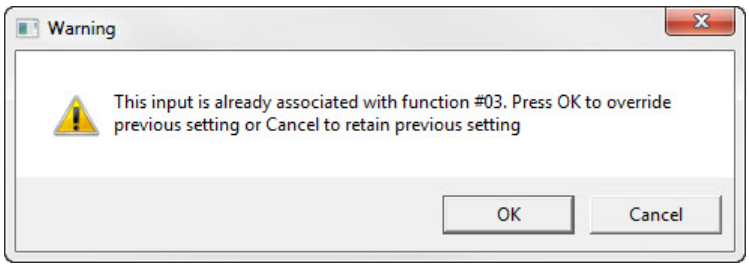
The Program dialog box appears.



5. For Input 1, go to the Function Number to be assigned to the input. Use the arrow buttons to scroll through programmed functions.

Fields	Description
Unit Type	Displays the unit type.
Unit Address	Displays the unit address.
Function Number	Displays the function number to be associated with the local activation input.
Program Entries	Displays the number of program entries that are currently stored in memory. This number is zero if no program entries are currently stored in memory.
Input 1-4	Each input can be assigned to one function. Go to the function, and then select Input, Mode, and Polarity.
Mode	Select either Momentary or Continuous. Momentary means the programmed action only activates once. Continuous means the programmed action continuously executes.
Polarity	Select either Normally Open or Normally Closed. A contact closure across a Normally Open activates the function. A contact open across a Normally Closed activates the function.
Command List/ Selected Commands	See “6. Programming Functions” on page 59.

6. Click the Input *number* check box. The following Warning window may appear.



7. In the Mode list, click either Momentary or Continuous.

8. In the Polarity list, click either Normally Open or Normally Closed.
9. Click Save to save the Input-to-function assignment, Mode, and Polarity.
10. Repeat steps 5 through 9 for Inputs 2, 3, and 4 if applicable.
11. From the Configure RTU General Parameters dialog box, click Send to save the programming information into the Informer unit.

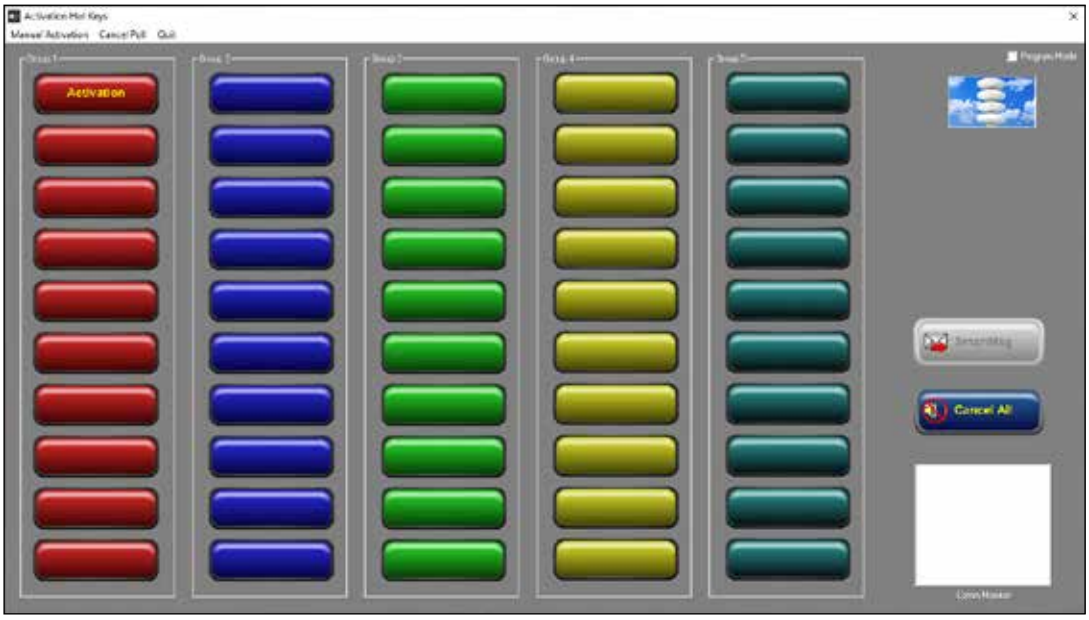
10. Configuring Commander Hotkeys

Use Hotkeys to simplify sending messages. Hotkeys are a set of preprogrammed keys that issue an activation sequence. For example, you can set up your system to have the following Hotkeys: tornado warning, flood warning, and all clear. With a click of a button, you can activate your RTUs.

To configure Hotkeys in Commander®:

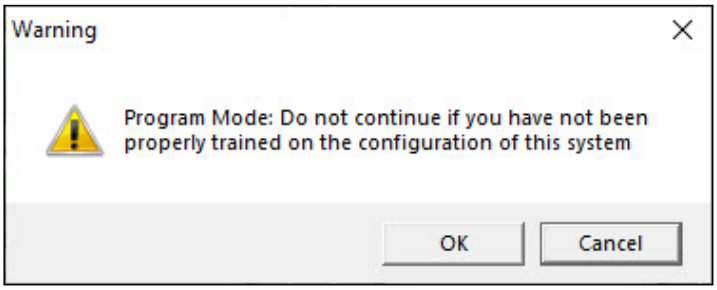
1. Select Activate > Hotkey.

   The Activation Hot Keys dialog box appears.



2. Click the Program Mode check box in the upper right corner.

A Warning dialog box appears.

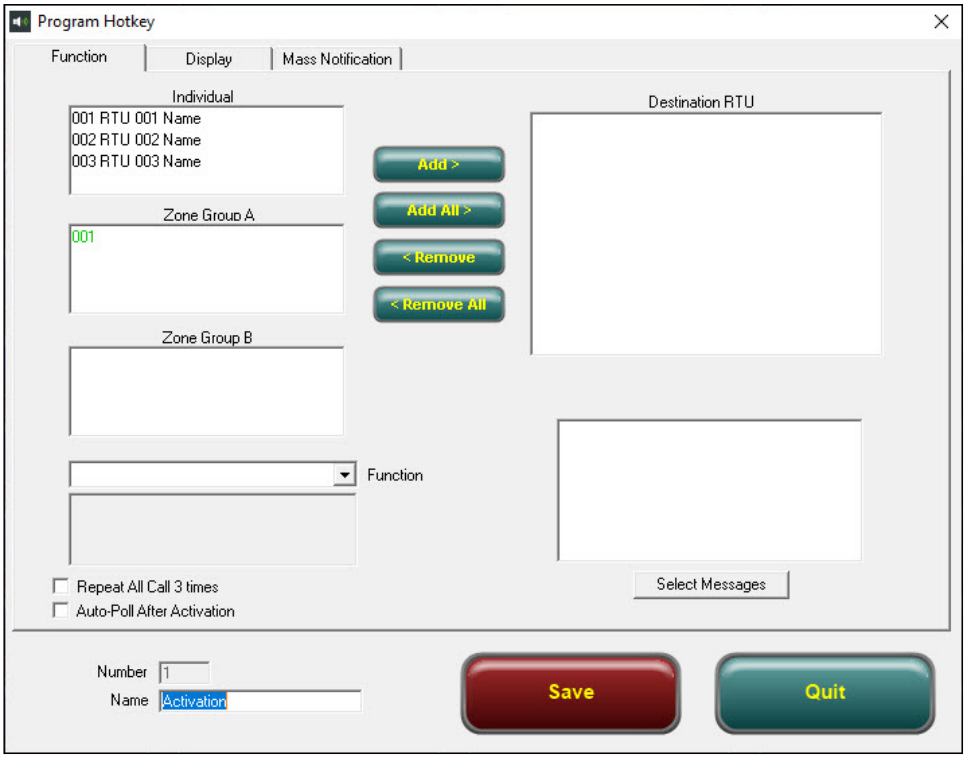


3. Click OK. The Activation Hot Keys dialog box turns red, which indicates that the Hotkeys are now programmable.

   NOTE: Commander® remains in programing mode for 15 seconds.

