FEDERAL SIGNAL
Safety and Security Systems

SE2000+ Series C

Serial to Ethernet Converter with VoIP

Description, Specifications, and Setup 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.

FEDERAL SIGNAL
Safety and Security Systems

2645 Federal Signal Drive
University Park, Illinois 60484

www.fedsig.com

Customer Support	800-548-7229 • +1 708 534-3400
Technical Support	800-524-3021 • +1 708 534-3400

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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. Listed below are important safety instructions and precautions you should follow.

Important Notice

Federal Signal reserves the right to make changes to devices and specifications detailed in the manual at any time to improve reliability, function, or design. The information in this manual has been carefully checked and is believed to be accurate; however, no responsibility is assumed for any inaccuracies.

Publications

Federal Signal recommends the following publications from the Federal Emergency Management Agency for assistance with planning an outdoor warning system:

- The "Outdoor Warning Guide" (CPG 1-17)
- "Civil Preparedness, Principles of Warning" (CPG 1-14)
- FEMA-REP-1, Appendix 3 (Nuclear Plant Guideline)
- FEMA-REP-10 (Nuclear Plant Guideline).

Planning

- If suitable warning equipment is not selected, the installation site for the siren is not selected properly, or the siren is not installed properly, it may not produce the intended optimum audible warning. Follow Federal Emergency Management Agency (FEMA) recommendations.
- If sirens are not activated in a timely manner when an emergency condition exists, they cannot provide the intended audible warning. It is imperative that knowledgeable people, who are provided with the necessary information, be available at all times to authorize the activation of the sirens.
- When sirens are used out of doors, people indoors may not be able to hear the warning signals. Separate warning devices or procedures may be needed to warn people indoors effectively.
- The sound output of sirens is capable of causing permanent hearing damage. To prevent excessive exposure, carefully plan siren placement, post warnings, and restrict access to areas near sirens. Review and comply with any local or state noise control ordinances as well as OSHA noise exposure regulations and guidelines.
- Activating the sirens may not result in people taking the desired actions if those to be warned are not properly trained about the meaning of siren sounds. Siren users should follow FEMA recommendations and instruct those to be warned of corrective actions to be taken.
- After installation, service, or maintenance, test the siren system to confirm that it is operating properly. Test the system regularly to confirm that it will be operational in an emergency.

- If future service and operating personnel do not have these instructions to refer to, the siren system may not provide the intended audible warning, and service personnel may be exposed to death, permanent hearing loss, or other bodily injury. File these instructions in a safe place and refer to them periodically. Give a copy of these instructions to recruits and trainees. Also give a copy to anyone who is going to service or repair the siren.

Installation and Service

- Electrocution or severe personal injury can occur when performing various installation and service functions such as making electrical connections, drilling holes, or lifting equipment. Therefore, only experienced and qualified electricians should install this product in compliance with national, state, and any other applicable codes, ordinances, and regulations. Perform all work under the direction of the installation or service crew safety foreman.
- The sound output of sirens is capable of causing permanent hearing damage. To prevent excessive exposure, carefully plan siren placement, post warnings, and restrict access to areas near the sirens. Sirens may be operated from remote control points. Whenever possible, disconnect all siren power, including batteries, before working near the siren.
- After installation or service, test the siren system to confirm that it is operating properly. Test the system regularly to confirm that it will be operational in an emergency.
- If future service personnel do not have these warnings and all other instructions shipped with the equipment to refer to, the siren system may not provide the intended audible warning, and service personnel may be exposed to death, permanent hearing loss, or other bodily injuries. File these instructions in a safe place and refer to them periodically. Give a copy of these instructions to recruits and trainees. Also give a copy to anyone who is going to service or repair the sirens.

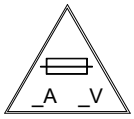
Operation

Failure to understand the capabilities and limitations of your siren system could result in permanent hearing loss, other serious injuries, or death to persons too close to the sirens when you activate them or to those you need to warn. Carefully read and thoroughly understand all safety notices in this manual and all operations-related items in all instruction manuals shipped with the equipment. Thoroughly discuss all contingency plans with those responsible for warning people in your community, company, or jurisdiction.

