FEDERAL SIGNAL
Safety and Security Systems

Informer15 Speaker Kit

Model I-IP15-KIT1
IP-Enabled Indoor/Outdoor Speaker

Retrofit Kit Manual

25500557
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⚠ 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.

Planning

- If suitable warning equipment is not selected, the installation site for the speaker is not selected properly, or the speaker is not installed properly, it may not produce the intended optimum audible warning. Follow Federal Emergency Management Agency (FEMA) recommendations.
- If the speakers 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 activation.
- When speakers 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 speaker may not result in people taking the desired actions if those to be warned are not properly trained about the meaning of warning sounds. Users should follow FEMA recommendations and instruct those to be warned of corrective actions to be taken.

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.

Safety Messages to Installers

People's lives depend on the safe installation of our products. It is important to follow all instructions shipped with this product. This device is to be installed by a trained electrician who is thoroughly familiar with the National Electrical Code and/or Canadian Electrical Code and will follow the NEC and/or CEC Guidelines as well as all local codes. This speaker should be considered a part of the warning system and not the entire warning system.

The selection of the mounting location for this speaker, its controls, and the routing of the wiring is to be accomplished under the Facilities Engineer and the Safety Engineer's direction. Listed below are some other important safety instructions and precautions you should follow:

- 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 electricians should install this

product per national, state, and any other electrical codes having jurisdiction. Perform all work under the direction of the installation or service crew safety foreman.

- Read and understand all instructions before installing, operating, or servicing this equipment.
- This product shall be mounted at the minimum hearing distance of ten feet per FEMA guidelines limiting sound level exposure to 123 dBc maximum sound level.
- All effective warning sounds may, in certain circumstances, cause permanent hearing loss. Take appropriate precautions, such as wearing hearing protection. Do NOT exceed the maximum sound level exposure limits specified in OSHA 29 CFR 1910.
- I-IP100 series, DSA1, and DS100 devices are intended for permanent installation and operation per Title 46, Code of Federal Regulations, Parts 110–113, or Title 33, Code of Federal Regulations, Part 183, Sub-part I, Section 183.410, and the applicable requirements of the American Boat and Yacht Council, Inc., and/or ANSI/NFPA 302, “Fire Protection Standard for Pleasure and Commercial Motor Craft.”
- For optimum sound distribution, do not install this speaker where objects would block any portion of the front of the speaker.
- Do not paint the speaker. No finish or coating is required. Paint may obstruct the sound output, reducing the effectiveness of the horn.
- Establish a procedure to check the signal system for proper activation and operation routinely.
- Any maintenance to the unit MUST be performed by a trained electrician per NEC Guidelines and local codes or a Federal Signal Certified Service Provider.
- Never alter the unit in any manner.
- The nameplate should NOT be obscured, as it contains cautionary and/or other information of importance to maintenance personnel.
- After installation and completion of the initial system test, provide a copy of these instructions to all personnel responsible for the operation, periodic testing, and equipment maintenance.
- File these instructions in a safe place and refer to them when maintaining, servicing, and/or reinstalling the device.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.

Installation and Service

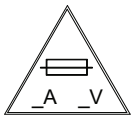
- After installation or service, test the system to confirm that it is operating properly. Test the system regularly to confirm that it will be operational in an emergency.
- If future service and operating personnel do not have these instructions to refer to and are not properly trained, the system may not provide the intended audible warning, and service personnel may be exposed to hazards that could result in 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. Give a copy to anyone who is going to service or repair the speaker.

- 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 speaker before using it after repairs have been made.

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 wires (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 a 1/2-inch NPT entry size.

Symbol Definition



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

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.

Pay careful attention to the notice located on the equipment.

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

General Description

Overview

This manual describes how to remove the existing electronics from the SelecTone® housing and replace them with three PC boards using the parts included in the I-IP15-KIT1.

See the Informer15 Speaker (part number 25500494) for more information about the speaker and Informer-IP Series C Setup, Program, and User Manual (part number 25500395 revision C or later) to learn how to set up, configure, program, and use Informer-IP devices.

Ordering Information

Table 1 Ordering Information

Part Number	Description
I-IP15-W	15 W PoE Speaker with white high-output LED
I-IP15-R	15 W PoE Speaker with red high-output LED
I-IP15-A	15 W PoE Speaker with amber high-output LED
I-IP15-B	15 W PoE Speaker with blue high-output LED
I-IP15-G	15 W PoE Speaker with green high-output LED
I-IP15-KIT1	I-IP15 Kit Components
I-IP15-024W	15 W, 24 Vdc, Speaker with white high-output LED
I-IP15-024R	15 W, 24 Vdc, Speaker with red high-output LED
I-IP15-024A	15 W, 24 Vdc, Speaker with amber high-output LED
I-IP15-024B	15 W, 24 Vdc, Speaker with blue high-output LED
I-IP15-024G	15 W, 24 Vdc, Speaker with green high-output LED

Required Equipment

You need the following equipment. Standard Technician's Tool Kit that includes the following.

