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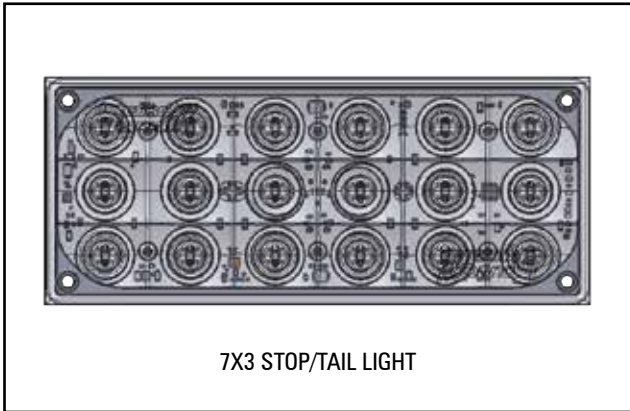
with Clear Duty® Technology
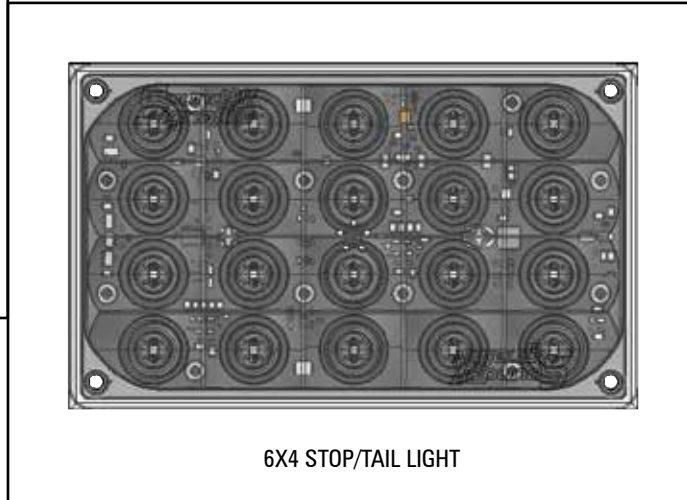
STOP/TAIL & TURN LIGHTS

EMPSC07M(x)-(x) - 7X3 Quick Mount, Screw Mount, & Stud Mount
EMPSB0C9(x)-(x) - 6X4 Quick Mount, Screw Mount, & Stud Mount

7X3 STOP/TAIL LIGHT

6X4 STOP/TAIL LIGHT

MPOWER®
STOP/TAIL LIGHT
TECHNICAL SPECIFICATIONS

Input Voltage:	9-32Vdc

STOP/TAIL LIGHT CURRENT CONSUMPTION (Amps)		
	12.8Vdc	25.6Vdc
	Peak	Peak
STOP	0.42	0.21
TAIL	0.04	0.02

TURN SIGNAL LIGHT CURRENT CONSUMPTION (Amps)				
	12.8Vdc		25.6Vdc	
	Peak	Average	Peak	Average
TURN	0.66	0.33	0.33	0.17

AFTER POWER IS ON, touching the WHITE wire to the ground will allow you to change various settings on the module. (refer to page 6).

