

INSTALLATION & OPERATION MANUAL

PSELEDF12 8 OUTPUT MULTI-PATTERN LED FLASHER

Code 3, Inc., a subsidiary of
Public Safety Equipment, Inc.



PSELEDF12 8 OUTPUT MULTI-PATTERN LED FLASHER

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IMPORTANT: *Read all instructions and warnings before installing and using.*
INSTALLER: *This manual must be delivered to the end user of this equipment.*

ELECTRICAL SPECIFICATION

Input Voltage Range	+10 Vdc to +16 Vdc
Output Drive Current	3 Amps per Output
Operating Temperature	-40 C to +85 C
Flash Patterns	Quint, Quad, Triple, Double, 180 fpm Alternating Single, 120 fpm Alternating Single, 120 fpm Simultaneous Single, 90 fpm Alternating Single, 90 fpm Simultaneous Single, 75 fpm Alternating Single, 75 fpm Simultaneous Single, Cycle Flash
Output Drive Method	High-side switched
Pattern Control Method	2 Serial Programming inputs, 2 Group Select inputs
Standby Current	<10mA @ 12.8 Vdc
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
Thermal Protection	Yes

MECHANICAL SPECIFICATIONS

Weather resistance	Potted to protect circuitry, but not waterproof
Dimensions	6.0" x 3.6" x .75"

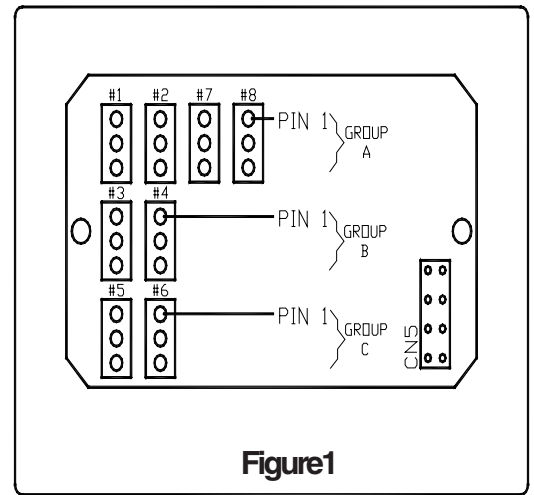


Figure1

WARNING

This Flasher is NOT waterproof!! This unit must be installed in a location protected from the environment.

WARNING

This device is intended for use with LED Lights ONLY!! Use of this product on an Incandescent, Halogen or any light source other than LED's may damage the unit and void the warranty.

The use of this or any warning device does not insure that all drivers can or will observe or react to an emergency warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes.

The effectiveness of this warning device is highly dependent upon correct mounting and wiring. Read and follow the manufacturer's instructions before installing or using this device. The vehicle operator should insure daily that all features of the device operate correctly. In use, the vehicle operator should insure the projection of the warning signal is not blocked by vehicle components (i.e., open trunks or compartment doors), people, vehicles, or other obstructions. This equipment is intended for use by authorized personnel only. It is the user's responsibility to understand and obey all laws regarding emergency warning devices. The user should check all applicable city, state and federal laws and regulations.

Code 3, Inc., assumes no liability for any loss resulting from the use of this warning device. Proper installation is vital to the performance of this warning device and the safe operation of the emergency vehicle. It is important to recognize that the operator of the emergency vehicle is under psychological and physiological stress caused by the emergent situation. The warning device should be installed in such a manner as to A) Not reduce the output performance of the system,

B) Place the controls within convenient reach of the operator so that he can operate the system without losing eye contact with the roadway. Emergency warning devices often require high electrical voltages and/or currents. Properly protect and use caution around live electrical connections. Grounding or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.

PROPER INSTALLATION COMBINED WITH OPERATOR TRAINING IN THE

PROPER USE OF EMERGENCY WARNING DEVICES IS ESSENTIAL TO INSURE THE SAFETY OF EMERGENCY PERSONNEL AND THE PUBLIC.

