

3900 Central Parkway  
Hudsonville, MI 49426  
toll free 800.338.7337  
office 616.896.7100  
techsupport@soundoffsignal.com  
www.soundoffsignal.com

## UNDERCOVER L.E.D. KIT INSTALLATION INSTRUCTIONS ELUCF04

# UNDERCOVER LED INSERT

**⚠ WARNING**  
This product contains high intensity LED devices. To prevent eye damage, DO NOT stare into light beam at close range.

**⚠ WARNING-HOT!**  
This product must be mounted with sufficient clearance from any plastic part. Failure to do so may result in permanent damage to the housing.

### UNDERCOVER MUST BE INSTALLED INSIDE THE VEHICLE LENS ASSEMBLY WITH THE GASKET PROVIDED.

- Drill holes according to the diagrams at right. Take care to drill the pilot holes so that when installed, the UNDERCOVER heads will be at a 45° angle to the center line of the vehicle (see diagram).
- Assemble components and re-install.
- Attach wire with connectors as provided, and secure the remaining wire.

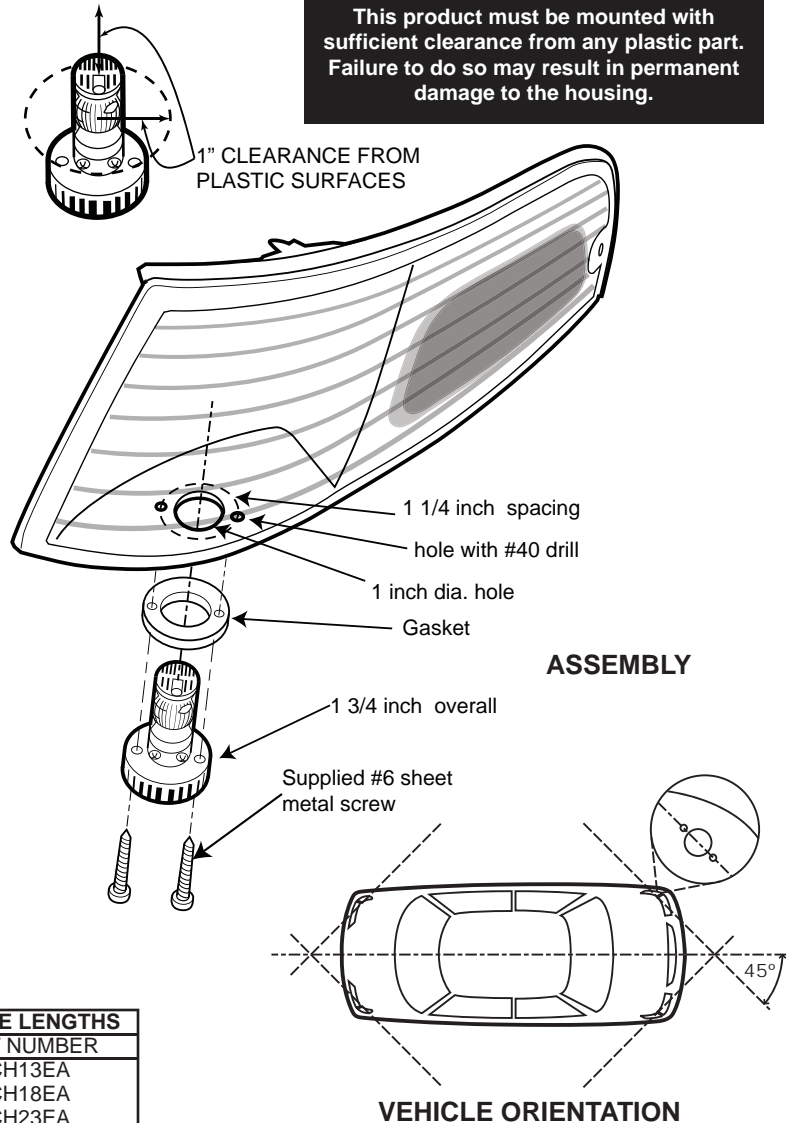
### WIRE CONNECTIONS

Wire Clr	Function	Signal
Red	Power	+10 – 16 Vdc
Black	Ground	Ground
White	PatternSelect/Sync	+10 – 16 Vdc
Blue	Enable A(Head 1 and Head 2)	+10 – 16 Vdc
Yellow	Enable B(Head 3 and Head 4)	+10 – 16 Vdc
Purple	Mode 2	+10 – 16 Vdc

**NOTE:**  
The UNDERCOVER is a factory sealed unit that CANNOT be serviced in the field. Any attempt to gain access to the UNDERCOVER unit will most likely cause permanent damage and void its warranty.