NOTE: It is recommended to use the Stud Mount option for any dynamic mount surfaces (i.e. Swinging Panels, Doors, and Tail Gates).
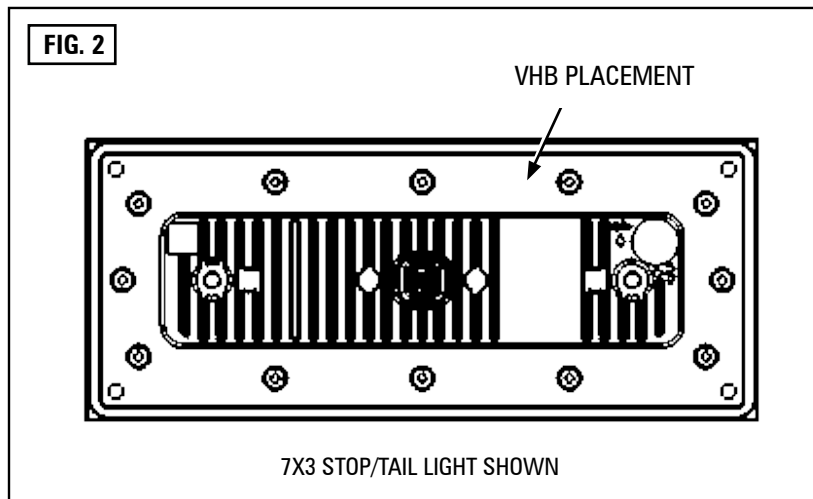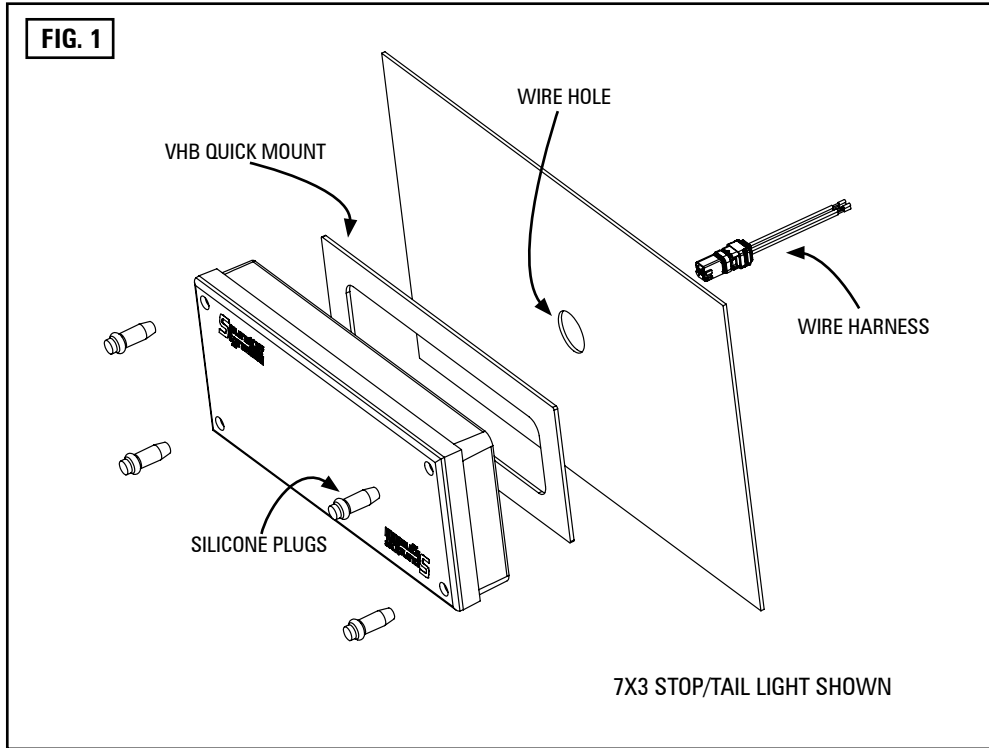
⚠ WARNING
This product contains high intensity LED devices. To prevent eye damage, DO NOT stare into the light beam at close range.

Protected by U.S. Patent 10,703,260 and Patents Pending
https://soundoffsignal.com/legal/patent-notification/

⚠ WARNING

•HIGH CURRENT interconnects must be properly terminated. Poor crimp quality can cause heat build-up and fire. Follow crimp connector manufacturer instructions.
•DO NOT install this product or route any wires in the Air Bag Deployment Zone. Refer to vehicle Owner's Manual for deployment zones.
•Unit may become hot to touch during normal operation.
•Failure to properly install connectors, fuses or wiring may cause vehicle failure or fire.
•Installation must only be performed by trained technician. Installer must determine vehicle wiring configuration and proper integration of system.
•Use proper wire gauge. All power wires connecting to positive (+) or negative (-) battery terminal or local chassis ground (-) must be sized to supply at least 125% of max. current and properly fused at power source.
•Install protective grommets when routing wire through firewall or metal.

NOTICE:
Installers and users must comply with all applicable federal, state and local laws regarding use and installation of warning devices.

Improper use or installation may void warranty coverage.
To review our Limited Warranty Statement & Return Policy for this or any SoundOff Signal product, visit our website at www.soundoffsignal.com/tech-services/returns/.
If you have questions regarding this product, contact Technical Services, Monday - Friday, 8 a.m. to 5 p.m. ET at 1.800.338.7337 (press #4).
Questions or comments that do not require immediate attention may be emailed to techservices@soundoffsignal.com.