4. Click the key you want to configure.

   The Program Hotkey dialog box appears.



Fields	Description
Name	Enter the name of the button that will appear on the Activation Hot Key dialog box. Names must be 19 characters or fewer.
Save	Updates the Hotkey configuration. A confirmation message appears.
Quit	Closes the Program Hotkey dialog box without updating the Hotkey configuration. A warning message appears.

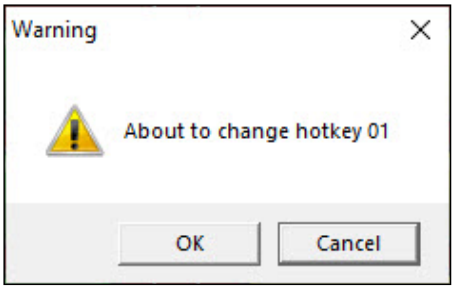
5. Enter a button name in the Name field at the bottom of the dialog box.

6. Select the desired site or zone that the Hotkey actives from the Individual or Zone lists.

7. Click Add All to sound all sites in your system. All Sirens appears in the Destination RTU field.
8. Select from the Function list.

   NOTE: Use the table in Appendix B to record information
9. Click Save.

   A Warning dialog box appears.



10. Click OK. The button you selected is changed. To change additional Hotkeys, repeat steps 4 through 9.
11. Uncheck the Program Mode check box.
12. Click Quit.

11. Programming Listening Options

The I-IP-IO, I-IPW, I-IP15, Informer15, and Informer100 devices can do the following: listen only, two-way intercom, or record conversation, unless disabled. You can program each Informer independently to allow specific listening options. Recordings are stored on the local PC/server for playback/storage.

NOTE: The Informer-PA and I-IPSIU devices do not have listening options.

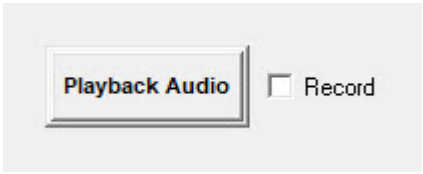
NOTICE

Review wiretapping laws before listening or recording any conversation. You may need to get consent from all parties that you intend to record.

To enable recording:

1. From the Commander® main window, click Informer.

   The Informer dialog box appears.
2. Click the Record check box.



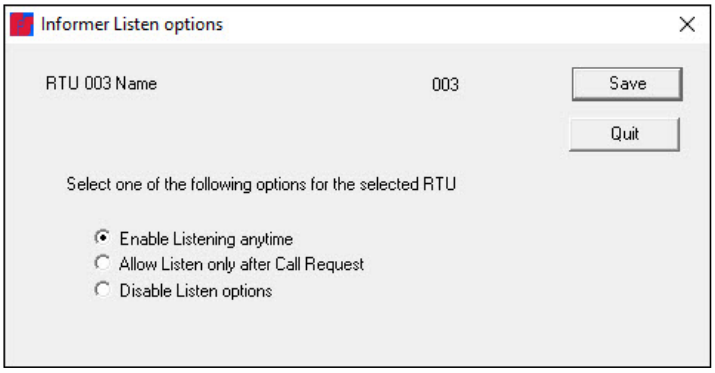
   If the Record check box is checked, the Informer Talk and Listen chat session is recorded until the Intercom session is ended by clicking the End Call button.

To configure an Informer with unique settings for listening:

1. Select the Informer to configure.
2. Select Configuration > Listen Options.

   The Informer Listen options dialog box appears.

   All three modes allow optional recording. The recording is selected from the main Informer dialog box.



Fields	Description
Enable Listening anytime	Allows the ability to eavesdrop on the Informer device. The Desk and Wall Mount Informers activate a blue LED on the faceplate when an Informer is in Listen mode. The Commander® user can also select talk and provide talk/listen communications.
Allow Listen only after Call Request	This allows listening only after the Informer has initiated a call request. The Commander® user is then allowed to select talk and provide talk/listen communications.
Disable Listen options	This does not allow eavesdropping or two-way conversation.

3. Click one of the options.
4. Click Save.

   Recordings are stored in a WAV file in the AudioCapture subdirectory within the Commander® program directory.

12. Configuring Informer15 and Informer100 PA (VoIP) Settings

The Informer15 and Informer100 devices have PA (VoIP) settings for sound power during public address announcements. The power attenuation allows the sound output to be attenuated up to 20 dB for PA. For example, if set to -10 dB, the sound output of the speaker will be lowered from the maximum by 10 dB. The maximum power attenuation adjustment is 20 dB.

The Informer15 and Informer100 devices also have an ambient attenuation setting, allowing automatic attenuation based on the sound level at the Informer15 or Informer100. For example, if the ambient attenuation is set for 70 dB, then for every decibel, if the noise level is below 70 dB (at the Informer), the Informer will attenuate the sound level output by a decibel. The maximum power attenuation and ambient attenuation is a combined 20 dB.

Using Power/Ambient Attenuation Threshold

If using an Informer Speaker with PA (VoIP), select the PA (VoIP) setting:

- Power Attenuation: Set attenuation of output level during PA. You can use up to 20 dB of attenuation.
- Ambient Attenuation: Set level at which the speaker begins to add attenuation to the output level. A maximum of 20 dB total attenuation is possible with Power and Ambient settings.

  For example:

  If Power Attenuation is set to 5 dB and Ambient Attenuation is set to 50 dB, the Maximum output is 109 dB; and if the noise level at the speaker is 40 dB, the sound output is lowered to 99 dB.

  Enter 0 if no automatic attenuation is desired.
- Voice Under run delay: Use this feature to delay PA output.
- Relay x On: Use this feature to turn on a relay during PA.

NOTE: See the Creating a Function section for more information.

13. Configuring the I-IPSIU Radio Settings

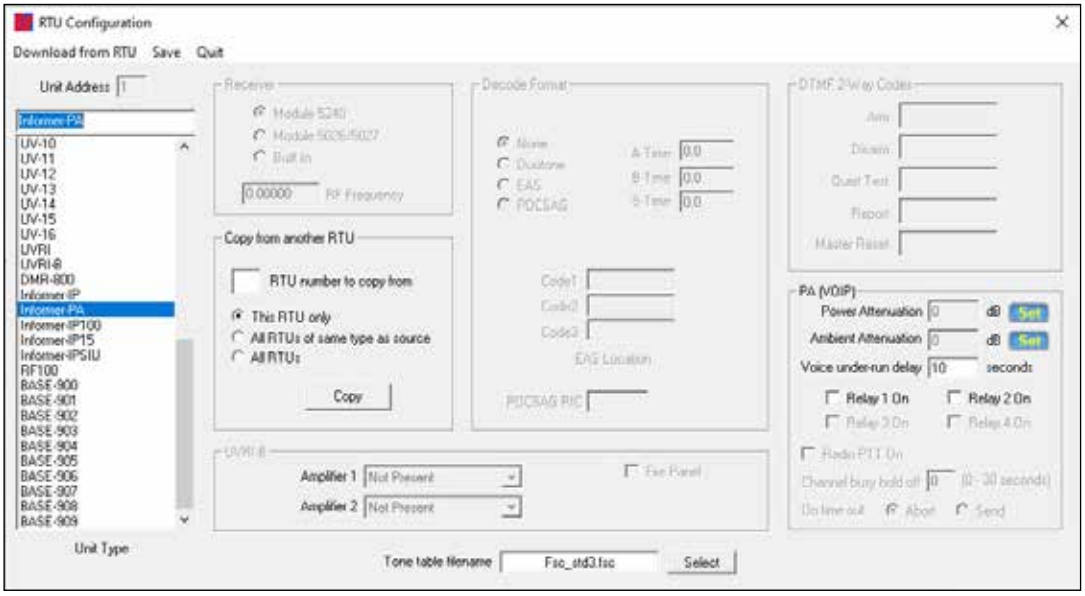
The Informer Sensor Interface Unit (I-IPSIU) uses the audio out interface to broadcast alerts to radio systems. The audio output is a 600-ohm interface with manual volume control. The I-IPSIU has relays that are used as the push-to-talk (PTT) to activate the radio system. The PTT relays are dry contact closures which are closed when the audio from the I-IPSIU is active. The I-IPSIU can use either a contact closure or audio input to detect a busy radio system. You can program the I-IPSIU to use the carrier detect (contact or audio) to delay or prohibit announcements if the radio channel is busy.