COLORED LED INSERTS	
COLOR	PART NUMBER
WHITE	ELUCMV-W
RED	ELUCMV-R
BLUE	ELUCMV-B
AMBER	ELUCMV-A

ADDITIONAL CABLE LENGTHS	
LENGTH	PART NUMBER
13 ft.	ELUCH13EA
18 ft.	ELUCH18EA
23 ft.	ELUCH23EA



**WARNING:** Warning devices are strictly regulated and governed by Federal, State and Municipal ordinances. These devices shall be used ONLY on approved vehicles. It is the sole responsibility of the user of these devices to ensure compliance.

### MOUNTING INSTRUCTIONS

One UNDERCOVER KIT consists of a flasher, 4 light heads, and 4 wire connectors. Up to 4 kits can be installed in one vehicle. The flasher should be installed at a central location with the sync (WHITE) wire extended to a common junction with all other sync wires. The UNDERCOVER light heads should be installed inside an existing light assembly on the vehicle (headlight or taillight). Locate a surface on the vehicle light assembly that is horizontal, and provides a clearance of 1" from the UNDERCOVER light head. **The light head must be vertical to ensure proper light distribution.** The light can be mounted upright or suspended from a top surface at the installer's discretion.

- Remove the headlight or taillight assembly according to the vehicle manufacturer's instructions.
- Establish a location for each UNDERCOVER flasher box that is close to the UNDERCOVER light heads it will operate.
- In multiple kit applications, determine a path for the sync (WHITE) wires from each flasher box.
- Find a location on each light assembly that is horizontal, will accommodate the light head and not interfere with other components. **WARNING!** The heat output of the undercover LED kit can melt plastic if not installed with adequate space around the unit. A minimum of 1" clearance must be maintained. See warning.



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## UNDERCOVER L.E.D. KIT INSTALLATION INSTRUCTIONS ELUCF04

### PATTERN SELECTION

1. Disconnect WHITE wire from any connections if applicable.
2. Turn UNDERCOVER ON by applying power to RED, YELLOW, BLUE.
3. Momentarily touching and removing the WHITE wire to ground will advance the UNDERCOVER to the next flash pattern. Touching and removing the WHITE wire for more than a few seconds will allow you to change the UNDERCOVER to the previous pattern. See flash pattern table. Continuing to touch and remove the WHITE wire to ground will allow you to scroll through the pattern list. After pattern #33 is reached the list will start over again at pattern #1.

### MODE 2 PATTERN SELECTION

Repeat pattern selection (above) with PURPLE, RED, YELLOW AND BLUE wire connected to +10-16Vdc (Step #2).

### UNDERCOVER Sync Configuration Instructions

1. Set ID#
  - a. Identify which pattern you want by using the Flash Patterns Table on this sheet.
  - b. Connections
    - i. RED: +10-16Vdc
    - ii. BLUE: +10-16Vdc
    - iii. YELLOW: +10-16Vdc
    - iv. WHITE: +10-16Vdc (Note: you will need to disconnect after power is applied)
    - v. BLK: Ground
  - c. Apply power to unit
  - d. Without disconnecting power from unit, disconnect WHITE wire
  - e. Momentarily connect WHITE to Ground to change ID #
    - i. Identify ID# by number of sequential flashes
    - ii. Possible ID#s: 1 – 4
  - f. Connect PURPLE to +10-16Vdc
  - g. Momentarily connect WHITE to Ground to change ID #
    - i. Identify ID# by number of sequential flashes
    - ii. Possible ID#s: 1 – 4
  - f. Disconnect power from unit to get out of ID mode.
  - g. Disconnect PURPLE from power.
2. Set Pattern
  - a. Reapply power to units.
  - b. Once all Light Head ID#s are configured, make sure all lights are flashing the same pattern.
  - c. Connect corresponding colored wires of all units together: RED to RED, etc.
  - d. Change Pattern
    - i. Momentarily connect WHITE wires to Ground
    - ii. Observe pattern change on all lights connected
  - d. Change AUX Pattern
    - i. Connect PURPLE to +10-16Vdc
    - ii. Momentarily connect WHITE wire to Ground
    - iii. Observe pattern change on all lights connected
  - e. Insulate all wires by taping with electrical tape
3. Connect Master Switch for Application.