Ethernet Wiring

- Unless shielded or run in conduit, Ethernet wiring must be at least six feet from bare power wiring or lightning rods and associated wires, and at least six inches from other wire (for example, antenna wires, doorbell wires, wires from transformers to neon signs), steam or hot water pipes, and heating ducts.
- Do not place Ethernet wiring or connections in any conduit, outlet, or junction box containing high voltage electrical wiring.
- If using a cable gland, the gland must be UL listed. The Speaker has 3/4-inch and 1/2-inch NPT entry sizes.

Symbol Definition



Indicates to reduce the risk of fire, replace the fuse as marked.

Pay careful attention to the notice located on the equipment.

Hazard Classification

Federal Signal uses signal words to identify the following:

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

Read and understand the information contained in this manual before attempting to install or service the siren.

General Description

Introduction

The SE2000+ Series C (Serial to Ethernet Converter) allows serial devices to communicate over an Ethernet network and provide audio decoding of digitized audio sent over the network.

The converter is configured with its own fixed IP address and port number. When data packets are received over the Ethernet port addressed to the board's IP and port number, they are converted to serial data and sent out over the serial port. Likewise, any data coming into the serial port is converted to TCP/IP data packets and sent out over the Ethernet port to the Server's IP address. The unit also contains a digital to analog converter that allows specially configured incoming data packets to be converted to audio and then filtered and sent out over a 600-ohm audio port.

The SE2000 can incorporate up to two serial to Ethernet conversions and includes an auxiliary serial port and a MeterBus port for communicating with solar chargers. Ethernet port one is the default port. Ethernet port two is inactive and for future use or use in special requests.

The SE2000+ is designed to use the SmartMsg interoperable, redundant server platform.

Features

The SE2000+ has the following features:

- User-configurable IP addresses
- Digital to analog conversion allowing reception of Voice over Internet Protocol (VoIP)
- G.711 Audio Compression and Expansion for reduced noise in recovered audio
- Wide-input supply range allowing connection to a wide variety of power sources
- 600-ohm audio output for easy and universal audio interface
- Display LEDs to monitor Power, CPU, Network, Talking, TXD and RXD
- Integrated web server allows users to configure the SE2000+ from standard web browsers
- Commander® and CommanderOne® HMI software provide configuration, control, activation, and notification options
- Integral local RS232 port for local control, configuration, and programming
- Integral password protection and IP address firewall
- IP QOS prioritization using IP ToS Precedence (RFC791) or DSCP (RFC2474)

Specifications

Table 1 Specifications

Electrical	
Input Voltage	10-95 Vdc
Current Draw 1 Ethernet Port 2 Ethernet Ports	< 185 or 310 mA at 5 V < 100 mA at 12 V, < 50 mA at 24 V, < 25 mA at 48 V < 160 mA at 12 V, < 80 mA at 24 V,< 40 mA at 48 V
Serial Ports	RS232C, N, 8, 1 baud rate configurable
MeterBus Port	MorningStar® MeterBus serial protocol
Ethernet Ports	IEEE 802.3, 10BASE-T connection
600 ohm Audio Output Port	
Protection	MOV and transorb surge protection
Audio Output Level	Adjustable from 0.30 to 3.00 V_{P-P}, (-17 dB to +2.7 dB) into 600 ohms
Operating Temperature range	-22°F to 149°F (-30°C to +65°C)
Humidity	0-95% non-condensing
Dimensions (H x W x L)	2 x 4 x 6.5 inches (5.08 x 10.16 x 16.51 cm)
Weight	< 2 lb (0.9 kg)

Table 2 Connectors

JP1	JTAG Emulation Port
JP1	Relay Output Normally open contacts, 2 A, 220 Vac, 30 Vdc
JP2	600-Ohm Audio Output Port Balanced line output
JP3	Option #2 jumper
JP4	Option #1 jumper
JP5	Default jumper Default settings in firmware
JP6	FLASH Programming Port 1 – 2 – TX Data, standard RS232 levels 3 – RX Data, standard RS232 levels 4 – Ground 5 – Serial Clock input for FLASH programming, standard RS232 levels 6 – Processor Reset Not line, used in programming FLASH, 10 K pull-up
JP7	Auxiliary RS232/Serial Port 1 – +12 V in 2 – Com #3 TX Data, standard RS232 levels 3 – Com #3 RX Data, standard RS232 levels 4 – Ground, 0.5 Amps max current capacity 5 – Com #2 TX Data, standard RS232 levels 6 – Com #2 RX Data, standard RS232 levels 7 – Ground, 0.5 Amps max current capacity 8 – +12 V in