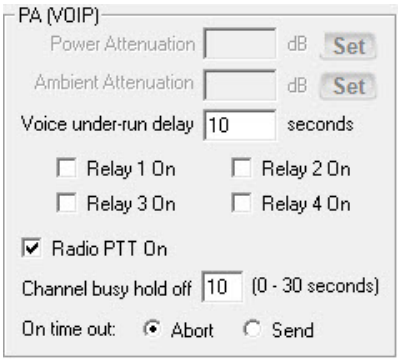
To configure the radio settings:

1. From the Commander® main window, click RTU. Select the unit to configure. Click Configure.
2. Enter the name of the Informer, the address, and the latitude and longitude. This information is used for mapping devices and for naming throughout the Commander® system.

   NOTE: Use the table in Appendix B to record Informer's information.
3. Click RTU Configuration.

   The following dialog box appears.





Fields	Description
Voice under-run delay (seconds)	Underrun occurs when a device runs out of data during live streaming PA or VOIP, causing the audio to cut out, also known as buffering. To mitigate buffering, the under-run delay setting allows playback to be delayed by a fixed duration to allow the device to accumulate data before playback begins. This headroom will help fill in the gaps in the event network speed is insufficient for live voice. Set the number of seconds the device will buffer audio before starting playback. On reliable high-speed networks, 1 or 2 seconds should be sufficient. Slow networks and some wireless systems may require 5 seconds or more.
Relay	To close a relay output during live PA, select the check box associated with the relay number. In all cases, the relay(s) will close at the start of live PA and open when the unit disarms at the termination of the message. This feature and the number of relays available are dependent on the Unit Type.
Radio PTT On	This feature is available for Informer-IPSIU type units for the control of a radio transmitter. To broadcast messages on the radio transmitter during live PA, select Radio PTT On.
Channel busy hold off (0-30 seconds)	The hold off time specifies the maximum time in seconds the unit will wait for the channel to become available before transmitting. If the channel does not become available within this time, the option buttons define the action to take, either abort the transmission or send despite the channel being busy. During the hold off period, the incoming message is buffered, so no part of the message is lost.
On time out (Abort or Send)	The Abort and Send buttons specify the action to take if the radio channel is busy (carrier present).

4. Select Informer-IPSIU.
5. Select the Radio PTT On check box.
6. Enter the number of seconds for Channel busy hold off. If set to 0, all alerts are broadcast to the radio system immediately. If set to 1-30 seconds, the I-IPSIU waits for Carrier Detect (C.D.)/audio detect to clear before sending the alert. See the table above.
7. Click either Abort or Send. The Abort option cancels the radio if the radio channel does not clear. The Send option sends the activation regardless of the Carrier Detect status.
8. Click Save to store the selection into the Commander® database or click Quit to close and discard changes.

   The Configure RTU General Parameters dialog box is now active.
9. Click Send to send the program information to the Informer.

Using Informer Intercom

Use the intercom function to provide bi-directional voice communications between the Informer and the Emergency Operations Center (EOC) control point. The EOC can talk to one or many simultaneously, but you can only listen to or record from one device at a time. The Commander® software runs the intercom session. Federal Signal recommends using a headset with earphones and a microphone to reduce background noise for EOC operators.

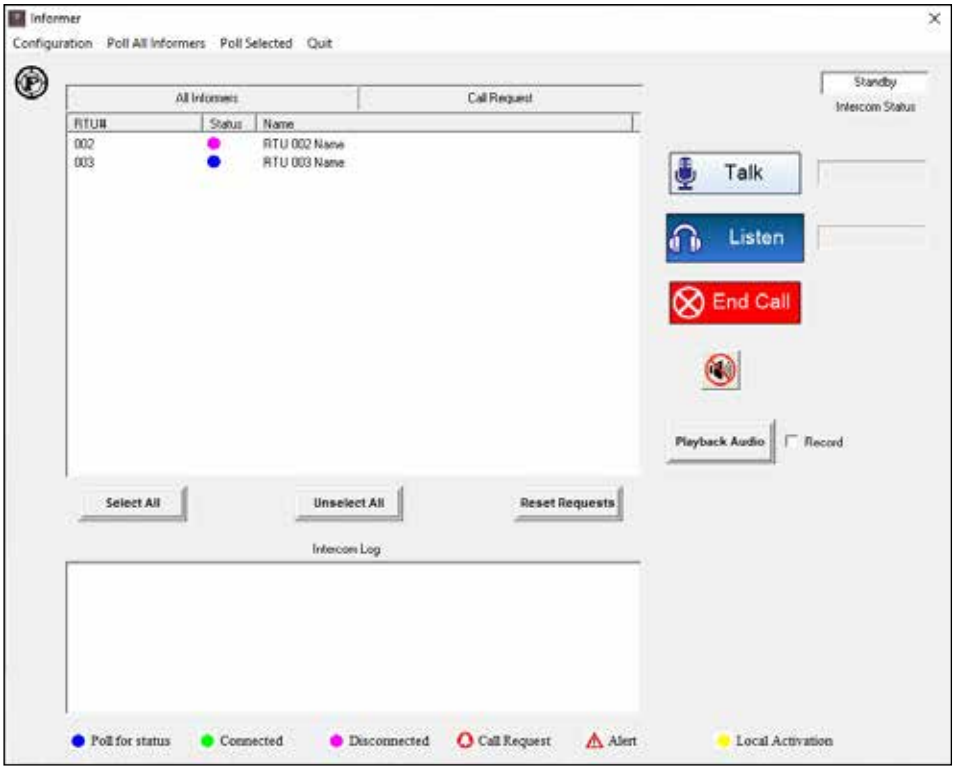
Informers can initiate intercom Call Requests. A Call Request opens the Informer dialog box in Commander® if not already open. The EOC can view all devices that are requesting a call. Requests are indicated by a red bell icon on the Informer dialog box at the EOC. EOC operators select which Informer they want to start an intercom session/call by selecting the device.

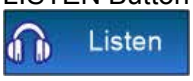
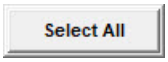
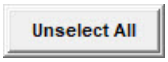
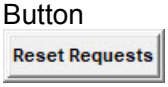
NOTE: Ensure the Informer is not near the microphone at the control point, or an audio feedback loop is created.

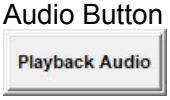
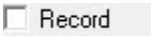
To configure, begin a call, or view the current status of the device, follow this process in Commander®:

1. From the Commander® main window, click Informer.

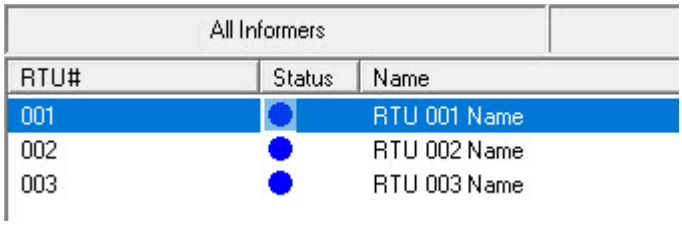
The Informer dialog box appears.