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FIG. 1

VHB QUICK MOUNT

WIRE HOLE

WIRE HARNESS

SILICONE PLUGS

7X3 STOP/TAIL LIGHT SHOWN

FIG. 2

VHB PLACEMENT

7X3 STOP/TAIL LIGHT SHOWN

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2

QUICK MOUNT INSTALLATION

1. Drill a 3/4" wire hole.
Insert (4) Silicone Plugs into Light to Seal Screw Holes. (Use a 50% Isopropyl alcohol, 50% deionized water mix for lubrication if necessary)

Caution: Petroleum/Silicone based lubricants will cause the silicone lens to discolor.

3. Prep the back of the light and vehicle mount surfaces with 50% deionozed water, 50% isopropyl alcohol wipe, and allow to dry.
4. Adhere VHB quick mount to the back of the light and press down firmly for 15 seconds on full surface. See Fig. 2
5. Pull the wire harness through the vehicle wire hole and plug into the back of the light.
6. Lightly place the light against vehicle mount surface and check that the alignment is satisfactory. Once alignment is correct press firmly against light for 15 seconds to set VHB quick mount.

NOTE: Bezel will not work with the Quick Mount option.
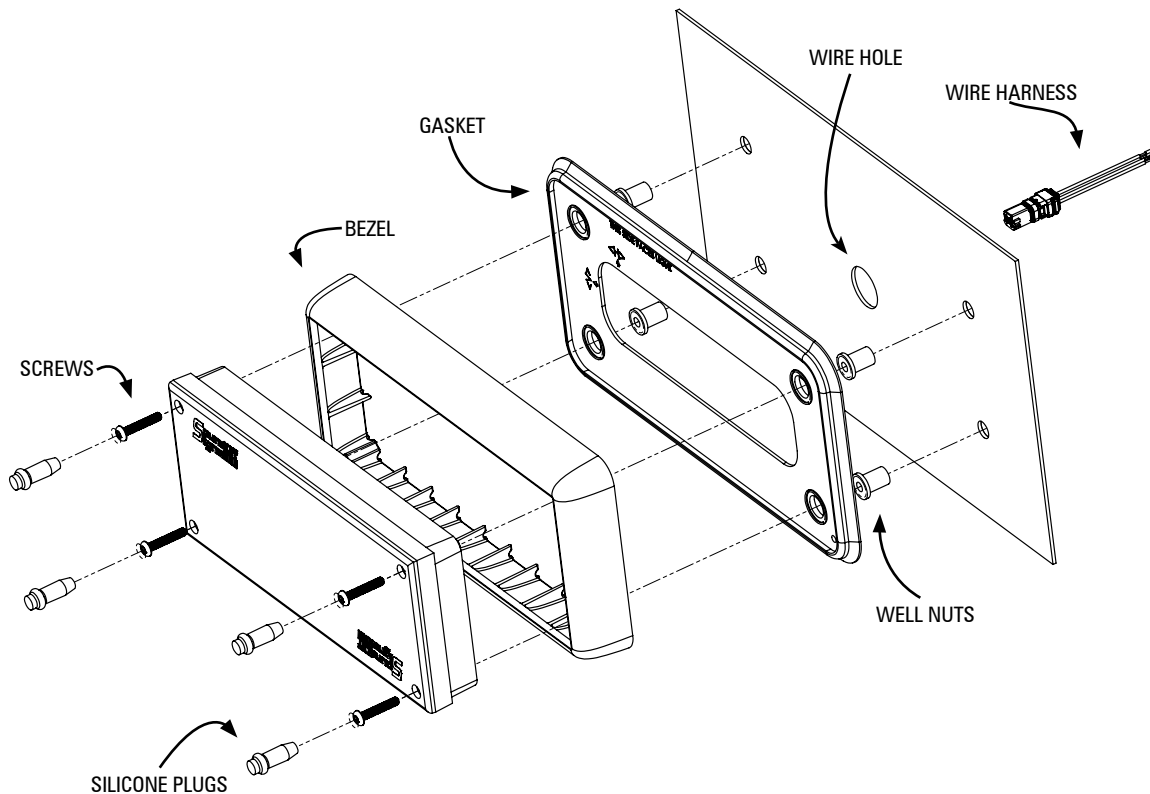
7X3 QUICK MOUNT PART NUMBERS

EMPSC07M6-R - Stop/Tail & Turn Light, Quick Mount
EMPSC07M7-A - Turn Light, Quick Mount

