



Battery Charger Retrofit Kit Q-FCTCHG for FCTBD Cabinet

Retrofit 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.



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Safety Messages

⚠ WARNING

Read and understand these procedures before retrofitting. All work should be performed by a properly trained technician or electrician that is qualified to do electrical work. You must follow electrical and ESD precautions. If any of the electronics are handled without static protection, the electronics may be damaged

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 in order 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.

Installation and Service

- Electrocutation 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 in accordance with national, state and any other electrical codes having jurisdiction. 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 injury. File these instructions in a safe place and refer to them periodically. Give a copy of these instructions to new recruits and trainees. Give a copy to anyone who is going to service or repair the sirens.

Operation

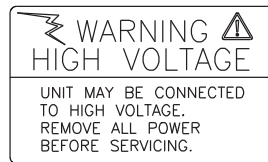
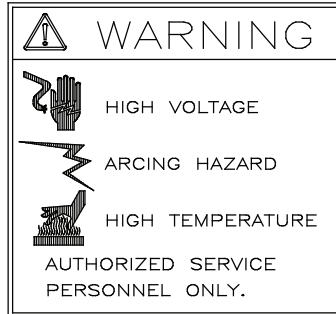
Failure to understand the capabilities and limitations of your siren system could result in permanent hearing loss, other serious injuries or death to persons too close to the sirens when you activate them or to those you need to warn. Carefully read and thoroughly understand all safety notices in this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

with those responsible for warning people in your community, company, or jurisdiction.

⚠ WARNING

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

Pay careful attention to the following notices located on the equipment.



General Description

Introduction

This manual describes how to replace the charger in the FCTBD Control Cabinet.

Qualifications

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

Required Equipment

You need the following equipment.

Table 1 Required Tools

Description
Ratchet with extension
7/16 inch socket

Unpacking the Kit

Ensure that the parts listed in Table 2 are included in the package. If you are missing any parts, contact Customer Support. See Getting Service.

Table 2 Kit Contents

Quantity	Description	Item Number
1	PC board assembly	20000288
4	Rubber washers/spacers	7072172
1	3 conductor wire set	17501156
1	Red 14 AWG ferruled wire	T300214-02-110
1	Black 14 AWG ferruled wire	T300214-10-112
1	Orange 16 AWG ferruled wire	T300216-03-001
1	Black 16 AWG ferruled wire	T300216-10-092

You will replace the existing charger assembly with the following charger assembly.

Figure 1 PC Board Assembly 20000288

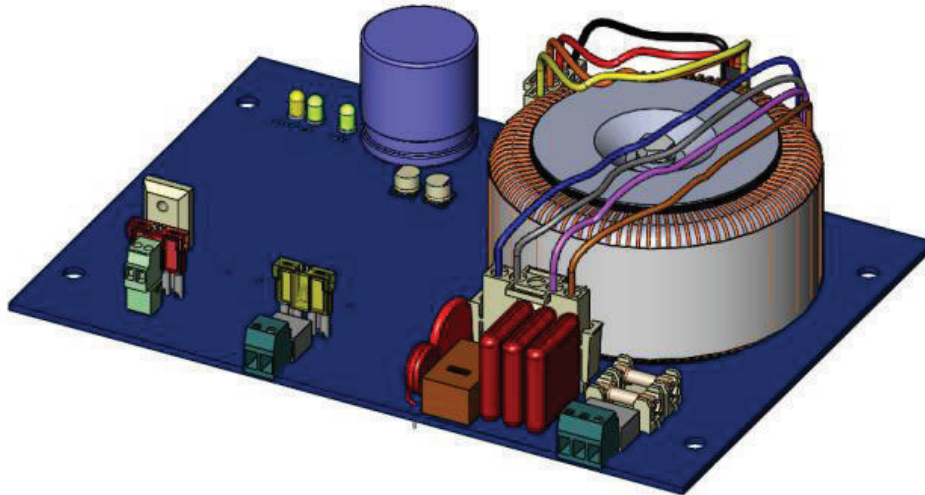


Figure 2 Rubber washers/spacers



Figure 3 Wire set (3 conductor)