Fields	Description
Intercom Status window	Displays the current operating state of the Intercom. There are three possible states: Standby, Talking, and Listening.
Intercom Log window	Displays all Intercom communication activity, including which device is being communicated with. The user can scroll through the entries.
Command Log display	Appears automatically on the bottom center of the screen when another control point sends an activation command or starts an intercom chat session. This dialog box is intended to notify other operators so that they do not interfere with each other. The dialog box includes the time, date, control point ID, and function executed.
TALK Button 	Initiates an Intercom Chat session and allows the EOC operator to send live voice announcements using a PC microphone. You must select one or more Informers to talk to by clicking on the row in the list box containing the desired Informer. Since you can only listen to one Informer at a time, listening is not possible when multiple Informers are selected. The dual-purpose button allows the operator to switch between talking and listening by clicking the mouse. The Talk session remains active until you select LISTEN or END CALL.
LISTEN Button 	Initiates an Intercom chat session and allows the EOC operator to listen to the local microphone inside the Informer that has been selected to listen to. You can only listen to one Informer at a time. The Listen session remains active until you select TALK or END CALL.
END CALL Button 	Terminates an Intercom session and stops the recording process.
Select All Button 	Selects all devices at once for an Intercom Talk.
Unselect All Button 	Clears all device selections at once.
Reset Requests Button 	Resets all current Call Requests indicated by the bell icon. The bell icon changes to the Alert icon until the device is Reset with a Master Reset from the control point. You can reinitiate a Call Requests as soon as they are Reset.
Stop Audible Alert Button 	Stops playing an active alarm WAV file. This is useful if an operator has acknowledged the alarm and wants to silence the audio.

Fields	Description
Playback Audio Button 	Allows the control point operator to view all recorded calls and select any recorded call for playback. When the EOC is talking, the Informer can listen but not talk. The EOC controls which Informer is included in the call and when the Informer can talk or listen.
Record Check box 	If checked, the Intercom Talk and Listen Chat session is recorded until the Intercom session is ended by clicking End Call. The Informer individual configuration settings determine if and when the Intercom Chat session can be recorded. Recordings are stored in a WAV file in the AudioCapture subdirectory within the Commander® program directory.

2. Select the Informer to configure within the All Informers window. If the row is double-clicked, the Status Detail dialog box for the device appears.



3. Sort the Informers within the All Informers window by clicking the buttons at the top of each column to sort by RTU#, Status, or Name.

Using the Public Address System

The Public Address system provides three selections:

- Standard Public Address using a microphone connected to the PC/Server with Commander®
- Broadcast of WAV file from the PC with Commander®
- Broadcast of Text to Speech (TTS)

Select Start PA to initiate a live PA broadcast. The Select Sites to Activate dialog box appears to allow the selection of RTU and/or zone.

Select PA from WAV to broadcast a stored WAV file. The Select WAV file dialog box appears to allow selection of a WAV file.

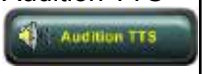
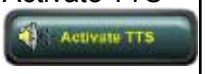
For text-to-speech (TTS) broadcast, enter the text to broadcast or select from a predetermined list of stored text messages. The Select Sites to Activate dialog box appears to allow the selection of RTU and/or zone.

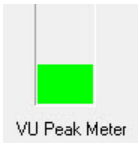
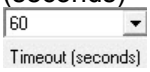
Broadcasting Messages

To broadcast a message using the microphone connected to the PC with Commander®:

1. From the Commander® main window, select Activate > PA (VOIP).

   The PA (VOIP) dialog box appears.

Fields	Description
PA Text to Speech	Enter your message to play.
Clear 	Deletes the current message in the PA Text to Speech text box.
Select Message	Click the Select Message arrow to select a preconfigured TTS message. When selected, the message appears in the PA Text to Speech text box.
Audition TTS 	Selects TTS announcement on the computer's speaker.
Activate TTS 	Send selected TTS announcement to siren or Informer for playback.
Start PA 	Starts live public address annunciation using the computer's microphone. Once initiated, Start PA remains active until you click the Stop PA button or one minute has passed, whichever occurs first.
Stop PA 	Terminates transmission of live PA.
PA from WAV 	Displays the Select WAV file dialog box to allow you to select a WAV file for public address transmission. Most SPSF WAV file formats are supported.

Fields	Description
VU Peek Meter 	Adjust the Microphone level so the VU Peek Meter sweeps full scale on voice peeks. The VU Peek meter is color coded as follows: Green: Level below peek Yellow: One or more samples at or above peek. Red: More than 5% of samples at or above peek. The optimum level is obtained when the color is alternating between green and yellow with a normal voice. Reduce the level if red is easily achieved; however, occasionally hitting red is satisfactory.
Timeout (seconds) 	Sets the Live PA automatic timeout duration. You must have Configuration or Global Administrator rights to change this setting. **NOTE**: Many radios have built-in timers that limit transmission time. It is good practice to set the Timeout time equal to or less than the radio's built-in timer (if applicable).
Recording Control 	Displays the Windows® Sound dialog box. Use this window to adjust the live PA input level.

2. Click Start PA.

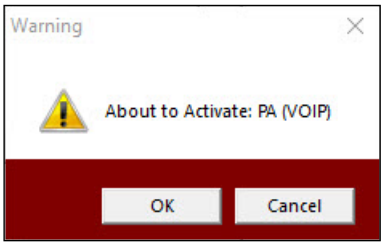
   The Select Sites to Activate dialog box appears.

3. Select RTU and/or zone.
4. Click Add >.

   The site populates the Destination RTU text box.

5. Click Send.

A Warning dialog box appears.



6. Click OK to start live public address annunciation using the computer's microphone. Once initiated, Start PA remains active until you click the Stop PA button or one minute has passed, whichever occurs first.

Broadcasting WAV Files

To broadcast WAV files from the PC with Commander®:

1. From the Commander® main window, select Activate > PA (VOIP).

   The PA (VOIP) dialog box appears.

2. Click PA from WAV.

   The Select WAV file dialog box appears.

3. Select a WAV file for public address transmission. Most SPSF WAV file formats are supported.

   If you created a custom folder, select your WAV files from the following directory: C:\Program Files\Federal Signal Corporation\Sfcdware\data\Custom Files

4. Click Open.

   The Select Sites to Activate dialog box appears.

5. Select RTU and/or zone.

6. Click Add >.

   The site populates the Destination RTU text box.

7. Click Send.

   A Warning dialog box appears.

8. Click OK to broadcast WAV file.

Broadcasting Text to Speech (TTS)

To broadcast a Text to Speech message from the PC with Commander®:

1. From the Commander® main window, select Activate > PA (VOIP).

   The PA (VOIP) dialog box appears.

2. Enter your text to speech message in the PA Text to Speech text box on the left side of the window.

3. Alternately, select the preconfigured text-to-speech messages from the Select Message list.
4. Click Activate TTS to play the message.

   The Select Sites to Activate dialog box appears.

5. Select RTU and/or zone.
6. Click Add >.

   The site populates the Destination RTU text box.

7. Click Send.

   A Warning dialog box appears.

8. Click OK to broadcast TTS file.

Using the Informer-IP

When the Informer-IP receives an alert message or an alert tone, the red Alert LED begins to flash, and audio is heard over the speaker. The audio sends out the optional 600 ohms audio output, and the output relays close as programmed.

The alert messages and WAV files are recorded and stored in memory until the alert is reset. Alert Tones are not recorded. You can play back the message by pressing the REPLAY button anytime the red LED is blinking.

The Informer-IP automatically resets and returns to standby mode when the local RESET button is pressed, or the Control Point sends a reset command. The red Alert and yellow Test LED are also reset.

If the Control Point cancels the alert or the alert message is complete, the alert stops, but the Alert LED continues to flash, indicating that an alert was issued. Avoid using the RESET button until the emergency has ended. During an emergency, pressing the RESET button while the alert is sounding stops the alert.

The user may acknowledge receiving an alert if one of the remote alert inputs is configured as an acknowledgment. New activation commands override all previous functions in progress.

The yellow Test LED lights steady when a Quiet Test message has been received. This light remains on until you press the RESET button. The Alert LED does not light for the Quiet Test function that is programmed to light the Test LED.

Front Panel Display

The Informer-IP includes a five-button membrane keypad with a tactile feel and four diagnostic LEDs.

Adjusting the Volume

The Informer-IP provides the ability to control the sound volume of tone and voice messages heard over the speaker.