Table 2 Required Tools Checklist

	Description
	3/32 inch flat head screwdriver
	Phillips®, No. 2 Screwdriver
	Nut driver with 1/4 inch external hex
	Wire cutter
	Needle nose pliers (optional)
	Wire strippers
	Voltmeter (optional)
	Paper towels
	Isopropyl alcohol

Qualifications

You must be a properly trained technician or electrician in order to install this product.

Unpacking the Kit

Ensure that the parts listed are included in the kit. If you are missing any parts, contact Customer Support. See Getting Service.

Table 4 I-IP15-KIT1 Kit Contents

Quantity	Item Number	Description
1	20000375	PCB, I-IP15 controller board
1	20000377	PCB, I-IP15 PoE power supply board
1	20000376	PCB, I-IP15 amplifier board
4	71001063	Hex Standoffs, 8-32, 1 inch long Steel
4	230304	Standoffs 8-32, 3/8 inch long Steel
4	77700356	Nylon spacer
6	70000241-06	Steel Torx Pan Head Screw, Typ TT, 8-32
4	7011179A-05	Steel green Hex Phillips® head Screw, Tap, 8-32
1	17501870	Ethernet wire assembly cable
1	71401124A	I-IP15-KIT1 Nameplate
1	17501868	IP15 wire assembly
1	T300420-10-030	Black T-Wire, 2.5 inches (5/16"NT:5/16"NT)
1	T300420-02-015	Red T-Wire, 2.5 inches (5/16"NT:5/16"NT)

Replacing the PC Boards in the Speaker

⚠ WARNING

Read and adhere to all safety warnings in this manual before installing the speaker.

⚠ DANGER

ELECTROCUTION HAZARD: Electrocution or severe personal injury can occur when making electrical connections, drilling holes, or lifting equipment. Therefore, experienced electricians per national and local electrical codes, acting under the direction of the installation crew safety foreman, should perform the installation.

⚠ WARNING

OBSTRUCTION HAZARD: Property damage, serious injury, or death could occur if an accumulation of water, snow, dust, etc. resides in the speaker projector or if any objects are in front of the speaker, severely reducing or preventing operation of this device. Mount the unit so speaker projector is pointed horizontally or slightly downward and ensure that the front of the speaker is clear of obstructions.

⚠ WARNING

SHOCK HAZARD: Property damage, serious injury, or death could occur if the projector is mishandled during installation or over time. DO NOT rotate the projector more than 180 degrees, or internal speaker wiring may be damaged.

