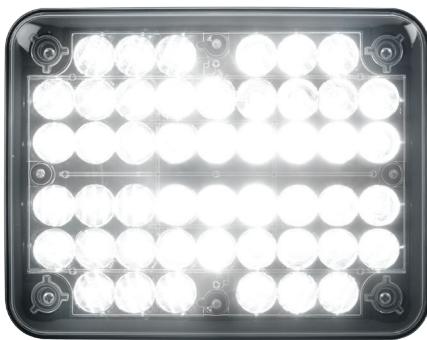




FEDERAL SIGNAL
Safety and Security Systems

LED Traffic Clearing Light

Model LEDTCL97



***Installation and
Service Instructions***

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.



2645 Federal Signal Drive
University Park, Illinois 60484

www.fedsig.com

Customer Support	
Police/Fire-EMS:	800-264-3578 • +1 708 534-3400
Work Truck:	800-824-0254 • +1 708 534-3400
Technical Support	800-433-9132 • +1 708 534-3400

Contents

Safety Message to Installers.....	4
Overview of LEDTCL97	5
Unpacking the LEDTCL97	5
Installing the LEDTCL97.....	6
Wiring the LEDTCL97	6
Selecting a Flash Pattern.....	7
Safety Message to Operators.....	8
Cleaning the Lights	11
Getting Technical Support	11
Getting Repair Service	11
Replacement Parts.....	12

List of Tables

Table 1 Product Specifications.....	5
Table 2 Kit Contents List	5
Table 3 Wire Functions	6
Table 4 Flash Patterns	8

List of Figures

Figure 1 Exploded View of the Light	9
Figure 2 Mounting Surface Dimensions.....	10

Safety Message to Installers

⚠ WARNING

People's lives depend on your proper installation of our products. It is important to read, understand and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install this light, you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.
- DO NOT install equipment or route wiring or cord in the deployment path of an airbag.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- Locate the light control so the VEHICLE and CONTROL can be operated safely under all driving conditions.
- Do not attempt to activate or deactivate the light control while driving in a hazardous situation.
- This product contains high intensity LED devices. To prevent eye damage, DO NOT stare into the light beam at close range.
- Frequently inspect the light to ensure that it is operating properly and that it is securely attached to the vehicle.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product.

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

Overview of LEDTCL97

The Federal Signal LEDTCL97 is a self-contained, high intensity, LED light designed for mounting to the exterior of a vehicle. The unit is supplied with eight selectable flash patterns. The unit can operate on a 12 Vdc power source. An optional trim ring (QL97MC) can be purchased separately.

Table 1 Product Specifications

Input Voltage:	11 Vdc to 13.8 Vdc
Input Current:	7.0 A Max at 12.8 Vdc
Dimensions:	9.2 in Wide x 7.2 in Tall, 1.7 in Deep
Weight:	1.80 lb

Unpacking the LEDTCL97

After unpacking the light, inspect it for damage that may have occurred in transit. If the unit is damaged, do not attempt to install or operate it. File a claim immediately with the carrier, stating the extent of damage.

Table 2 Kit Contents List

Qty.	Description	Part No.
4	#6-32 x 20 in Screw, S.S.	7000A404-32
4	Rivet Nut, Rubber, #6-32	70900417
1	Lighthead	801202586

Installing the LEDTCL97

NOTE: The light head is to be installed in a horizontal orientation (See Figure 1 on page 9).

Before proceeding with installation, determine approximate location of the light head and plan all wire routing.

To install the LEDTCL97, proceed as follows:

1. See Figure 1. Position one light head on the desired mounting surface. Ensure that the light head is level-side to-side.
Using the dimensions in Figure 2 on page 10, scribe the four mounting hole locations and a wire routing hole on the mounting surface.
2. For the light head, drill four 1/4" (0.25") mounting holes and a 1.00" wire routing hole at the scribed locations.
3. Install the four supplied rubber rivet nuts into the 1/4" mounting holes.
4. Complete the electrical connections in the next section.
5. Align the light heads with the previously inserted rivet nuts. Secure the light head with the provided #6-32 S.S. screws.

