



FEDERAL SIGNAL
Safety and Security Systems

LED Traffic Clearing Light

Model LEDTCL64



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.



FEDERAL SIGNAL
Safety and Security Systems

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Work Truck:

Technical Support

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Model LEDTCL645

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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 resulting property damage, serious injury, or death.

**Overview of LED Traffic Clearing Light
Model LEDTCL64**

The Federal Signal LED Traffic Clearing Light, Model LEDTCL64 is a self-contained, high intensity LED light designed for mounting to the exterior of a vehicle. The lights are supplied with eight selectable flash patterns. The light heads work as a pair and are synced together by connecting their sync wires. The light head can operate on a 12 Vdc or 24 Vdc power source.

The light heads in this kit are identical; the flash pattern in each light head is determined by the orientation of the light head. To be an effective warning device, the internal circuitry of the lights enables them to sense their orientation and automatically adjust the flash pattern as an effective warning device.

An optional trim ring (QL64MC) can be purchased separately.

Table 1 Product Specifications

Input Voltage:	11 Vdc to 28 Vdc
Input Current:	3.0 A Max at 12.8 Vdc 1.5 A Max at 25.6 Vdc
Dimensions:	6.56 in Wide x 4.15 in Tall, 1.67 in Deep
Weight:	0.80 lb

Unpacking Light

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

Table 2 Kit Contents List

Qty.	Description	Part No.
8	#6-32 x 20 in Screw, S.S	7000A404-32
8	Rivet Nut, Rubber, #6-32	70900417
2	Lighthead	801202566

Installing the Lights

NOTE: The light heads are to be installed in a horizontal orientation, rotated 180 degrees from each other. (See Figure 1 on page 9).

To install the lights:

1. Determine the approximate locations of the light heads and plan all wire routing.
2. Position a light head on the mounting surface. Ensure that the light head is level-side to-side. Using the dimensions in Figure 2 on page 10, scribe the locations of the four mounting holes and a wire routing hole.
3. Complete Step 1 for the other light head.
4. For each light head, drill four 1/4 in (0.25 in) mounting holes and a 1.00 in wire routing hole at the scribed locations.
5. Install the eight supplied rubber rivet nuts into the 1/4 in mounting holes.
6. Complete the electrical connections in “Wiring the Lights.”
7. See Figure 1 on page 9. **With the arrow on the inner lens pointed toward the outer edge of the vehicle, align the light heads with the rivet nuts.**
8. Secure the light heads with the #6-32 S.S. screws.

Wiring the Lights

Refer to Table 3 and the instructions below.

Each light head has three 12 in long lead wires exiting the rear of the housing. Ensure that all wires are properly terminated and insulated.

Table 3 Wire Functions

Red	+12/24 Vdc
Black	– Ground
Green	Pattern Select/Sync

To wire the lights:

- Use 18-gauge (minimum) wire to connect the **RED** (+) lead to the positive power source terminal and the **BLACK** (–) lead to the negative power source terminal.
2. Select a flash pattern as described in the next section.
 3. When both light heads are set to the same flash pattern, connect the **GREEN** wire from one light head to the other.
 4. Apply power and test the lights for proper operation.

Selecting a Flash Pattern

Each light head has eight selectable flash patterns. When you scroll through the patterns, the pattern number is represented by the number of LEDs illuminated for one second before the pattern starts. It is recommended that flash pattern is selected before the installation. Because the lights are intended to be effective at large distances, it is best to project the lights on a surface at least 15 feet away. For the flash pattern descriptions, see Table 4.

Table 4 Flash Patterns

Pattern No.	Description
1	Gamma Flash with Parsec Pulse
2	Gamma Flash
3	Lissajous 1 with Parsec Pulse
4	Lissajous 1
5	Lissajous 2 with Parsec Pulse
6	Lissajous 2
7	FedPulse 75
8	FedPulse150
9	LED Test
10	Accelerometer Test

NOTE: Patterns 9 and 10 are for diagnostic purposes. Pattern 9 illuminates each LED one at a time. Pattern 10 illuminates one LED based on the vertical orientation of the light head.

To select a flash pattern:

1. Apply power to the light head
2. Briefly touch the **GREEN** program/sync wire to the positive power source terminal.
3. Advance to the next pattern as needed.
4. Let the pattern run for at least 15 seconds to store it in memory.