Figure 4 Red and black 14 AWG ferruled wires



Figure 5 Orange and black 16 AWG ferruled wires

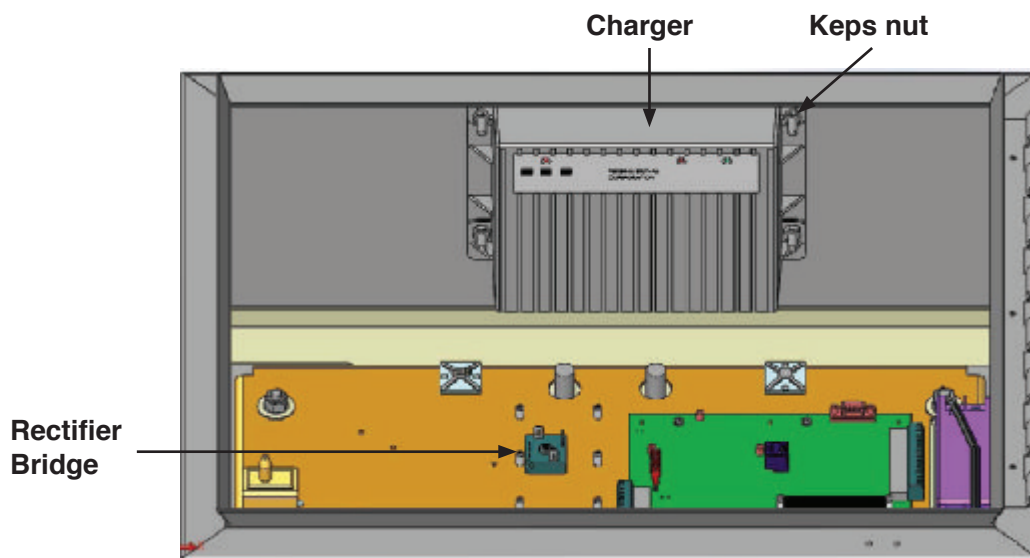


Installing the PC Board

To install the PC board, do the following:

1. Turn off all power to the control cabinet.
2. Remove the following from the control cabinet while retaining the attaching hardware:
 - Existing charger
 - Rectifier bridge
 - All connecting wires

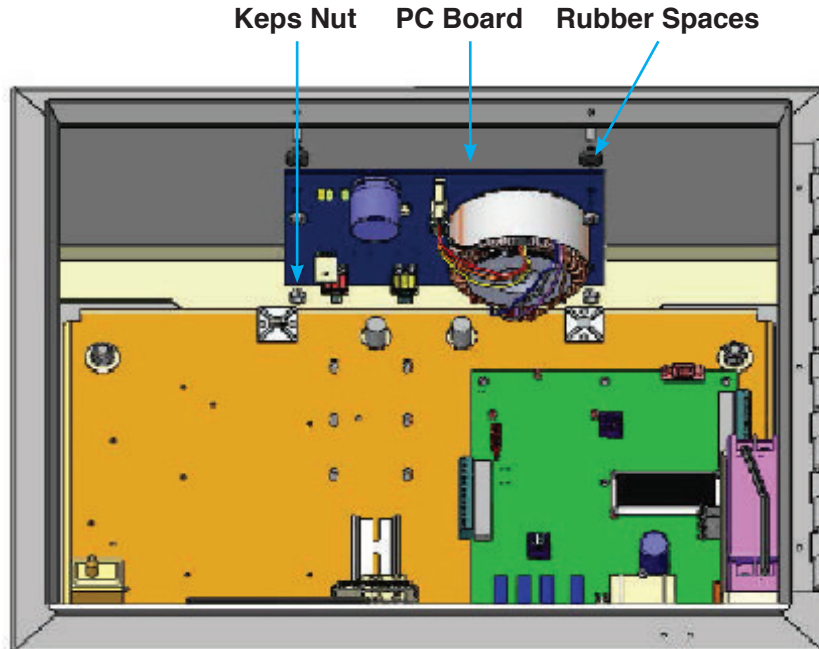
Figure 6 Existing FCTBD Control Cabinet



3. Push rubber spacers onto the 4 studs at the top of the control cabinet.
4. Place the PC board (20000288) on studs, holding with one hand while attaching board with keps nuts using the other hand.

NOTE: PC board is heavy. Do not drop.