To adjust the volume, press the VOLUME ↑ (up arrow) button to increase the sound volume. Press the VOLUME ↓ (down arrow) button to decrease the volume.

A beep is heard, indicating the current volume level each time the volume buttons are pressed. Holding down either arrow allows you to “scroll” to the highest or lowest volume levels.

The control points can override the local volume controls with remote volume control commands. If no volume control commands are issued from the control points, the local volume level is heard. Control points should always issue Emergency Alerts using a High-Power command to ensure all users hear the alert. The user can lower the volume while a tone or voice message is in progress.

Table 10 Informer-IP Buttons

Buttons	Description
ALERT	You can configure the ALERT button to activate a template in Commander®. See “9. Configuring Input Options” on page 72. You can also configure alerts as a Call Request to alert emergency operations personnel that an intercom chat session is being requested. You can configure each of the six alert inputs with application-specific names. A Call Request is a request for an Intercom Chat Session with the Emergency Operations personnel at the control point(s). The Call Request displays the Commander® Intercom dialog box and turns on the red Call Request status icon next to the Unit ID and Unit Name of the Informer-IP that issued the request.
RESET	Push to reset the following: • Alert Signals • Alert, Test, and Talk LEDs • Scrolling Message Display • Relay Outputs
REPLAY	The REPLAY button replays the last voice message received if the Red Alert light is blinking. If the Alert light is not blinking, the event has ended or reset, which removes the message from memory.

Dual Relay

The Informer-IP and Informer100 have two independently programmable relay outputs. The Informer15 has two outputs that are programmable identical to the Informer-IP and Informer100. The outputs are transistor driven to all activation of the local LED or for an external relay. The relay timing is configured and programmed into the Informer-IP from Commander®. See the Programming Functions and PA (VOIP) Settings sections for more information.

Relay Outputs

The relay outputs are capable of controlling external devices. The outputs are located on a removable connector. See the Informer’s Installation Manual for voltage and current ratings.

You can individually configure the relay outputs to open, close, and cycle based on a preprogrammed sequence.

NOTE: The relay outputs close for 5-10 milliseconds during initial power-up.

Informer-IP Wall Mount only

Relay two has been prewired to allow 12 Vdc to power an optional LP1 strobe. Power is supplied from the internal power supply to COM2. The strobe is connected to NO2 and ground. Federal Signal provides cables to wire the LP1 strobe.

600-Ohms Audio Output

The 600-ohms audio output is useful for tying the Informer-IP and Informer-PA into existing public address (PA) systems or other externally amplified speaker systems. The I-IPSIU audio output can be used to interface to a radio system. An adjustable balanced audio output is available at pins 1 and 2 of the output connector. The output level is adjustable via a potentiometer located near the output connector on the inside of the unit. See the Informer's Installation Manual for parts locations. The use of Selectone® speakers with E-300CK can extend the range of an Informer-IP speaker.

Generating Alerts

You can configure the ALERT button to activate a template in Commander®. See "9. Configuring Input Options" on page 72.

To configure the templates, in Commander® use the Tools > Activation Templates dialog box. Additionally, you can configure the Alert inputs as a call request. A Call Request is a request for an Intercom Chat Session with the Emergency Operations personnel at the control point(s). The Call Request displays the Commander® Intercom dialog box and turns on the red Call Request status icon next to the Unit ID and Unit Name of the Informer-IP that issued the request.

You can generate alerts in two ways:

1. The ALERT Button on the Informer-IP keypad (ALERT)

2. The Rear Input – (terminal block on the inside of the unit)

Configuring Inputs

You can configure the Inputs to indicate specific user-predefined events (such as Medical Alert, Local Disturbance Alert, Weapon Alert, Weather Alert, Fire Alert), or you can use the inputs to request an Intercom Chat session or act as an acknowledgment of an Alert or Test.

Testing and Training

After the installation is complete:

- Test the Informer and all accessories from the control point(s) to ensure it is operating properly.
- Ensure all users are properly trained to use the system before putting the Informer into service.
- Verify all tone, voice, and text messages contain the correct content per the emergency operating plan. Alerts should exceed the ambient sound levels by at least 10 dB to ensure they can be heard.
- Conduct testing regularly per facility safety plans to ensure the equipment remains in working order and operators remain familiar with the use of the equipment.

Getting Technical Support and Service

For technical support, contact:

Federal Signal
Technical Support
Phone: 800-524-3021 or 708-534-4790
Email: techsupport@fedsig.com
www.fedsig.com

For customer support, contact:

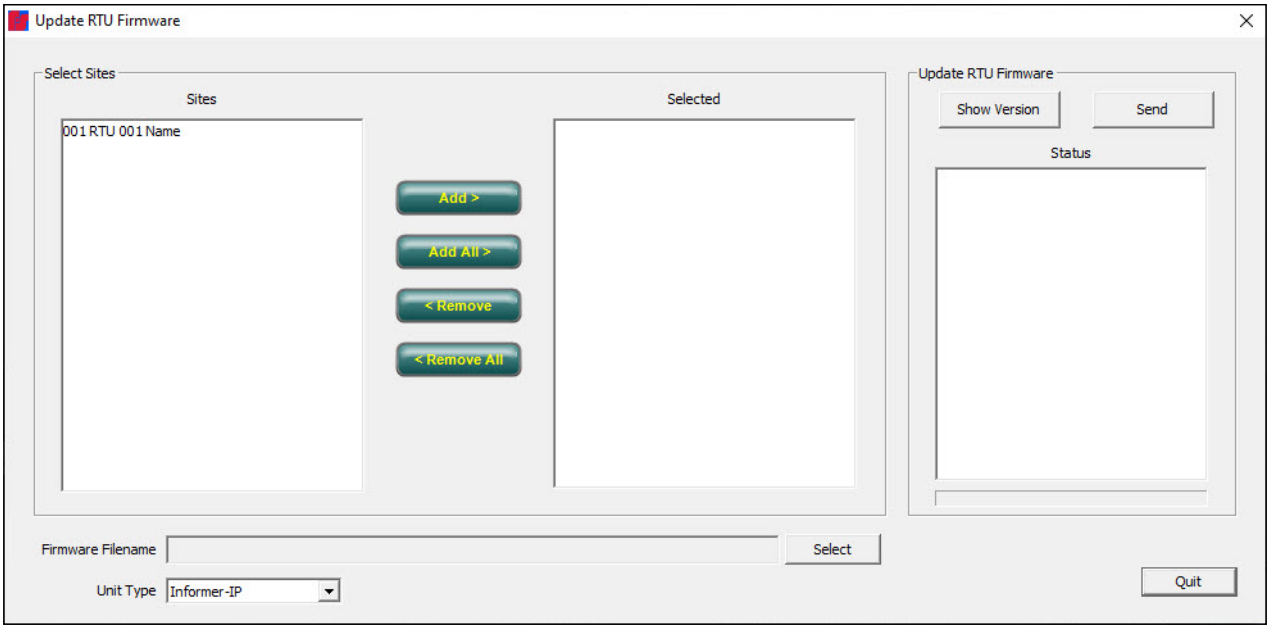
Federal Signal
Customer Support
Phone: 800-548-7229 or 708-534-3400 extension 367511
Email: customersupport@fedsig.com
www.fedsig.com

Appendix A Updating RTU Firmware

To update the RTU firmware, do the following from Commander®:

1. Select Tools > Update RTU Firmware.

   The following dialog box appears.



