# FEDERAL SIGNAL
## Safety and Security Systems

# Informer™ Series
## *Tone Alert Receiver*

You must program the Informer TAR with I-SW software version 3.6 or greater.

# *Installation and Operation Manual*

# Limited Warranty

The Alerting and Notification Systems Division of **Federal Signal Corporation (Federal)** warrants each new product to be free from defects in material and workmanship, under normal use and service, for a period of two years on parts replacement and factory-performed labor (one year for Informer, EAS, and Federal software products) from the date of delivery to the first user-purchaser. Federal warrants every 2001-130, Equinox, Eclipse8 and 508-128 Siren (Top of pole only) to be free from defects in material, per our standard warranty, under normal use and service for a period of five years on parts replacement.

During this warranty period, the obligation of Federal is limited to repairing or replacing, as Federal may elect, any part or parts of such product which after examination by Federal, are determined to be defective in material and/or workmanship.

Federal will provide warranty for any unit, which is delivered, transported prepaid, to the Federal factory or designated authorized warranty service center for examination and such examination reveals a defect in material and/or workmanship.

This warranty does not cover travel expenses, the cost of specialized equipment for gaining access to the product, or labor charges for removal and re-installation of the product. The Federal Signal Corporation warranty shall not apply to components or accessories that have a separate warranty by the original manufacturer, such as, but not limited to batteries.

Federal will provide on-site warranty service during the first 60-days after the completion of the installation, when Federal has provided a turn-key installation including optimization and/or commissioning services.

This warranty does not extend to any unit which has been subjected to abuse, misuse, improper installation or which has been inadequately maintained, nor to units which have problems related to service or modification at any facility other than the Federal factory or authorized warranty service centers. Moreover, Federal shall have no liability with respect to defects arising in Products through any cause other than ordinary use (such as, for example, accident, fire, lightning, water damage, or other remaining acts of God).

THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL FEDERAL BE LIABLE FOR ANY LOSS OF PROFITS OR ANY INDIRECT OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY SUCH DEFECT IN MATERIAL WORKMANSHIP.

**FEDERAL SIGNAL**
Safety and Security Systems

2645 Federal Signal Drive, University Park, IL 60484-3167
Phone: (800) 524-3021
Website: http://www.alertnotification.net

# Contents

## Tables

## Figures

# Safety Message

**⚠ 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 electric codes and will follow these guidelines as well as local codes.*

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

## Read and Understand

- Read and understand all instructions before installing or operating this product.

- Adhere to all warnings and operating instructions.

- Proper installation, placement, and testing are required to ensure the unit is able to perform as intended. Perform installation, placement, and testing after the installer has read and understood this manual.

## Installation Considerations

- Do not use near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, rain, or similar environments.

- Mount to a wall only as specified in this manual.

- Place away from heat sources; such as, radiators, heat registers, stoves, or other accessories that produce heat.

- Do not exceed maximum accessory relay output rating of 30 VDC, 5 Amps.

- Connect the Informer TAR to a 9 VDC, 500 mA., Class 2 wall transformer as provided with the unit. Contact your authorized service center if a replacement is required.

- Route power supply cords so they are not likely to be walked on or pinched by items places upon or against them, pay particular attention to cords at plugs.

- Locate an outdoor antenna away from power lines.

- If an outside antenna is connected to the receiver, make sure the antenna system is grounded in order to provide protection against voltage surges and built up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to the antenna-discharge unit, size of

grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

## Notices

- Take care so that objects do not fall and liquids are not spilled into the enclosure through openings.

- Keep the Informer TAR at least six inches away from a listener's ears whenever the Informer TAR Power LED is on or blinking. The sound output of the Informer TAR may cause hearing damage if the Informer TAR is activated too close to the user.

- Clean with a non-abrasive cleaner and a damp cloth. Do not apply solvents directly onto the Informer TAR.

- Retain instructions for future reference.

- Service the Informer TAR by qualified service personnel when the following has occurred to the Informer TAR:

  - Power supply cord has been damaged

  - Objects haven fallen onto, or liquid has been spilled into

  - Does not appear to operate normally

  - Exhibits a marked change in performance

  - Exposed to rain

  - Has been dropped

  - Enclosure is damaged

## Servicing

**⚠ CAUTION**

*To reduce the risk of electric shock, do not perform any servicing other than what is contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel. Always test the Informer TAR before using after repairs have been made.*

## Symbol Definition
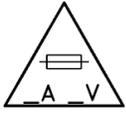


Indicates to reduce the risk of fire, replace fuse as marked.

