# UNDER COVER LED INSERT
by SoundOff Signal

## UNDERCOVER LED INSERT KITS

ELUCKVØ1, ELUCKVØ1(x)     2 Head Kits
ELUCKVØ2, ELUCKVØ2(x)     4 Head Kits
ELUCKVØ3, ELUCKVØ3(x)     6 Head Kits

2 Head Kit includes
2 LED Inserts,
1 - 2 Head Flasher &
2 - Tyco High Flex Santoprene Cables (1 - 10 ft. & 1 - 6 ft.).

4 Head Kit includes
4 LED Inserts,
1 - 4 Head Flasher &
4 - Tyco High Flex Santoprene Cables (2 - 10 ft. & 2 - 6 ft.).

6 Head Kit includes
6 LED Inserts,
1 - 2 Head Flasher.
1 - 4 Head Flasher &
6 - 8 ft. Tyco High Flex Santoprene Cables.

*Please see reverse for Technical Specifications and Illustrations*

## Important Information:

• 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.
• DO NOT install this product or route any wires in the Air Bag Deployment Zone. Refer to your vehicle Owner's Manual for the location of any air bag deployment zones.
• DO NOT connect this device to a strobe power supply. This product is self-contained and does not require an external power supply.

## 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.

1. Remove the headlight or taillight 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) wires from each flasher box.
4. 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.

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

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 45º 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

| WIRE HOOK-UP TABLE | |
|---|---|
| **WIRE COLOR:** | **CONNECT TO:** |
| RED | 10-16Vdc |
| BLACK | Ground (-) |
| WHITE | Pattern Select/Sync |
| BLUE | 10-16Vdc Enable A (Hd. 1,2) |
| YELLOW | 10-16Vdc Enable B (Hd. 3,4) |
| PURPLE | 10-16Vdc Mode 2 |

## ⚠ 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

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

SoundOff Signal

ELUCKVØ(xx)  8.09

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## UNDERCOVER LED INSERT KITS

| | |
|---|---|
| ELUCKVØ1, ELUCKVØ1(x) | 2 Head Kits |
| ELUCKVØ2, ELUCKVØ2(x) | 4 Head Kits |
| ELUCKVØ3, ELUCKVØ3(x) | 6 Head Kits |

### TECHNICAL SPECIFICATIONS

| | |
|---|---|
| Overall Dimensions: | 2.14"H x Ø1.6"(base) x Ø.95" |
| Flash Patterns: | 33 flash patterns |
| Input Voltage Range: | 10 - 16 Vdc |
| Current Consumption: | 0.75 Amps / module |
| # of LEDs: | 1 Gen3 Multi-chip LED cluster |
| Light Sync Technology: | Yes |
| Operating Temperature: | -40º to +65º C |

**Replacement Parts & Accessories:**

ELUCMV-(x) UnderCover Insert
ELUCFØ2 - 2 Head Flasher
ELUCFØ4 - 4 Head Flasher
ELUCHØ4EA - 6 ft. Cable*
ELUCHØ8EA - 10 ft. Cable*
ELUCH13EA - 13 ft. Cable*
ELUCH18EA - 18 ft. Cable*
ELUCH23EA - 23 ft. Cable*
*Cables include splashproof AMP Connectors.

**SoundOff Signal®**

1" CLEARANCE FROM PLASTIC SURFACES

1 1/4 inch  spacing
hole with #40 drill
1 inch dia. hole
Gasket

**ASSEMBLY**

1 3/4 inch  overall

Supplied #6 sheet metal screw

**VEHICLE ORIENTATION**

45º

### Flash Patterns

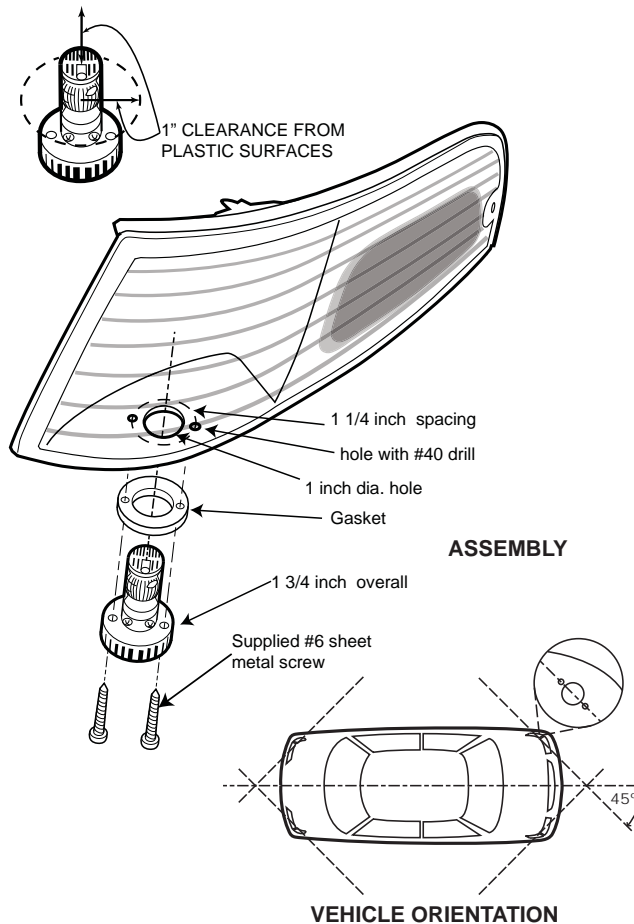| Pattern Name | 1 Light | Alternating 2 Lights | Simultaneous 2 Lights | X-Pattern 4 Lights | F.P.M. (Flashes / Minute) |
|---|---|---|---|---|---|
| 1. Quint | x | x | x | | 70 |
| 2. Warp | x | x | x | | 350 |
| 3. Inter-Cycle Flash | x | x | | | |
| 4. Double Flash | x | x | x | | 70 |
| 5. Quad Flash | x | x | x | | 80 |
| 6. PowerPulse™ | x | x | x | | 180 |
| 7. RoadRunner™ | x | x | x | | 113 |
| 8. Q-Switch™ | x | x | | | |
| 9. RoadRunner™ 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. Warp³ | x | x | x | | |
| 20. Ultra Warp | x | x | x | | 545 |
| 21. Thunder & Lightning | x | x | | | |
| 22. Lite Speed | x | x | x | | 85 |
| 23. SuperSonic | x | | x | | 170 |
| 24. LCR Lite Speed | x | x | x | | |
| 25. SuperSonic Ultra | x | x | x | | |
| 26. Tempo Shift | x | x | x | | |
| 27. Tempo Shift Warp | x | x | x | | |
| 28. SBE2 | x | x | x | | 67 |
| 29. C² | x | x | x | | 200 |
| 30. U² | x | x | x | | 176 |
| 31. Ultra Glow | x | x | x | | |
| 32. Cyclone | x | x | x | | |
| 33. Chameleon | x | x | x | | |

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ELUCKVØ3, ELUCKVØ3(x)     6 Head Kits

### 2 HEAD OR 4 HEAD KITS (ELUCKVØ1, ELUCKVØ2)
Follow the ID selection steps and set the UNDERCOVER to the following ID:
    - Alternating (default): ID#1 or ID#3. (inludes 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)

### 6 HEAD KIT (ELUCKVØ3)
Note: the 6 head kit consists of 1-2 head and 1-4 head kit.
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
After the above steps have been completed tie the white wires together using wire nut or solder. Tape any bare wires to prevent shorting.

### 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)

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### 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 |

### 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.

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### 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.

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