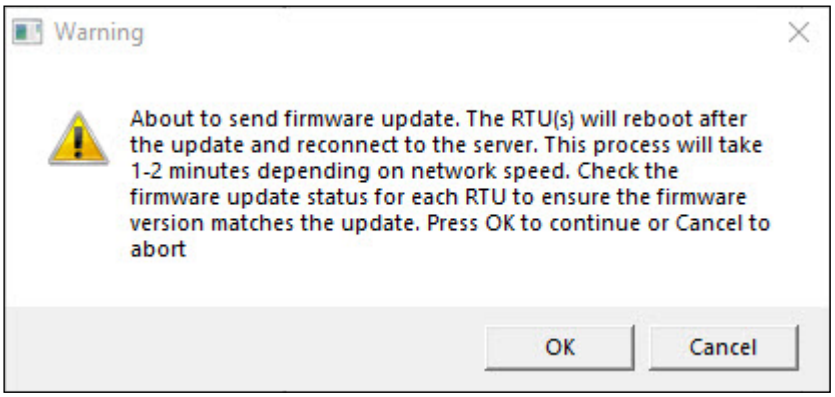
Fields	Description
Sites	Displays the RTUs you can program. **NOTE**: Each model requires different software; therefore, only one model may be programmed at a time.
Add >	Adds the selected RTU from the Sites list to the Selected list.
Add All >	Adds all the RTUs listed in the Sites list to the Selected list.
< Remove	Removes the selected RTU from the Selected list to the Sites list.
< Remove All	Removes all the RTUs from the Selected list to the Sites list.
Selected	Displays the selected RTUs from the Sites list.
Show Version	Displays the software version of the selected RTUs.
Send	Click to send your firmware to your RTU.
Firmware Filename	Displays the selected firmware.
Select	Displays the Select HEX file dialog box. Select the appropriate hex file based on the selected RTU type.
Unit Type	Click the down arrow and select a unit type.

2. Select the RTU from the Site list, and then click either Add > to add a single RTU or click Add All > to add all the RTUs in the Sites list.

3. Click Select. The Select HEX file dialog box appears. Select the firmware file.
   For the Informer100 Speaker it is IP100_*x*_*x*_*x*_*x*.HEX, where *x* is the version number.

4. Click Open to populate Firmware Filename.
5. Click Send.

   The following Warning window appears.



6. Click OK to continue.
7. Click Quit to exit the dialog box.

Appendix B Forms

Table 11 Informer Network Configuration

Domain Name	
IP Address	
Subnet Mask	
Default Gateway	
Primary DNS Server	
Alternate DNS Server	
SMTP Server Name (optional)	
SMTP Server Address (optional)	
SmartMsg Parent Server Name	
SmartMsg Parent Server Name/Address	
Failover Server 1 Name/Address	
Failover Server 2 Name/Address	
Failover Server 3 Name/Address	
Failover Server 4 Name/Address	
SIP Server Name/Address	
SIP Address, Registration ID, Password	
Informer Config Username	
Informer Config Password	

Table 12 Network Device

Name/Location	**IP Address x.x.x.x**	**Site ID# xxx**	**MAC xx:xx:xx:xx:xx:xx**
Control Station 1		900	
Control Station 2		901	
Control Station 3		903	
Device Name		001	
		002	
		003	
		004	
		005	

Name/Location	IP Address x.x.x.x	Site ID# xxx	MAC xx:xx:xx:xx:xx:xx

Table 13 WAV File Messages (DV Messages)

WAV File Number	Name	Message and Description	Length

Table 14 Programed Functions

Function Number	Program Entries	Definition
Function Name		
Function Number		
Function Name		
Function Number		
Function Name		
Function Number		
Function Name		

Table 15 Programed Zones

Zone Number A/B	Zone Name	Sites in this Zone

Table 16 Programed Activation Templates

Template Number	Template Name	Action

Table 17 Input Programming Informer

RTU #	Name	Call Request	Audible	SmartMsg Template	Activation Template

Table 18 Hotkeys

Hotkey Number	Name	Action
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

Hotkey Number	Name	Action
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		

Hotkey Number	Name	Action
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		

Table 19 Informer Input Configuration

Input __	Mode	Polarity	Commands	Function
	☐ Momentary ☐ Continuous	☐ Normally Open ☐ Normally Closed		

Input __	Mode	Polarity	Commands	Function
	☐ Momentary ☐ Continuous	☐ Normally Open ☐ Normally Closed		

Input __	Mode	Polarity	Commands	Function
	☐ Momentary ☐ Continuous	☐ Normally Open ☐ Normally Closed		

Input __	Mode	Polarity	Commands	Function
	☐ Momentary ☐ Continuous	☐ Normally Open ☐ Normally Closed		

Input __	Mode	Polarity	Commands	Function
	☐ Momentary ☐ Continuous	☐ Normally Open ☐ Normally Closed		

Input __	Mode	Polarity	Commands	Function
	☐ Momentary ☐ Continuous	☐ Normally Open ☐ Normally Closed		

Appendix C Standard DV Messages

Table 20 Standard DV Messages

#	FWS Name	Customer Name for DV	Description	Notes
1	FWS-13955	TM1	(5 sec) Wail-Conventional Siren 560-1055 Hz	
2	FWS-13956	TM2	(5 sec) Yelp-Rapid Siren 560-1055 Hz	
3	FWS-13957	TM3	(5 sec) High-Low-Alternating High and Low 561 Hz and 760 Hz	
4	FWS-13958	TM4	(5 sec) Bell-Bell, Struck Rapidly-801 Hz	
5	FWS-13959	TM5	(5 sec) Yeow-Descending High to Low, Repeated 545 Hz and 1296 Hz	
6	FWS-13960	TM6	(5 sec) Horn-Steady Horn	470 Hz
7	FWS-13961	TM7	(5 sec) Beep-Slow Intermittent Horn 470 Hz	
8	FWS-13962	TM8	(5 sec) Stutter-Rapid Intermittent Horn 470 Hz	
9	FWS-13963	TM9	(5 sec) Slow Whoop-Slow Ascending Low to High, Repeated 424 Hz and 1163 Hz	
10	FWS-13964	TM10	(5 sec) Gradual Horn-Steady Horn, Gradually Increasing in Volume 514 Hz	
11	FWS-13965	TM11	(5 sec) Temporal Slow Whoop-NFPA Coded Slow Whoop 424 Hz and 774 Hz	
12	FWS-13966	TM12	(9 sec) Westminster Chime-Westminster Chime-Musical Tone	
13	FWS-13967	TM13	(5 sec) Evac-Amplitude Modulated Siren 479 Hz	
14	FWS-13968	TM14	(5 sec) Air Horn-Steady Horn 400 Hz and 800 Hz	
15	FWS-13969	TM15	(5 sec) Chime-Single Strike Chime-Musical Tone	
16	FWS-13970	TM16	(5 sec) Phaser-Rapid Siren	600-1200 Hz
17	FWS-13971	TM17	(5 sec) Alternating High and Low 363 Hz and 518 Hz	
18	FWS-13972	TM18	(5 sec) Warble-Extremely Rapid Siren 560-1055 Hz	
19	FWS-13973	TM19	(5 sec) Alert-Slow Sweep Tone 400-1560 Hz	
20	FWS-13974	TM20	(5 sec) Euro-Police-Alternating High and Low 969 Hz and 800 Hz	
21	FWS-13975	TM21	(5 sec) Euro-Fire Sweep Tone 900-800 Hz	
22	FWS-13976	TM22	(5 sec) Euro-Slow Whoop-Slow Sweep Tone 650-1290 Hz	
23.	FWS-13977	TM23	(5 sec) Euro-General-Intermittent Horn 969 Hz	
24	FWS-13978	TM24	(5 sec) Euro-Toxic-Steady Horn 969 Hz	
25	FWS-13979	TM25	(5 sec) Euro-Police II-Slow Alternating High and Low 554 Hz and 440 Hz	
26	FWS-13980	TM26	(5 sec) Euro-Stutter-Intermittent Beep 2840 Hz	
27	FWS-13981	TM27	(5 sec) Euro-Sweep-Sweep Tone 1163-397 Hz	