# General Description

## Introduction to the Informer TAR

The Informer Tone Alert Receiver (TAR) is an emergency alerting device available in VHF and UHF bands from 150-170 MHz and 450-470 MHz. It is also capable of decoding multiple formats (such as, single-tone, two-tone, DTMF and optionally EAS or Federal Digital) at the same time. These features enable the Informer to be easily integrated into virtually any new or existing warning system.

The Informer TAR is a robust radio receiver with a loud speaker output designed specifically for warning applications. You can wall mount the unit or have it sit on a desktop. The Informer TAR comes with an attached antenna that you can remove to connect to an outside antenna. The Informer TAR has a built-in battery and charger to provide reliable operation even in the event of an AC power failure.

You can pre-program the Informer TAR with up to four separate warning tones plus a channel monitor function for live PA announcements. Two programmable relay outputs and a 600 Ohm audio output are available. You can use these outputs to control other equipment such as to tie into external PA systems.

You can program up to four separate RF channels into the Informer TAR. The channels are easily selected from the built in membrane keypad. Each of the RF frequencies must be within the allowable frequency spread for the RF band being used. Refer to the "Specifications" section on page 7.

The Informer is completely programmable through a built-in RS232 serial port from an easy to use Windows®-based software program. All data is stored in non-volatile memory. Updates to the application software and user specific configuration data is through the serial port.

The Informer series receivers meet all requirements defined by the Federal Emergency Management Agency (FEMA) for the CSEPP programs.

## Features

- Available in two (2) frequencies bands: VHF 150-170 MHz and UHF 450-470 MHz

- Long life rechargeable battery with built-in charger

- Wide temperature operating range

- Excellent RF sensitivity and selectivity

- Fully programmable RF—No tuning required

- Clean, low distortion of recovered audio

- Loud +80 dBA output at 10 feet

- Signal to Noise based squelch circuit, does not open receiver in high radio noise environments that is, near computers etc.

- Programmable for wide or narrow band.

- Programmable RF, Single Tone, Two-Tone, DTMF, CTCSS, and CDCSS (DPL) decoding

- Re-programmable over RS232 port

- Volume control, monitor and reset buttons with diagnostic LEDs

- Ramp-up tones for Warble, Steady, Beep, and Hi-Lo (with firmware 2.3.0.1 or later)

## Optional Features

- Programmable MSK decoder compatible with Federal's Commander Software.

- Programmable EAS decoder for decoding NOAA radio SAME code alerts.

- 600 Ohm audio output and two (2) SPDT relay outputs.

- Windows®-based programming software

**NOTE**: The MSK and EAS decoders are not available simultaneously in the same unit. All other options can be used together.

## Informer TAR Front Panel Layout

BNC Antenna Connector

Speaker

Keypad

## Rear View Input/Output Definitions

Power Input

Audio Output Level Adjustment (Optional)

BNC Antenna Connector

Not Used

600 ohm Audio and Relay Outputs

Squelch

Wall Mount Keyholes (2)