### SINGLE KIT (4 LIGHT HEADS)

Follow the ID selection steps and set the UNDERCOVER to the following ID:

- Alternating (default): ID#1 or ID#3. (includes cycle patterns and steady burn patterns) (LED Heads 1 and 2 will alternate with LED Heads 3 and 4)
- Simultaneous: ID#2 or ID#4. (All lights will flash together regardless of pattern)

### TWO KITS (8 LIGHT HEADS)

Follow the ID selection steps and set the UNDERCOVER to the following ID:

IMPORTANT: Make sure all kits flash the same pattern!

- Both kits simultaneous with individual lights alternating. Set both UNDERCOVER assemblies to ID#1
- Both kits alternating with individual lights alternating. Set one UNDERCOVER to ID#1 and the other to ID#3
- Both kits alternating with individual lights simultaneous. Set one UNDERCOVER to ID#2 and the other to ID#4
- Both kits simultaneous with individual lights simultaneous. Set both UNDERCOVER assemblies to ID#2

#### PATTERN RESET

1. Remove power
2. Place WHITE (sync) wire to ground
3. With sync wire grounded, re-power RED, BLUE, YELLOW wire
4. Maintain for one second (light will dim)
5. Remove power and ground (pattern 1 set)

### X-Pattern Sequence

LED Head#1 > LED Head#4 > LED Head#2 > LED Head#3

### X-Pattern Light Head Placement

LED Head#4	LED Head#2
LED Head#3	LED Head#1



NOTE: The UNDERCOVER is equipped with flash pattern memory. Once you have selected a pattern the UNDERCOVER will always activate to that pattern every time the unit is turned on. Tape up and secure WHITE/RED wire so that it will not accidentally change your selected pattern.

### SLAVE MODE

The UNDERCOVER is capable of being activated through the use of a user supplied flasher by putting it in slave mode.

1. Permanently connect the UNDERCOVER WHITE and BLACK wire to a good, convenient ground.
2. Connect the UNDERCOVER RED wire, through a 10Amp fuse, to the output of a +10-16Vdc switching flasher.

### FLASH PATTERNS for UNDERCOVER L.E.D. (ELUCF04)

#	Pattern Name	1 Light	Alternating 2 Lights	Simultaneous 2 Lights	X-Pattern 4 Lights	Flashes/ Minute
1	Quint	X	X	X		70
2	Warp	X	X	X		350
3	Inter-Cycle Flash	X	X			
4	Double Flash	X	X	X		70
5	Quad Flash	X	X	X		80
6	Power Pulse	X	X	X		180
7	Road Runner	X	X	X		113
8	Q-Switch	X	X			
9	Road Runner Steady Burn	X	X			113
10	Quad Steady Burn	X	X			80
11	E-Ideal Single Flash	X	X	X		200
12	E-Ideal Double Flash	X	X	X		146
13	Quad2 Flash	X	X	X		67
14	Double2 Flash	X	X	X		95
15	X-Warp				X	
16	X-Double				X	
17	PowerRunner	X	X	X		
18	LCR Quint	X	X	X		
19	Warp <sup>2</sup>	X	X	X		
20	Ultra Warp	X	X	X		545
21	Thunder and Lightning	X	X			
22	LiteSpeed	X	X	X		85
23	SuperSonic	X	X	X		170
24	LCR LiteSpeed	X	X	X		
25	Super Sonic Ultra	X	X	X		
26	Tempo Shift	X	X	X		
27	TempoShift Warp	X	X	X		67
28	SBE <sup>2</sup>	X	X	X		200
29	C <sup>2</sup>	X	X	X		176
30	U <sup>2</sup>	X	X	X		
31	UltraGlow	X	X	X		
32	Cyclone	X	X	X		
33	Chameleon	X	X	X		