JP8	RS232/Serial Port 1 – +12 V in 2 – 3 – 4 – Ground, 0.5 Amps max current capacity 5 – Com #1 TX Data, standard RS232 levels 6 – Com #1 RX Data, standard RS232 levels 7 – Ground, 0.5 Amps max current capacity 8 – +12 V in
JP9	Ethernet Port # 1 Default jumper Default settings in firmware Used for testing purposes
JP10	Ethernet Port # 2 Default jumper Default settings in firmware Used for testing purposes
JP11	MorningStar® MeterBus Port Optically Isolated, Single wire 1 – (+) Power input 2 – (+) Power input 3 – GND 4 – TX Data / RX Data 5 – GND 6 – GND
JP12	Solar Regulator Serial Port 1 – 2 – Com #3 TXD into JP7 3 – Com #3 RXD out from JP7 4 – (+5 V) serial port phantom power 5 – GND 6 – 7 – (-5 V) serial port phantom power 8 – 9 –
JP13	10-95 Vdc Power Input 1 – (-)
JP14	Test Mode Jumper
M1	Ethernet Network Port #1 1 & 2 – Transmit data pair, balanced line 3 & 6 – Receive data pair, balanced line 4, 5, 7, 8 – AC coupled ground
M2	Ethernet Network Port #2 1 & 2 – Transmit data pair, balanced line 3 & 6 – Receive data pair, balanced line 4, 5, 7, 8 – AC coupled ground

Table 3 Relay Output

Normally Open Contacts, Rating	2 A, 220 Vac, 30 Vdc

Table 4 Indicators

D1	Power indicator, green
D2	CPU Heartbeat indicator, green
D7	Receive data indicator, yellow
D8	Transmit data indicator, red
D9	Relay output indicator, red
D12	Ethernet port #1 Network connection indicator, green
D13	Ethernet port #1 Talk indicator, red
D15	Ethernet port #1 Network connection indicator, green
D16	Ethernet port #1 Talk indicator, red

Table 5 Controls

R1	600-ohm audio output level set

Table 6 Network Information

Protocols Supported	TCP/IP (only supported with SmartMsg servers) • HTTP • UDP (for future use) • XML (for future use) • XMPP (for future use)
IP Ports Used	16887 (SmartMsg TCP/IP) 80 (HTTP) 3100 (UDP and TCP/IP Serial over IP – not currently using) 3101 (UDP and TCP/IP Voice over IP – not currently using)
IP Address	User selectable
ToS/DSCP (Type of Service)	ToS (RFC 791) values 0-7 are used DSCP (RFC 2474) values 0-63 are used
Bandwidth Requirements	Voice over IP: 150 K bps/connection Siren Activation: 450 bps/connection Siren Poll Response: 593 bps/connection

Testing and Alignment

NOTICE

SYSTEM DAMAGE POSSIBLE: This device is to be serviced or maintained by qualified personnel familiar with the controls and power sources used and in conjunction with the authorities having jurisdiction.

Use this procedure to test the SE2000+ Serial to Ethernet converter to verify that it is operating properly and set to the appropriate audio output level.

Apply Power and Check Voltages

To apply power and check the voltages:

1. Apply power to the Serial to Ethernet converter from 12 Volt bench supply.
2. Using TP2 as reference ground:
   - Confirm 4.83 to 5.20 V on TP5.
   - Confirm 3.19 to 3.41 V on TP6.
   - Confirm 4.5 to 5.50 V on JP12 pin 4.
   - Confirm -4.5 to -5.50 V on JP12 pin 7.
   - Confirm that D1, the POWER LED, is on.