Programming Port

Battery Switch
←OFF    ON→
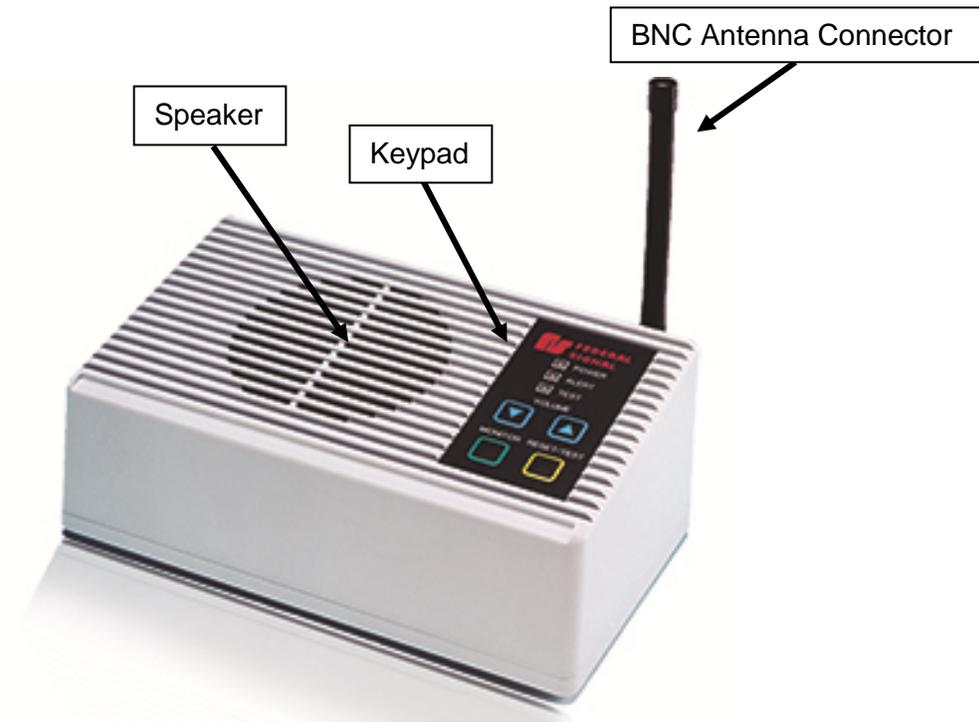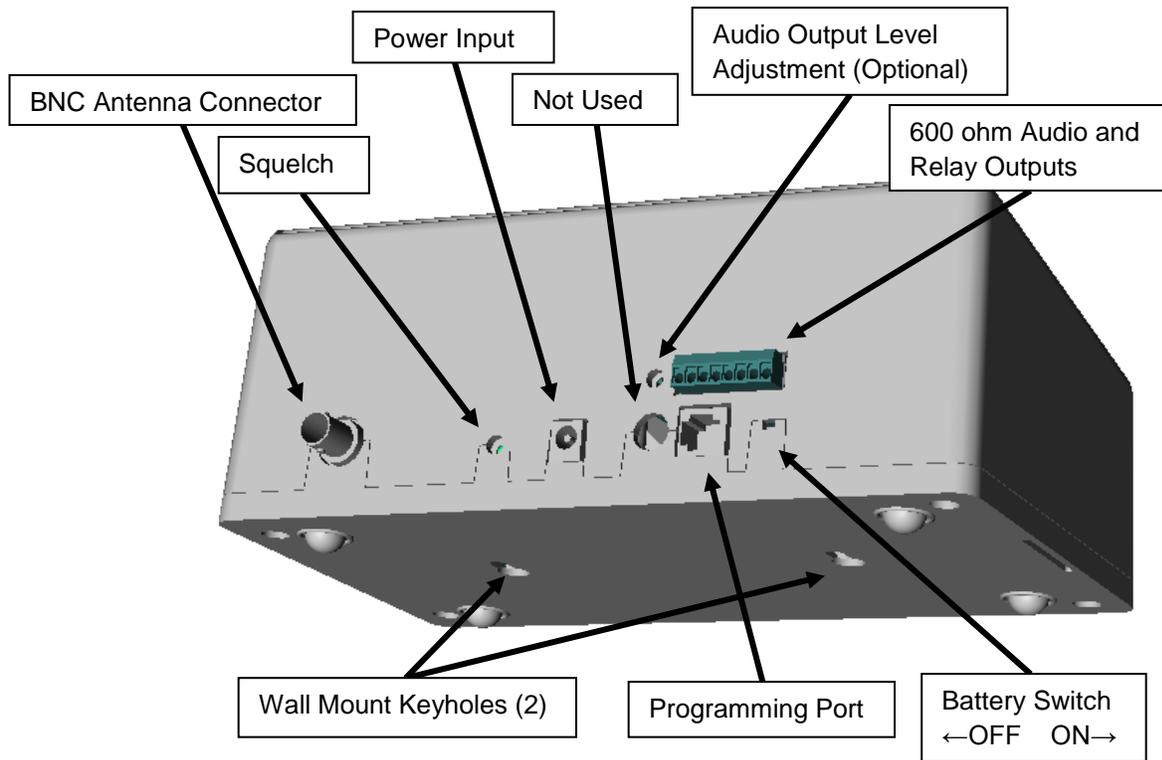
# Specifications

### Table 1 Electrical

| | |
|---|---|
| Antenna Impedance | 50 Ohms |
| Antenna Type | Rubber duck with swivel BNC connector |
| Sensitivity – 12 dB SINAD | ≤ .35 μ for 12 dB SINAD per EIA-603, part 4.1.4 |
| Decode Sensitivity | ≤ 0.5 μV |
| Operating Current | 100 mA. Standby<br><400 mA. Max |
| Battery Capacity | Internal sealed lead-acid, capable of running for six (6) hours in standby mode with fifteen (15) minutes of each hour generating siren beep audio at rated audio output. (Based on Pulsed Tone audio.) Low voltage cutoff set to 5.38 VDC +/- 0.1 VDC. |
| Operating Voltage | 8 to 15 VDC, Unit supplied with a 9 VDC, 500 mA power supply with a 120 VAC, 60 Hz primary Center terminal is positive (+) on the DC connector |
| Hum and Noise | -37 dB when unsquelched,<br>-57 dB squelched relative to full quieting signal with 1 kHz tone at 60% rated system deviation at rated audio out per EIA-603, part 4.1.11 |
| Audio Output | 1 Watt into 8 Ohms |
| Audio Distortion | < 5% at 85 dB output, with1 kHz tone |
| Audio Sensitivity | ≤ 30% of rated system deviation, minimum deviation to produce 85 dB audio output level with volume control at full per EIA-603, part 4.1.1.7 |