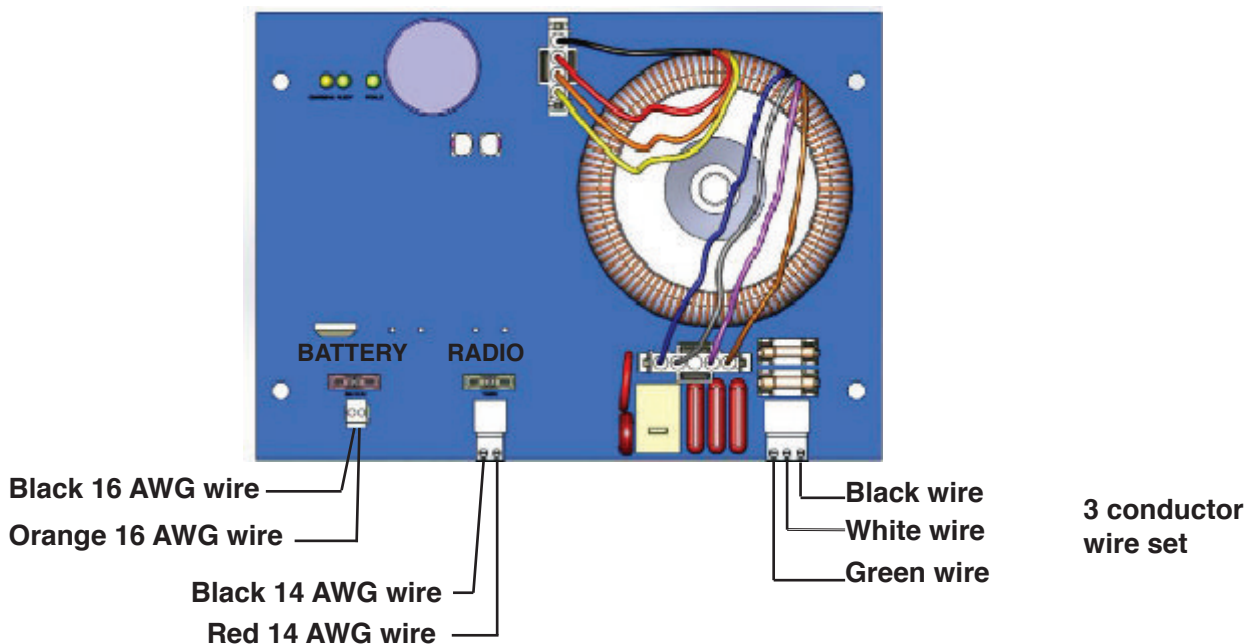
Figure 7 Installing PC Board



5. To install the PC board, do the following:

- Insert the black 16 AWG wire in BATTERY (-).
- Insert the orange 16 AWG wire in BATTERY (+).
- Insert the black 14 AWG wire and red 14 AWG wire at RADIO. See Figure 9.
- Insert the 3 conductor wire set (17501156) at JP3. Arrange the colors as shown in Figure 9.

Figure 8 Wiring the PC Board



Installing the PC Board

6. To connect the other ends of the PC board (20000288) wires to the terminal block, do the following:
 - Insert black 14 AWG wire at green terminal block TB1.
 - Insert black 16 AWG wire at green terminal block TB1.
 - Insert orange 16 AWG wire in TB2.
 - Insert red 14 AWG wire at TB3.
 - Insert 3 wire set (17501156) at JP3.

Arrange colors as shown in Figure 10.

Figure 9 Wiring the Terminal Block

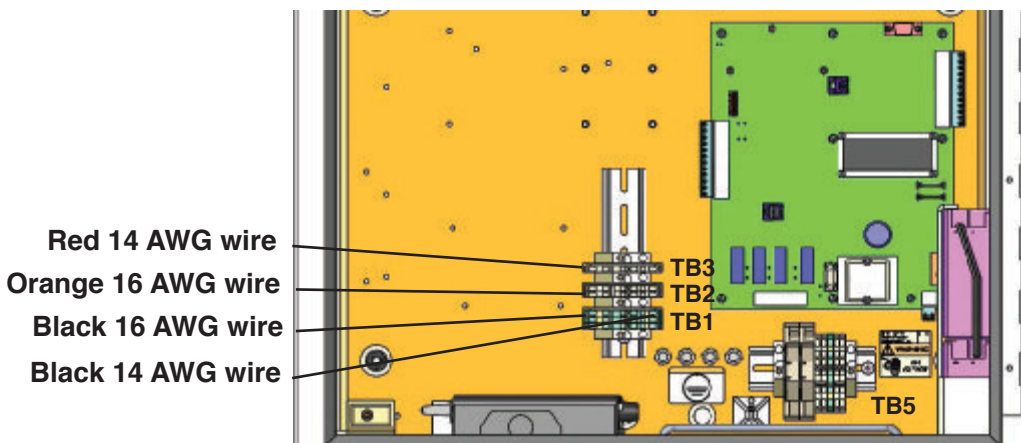
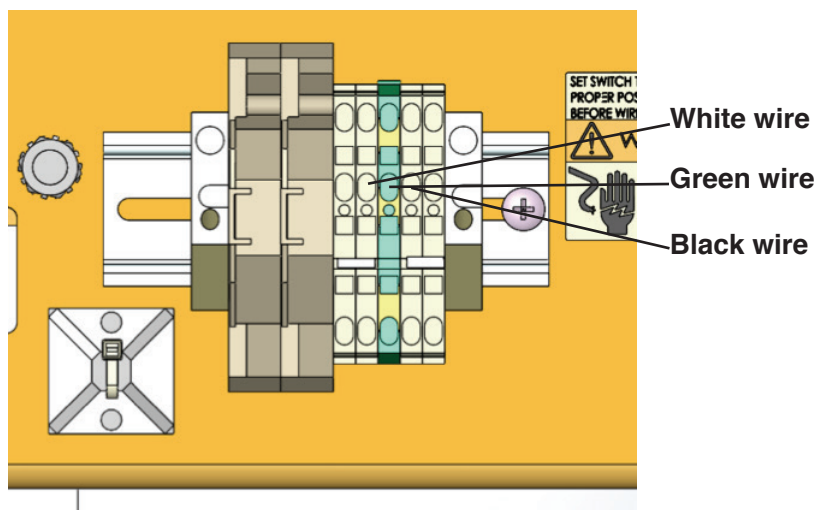


Figure 10 Wiring the 3 Conductor Wire Set



7. Close control cabinet.
8. Turn on power to the control cabinet.

The cabinet retrofit procedure is now completed. Federal Signal recommends testing the warning system prior to putting back into service.

Getting Service

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/>



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