



# UltraRAY<sup>®</sup>

LED Warning Beacon

## Technical Data and Wiring Instructions

Please retain for future reference

### Technical Data

	Voltage
Voltage	12-24 VDC
FPM	User Selectable
Amps	1.5 A
Certification	SAE J845 Class I red and amber
Mass	1.5 lbs (4") 2.3 lbs (6")
Lamp type	LED

#### Notes:

1. Use grommets and sealant when passing wiring through compartment walls. Minimize the number of splices to reduce voltage drop. High ambient temperatures (e.g. under hood) will significantly reduce the current carrying capacity of wires, fuses and circuit breakers. All wiring should conform to the minimum wire size and other recommendations of the manufacturer and be protected from moving parts and hot surfaces. Looms, grommets, cable ties, and similar installation hardware should be used to anchor and protect all wiring.
2. Fuses or circuit breakers should be located as close to the power takeoff points as possible and properly sized to protect wiring devices.
3. Particular attention should be paid to the location and method of making electrical connections and splices to protect these points from corrosion and loss of conductivity.
4. Ground termination should only be made to substantial chassis components preferably directly to the vehicle battery.

#### Pipe Mounting

3/4" NPT pipe mounting kit is available.

#### Caution!

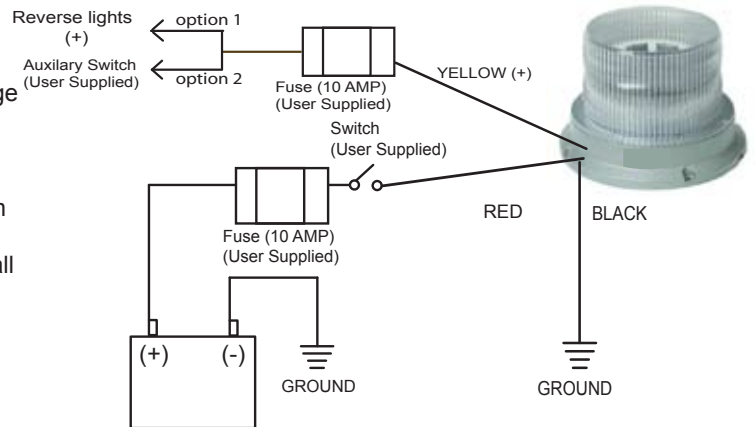
When drilling into any vehicle surface make sure that the area is free from any electrical wires, fuel lines, vehicle upholstery, etc., that could be damaged.

### Troubleshooting

#### Notes:

Most strobe failures, including intermittent or erratic operation as well as failure of operation, can be traced to wiring or battery problems. Check all wiring, connections, fuse, switch and battery voltages to insure that the correct voltage is reaching the strobe light.

- Hella shall be absolved from all responsibility for any modifications performed on the strobe.
- Use only certified original equipment for replacement purposes.



### Wiring Instructions: Double Flash Operation

The wiring for this configuration is shown in the diagram. All wiring should be a minimum of 18 AWG. The red wire is positive and must have a 10 amp fuse. A switch may be used to control the on/off function. The black wire is negative and is connected to the battery ground. The yellow wire is designed to be connected to the vehicles' reverse circuitry. This allows the backup flash pattern to operate when the vehicle is in reverse.



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## Flash Pattern Instructions

Please retain for future reference

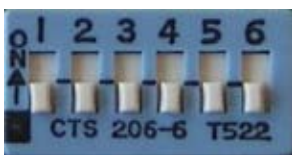
### Flash Pattern and User Option Selection:

The beacon is programmed with four flash patterns. All beacons are shipped from the factory set for quad flash and high intensity. To change the settings, remove the lens, locate the appropriate DIP switch, and select the desired mode or options by moving the required number of switches to the forward, or ON, position. Refer to the images below.

### Flash Patterns

- determined by DIP switch configuration

#### 1. Double Flash



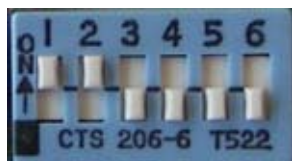
#### 2. Quad Flash



#### 3. Random Flash



#### 4. Action Flash



### User Options

- determined by DIP switch configuration

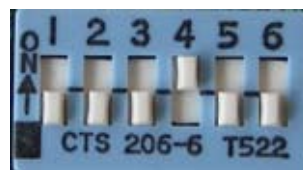
#### 1. Day/Night

(Class I during the day, Class II at night.)



#### 2. Auto Reverse Indicator

(Rapid flash pattern that is activated when vehicle goes into reverse.)



#### 3. Battery Monitor

(Beacon will monitor the vehicle battery. When a low battery condition is detected, the strobe will flash an error code of 2 quick flashes and 2 slow flashes. When battery conditions return to normal, beacon will reset automatically to the selected flash pattern in approximately 15 minutes.) (Monitors both 12v and 24v batteries)



**Flash Error Codes:** The UltraRAY has been programmed with the following error codes. All error flash codes will reset automatically when conditions warrant.

#### 1. 3 fast flashes/ 3 slow flashes: **Unrecognizable flash pattern**

Correction: choose one of the four flash patterns.

#### 2. 2 fast flashes/ 2 slow flashes: **The vehicle battery is low**

Correction: Start vehicle to recharge battery.