Wiring the LEDTCL97

The light head has five 12" long lead wires exiting the rear of the housing. Ensure that all wires are properly terminated and insulated.

Table 3 Wire Functions

(2) Red	+12 Vdc
(2) Black	Ground
(1) Green	Pattern Select/Sync

To make electrical connections, proceed as follows:

1. Use 18-gauge (minimum) wire, connect the **2 RED** (+) lead to the same positive power source terminal and the **2 BLACK** (-) lead to the same negative power source terminal.
2. Select a flash pattern as described in the next section.
3. Apply power and test the unit for proper operation.

Selecting a Flash Pattern

The light head has eight selectable flash patterns. It is recommended that a flash pattern is selected prior to installation. Since this device is intended to be effective at large distances, it is recommended that the light be projected onto a surface at least 15-feet away from the light. See Table 4 for pattern descriptions.

To select a flash pattern, proceed as follows:

1. Apply power to the light head.
2. Briefly touch the **GREEN** program wire to the positive power source terminal.
3. Advance to the next pattern as needed.
4. Let the desired pattern run for at least 15 seconds to store it in memory.
5. After desired pattern is stored, cut off exposed wire strands from green wire and securely tape wire end.

Table 4 Flash Patterns

Pattern No.	Description
1	Gamma Flash
2	Lissajous 1
3	Lissajous 1 - Fast
4	Wig-Wag
5	Lissajous 2 with Parsec Pulse
6	Lissajous 2 with Parsec Pulse - Fast
7	FedPulse 75
8	FedPulse 120

Safety Message to Operators

⚠ WARNING

People's lives depend on your safe use of our products. Listed below are some important safety instructions and precautions you should follow:

- Although your warning system is operating properly, it may not be completely effective. People may not see or heed your warning signal. You must recognize this fact and continue driving cautiously.
- Also, situations may occur which obstruct your warning signal when natural or man-made objects are between your vehicle and others, such as raising your hood or trunk lid. If these situations occur, be especially careful.
- This product contains high intensity LED devices. To prevent eye damage, DO NOT stare into the light beam at close range.
- At the start of your shift, you should ensure that the light is securely attached and operating properly.