6X4 QUICK MOUNT PART NUMBERS

EMPSB0C94-R - Stop/Tail & Turn Light, Quick Mount
EMPSB0C95-A - Turn Light, Quick Mount

7x3 Silicone_STT 0421

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SCREWS

SILICONE PLUGS

BEZEL

GASKET

WIRE HOLE

WIRE HARNESS

WELL NUTS

7X3 STOP/TAIL SCREW MOUNT LIGHT SHOWN

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SCREW MOUNT INSTALLATION

1. Drill (4) 5/16 holes to mount light. Drill 3/4" wire hole. See Fig. 2
2. Insert well nuts into the 4 drilled holes. Fully seat to mounting surface.
3. Align the gasket to the mounting surface.

   NOTE: Horizontal and vertical orientations indicated on gasket for proper seal.

4. Place the bezel over gasket.
5. Pull the wire harness through the opening and plug into the back of the light.
6. Place the light into bezel, press firmly to make sure bezel and gasket are tight against mouting surface.
7. Secure the light to mounting surface using (4) supplied screws.

   NOTE: Tighten until gasket is compressed. DO NOT over tighten and strip moly anchors.

8. Insert (4) Silicone Plugs into Light to Seal Screw Holes. (Use a 50% Isopropyl alcohol, 50% deionized water mix for lubrication if necessary)

   Caution: Petroleum/Silicone based lubricants will cause the silicone lens to discolor.

DO NOT USE POWER TOOLS TO TIGHTEN

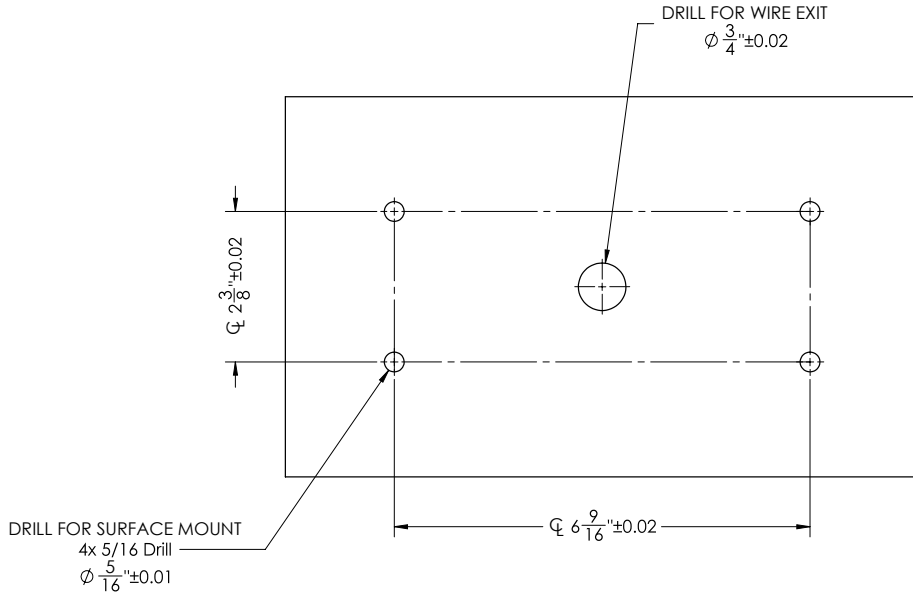### 7X3 SCREW MOUNT PART NUMBERS
EMPSC07ME-R - Stop/Tail & Turn Light, Screw Mount
EMPSC07MF-A - Turn Light, Screw Mount
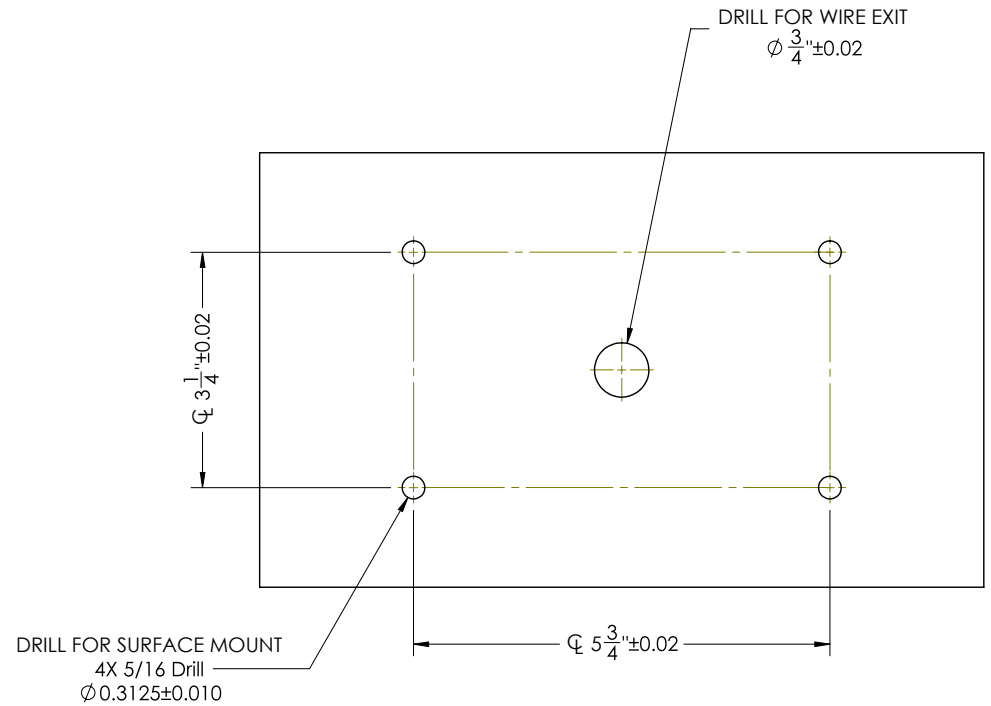
6X4 SCREW MOUNT PART NUMBERS
EMPSB0C9B-R - Stop/Tail & Turn Light, Screw Mount
EMPSB0C9C-A - Turn Light, Screw Mount