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

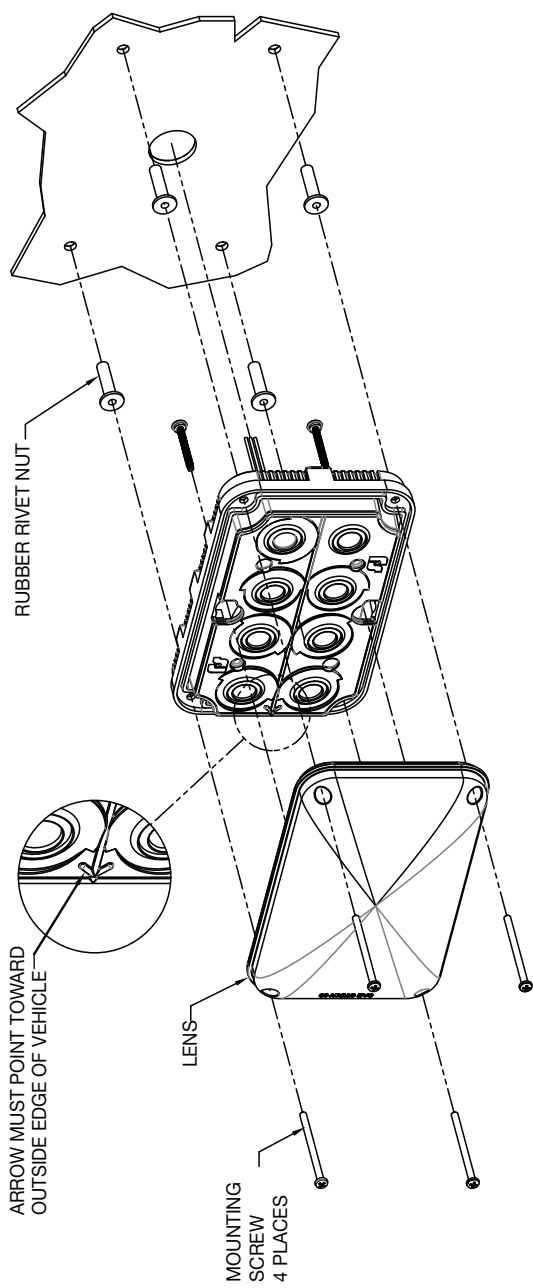
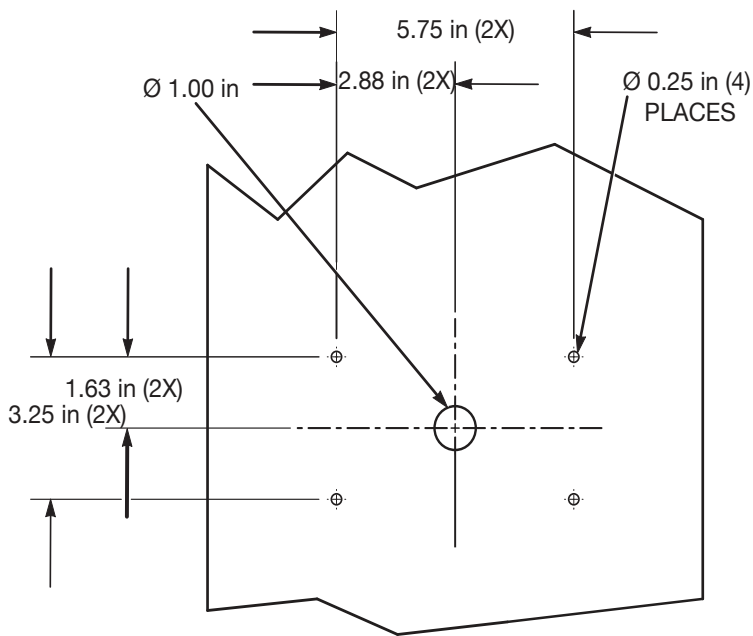


Figure 2 Mounting Surface Dimensions



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
Mounting Screws, #6 x 1-1/2 in	7000A404-26
Rubber Rivet Nut, #6-32	70900417
Lens, Smooth, Clear	801200983-02
Optional Chrome Bezel w/Gasket	QL64MC