⚠ WARNING

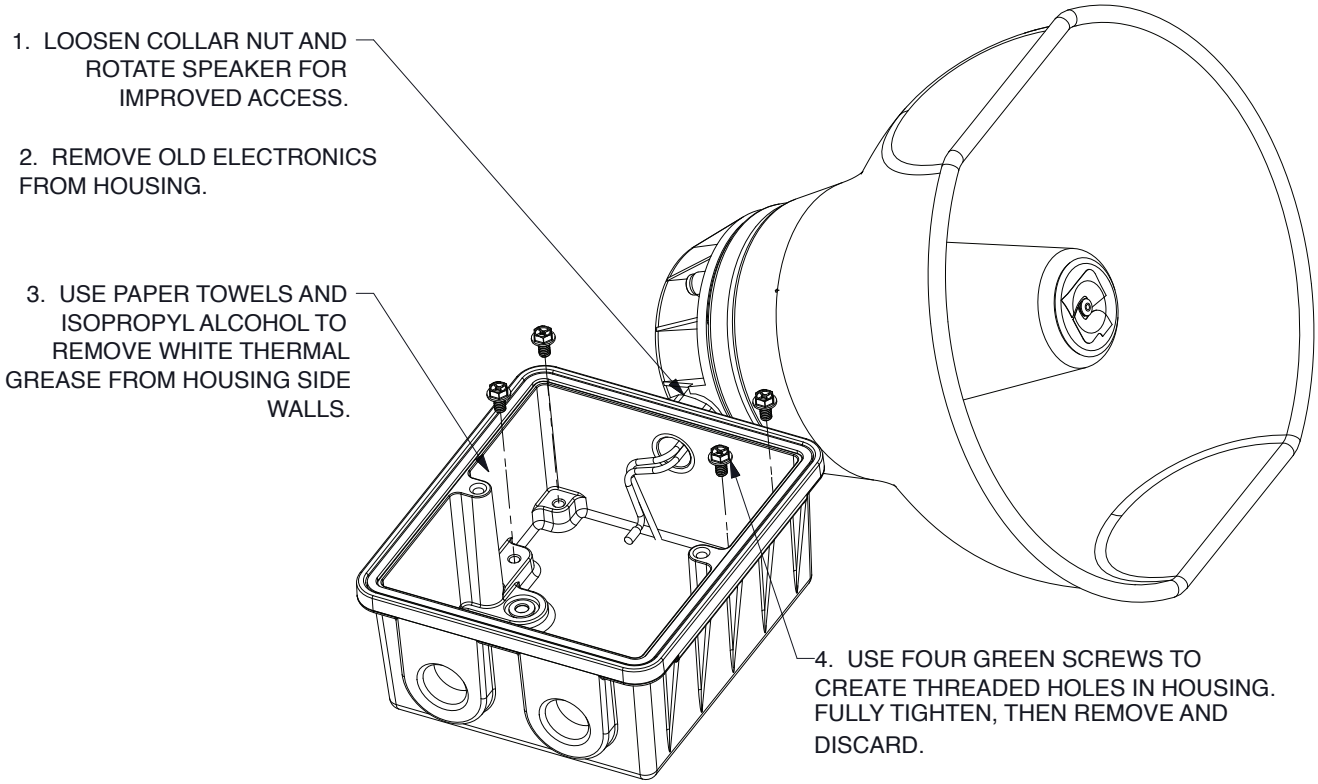
SHOCK HAZARD: Disconnect ALL power to the speaker before replacing the PCBs. Failure to do so may result in property damage, serious injury, or death.

To replace the PCBs:

1. Before you begin, remove power from the speaker and open the housing. To open the housing, use a Phillips® head screwdriver to loosen the two cover screws while supporting the cover so it does not fall.
2. Loosen the collar nut and rotate the speaker for improved access.
3. Remove existing electronics from the housing.
4. Use paper towels and isopropyl alcohol to remove the white thermal grease from the housing side walls.

5. Use the four green screws to create threaded holes in the housing. Fully tighten, remove, and discard. See Figure 1.

Figure 1 Housing Open and Electronics Removed



6. Place the I-IP15 controller board (20000375) into the housing and secure it with two Torx drive screws and four of the short standoffs. Use the nylon washers between the standoffs and the PCB. The washers are required due to the limited thread depth in the housing. All standoffs are to be tightened to a relatively low torque value of 2 to 4 in-lb.

7. Place the I-IP15 amplifier board (20000376) into the housing and secure it with the long standoffs.

8. Connect the speaker leads to the amplifier board (20000376). Connect the yellow wire to the positive (+) terminal and the black wire to the negative (-) terminal.