### Table 2 Bandwidth Receivers 25/30 kHz

| Frequency Range (MHz) | 150 – 170 | 450 – 470 |
|---|---|---|
| Intermodulation Rejection per EIA-603, part 4.1.9 | ≥ -75 | ≥ -70 |
| Adjacent Channel Selectivity per EIA-603, part 4.1.6 | ≥ -75 | ≥ -70 |
| Spurious Response and Image Rejection (dBm) per EIA-603, part 4.1.8 | ≥ -80 | ≥ -75 |
| Frequency spread allowable without re-tuning (MHz) | 150 – 170 | 450 – 470 |

**Table 3 Bandwidth Receivers 12.5 kHz**

| Frequency Range (MHz) | 150 – 170 | 450 – 470 |
|---|---|---|
| Intermodulation Rejection per EIA-603, part 4.1.9 | ≥ -75 | ≥ -70 |
| Adjacent Channel Selectivity per EIA-603, part 4.1.6 | ≥ -70 | ≥ -65 |
| Spurious Response and Image Rejection (dBm) per EIA-603, part 4.1.8 | ≥ -75 | ≥ -70 |
| Frequency spread allowable without re-tuning (MHz) | 150 – 170 | 450 – 470 |

**Table 4 Acoustic**

| | |
|---|---|
| Message Audio Output | Message Audio variable from 50 dBA to 85 dBA at 10 feet from the speaker on axis User cannot disable Alert or message audio. |
| Alert Beep Audio | **Steady Tone** = 1000 Hz **Pulsing Tone** = 1000 Hz pulsed 100 ms ON, 100 ms OFF **Alternating Tone** (Hi-Lo) = Alternating between 1000 Hz and 500 Hz tones. Each pulse lasts 100 ms. **Sweeping Tone** (Warble) = 500 Hz rapidly ramped to 1000 Hz Overall lengths are programmable. Alert Beep Audio fixed at 85 dBA min. (not adjustable) at 10 feet from speaker. Firmware 2.3.0.1 or later provides ramp-up of tones. |

**Table 5 Dual Relay and 600 Ohm Audio**

| Specifications | Two SPDT Relay Outputs, 5 Amps at 30 VDC |
|---|---|

You can program relay outputs to cycle on and off, or come on continuously with the on-time, off-time, and total-time being programmable.

Once activated, you can program the relay outputs to be reset manually. Reset after a programmable number of seconds or reset after a programmable number seconds after the carrier drops.

The 600 Ohm audio output responds as the speaker does, coming on with the speaker and being reset or shutting off with the speaker. Its output level is adjustable from 0 to 2.5 Vp-p into 600 Ohms with 1 kHz tone at 60% rated system deviation.

**Table 6 Signaling Formats**

| | |
|---|---|
| Number of codes | Up to six (6) programmable activation codes maximum |
| Two-Tone Sequential and Single Tone | 300 Hz - 3000 Hz for 25/30 kHz receivers<br>300 Hz - 2300 Hz for 12.5 kHz receivers<br>tolerance +/-1.5%<br>Minimum tone spacing = 5%<br>Minimum "A" tone length = .5 sec<br>Minimum "B" tone length = .25 sec<br>8 sec. maximum for all tones |
| Decode Sensitivity DTMF | </=20 dB SINAD<br>1 - 12 digits maximum,<br>minimum character length = 50 ms. (35 ms as special)<br>Characters plus inter-character spacing not to exceed 1000 ms. |
| Decode Sensitivity with Optional MSK Decoder | </= 20 dB SINAD<br>1200,N,8,1, Synchronous,<br>1200 Hz mark tone<br>1800 Hz space tone. |
| EAS Decode Sensitivity with Optional EAS/SAME Decoder | </= 20 dB SINAD.<br>520.83 (6250/12) bits per second, 2083.3 Hz Mark tone.<br>1562.5 Hz Space tone, no Start, Stop, or Parity bits.<br>7 bit ASCII, + 8th null bit (either 1 or 0), LSB sent first |
| CTCSS/CDCSS (PL) Decode Sensitivity | </= 12 dB SINAD<br>You can program a different PL code for each RF frequency.<br>Decodes with Two-Tone codes >/= 400 Hz only.<br>Tone Frequency Range 36.6 to 254.1 Hz<br>Tone Accuracy > .05 Hz<br>Tone Decode Bandwidth +/- 1.1%<br>Digital, Golay (23,12) 23 bit digital word<br>Digital Data Rate 134.4 Hz nominal<br>Decode Turn on Time < 250 ms.<br>Decode Turn off Time < 1.2 s.<br>Number of codes 60 - Tone, 83 Digital |