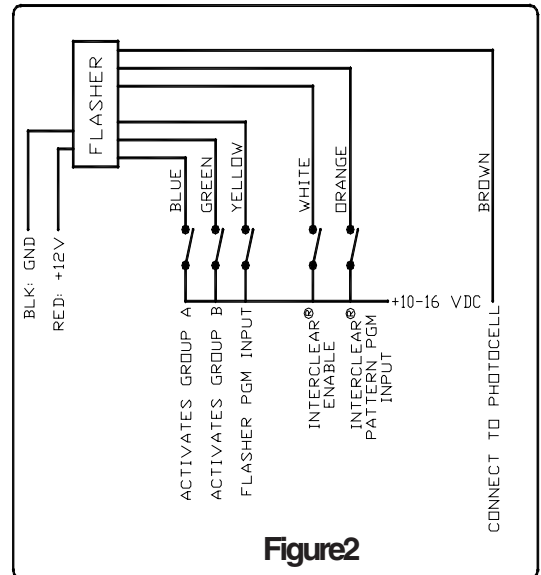


Figure2

The device is designed to flash Code 3® 12 volt LED-EX Light up to 3 amps load per output. DO NOT connect more than a 3 amp load (two single LED-EX equivalent) to the output. Doing so will shut the unit down to prevent damage to the Flasher.

CONNECTOR SPECIFICATION:

Output

Amp® Commercial Mate-N-Lock® Series

Pin Location (Output)

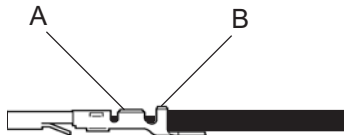
1-Red (+V), 2-Black (Ground), 3-White (Not Connected)

Pin Location (Power / Control)

#1 1-Red, 2-Blue, 3-Yellow, 4-White, 5-Brown, 6-Wht/Red
7-Black, 8-Green, 9-Orange

INSTALLATION:

1. First, install the Flasher in a protected location using the flasher itself as a template. Make sure all connectors are easily accessible.
2. CODE 3® LED-EX™ Lighthouse Termination Instructions:
 - a) Strip the insulation from each wire 1/8".
 - b) Crimp wire into terminal at position 'A' and crimp insulation at position 'B' of AMP socket P/N 61117-4.
 - c) Pull on wire to ensure a quality crimp (soldering is recommended to ensure good connection).
 - d) Insert pins into AMP connector # 1-480303-0 as shown in figure 4.



IMPORTANT

For continued reliability, waterproofing should be used on all terminals to prevent corrosion and premature failure of the connections.

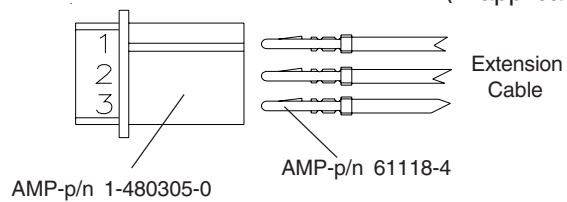
3. Install the LED light heads in the preferred locations.
4. Route the 3 conductor cable between each individual light and the Flasher. Make sure the cable is secure and protected from damage by chafing or binding. Be sure to keep the cable away from engine hot spots.
5. Insert AMP Mate-N-Lock® pin contacts P/N 61118-4 (on each end of the extension cables) into the AMP connectors P/N 1-480305-0. See Figure 3.

EXTENSION CABLE WIRING

Insert wires with male pins into the proper locations in the male AMP connector:

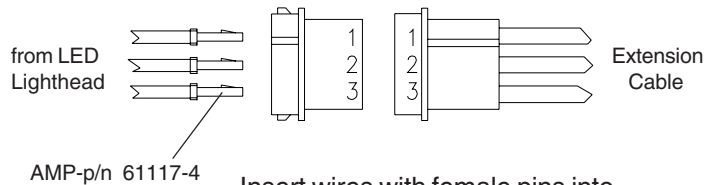
MALE AMP CONNECTOR
(to terminate the LED-EX
Lighthouse harness)

POWER WIRE - HOLE #1
GROUND WIRE - HOLE#2
CONTROL WIRE - NOT USED
(if applicable)



FEMALE AMP CONNECTOR

AMP-p/n 1-480303-0



Insert wires with female pins into the proper locations in the female AMP connector:

POWER WIRE - HOLE #1
GROUND WIRE - HOLE#2
CONTROL WIRE - HOLE #3(not connected)

Figure3

Remote LED Lighthoods (2 wire installation)

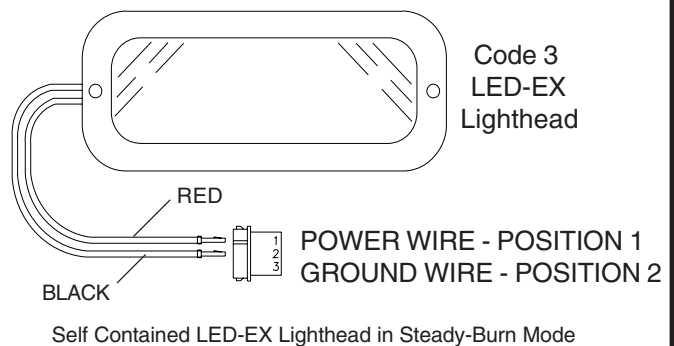


Figure4

NOTE:

It is important to follow the color code when inserting the pins into the AMP connectors.

6. Plug the extension cables to the LED light heads.
7. Next, plug the other end of the cable into the Light Head Output Socket on the Flasher, see Figure 1.

Output Designation:

Output #1	:	Group A, Left
Output #2	:	Group A, Right
Output #3	:	Group B, Left
Output #4	:	Group B, Right
Output #5	:	Group C, Left
Output #6	:	Group C, Right
Output #7	:	Group A, Left
Output #8	:	Group A, Right

8. **(Refer to Figure 5)** Plug the Power / Control Harness into the Flasher. Connect the Red and Black wires of the Power-In connector to +12V and ground terminals respectively. Insure that the Red power wire is fused with a 15 Amp AUTO style fuse. Connect the Flash-Pattern program and the Interclear-pattern program connectors to two momentary pushbutton switches, these switches can be used to program the desired flash-pattern for regular operation and Interclear® operation modes respectively. Also, if the Active-High Interclear option is desired, connect the white wire to the Interclear Output on the siren(if applicable). Connect the Green and Blue wires of the Mode Control Connector to +12V through two user supplied SPST switches. These switches could be used to activate the Group B and Group A outputs respectively.

Optional:

Connect the Photocell Input connector of the wiring harness to the optional photocell assembly P/N T08085 using the optional photocell extension cable P/N T08086.

Note:

In case a photocell option is not desired, the Black and Green wires of the Photocell Input connector should be connected together.

Flash - Pattern Programming

1. To program the regular operation flash pattern, depress and release the momentary switch connected to the Yellow wire to select a different flash pattern. Repeat until the desired pattern is selected.
2. To program the Interclear® flash pattern, repeat No.1 using the momentary switch connected to the orange wire. **Note: The White wire (Interclear Enable) should be connected to +12V when programming the Interclear pattern.**