#	FWS Name	Customer Name for DV	Description	Notes
28	FWS-13982	TM28	(5 sec) Ringer-Continuous Ringing Tone 560 Hz and 326 Hz	
29	FWS-13983	TM29	(5 sec) Buzzer-Buzzer Tone 1318 Hz and 760 Hz	
30	FWS-13984	TM30	(5 sec) Attention-Extremely Rapid Siren-Multiple Frequency	
31	FWS-13985	TM31	(5 sec) Multi-Tone-Extremely Rapid Siren-Multiple Frequency	
32	FWS-13986	TM32	(5 sec) Caution-Extremely Rapid Siren-Multiple Frequency	
33	FWS-13987	Three 1 kHz tones Pre-Announcement	Three 1 kHz tones Pre-Announcement	
34	FWS-13988	Wobbulator-3 times Pre-Announcement	Wobbulator-3 times Pre-Announcement	
35	FWS-13989	FWS-10274-DSP2 M1 - Chime - Pre-Announcement	DSP2 M1 - Chime - Pre-Announcement	
36	FWS-13990	3 blasts-5 sec- Pre-Announcement	3 blasts-5 sec- Pre-Announcement	
37	FWS-13991	TM4-3 times Pre-Announcement	TM4-3 times Pre-Announcement	
38	FWS-13992	M15-3 times Pre-Announcement	M15-3 times Pre-Announcement	
39	FWS-13993	52 horn 5 sec	52 horn 5 sec	
40	FWS-13994	52 horn 10 sec	52 horn 10 sec	
41	FWS-13995	52 horn 15 sec	52 horn 15 sec	
42	FWS-13996	52 horn 1 sec pulses 10 times	52 horn 1 sec pulses 10 times	
43	FWS-13997	1 kHz_30 sec	1 kHz_30 sec	
44	FWS-13998	(5 sec) Alt Steady	(5 sec) Alt Steady	
45	FWS-13999	(5 sec) Alt Wail	(5 sec) Alt Wail	
46	FWS-14000	(5 sec) Pulsed Steady	(5 sec) Pulsed Steady	
47	FWS-14001	(5 sec) Pulsed Wail	(5 sec) Pulsed Wail	
48	FWS-14002	(5 sec) Steady	(5 sec) Steady	
49	FWS-14003	(5 sec) Wail	(5 sec) Wail	
50	FWS-14004	Westminster Chime	Westminster Chime	
51	FWS-14005	Attention	Attention	
Severe Weather				
52	FWS-14006	Severe Weather Warning-Seek Shelter	“The National Weather Service has issued a severe weather warning. Take shelter immediately. Repeat, the National Weather Service has issued a severe weather warning. Take shelter immediately.”	

#	FWS Name	Customer Name for DV	Description	Notes
53	FWS-14007	Severe Weather Warning-Seek Shelter	“This is a severe weather warning. Take shelter immediately. Repeat, severe weather warning. Take shelter immediately.”	
54	FWS-14008	Severe Weather Alert-Seek Shelter	“Please take shelter immediately. This is a severe weather alert.”	
55	FWS-14009	Severe weather Approaching-Seek Shelter	“Attention. Attention. This is an emergency. Severe weather approaching. Seek shelter immediately.”	
56	FWS-14010	Severe Weather-Stay away from Windows	“Attention. A severe weather warning has been issued; proceed immediately to the interior of the building, away from windows and entrances.”	
Tornado				
57	FWS-14011	Tornado Warning-Seek Shelter	“This is a tornado warning. Seek shelter immediately. This is a tornado warning. Seek shelter immediately.”	
58	FWS-14012	Tornado Sighted-Seek Shelter	“Attention! Life-threatening situation. A tornado has been sighted in the area. Seek shelter inside or take cover immediately. Stay away from windows and doors.”	
59	FWS-14013	Tornado Sighted-Seek Shelter	“Attention, a tornado has been sighted in the area. Take shelter immediately. Repeat, a tornado has been sighted in the area, take shelter immediately.”	
60	FWS-14014	Tornado Warning-Seek Shelter	“This is a tornado warning. Seek shelter immediately. This is a tornado warning. Seek shelter immediately.”	
61	FWS-14015	Tornado Warning-Designated Area	“Tornado Alert, report to your designated area.”	
62	FWS-14016	Tornado Warning-Seek Shelter	“Attention! Attention! Tornado warning. Seek shelter immediately. Attention! Attention! Tornado warning. Seek shelter immediately.”	
High Winds				
63	FWS-14017	High Wind	“Attention: The National Weather Service has issued a high wind warning. High winds are approaching. Take shelter immediately. Repeat, the National Weather Service has issued a high wind warning. High winds are approaching. Take shelter immediately.”	
Flood/Water/Tsunami				
64	FWS-14018	River Level Warning	“Danger. River level rising.”	
65	FWS-14019	Flood Warning	“Attention: A Flood Warning has been issued for this area. Tune to your local radio station for details.”	
66	FWS-14020	Tsunami Warning	“Attention: A Tsunami Warning has been issued for this area. Tune to your local radio station for details.”	
Lightning				

#	FWS Name	Customer Name for DV	Description	Notes
67	FWS-14021	Lightning-Take shelter	“Dangerous lightning in the area. Take shelter immediately. Repeat, dangerous lightning in the area. Take shelter immediately.”	
Armed Person/ Intruder/ Dangerous Situation/Security Alert				
68	FWS-14022	Dangerous Situation on Campus	“Attention. Dangerous situation reported on campus. Take cover and stay in place until further information is provided. Repeat. Take cover and stay in place until further notice.”	
69	FWS-14023	Lockdown	“Warning. This is a lockdown alert, please proceed to a secure area.”	
70	FWS-14024	Armed Intruder on Campus	“Attention: An armed intruder has been seen on campus. Shelter in place immediately.”	
71	FWS-14025	Gunshots Reported on Campus	“Attention: Gunshots reported on campus. Shelter in place until further notice. Repeat.”	
Shelter in place until further notice.				
72	FWS-14026	Armed and Dangerous Person	“Attention! Armed and dangerous person alert. Seek a secure location.”	
73	FWS-14027	Lock Down	“Warning. This is an order to lock down. Proceed to a secure location. Repeat, this is an order to lock down. Proceed to a secure location and wait for further instructions.”	
Seek Shelter-Generic				
74	FWS-14028	Remain Sheltered	“Attention…Attention… Please remain in a sheltered area until further notice. Attention… Attention…Please remain in a sheltered area until further notice.”	
75	FWS-14029	Seek Shelter	“Attention! Seek shelter immediately. Stay indoors”	
Chemical Release/Hazardous Material				
76	FWS-14030	Hazardous Material Release-Go inside	“Attention. Life threatening situation. A hazardous material release has occurred. Go inside. Close all windows and doors. Stay until further notice.”	
77	FWS-14031	Hazardous Materials-Stay Inside	“Hazardous materials incident. Stay inside; close all doors and windows. Remain calm and wait for further instructions.”	
78	FWS-14032	Chemical Release-Seek Shelter	“Warning. Chemical release, take shelter indoors. Repeat. Chemical release, take shelter indoors.”	
79	FWS-14033	Chemical Release-Seek Shelter	“Attention! There has been a chemical release in the area. Go inside, close all windows and doors, turn off all heating and air conditioning. There has been a chemical release. Seek shelter now.”	
80	FWS-14034	Shelter In Place	“Attention: Authorities have issued an alert to Shelter in Place due to a chemical release in the area. Tune to your local radio station for details.”	