**Table 7 Environmental**

| | |
|---|---|
| Operating temp range | -30 to +60°C |
| Humidity range | 0 - 98%, non-condensing |

**Table 8 Physical**

| Size | 3.325" x 8.69"x 5.0" (H x W x D) |
|------|----------------------------------|
| Weight | 2.5 lbs. |
| Color | PANTONE 421U |
| Material | Textured ABS Plastic |

| EMI/RFI | Complies with FCC Title, Part 15 |
|---------|----------------------------------|
| Agency Compliance | Complies with UL 60065 |

# Installation Instructions

**⚠ WARNING**

> ***Read and adhere to all safety warnings in this manual before installing the Informer TAR.***
>
> ***To prevent injury, this apparatus must be securely attached to the wall in accordance with the installation instructions.***

## Determine a Suitable Location

When choosing a location for the Informer TAR, consider the following criteria:

1. Place as far as possible from electrically noisy electronic devices to avoid interference. Examples of noisy devices may include the following: microwave ovens, motor driven devices, light ballasts, and electrical switching devices.

2. Conductive building materials can block radio waves from reaching the Informer TAR. In some areas, you may require a larger antenna or an external antenna that provides more signal. You can monitor radio reception by holding down the MONITOR button until audio is heard from the speaker (if the monitor function was programmed into the Informer TAR). Monitor the clarity of speech to ensure it is clear and intelligible and does not cut in and out. Activate the unit from the Informer TAR control station to verify it is programmed correctly and is receiving the control signals.

3. Position to keep the unit at least six inches away from the listener's ears to avoid potential hearing damage.

4. Place in an area where you can hear the speaker when the unit is activated. You can check the level of the warning tone by holding down the MONITOR and RESET buttons together until you can hear the Alert beeps. It the coverage area is large, you may require multiple TARs or external amplifiers and speakers to provide adequate warning.

5. Do not use near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool, rain or similar environments.

6. Place within six feet of an AC power receptacle to eliminate the need for an extension cord.

7. Place where it will not be inadvertently covered or moved. A permanent wall mounting is recommended after you have found a suitable location.

# Wall Mounting

Wall mounting is the preferred mounting method for the Informer TAR. Before mounting the unit, determine a suitable location considering the criteria listed previous. The Informer TAR has two keyholes located on the bottom of the unit that accepts #8 screws. Place the mounting screws horizontally level, approximately 6 inches above eye level and four (4) inches apart on center. Ensure the screws are placed into material that can adequately support the weight of the Informer TAR. Use a #8 wall anchor when mounting to drywall. Ensure that the screws are tightened sufficiently to securely fasten the Informer against the wall.

**Figure 1 Informer TAR Rear View**
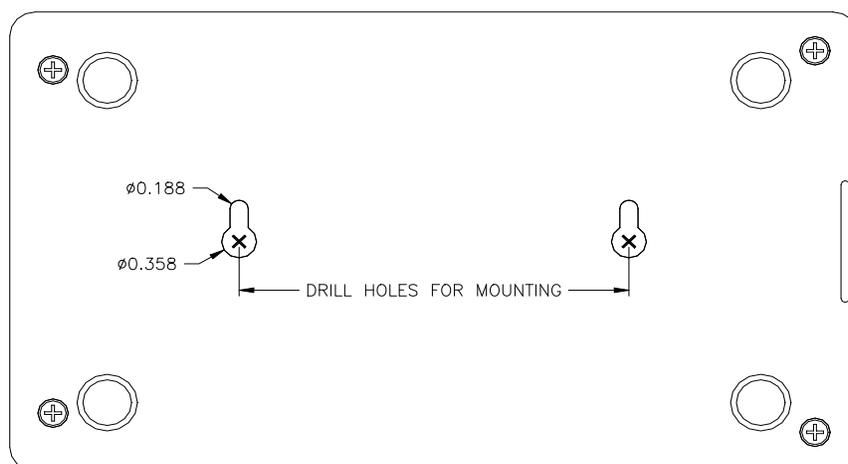


Mount the local rubber antenna vertically on top of the Informer TAR (not bent at 90°) so that the antenna is pointed toward the ceiling. If you require an external antenna, have it installed by a qualified electrician in accordance with local and national electrical codes.