Testing Serial Port Com #1 and Programming the Unit

These steps are for authorized service personnel and require appropriate software and cables to complete. Contact Technical Support. See “Getting Service” on page 24.

To flash firmware to the SE2000+ board:

1. Plug the FLASH serial cable into a computer and JP6 on the unit.
2. Start the Windows® based FLASHing program and then follow the instruction to update the software of the unit.

This procedure confirms that the FLASH serial port is functioning.

Confirm Micro-Controller

Confirm that the CPU heartbeat LED (D2) is flashing.

600-Ohm Audio Output (JP2)

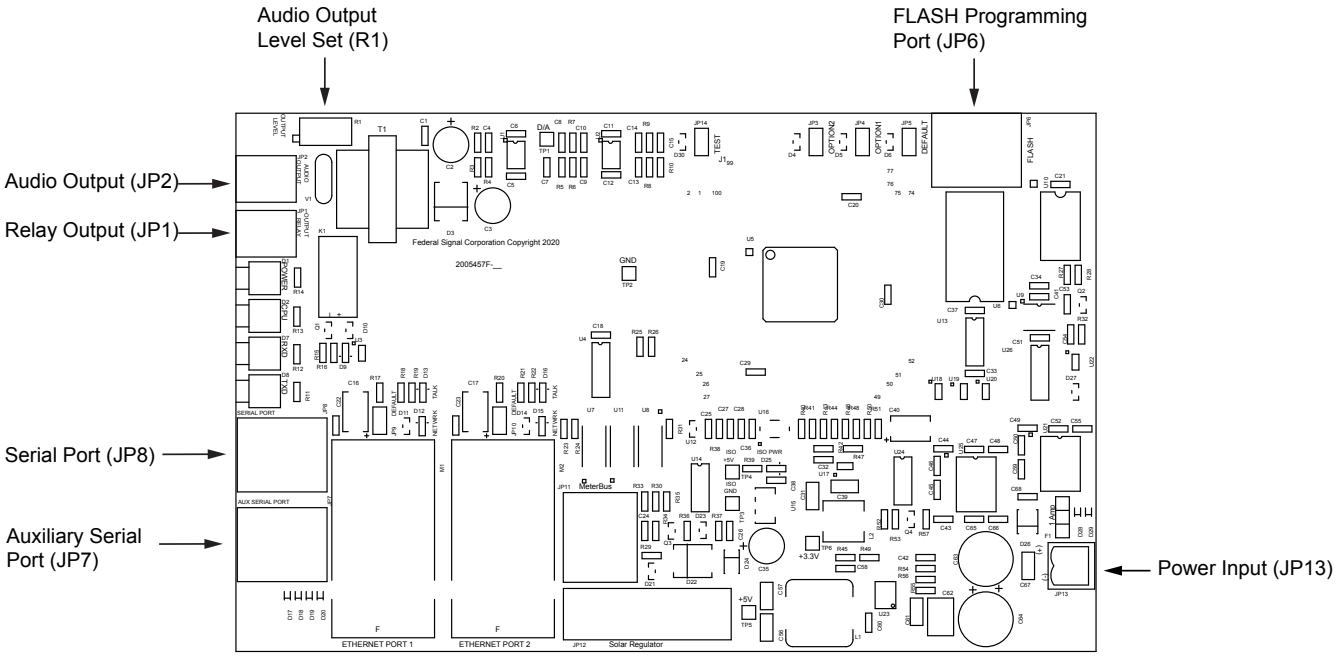
Power the unit off and then back on. On power-up, the unit will send from one serial port to the other and then back again. If the data makes the full round trip, the serial ports are working. If successful, the unit generates a 1 kHz tone out of the 600-ohm port.

Monitor the output of the 600-ohm port and adjust pot R1 until this level is 354 mV_{RMS}, +/-10%.

Input and Output Connections

The following figure identifies the input and output connections on the control board.

Figure 1 SE2000+ Control Board



Configuring the SE2000+ Series C Using the Web Interface

Ethernet port one is the default port. Ethernet port two is inactive and for future use or use in special requests.

The following section describes how to activate from a built-in web server that allows the SE2000+ to be controlled and configured over a LAN using standard web browsers.