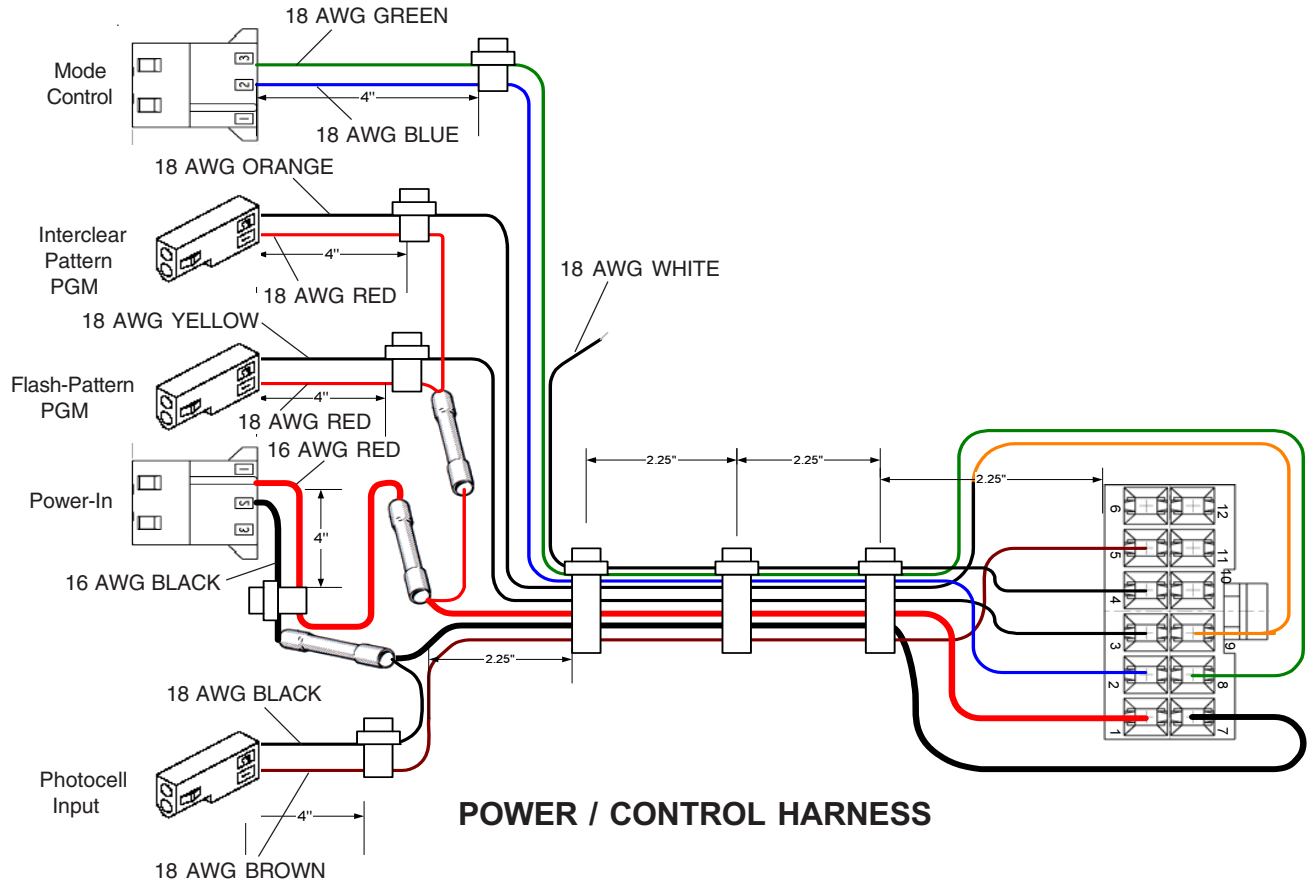


Figure5

NOTES:

NOTES:

WARRANTY

This product was tested and found to be operational at the time of manufacture. Provided this product is installed and operated in accordance with the manufacturer's recommendations, Code 3, Inc. guarantees all parts and components except the LED lamps for a period of 3 years from the date of purchase or delivery, whichever is later. Units demonstrated to be defective within the warranty period will be repaired or replaced at the factory service center at no cost.

Use of a load of a wattage higher than installed or recommended by the factory, or use of inappropriate or inadequate wiring or circuit protection causes this warranty to become void. Failure or destruction of the product resulting from abuse or unusual use and/or accidents is not covered by this warranty.

Code 3, Inc. shall in no way be liable for other damages including consequential, indirect or special damages whether loss is due to negligence or breach of warranty.

CODE 3, INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY INCLUDING, WITHOUT LIMITATION, WARRANTIES OF FITNESS OR MERCHANTABILITY, WITH RESPECT TO THIS PRODUCT.

PRODUCT RETURNS

If a product must be returned for repair or replacement*, please contact our factory to obtain a Return Goods Authorization Number (RGA number) before you ship the product to Code 3, Inc. Write the RGA number clearly on the package near the mailing label. Be sure you use sufficient packing materials to avoid damage to the product being returned while in transit.

*Code 3, Inc. reserves the right to repair or replace at its discretion. Code 3, Inc. assumes no responsibility or liability for expenses incurred for the removal and/or reinstallation of products requiring service and/or repair.; nor for the packaging, handling, and shipping; nor for the handling of products return to sender after the service has been rendered.

Problems or Questions? Call our Technical Assistance HOTLINE - (314) 996-2800

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CODE 3[®]
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