Run the 9 VDC power supply against the wall and plugged into a 120 VAC, 60 Hz outlet. Plug the low voltage end of the cord into the power jack located at the rear of the Informer TAR. Route the cord to ensure it is protected against walking on, tripping over or pinching the cord. Turn the battery switch to the on position. Refer to the "Using the Battery Switch."

# Desk Mounting

Before installing the Informer TAR, determine a suitable location considering the criteria listed previous. Bend the local rubber antenna at 90° so the antenna points toward the ceiling. If you require an external antenna, it should be installed by a qualified electrician in accordance with local and national electrical codes.

Run the 9 VDC power supply against the wall and plugged into a 120 VAC, 60 Hz outlet. Plug the low voltage end of the cord into the power jack located at the rear of

the Informer TAR. Route the cord to ensure it is protected against walking on, tripping over or pinching the cord. Turn the battery switch to the on position. Refer to the "Using the Battery Switch."

# Input/Output Connections

**⚠ WARNING**

***Do not exceed the electrical ratings defined in the specifications for the Input/Output connections.***

The Informer has a 600-ohm balanced audio output and two SPDT relay outputs. A removable eight (8) position connector is located on the back side of the Informer for making electrical connections. The connector accepts 5 mm (3/16") stripped wire, 18–26 AWG.

Make electrical connections to the Input/Output connector as follows:

**Table 9 Input/Output Connections**

| Description |
| --- |
| Audio Output |
| Audio Output |
| Relay 1 N.O. Contact |
| Relay 1 Common |
| Relay 1 N.C. Contact |
| Relay 2 N.O. Contact |
| Relay 2 Common |
| Relay 2 N.C. Contact |

**Figure 2 Back of Informer**
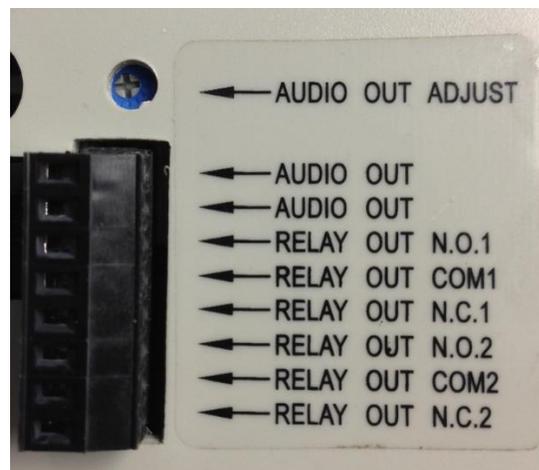
# Operating Instructions

## General Information

You must pre-program all the Informer TAR's functions correctly and test before placing into service.

The following sections describe the various features and functions of the Informer TAR. Please refer to the following figure.

**Figure 3 Informer TAR Keypad**



## Power Supply

Your Informer TAR comes with a power supply. Keep it plugged in at all times. When the Informer is plugged in and receiving power, the Power LED displays a steady green light. The Informer TAR also comes with a sealed valve regulated rechargeable battery. The battery requires continuous charge in order to maintain its effectiveness. In the event that AC power to the Informer TAR is lost, the green Power LED on the unit begins to flash to indicate the use of battery power.

**IMPORTANT**: The Informer TAR should not be turned off; therefore, the unit must remain connected to the power supply to avoid depleting the battery.

Connect the Informer TAR to a 9 VDC, 500 mA power supply, which is provided with the unit. Allow the battery to charge for at least 24 hours initially and after a complete discharge before relying on the battery backup feature.

# LED Indicators

**Table 10 LED Indicators**

| POWER | The Power LED lights steady green when the Informer TAR is receiving power from the wall outlet. The Power LED flashes on when using battery power. |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------|
| ALERT | The Alert LED flashes red when the Informer TAR receives an alert message. The Informer TAR may also give a series of loud beeps and open the channel to provide an alert message.<br>**IMPORTANT**: Immediately respond as instructed to an alert message.<br>The Alert LED continues to flash until you press the RESET/TEST button. |
| TEST  | The yellow Test LED turns on to inform you that the Informer TAR has received a Text message. The Test LED stays on until you press the RESET button.<br>If the Informer TAR detects a failure, the Test LED flashes once per second. If this occurs, please contact your local distributor or service center for repair. |

# Keypad

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

## Adjusting the Volume

The Informer provides the ability to control the sound volume of tone and voice messages heard over the speaker. You cannot adjust the alert beep volume.