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DRILL FOR WIRE EXIT
$\varnothing \frac{3}{4}$"±0.02

$\mathbb{C} \, 2\frac{3}{8}$"±0.02

DRILL FOR SURFACE MOUNT
4x 5/16 Drill
$\varnothing \frac{5}{16}$"±0.01

$\mathbb{C} \, 6\frac{9}{16}$"±0.02

7X3 STOP/TAIL & TURN SCREW MOUNT TEMPLATE
NOT TO SCALE, FOR REFERENCE ONLY

DRILL FOR WIRE EXIT
$\varnothing \frac{3}{4}$"±0.02

$\mathbb{C} \, 3\frac{1}{4}$"±0.02

DRILL FOR SURFACE MOUNT
4X 5/16 Drill
$\varnothing 0.3125$±0.010

$\mathbb{C} \, 5\frac{3}{4}$"±0.02

6X4 STOP /TAIL & TURN SCREW MOUNT TEMPLATE
NOT TO SCALE, FOR REFERENCE ONLY

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FIG. 1

WIRE HARNESS

GASKET

STUDS

NUTTS

SILICONE PLUGS

BEZEL

7X3 STOP/TAIL STUD MOUNT LIGHT SHOWN

DRILL FOR STUD MOUNT
$2x \varnothing \frac{1}{4}"\pm0.02$

DRILL FOR WIRE EXIT
$\varnothing \frac{3}{4}"\pm0.02$

$\mathbb{C} \ 4\frac{1}{2}"\pm0.02$

FIG. 2

NOT TO SCALE, FOR REFERENCE ONLY

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STUD MOUNT INSTALLATION

1. Drill (2) 1/4" holes to mount light. Drill 3/4" wire hole. See Fig. 2
2. Insert (4) Silicone Plugs into Light to Seal Screw Holes. (Use a 50% Isopropyl alcohol, 50% deionized water mix for lubrication if necessary)

   Caution: Petroleum/Silicone based lubricants will cause the silicone lens to discolor.

3. Thread studs into the back of light.
4. Align the gasket to the mounting surface.

   NOTE: Horizontal and vertical orientations indicated on gasket for proper seal.

5. Place the bezel over gasket.
6. Place the light into bezel, press firmly to make sure bezel and gasket are tight against mouting surface.
7. Secure the light to mounting surface using (2) supplied nuts.

   NOTE: Tighten until gasket is compressed. DO NOT over tighten and strip casting threads.