The System Administrator identifies the server IP address, Subnet Mask, Default Gateway, and the IP addresses for all SE2000+ devices.

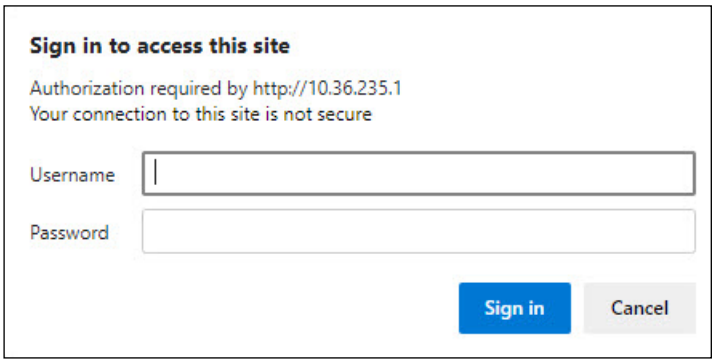
If the configuration details are lost or changed incorrectly, and it becomes necessary to restore the SE2000+ to factory default settings, see “Restoring Configuration to Factory Defaults” on page 22.

Logging on to the Web Browser

To configure the network interface through the web browser:

1. Type the IP address into your Chrome®, Edge®, or Firefox® browser to navigate to the SE2000+ web page.

   The Login window appears.



2. Enter the Username:

   `admin (or pre-configured Username)`

   NOTE: If you change the Username or Password, record them.

3. Enter the Password:

   `fedsig (or pre-configured Password)`

   NOTE: The password is case sensitive.

4. Click Sign in.

The Home page appears.

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 Help screen from any web page.

Field	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 text field is used to describe the RTU.
SmartMsg Server	The RTU's assigned default SmartMsg server.
SmartMsg Failover List	The RTU's SmartMsg Failover List. This field will be blank until the unit successfully connects to the server and retrieves the failover list.
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.

5. Record the MAC and IP address 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.

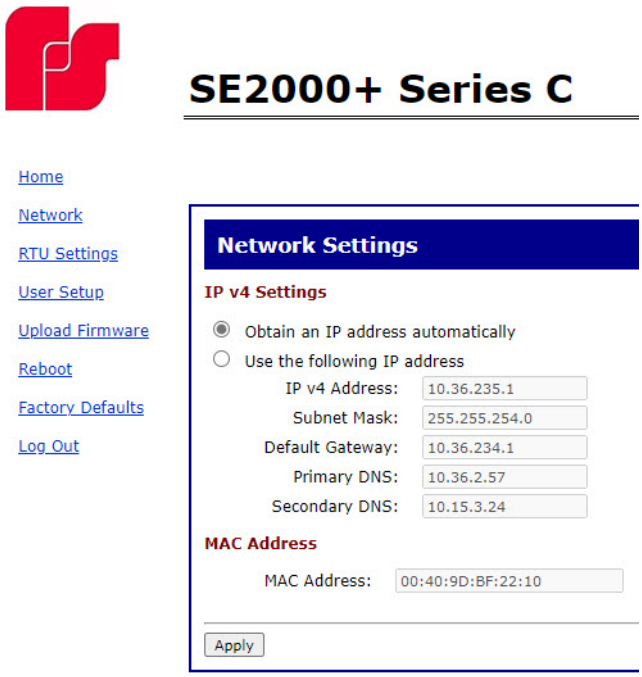
You cannot leave the Default Gateway blank when a static IP address is assigned. A valid IP address is required. Use the server's IP address as the gateway if making a direct Ethernet connection to the device.

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 for assistance with the discovery tool. See "Getting Service" on page 24.

To change the Network Settings of the SE2000+:

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.

Fields	Description
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 device.
4. Click Apply.
5. Reboot the device for the IP address change to take effect.

NOTE: 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 SE2000+ and the configuration computer are placed on the live network together. Reconfigure the configuration computer's IP settings before returning to the live network. You now need to log on to the web page with the new IP address after the address is changed.

NOTE: You can use DHCP to simplify SE2000+ deployment, but MAC address discovery tools may not traverse routers, and maintenance may be more difficult.