To adjust the volume, press the MONITOR button to listen to the radio channel. Then, 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.

If you do not hear any audio when you press the MONITOR button, there may be no radio traffic currently being broadcast. If the MONITOR button is held down for over five seconds, the radio squelch is opened and noise is heard over the speaker if no radio traffic is present. Press the RESET button to return the Informer TAR to standby mode.

**Table 11 Informer TAR Buttons**

| | |
|---|---|
| Volume Up Button | Increases volume and beeps at the current volume level for alert messages and for NOAA Weather Radio. Push to change or press and hold to scroll to the highest or lowest volume setting. You cannot turn down the sound completely. |
| Volume Down Button | Decreases volume and beeps at the current volume level. |
| MONITOR | The MONITOR button plays radio traffic. To return to standby mode, push the RESET/TEST button. To emit alert tone, hold down both the MONITOR and the RESET/TEST buttons. |
| RESET/TEST | The RESET/TEST button changes the unit from monitor mode to standby mode. After an alert message, press the RESET/TEST button to turn off the blinking Alert LED. |

## Receiving an Alert Message

When the Informer receives a valid alert message, the red Alert LED begins to flash and audio is heard over the speaker, unless you programmed the Test LED to turn on for that message. You can program the Informer TAR to sound one of four tones. You can program the unit to automatically enter monitor mode, which enables the user to hear radio traffic over the Informer TAR. You can program the length of the tone.

The Informer TAR receives all properly addressed alert messages sent over the radio whether the unit is in monitor mode or standby mode. Instructional voice messages typically follow the alert beeps to provide instructions for related emergencies in your specific area. Immediately respond as instructed.

The Informer TAR automatically resets and returns to standby mode when the control center sends a CANCEL command. The red Alert and yellow Test LED is also reset. Avoid the use of the CANCEL command after an actual alert, so that the user is able to acknowledge the Alert or Test LED manually.

New activation commands over-ride all previous functions in progress. You cannot decode a new single-tone or a two-tone function while a siren tone is being generated by the Informer.

## Receiving a Test Message

If the Informer TAR was programmed with a Test function, the yellow Test LED lights steady when a Test message is received.  This light remains on until you press the RESET button. The Alert LED does not light for any function that is programmed to light the Test LED.

# Tone-Alert Radio Failure

In the event of unit failure, the yellow Test LED light flashes once per second and the Informer TAR beeps every 30 seconds. Investigate this failure with the local emergency management control station authorities or the local service center.

# Dual Relay and 600 ohm Audio Output

## Relay Outputs

The Informer comes with a pair of relay outputs capable of controlling external devices. The outputs are located at pins 3 - 8 of the removable output connector. Refer to the "Rear View Input/Output Definitions" section on page 6 for parts locations.

Do not exceed the voltage and current ratings listed in the specifications section of this manual. When using this option, the relay outputs turn on when the following occurs:

- Until the programmed default timeout occurs

- RESET button is pressed

- CANCEL or RESET command is received

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

## 600 Ohm Audio Output

The 600-ohm audio output is useful for tying the Informer into existing PA systems or other externally amplified speaker systems. An adjustable balanced audio output is available at pins 1 and 2 of the output connector. The output level is adjustable through a potentiometer located near the input/output connector on the inside of the unit. Refer to the "Rear View Input/Output Definitions" section on page 6 for parts locations.

## Monitoring Weather (NOAA Weather Radio and Channel Selection)

You can program the Informer to monitor the local NOAA Weather Radio Channel if you purchased the VHF version. The RF frequencies for NOAA radio are as follows: 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, and 162.550 MHz.

When you use the Informer with NOAA radio, enable the MONITOR button in the software. Pushing the MONITOR button places the Informer TAR into monitor mode and allows you to begin listening to the NOAA Weather Radio Channel. If you program multiple RF channels into the Informer TAR, the unit beeps once for each channel number when you press the MONITOR button. For example, the first time you press the MONITOR button, the Informer TAR beeps once for channel 1. The second time you press the MONITOR button, the Informer TAR beeps twice for channel 2, and so on.

Program the Informer to emit a short tone to alert the user after the Informer receives a valid EAS message. Program the speaker to auto, timed or manual reset to enable a voice announcement to be heard.

To discontinue monitoring NOAA Weather Radio and place the unit in standby mode, press the RESET button on the Informer TAR. While in standby mode, the Informer TAR is not heard, but continues to monitor the selected NOAA radio channel for emergency broadcasts.

For further information pertaining to EAS, consults your local NOAA weather center or the FCC at www.fcc.gov.