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

Figure 1 Exploded view of the light

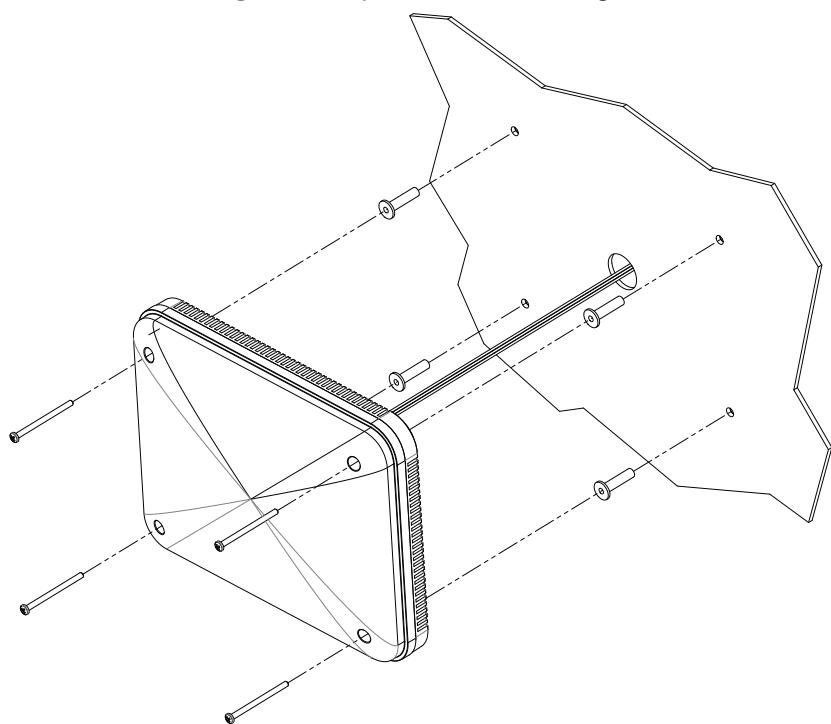
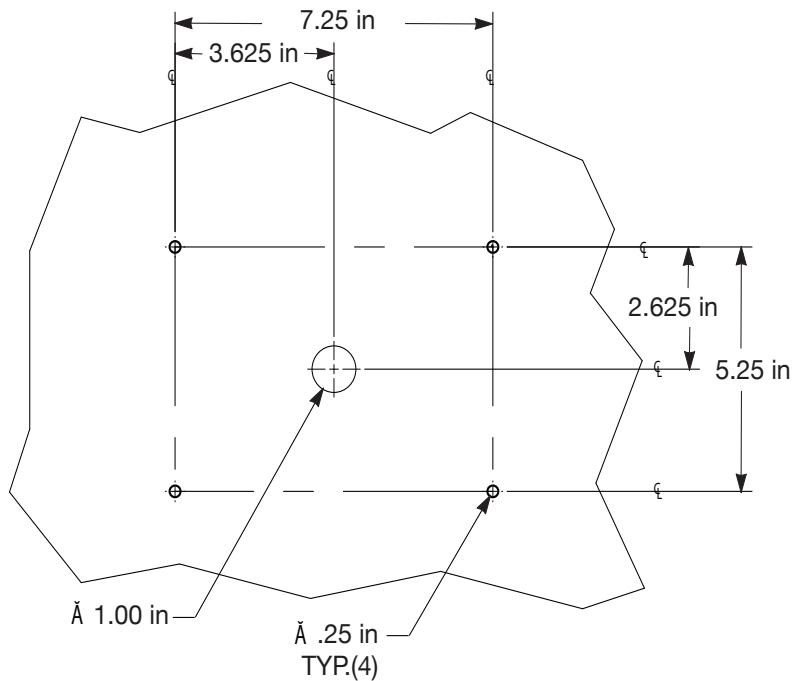


Figure 2 Mounting Surface Dimensions



Cleaning the Lights

⚠ WARNING

CRAZING/CRACKING *Crazing (fine cracks) of lenses causes reduced effectiveness of the light. Do not use cleaning agents (which causes crazing) such as strong detergents, solvents, or petroleum products. If crazing of the lenses does occur, the reliability of light for emergency signaling purposes may be reduced until the lenses are replaced.*

NOTICE

CLEANING the POLYCARBONATE LENSES: *To extend the life of this device, periodic cleaning is necessary. Clean the lens with a mild, non-abrasive, neutral-pH cleaning agent and a soft, clean cloth. Rinse the device thoroughly to ensure that no cleaning agent residue remains. To avoid water spots, dry the device with a soft clean cloth. Failure to follow this precaution can cause crazing or cracking of the lens/dome and voids the warranty claims for the light.*

Getting Technical Support

For technical support, please contact:

Federal Signal Corporation

Phone: 1-800-443-9132

Fax: 1-800-343-9706

Email: empserviceinfo@fedsig.com

Getting Repair Service

The Federal Signal factory provides technical assistance with Any units returned to returned to Federal Signal for service, inspection, or repair must be accompanied by a Return Material Authorization (RMA). Obtain an RMA from a Local Distributor or Manufacturer's Representative. Provided a brief explanation of the service requested or the nature of the malfunction.

Address all communications to the following address.

Federal Signal Corporation
Service Department
2645 Federal Signal Drive
University Park IL 60484-3167

Replacement Parts

Table 5 Replacement parts

Description	Part Number
#6-32 x 2.0" Screw, S.S.	7000A404-32
Rivet nut, Rubber, #6-32	70900417
Clear smooth lens,QL97	801201444-02
*(Optional) QL97 trim ring	QL97MC
*QL97 trim ring purchased separately.	