Configuring the RTU Settings

Use the RTU Settings page to configure the device's RTU Number and Description. All devices in the system must have a unique RTU Number.

SmartMsg

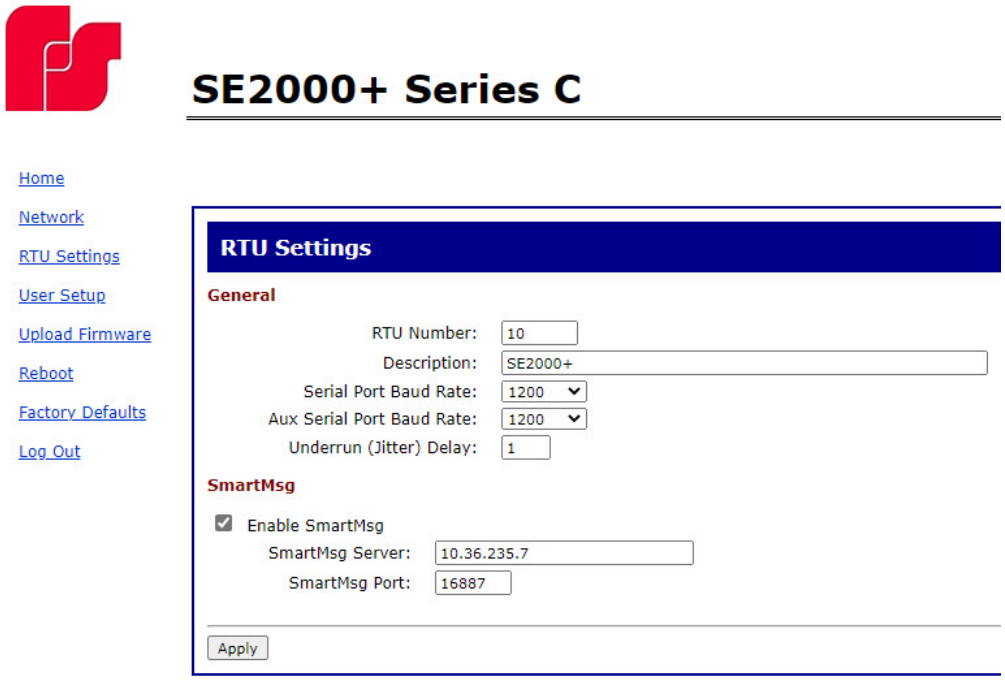
Use the SmartMsg check box to enable or disable the SmartMsg network interface. To use the interface, check the box and enter the IP address of the SmartMsg server. The port is preconfigured to 16887. When applied, the RTU attempts to log on to the SmartMsg server. If a server connection is lost for 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.

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.

To change the configure the RTU Settings of the SE2000+:

1. Select RTU Settings.

   The RTU Settings page appears.



Field	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	This 48-character text field is used 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.
Serial Port Baud Rate	Use to set the baud rate of Serial Port JP8.
Aux Serial Port Baud Rate	Use to set the baud rate of Aux Serial Port JP7.
Underrun (Jitter) Delay	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 underrun 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 the 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 to eliminate jitter.

Field	Description
SmartMsg	
Enable SmartMsg	Check the Enable SmartMsg box 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.
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. Select the Serial Port Baud Rate.
5. Select the Aux Serial Port Baud Rate.
6. Type the Underrun (Jitter) Delay.
7. Click Enable SmartMsg to enable the SmartMsg interface.
8. Click Apply.
9. Reboot the device for the IP address change to take effect.

Configuring the User Setup

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

Enter up to five usernames. Each username requires a password and a security privilege.

Three privilege levels are available to restrict access to configuration screens:

- The View Only privilege enables the user to view the Home screen only.
- The View and Configuration privilege can configure all settings except User Setup.
- The Full Admin privilege has unrestricted access to all configuration screens.

The default Admin username is admin. The default password is fedsig. The Admin user cannot be deleted, and its security privilege cannot be changed. The Admin user's username and password can be changed.

User 1 - User 4 are optional users that have configurable names, passwords, and privileges.