#	FWS Name	Customer Name for DV	Description	Notes
81	FWS-14035	Hazmat-Seek Shelter	“Attention. Attention. Hazardous condition. Seek shelter immediately and wait for the all clear.”	
Evacuate				
82	FWS-14036	Evacuate To Safe Area	“Attention! Evacuate to a safe area.”	
83	FWS-14037	Emergency Evacuate All Buildings	“Warning. This is an emergency evacuation order. Remain calm and evacuate all buildings; follow posted evacuation routes.”	
84	FWS-14038	Emergency Evacuate All Buildings-Designated Gathering Area	“Attention. Attention. An emergency has been declared. Please evacuate all buildings immediately. Proceed to the nearest exit and go to your designated gathering area.”	
85	FWS-14039	Evacuate Campus	“Warning. This is a campus evacuation order. All non-emergency personnel must leave campus immediately. Repeat, this is a campus evacuation order. Leave campus immediately.”	
86	FWS-14040	Evacuate-Higher Ground	“Attention: Evacuate, Evacuate, Evacuate, Move to high ground immediately. Tune to your local radio station for details.”	
87	FWS-14041	Mandatory Evacuation	“Warning. A mandatory evacuation has been issued effective immediately. Follow all emergency evacuation plans and evacuate at once. Personnel without transportation, stand by for additional information.”	
88	FWS-14042	Evacuate-Do not use Elevator	“Attention! An emergency has been reported. Please evacuate the building immediately. Do not use the elevator.”	
General Emergency/Other				
89	FWS-14043	Public Safety Emergency	"Public Safety Emergency. Please take shelter immediately and seek additional information from the campus emergency information network."	
90	FWS-14044	Emergency Pre-announcement	“Stand by for an important announcement from your local emergency agency.”	
91	FWS-14045	General Emergency	“Emergency. Please stand by for further instructions.”	
92	FWS-14046	Unsound Structures	“Warning. Warning. Do not attempt to enter unsound structures. Check your area for damage and avoid risk.”	
93	FWS-14047	Power Outage	“There is a building-wide power outage. Avoid using open flames or candles during this outage.”	
Public Address				
94	FWS-14048	Pre-Announcement for Live Broadcast-PA	“Attention! Attention! Stand by for an emergency announcement. Stand by for emergency information. Attention! Attention! Stand by for an emergency announcement. Stand by for emergency information.”	

#	FWS Name	Customer Name for DV	Description	Notes
Fire				
95	FWS-14049	Fire-Wild Land Fire	“Wild land fire approaching. Remain calm and evacuate campus.”	
96	FWS-14050	Fire Drill	“Attention this is a fire drill, report to your designated area.”	
97	FWS-14051	Fire Alert	“Attention this a fire alert, report to your designated area.”	
98	FWS-14052	Fire on Campus	“Fire on Campus-Please stand by for further instructions.”	
99	FWS-14053	Fire Alarm Test Start	“Fire alarms are currently being tested. No evacuation of the building is necessary.”	
100	FWS-14054	Fire Alarm Test Complete	“Fire alarm testing is complete. All alarms from this point forward should be treated as a real fire alarm and the building should be evacuated.”	
Test				
101	FWS-14055	Test	“This is a test of the emergency warning system. This is only a test.”	
102	FWS-14056	Test	"This is a test of the Campus Emergency Alert System. This is only a test. "	
103	FWS-14057	Test	“This is a test of the public warning system. This is only a test. If this had been an actual emergency, additional instructions would be broadcast. This is only a test.”	
104	FWS-14058	Test	“Your attention please: This is a test. This is a test of the emergency warning system. This is a test and only a test. There are no emergency situations in our area. Thank you.”	
105	FWS-14059	Test	“Attention: This is a test of the emergency warning system. This is only a test. If this were an actual emergency, you would be instructed to tune to your local radio station. This is only a test.”	
All Clear				
106	FWS-14060	All Clear	“Attention. This is an all clear, repeat all clear.”	
107	FWS-14061	All Clear	“Attention! All clear. All clear. Resume normal activities.”	
Closed				
108	FWS-14062	University Closed	“Attention: The University is now closed. Tune to local media for further information.”	
Armed Forces Songs				
109	FWS-14063	Army Song	“Army Song Band and Chorus”	
110	FWS-14064	Navy Song	“Anchors Aweigh”	
111	FWS-14065	Air Force	“The Air Force Song”	
112	FWS-14066	Marine Corp	“The Marines’ Hymn”	
113	FWS-14067	Coast Guard	“Semper Paratus”	

#	FWS Name	Customer Name for DV	Description	Notes
114	FWS-14068	Army Song	“The Army Goes Rolling Along”	
115	FWS-14069	National Anthem	“National Anthem” 80 sec.	
Armed Forces Sounds-Bugle Call				
116	FWS-14070	Adjutant’s Call	“Adjutant’s Call”	
117	FWS-14071	Assembly	“Assembly”	
118	FWS-14072	Attention	“Attention”	
119	FWS-14073	Army Song	“Call to Quarters”	
120	FWS-14074	Church Call	“Church Call”	
121	FWS-14075	Drill Call	“Drill Call”	
122	FWS-14076	First Call	“First Call”	
123	FWS-14077	First Sergeants Call	“First Sergeants Call”	
124	FWS-14078	Fix Bayonets	“First Bayonets”	
125	FWS-14079	Taps	“Taps”	
126	FWS-14080	Carry On	“Carry On”	
127	FWS-14081	Retreat	“Retreat”	
128	FWS-14082	Ground Attack Charge	“Ground Attack Charge”	
129	FWS-14083	Guard Mounting	“Guard Mounting”	
130	FWS-14084	Mail Call	“Mail Call”	
131	FWS-14085	Mess Call	“Mess Call”	
132	FWS-14086	Morning Colors	“Morning Colors”	
133	FWS-14087	Officer’s Call	“Officers Call”	
134	FWS-14088	Recall	“Recall”	
135	FWS-14089	Reveille	“Reveille”	
136	FWS-14090	Slow Retreat Bugle Call	“Slow Retreat Bugle Call”	
137	FWS-14091	Tatoo	“Tatoo”	
138	FWS-14092	To the Colors	“To the Colors”	
139	FWS-14093	Evening Slow Colors	“Evening Slow Colors”	
PAGASYS GEN II FILES				
140	FWS-14094	800Hz 1 sec on 1 sec off	800 Hz 1 sec on 1 sec off	
141	FWS-14095	Alt Tone Hi Low	Alt Tone Hi Low	
142	FWS-14096	Alternating Tone	Alternating Tone	
143	FWS-14097	Bell Continuous IMO General Alarm	Bell Continuous IMO General Alarm	
144	FWS-14098	Bell IMO PAPA BELL 7x SHORT	Bell IMO PAPA BELL 7x SHORT 1x Long	
145	FWS-14099	Bell Intermittent IMO Gas 1 sec ON 1 sec OFF	Bell Intermittent IMO Gas 1 sec ON 1 sec OFF	

#	FWS Name	Customer Name for DV	Description	Notes
146	FWS-14100	Chime Test Tone	Chime Test Tone	
147	FWS-14101	Continuous Tone PFEER Toxic Gas Alarm 1 kHz signal	Continuous Tone PFEER Toxic Gas Alarm 1 kHz signal	
148	FWS-14102	Duck and Cover	Duck and Cover	
149	FWS-14103	Emergency Shutdown	Emergency Shutdown	
150	FWS-14104	Gas Detected	Gas Detected	
151	FWS-14105	General Alarm 7 short 1 long 30 sec 1 khz	General Alarm 7 short 1 long 30 sec 1 khz	
152	FWS-14106	Intermittent Tone PFEER General Alarm 1 kHz signal 1 sec ON 1 sec OFF	Intermittent Tone PFEER General Alarm 1 kHz signal 1 sec ON 1 sec OFF	
153	FWS-14107	Low Freq 2 Tone	Low Freq 2 Tone	
154	FWS-14108	“Abandon Platform”	“Abandon Platform”	
155	FWS-14109	“All Clear”	“All Clear”	
156	FWS-14110	“Man, Over Board”	“Man, Over Board”	
157	FWS-14111	“This is a test of the Alarm System”	“This is a test of the Alarm System”	
158	FWS-14112	“This is a test of the General Alarm”	“This is a test of the General Alarm”	
159	FWS-14113	Pfeer PAPA	Pfeer PAPA	
160	FWS-14114	Pre-Announce Chime ASC Tri Tone Routine ALT1	Pre-Announce Chime ASC Tri Tone Routine ALT1	
161	FWS-14115	Process Alarm	Process Alarm	
162	FWS-14116	Process Shutdown	Process Shutdown	
163	FWS-14117	Process Classified	Process Classified	
Additions				
164	FWS-2599	Test End	“This has been a test of the emergency warning system. This was only a test.”	