8. Pull the wire harness through the opening and plug into the back of the light.

DO NOT USE POWER TOOLS TO TIGHTEN

7X3 STUD MOUNT PART NUMBERS
EMPSC07MP-R - Stop/Tail & Turn Light, Stud Mount
EMPSC07MQ-A - Turn Light, Stud Mount

6X4 STUD MOUNT PART NUMBERS
EMPSB0C6Y-R - Stop/Tail & Turn Light, Stud Mount
EMPSB0C9K-A - Turn Light, Stud Mount

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WIRING AND TABLE INFORMATION

OVER-VOLTAGE PROTECTION
When an over-voltage condition is detected, the module will flash an over-voltage warning pattern of 50mS ON/950mS OFF to alert of the over-voltage condition and protect the electronics from damage due to heat/voltage.

THERMAL COMPENSATION PROTECTION
The LED module is designed to provide maximum power output while providing protection to the electronic components by reducing the output power at extreme temperatures.

STOP/TAIL/TURN MODEL - WIRING DIRECTLY TO VEHICLE LIGHTING
(Does not apply to bluePRINT® Installations)
On some vehicles, the 6X4 and 7X3 mpower Stop and Turn models may not be compatible without additional wiring due to Pulse Width Modulation (PWM) on the vehicle's Stop, Turn, or Tail lamp circuits. The PWM cycling can cause the lights to activate unintentionally when they are directly connected to the vehicle circuits. Using a BCM driven relay circuit such as the trailer circuit provided in most trucks allow for an isolated activation to the mpower lights. In cases where the vehicle does not have trailer circuits available, aftermarket relays may be used. **Please see the schematics on Page 7.**

STOP/TAIL LIGHT FUNCTION TABLE

WIRE			LIGHT
RED	ORANGE	WHITE	
	X		TAIL FUNCTION
X			STOP FUNCTION
X		X	STOP FUNCTION (FLICKER PATTERN)

TURN LIGHT FUNCTION TABLE

WIRE			LIGHT
RED	ORANGE	WHITE	
	X		TAIL FUNCTION
X			TURN FUNCTION

NOTE: The inputs do not support PWM input signals.

WIRE HOOK-UP TABLE

WIRE COLOR	FUNCTION
RED	Power (Stop/Turn Function)
BLACK	Ground
GREEN**	Reserved - Factory Use
WHITE to POWER	(Flicker Stop Pattern)
ORANGE	Power (Tail Function)

** To sync multiple mPower lights, connect the Green wire from each light together.
* Will NOT work with other sync products such as Ghost, LED3, & 4 wire Intersector with external flasher.
* Will Work with Sync 2 products nFORCE® Secondary Lights, nFORCE FIT and 5 wire Intersector Lights.

3 A FUSE — ORANGE
+Vdc

Set-up/Function — WHITE
+Vdc — RED

3 A FUSE — BLACK
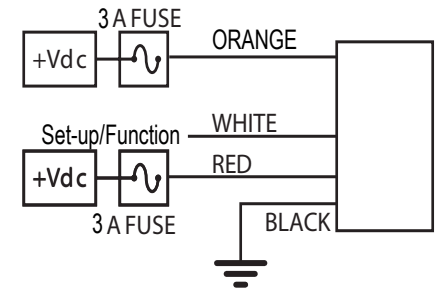
Lights are chassis-grounded. If you need to ground-switch the light, you must isolate the lights metal backing, heatsink, studs and/or screws from the body of the vehicle or use a relay.