9. Install the I-IP15 PoE power supply board (20000377) and secure it with the four remaining screws.

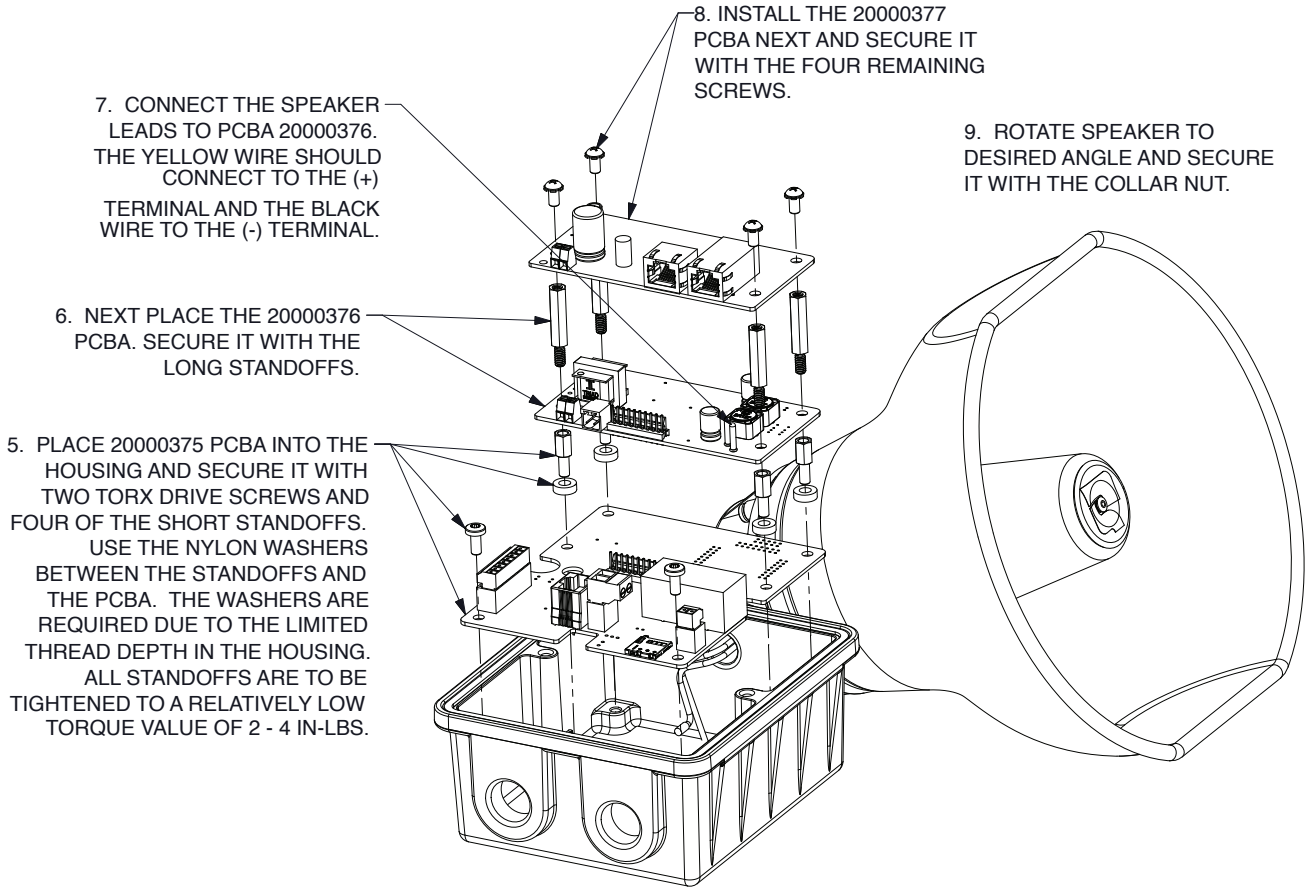
10. Rotate the speaker to the desired angle and secure it with the collar nut.

11. Close the housing.

⚠ WARNING

EXPLOSION HAZARD: Property damage, serious injury, or death could occur if the housing is not closed properly. To reduce possibility of explosion, the housing cover must be kept tight while circuits are energized.

Figure 2 Placing the Informer15 PCBs into the Housing



Testing

⚠ WARNING

SOUND HAZARD: These devices are capable of producing sounds loud enough to cause hearing damage. Adequate hearing protection should be worn if standing within close proximity to the device while testing. Recommendations in the OSHA Sound Level Standard (29 CFR 1910F) should not be exceeded.

To test the system:

1. After installation is complete, test the system to verify that each speaker operates satisfactorily.
2. After completion of the initial system test, establish a program for periodic testing of this device.
3. Provide a copy of these instructions for the Safety Engineer, system operator(s), and maintenance personnel.

Safety Message to Operators

Even if your warning system is operating properly, it may not be completely effective. People may not hear or heed your warning signal. You must recognize this fact and ensure that your warning signal achieves its intended effect through proper test/training sequences within your specific application(s).

Maintenance

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

- Read and understand all instructions before performing maintenance on this unit.
- To reduce electrical shock risk, do not perform maintenance or service on this unit when circuits are energized.
- Periodic checks should be made to ensure that the effectiveness of this device has not been reduced because the speaker has become clogged with a foreign substance or because objects have been placed in front of the speaker.
- Any maintenance on this unit MUST be performed by a licensed electrician in accordance with NEC guidelines and local codes.
- Never alter these units in any manner. Note that additional openings or alterations made to the speaker may jeopardize the safety of the hazardous location.
- The nameplates, which contain cautionary or other important information to maintenance personnel, should not be obscured if the exterior of the device is painted.
- Periodically inspect this device to verify that there are no foreign substances in or in front of the speaker, which will reduce its notification effectiveness.
- Periodic evaluation of the performance of the unit should be conducted at regular intervals.
- If a volume adjustment or other repair is required, be sure to refer to the Safety Message before proceeding.

⚠ WARNING

SOUND HAZARD: Unauthorized repair/servicing of the unit may result in degradation of performance and/or safety, resulting in property damage, serious injury, or death to you or others. If a malfunctioning unit is encountered, do not attempt any field repair/retrofit of parts.

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 e-mail at techsupport@fedsig.com. For instruction manuals and information on related products, visit http://www.fedsig.com/.