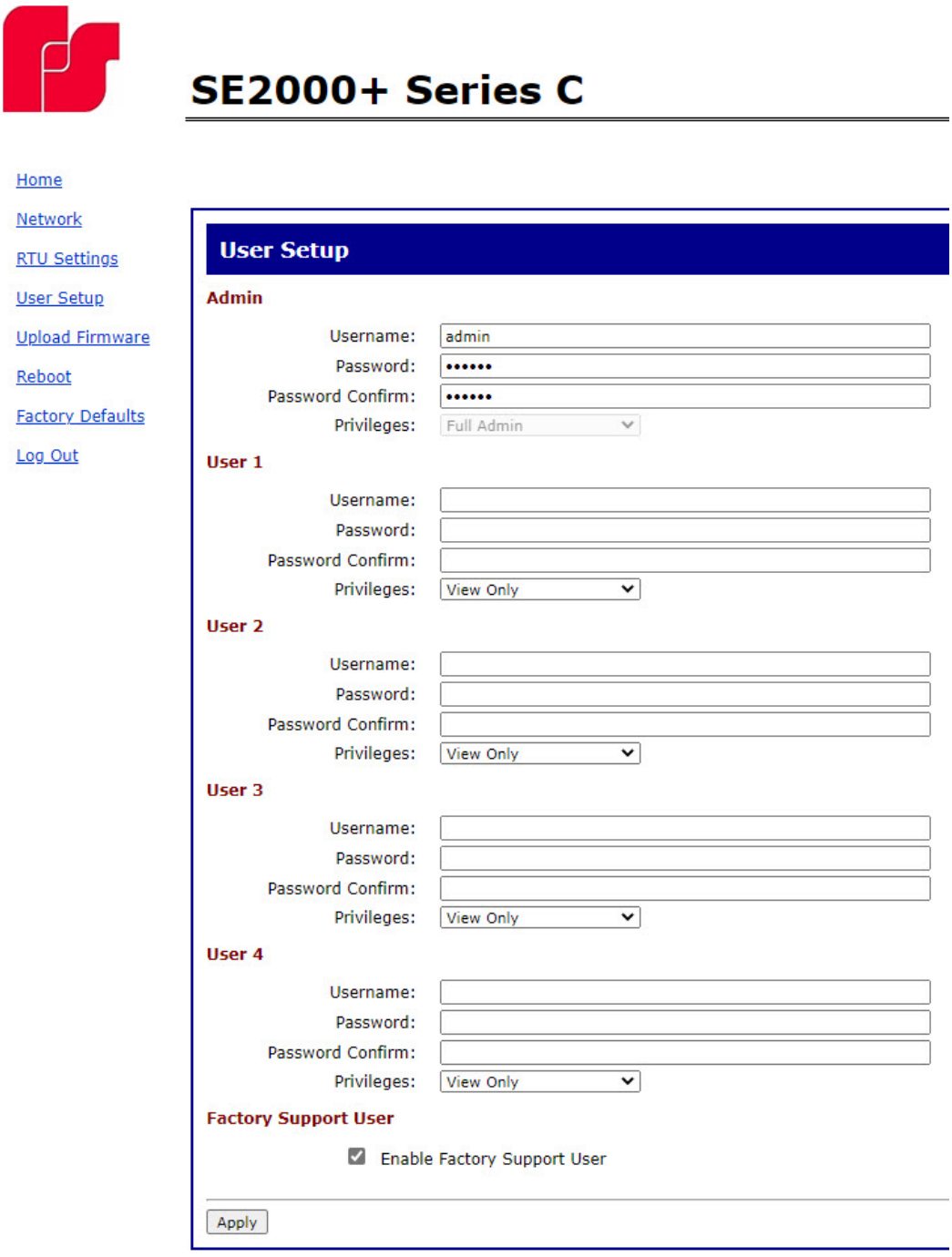
Enable Factory Support User: When enabled, a hidden static user and password is enabled for Federal Signal Technical Support. This user can be disabled.

After changes are made, click the Apply button. Reboot the RTU from the Reboot web page to load the changes into the RTU.