# Testing

After the installation is complete, do the following:

- Test the Informer TAR and all accessories from the control point(s) to ensure it is operation properly; that is, the keypad and LEDs.

- 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. Verify voice quality to ensure that speech is intelligible over the Informer's speaker.

- Verify the Informer TAR activates for all required functions that were programmed into the unit.

- Verify proper operation of the keypad, LEDs, and battery backup.

- Conduct testing on a regular basis per facility safety plans to ensure the equipment remains in working order and operators remain familiar with the use of the equipment. Federal Signal recommends a monthly test.

To run the monthly text, do the following:

1.  Remove the power supply from the AC outlet.

2.  Hold down the MONITOR and RESET buttons together until you hear the alert tone and the Alert and Test LEDs are turned on. After the test, the Power LED should be blinking and the Alert and Test LEDs should turn off. If you do not hear the tone or if the Power LED turns off completely, contact your local service center for repair.

3.  If the test runs successfully, reconnect the AC power adaptor and verify the power LED stops blinking and turns on steady.

# Training

Ensure all users are properly trained to use the system before putting the Informer TAR into service. The user should be able to detect the warning tone in the desired coverage area. Users should have instructions.

## Using the Battery Switch

The battery has a disconnect switch hidden behind a small opening in the rear of the Informer TAR. The switch is intentionally out of reach to avoid tampering and should not be switched by the end user under normal circumstances. The switch location is shown in the "Rear View Input/Output Definitions" section on page 6.

**IMPORTANT**: Do not turn off the Informer TAR unless it is being removed from service.

You can toggle the switch by using a small paperclip or similar device capable of reaching into the switch opening and moving the switch. The switch is on when it is pushed away from the center of the Informer TAR. After the battery switch is turned on, connect the Informer TAR to the 9 VDC power supply to power-up the Informer TAR. To verify the battery switch is on, remove power from the wall transformer from the Informer TAR and verify the power LED begins to flash. If the LED does not flash, check the battery switch position again and retry this test.

## Replacing the Battery

The Informer uses a 6 V, 1.2 A/H sealed valve regulated rechargeable battery (part number 155191A). Replace the battery with the same make and model battery as the original equipment. Typical battery life ranges from three to five years depending on use.

To replace the battery, do the following:

1.  Remove the power supply from the Informer TAR.

2.  Place the Informer TAR on a flat table speaker side down.

3. Remove the four screws located at the four corners of the Informer TAR.

4. Remove the bottom cover of the Informer TAR.

5. Pull the battery out of the Informer.
   **IMPORTANT***:* Do not touch the PCB or to pull the battery wires off the PCB.

6. Grasp the positive (+) battery terminal firmly and remove from the battery.

7. Grasp the negative (-) battery terminal firmly and remove from the battery.

8. Connect the battery terminals to the new battery. Ensure the red wire is connected to the positive (+) terminal and the black wire is connected to the negative (−) terminal of the battery.

9. Place the new battery into the Informer TAR in the same position as the battery just removed.

10. Replace the bottom cover and the four screws. Do not over-tighten the mounting screws.

11. Plug in the power supply.

12. Test the Informer TAR as described in the installation section of this manual.

**⚠ CAUTION**

***Batteries installed shall not be exposed to excessive heat such as sunshine, fire or the like.***

# Replacement Parts

The Informer uses one of these two types of connectors: one with slots or one without slots. Match the 8-pin connector of your Informer to the picture below and order the corresponding part number.

**Table 12 Replacement Part Numbers**

| Picture | Part Number |
|---|---|
|  | 13900406A-08 |
|  | 140372A-08 |
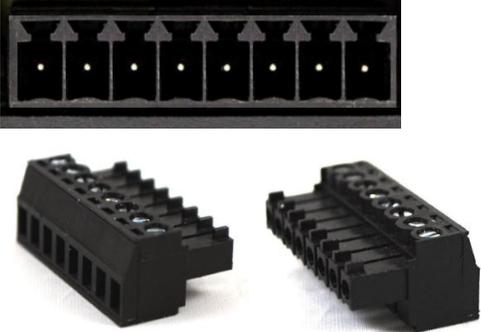
# Getting Service

Refer to the *Programming and Radio Alignment Manual for option I-SW* for alignment instructions. Refer to an authorized Federal Signal Service center for radio alignment and servicing.

If you are experiencing any difficulties, contact Federal Signal Customer Care  at: 800-548-7229 or 708-534-3400 extension 5822 or Technical Support  at: 800-524-3021 or 708-534-3400 extension 7329 or through email at: techsupport@fedsig.com For instruction manuals and information on related products, visit: http://www.alertnotification.net/

# Index