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## UNDERCOVER L.E.D. KIT INSTALLATION INSTRUCTIONS ELUCKV01 ELUCKV02

# 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.

**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.

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

#### MOUNTING INSTRUCTIONS

One UNDERCOVER KIT consists of a flasher, 2 light heads, and 2 wire connectors. Up to 4 kits can be installed in one vehicle. The flasher should be installed as close to the light heads as possible with the *sync* (WHITE/RED) 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. Locate a surface on the vehicle light assembly that is horizontal, and provides clearance for a 1 3/4" circle. The "UNDERCOVER" can be installed on a top or bottom surface. **The light head must be vertical to ensure proper light distribution.**

1. Remove the headlight or tail-light assembly according to the vehicle manufacturer's instructions.
2. Establish a location for each UNDERCOVER flasher box that is close to the UNDERCOVER light heads it will operate.
3. In multiple kit applications, determine a path for the sync (WHITE/RED) wires from each flasher box.
4. Find a location on each light assembly that is horizontal, and will accommodate the light head as well as 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 is recommended. See warning.

5. 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).
6. Assemble components and re-install.
7. Attach wire with connectors as provided, and secure the remaining wire.

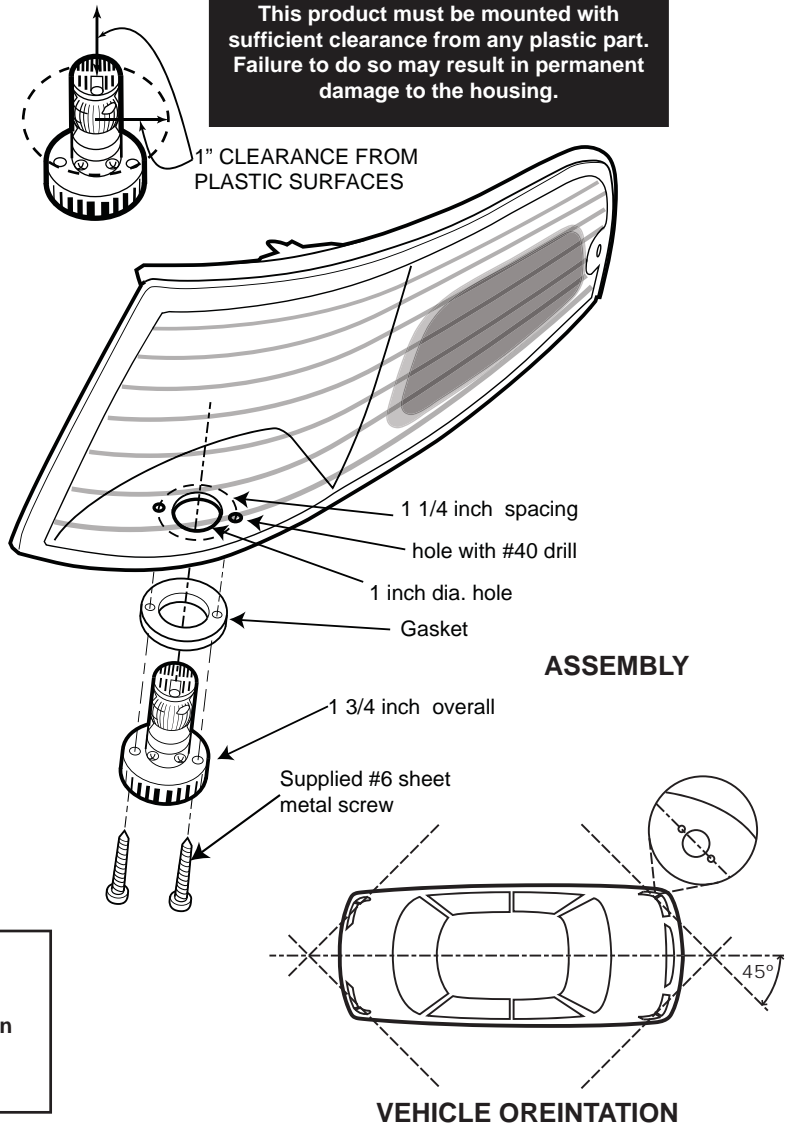
#### WIRE CONNECTIONS

See setup procedure on second page

1. Connect the UNDERCOVER BLACK wire from the flasher box to a good, convenient ground.
2. Connect the UNDERCOVER RED wire from the flasher box to one side of a user supplied on/off switch. Connect the other side of the switch, through a 5Amp fuse, to a source of +10-30Vdc.

#### 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.





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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



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.

### SINGLE KIT (2 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)
- Simultaneous: ID#2 or ID#4. (both lights will flash together regardless of pattern)

### TWO KITS (4 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**

### X-Pattern Sequence

ID#1 > ID#4 > ID#2 > ID#3

### X-Pattern Light Head Placement

ID#4	ID#2
ID#3	ID#1

#### PATTERN RESET

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

### 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: +10-30Vdc
    - ii. WHT: +10-30Vdc (Note: you will need to disconnect after power is applied)
    - iii. BLK: Ground
  - c. Apply power to unit
  - d. Without disconnecting power from unit, disconnect WHITE/RED wire
  - e. Momentarily connect WHITE/RED to Ground to change ID #
    - i. Identify ID# by number of sequential flashes
    - ii. Possible ID#: 1 – 4
  - f. Disconnect power from unit to get out of ID mode.
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/RED wires to Ground
    - ii. Observe pattern change on all lights connected
  - e. Insulate all wires by taping with electrical tape
3. Connect Master Switch for Application.

### PATTERN SELECTION

1. Disconnect WHITE/RED wire from any connections if applicable.
2. Turn UNDERCOVER ON.
3. Momentarily touching and removing the WHITE/RED wire(s) to ground will advance the UNDERCOVER to the next flash pattern. Touching and removing the WHITE/RED 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/RED wire(s) 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.

### 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/RED and BLACK wire to a good, convenient ground.
2. Connect the UNDERCOVER RED wire, through a 5Amp fuse, to the output of a +10-30Vdc switching flasher.

### FLASH PATTERNS for UNDERCOVER L.E.D. (ELUCKV01, ELUCKV02)

#	Pattern Name	1 Assy.	Alternating 2 Assys.	Simultaneous 2 Assys.	X-Pattern 4 Assys.	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>3</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	SuperSonic Ultra	X	X	X		
26	TempoShift	X	X	X		
27	TempoShift Warp	X	X	X		
28	SBE2	X	X	X		67
29	C <sup>1</sup>	X	X	X		200
30	UP <sup>1</sup>	X	X	X		176
31	UltraGlow	X	X	X		
32	Cyclone	X	X	X		
33	Chameleon	X	X	X		