To create users and enable the factory support user:

1. Select User Setup.

   The User Setup page appears.



Field	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.

Field	Description
Privileges	Three privilege levels are available to restrict access to configuration screens: • The View Only privilege enables the user to view the Home screen only. • The View and Configuration privilege can configure all settings except User Setup. • The Full Admin privilege has unrestricted access to all configuration screens. The default Admin username is admin. The default password is fedsig. The Admin user cannot be deleted, and its security privilege cannot be changed. The Admin user's username and password can be changed.
Enable Factory Support User	Check the box to enable the factory support 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 User 1 through User 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.

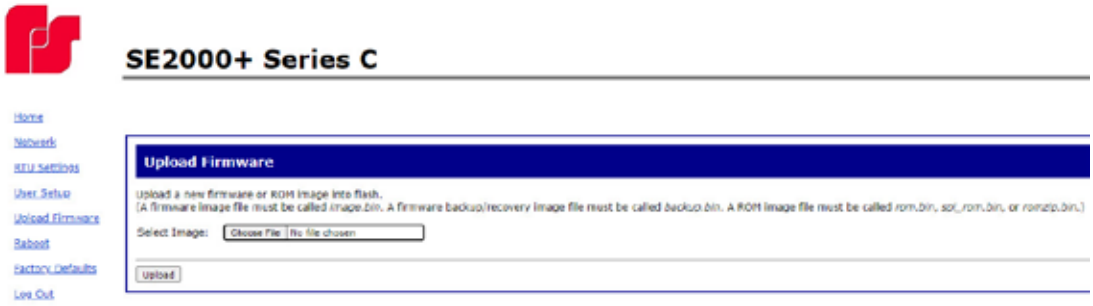
Uploading Firmware

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.



Field	Description
Select Image	Click Choose File to open a dialog box. Select the new image.bin file to upload.
Upload	Upload the new image.bin file by clicking the Upload button. You must reboot for changes to take effect.

2. Click Choose File 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 and reboot process.

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

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.

Restoring Configuration to Factory Defaults

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

The RTU must reboot to begin using the new settings. Use the Reboot web page to reboot the RTU.

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 the configuration to factory defaults:

1. Select Factory Defaults.

   The Factory Defaults page appears.

Field	Description
Include Network Parameters	Check the box 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.
Apply	Restores 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.

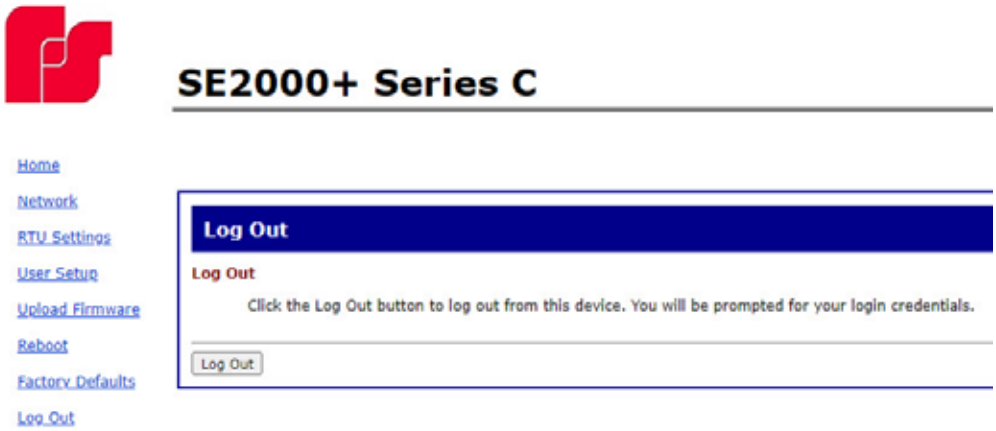
Logging Out of the Web Interface

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.

Getting Service

If you are experiencing any difficulties, contact Federal Signal Customer Support at 800-548-7229 or 708-534-3400 extension 7511 or Technical Support at 800-524-3021 or 708-534-3400 extension 7329 or through e-mail at techsupport@fedsig.com. For instruction manuals and information on related products, visit http://www.fedsig.com.