FOR THE TURN LIGHT ONLY

ADVANCE PATTERN
Flash pattern can only be changed when the LED module is in a flashing mode (disabled in cruise or steady ON functions). When the light is flashing, momentarily connect the white wire to ground for >250mS and <1S (light will go steady high) then release. The flash pattern will advance to the next pattern. If the light module was at the last pattern, the pattern will reset to the 1st pattern
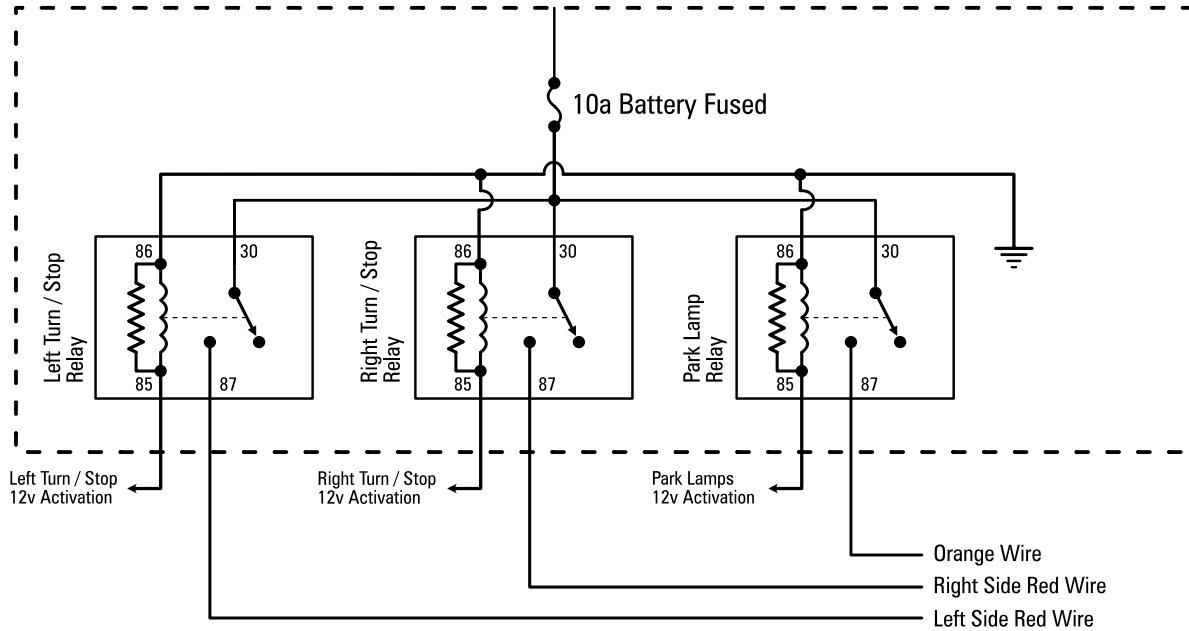
TOGGLE MODE
Momentarily, connect the white wire to ground for >2S and <3S (light will go steady high, and steady low) then release. The output mode will toggle between "repeat sequence" and "run sequence once" modes.

FACTORY RESET
Momentarily, connect the white wire to ground for >1S and <2S (light will go steady high, steady low, and off) then release. The LED module will reset to pattern 1 and mode "run sequence once."
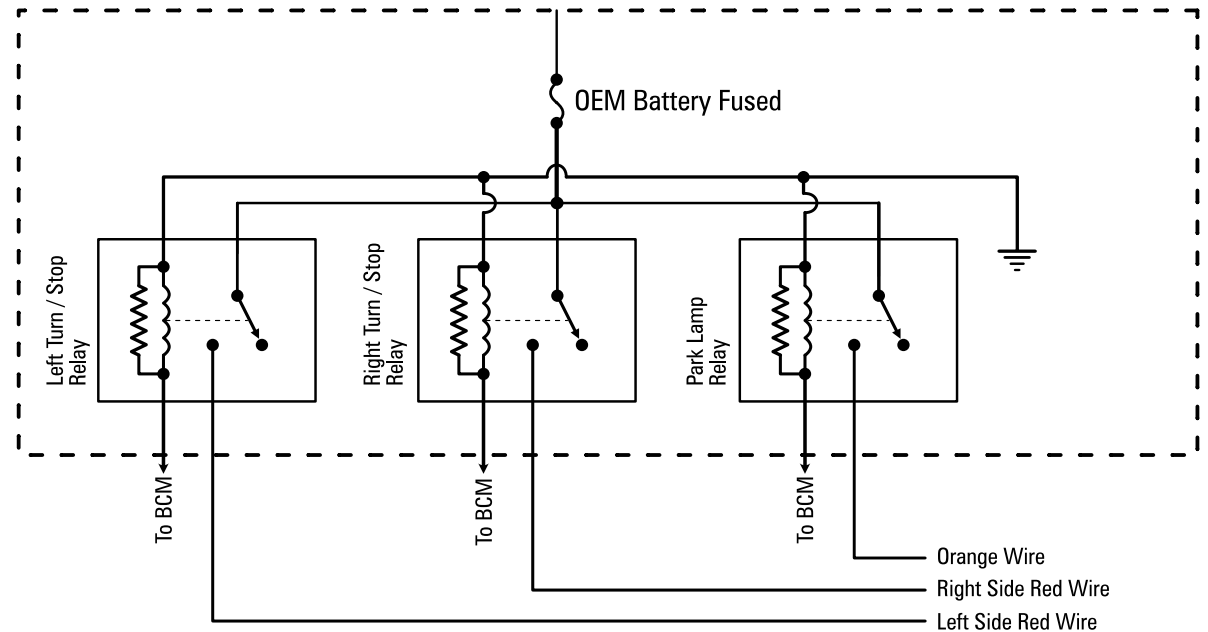
PROGRAMMING MODE NOTE: The light must be powered by the red or orange wire prior to activating the programming wire.
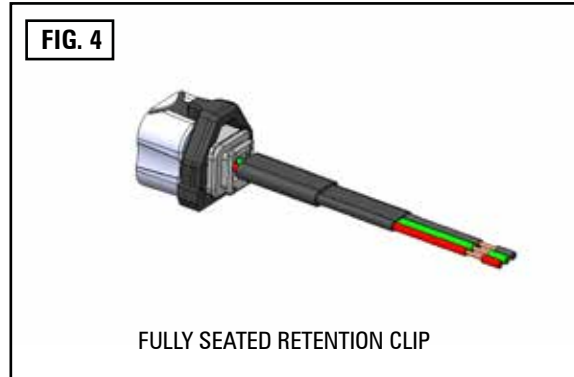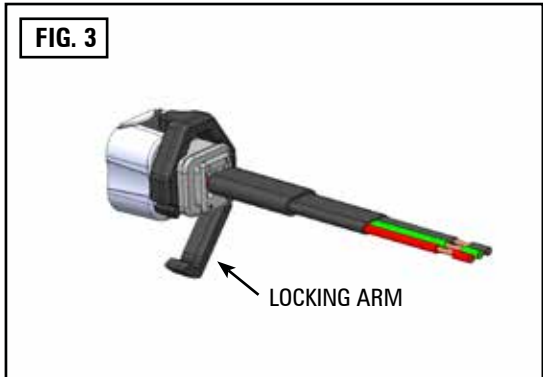
FLASH PATTERNS

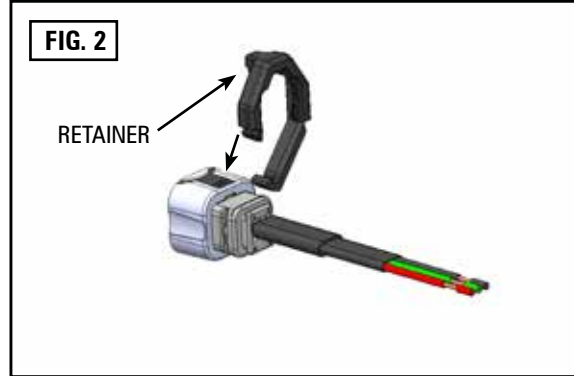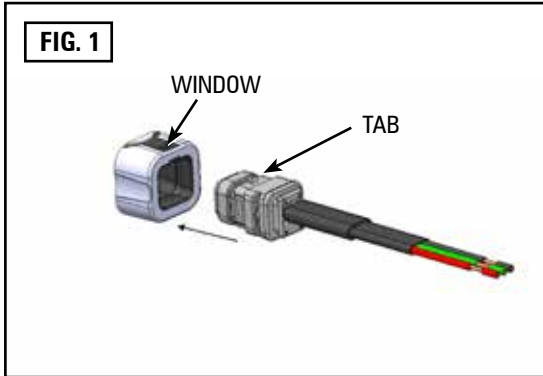|	FLASHES PER MINUTE
1	1 (Steady)
2	60
3	90
4	120

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TYPICAL TRAILER CIRCUIT

10a Battery Fused

| 86 | 30 |
Left Turn / Stop Relay
| 85 | 87 |

| 86 | 30 |
Right Turn / Stop Relay
| 85 | 87 |

| 86 | 30 |
Park Lamp Relay
| 85 | 87 |

Left Turn / Stop
12v Activation

Right Turn / Stop
12v Activation

Park Lamps
12v Activation

Orange Wire

Right Side Red Wire

Left Side Red Wire

AFTERMARKET RELAY ISOLATION

OEM Battery Fused

Left Turn / Stop Relay

Right Turn / Stop Relay

Park Lamp Relay

To BCM

To BCM

To BCM

Orange Wire

Right Side Red Wire

Left Side Red Wire

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FIG. 1

WINDOW

TAB

FIG. 2

RETAINER

FIG. 3

LOCKING ARM

FIG. 4

FULLY SEATED RETENTION CLIP

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