



# OV9

## 9 LED CORNER WARNING LIGHTHEAD



### FEATURES

- Expanded visibility: 180 degree spread of light with single unit; installing a pair or two (in a correct set-up) for a 270 or 360 degree warning coverage.
- Super low profile & compact design: ideal for vehicle that is not possible for lightbar installation.
- 4 units offer a full 360 degree warning coverage approved to ECE R65, Cat. T Class 2 (Blue or Red), Class 1 (Amber).
- 2 units offer a 270 degree warning coverage approved to ECE R65, Cat. HT Class 2 (Blue or Red), Class 1 (Amber).
- 1 unit offer a 180 degree warning coverage exceed SAE J845 Class 1.
- Versatile installation w/ Mini L-bracket.
- Available in clear or colored lens (Blue and Amber).
- Dual memories for Cruise Mode or different flash patterns.
- Multi-Voltage Input 12~24VDC.
- Multi-units synchronization in simultaneous or alternating flash.
- Reverse polarity protection.
- Weatherproof and vibration resistant design for external or internal use.

### SPECIFICATIONS

#### Compliance:

SAE J845 Class 1 (180° Amber, Blue, Red; 170° White), Class 3 (Green);  
ECE R65 Cat. T Class 2 (Blue or Red) **NEW!**, Class 1 (Amber);  
ECE R65 Cat. HT Class 2 (Blue or Red) **NEW!**, Class 1 (Amber);  
ECE R10; IPX7

**LED Elements:** High-power LED x 9 pcs

**No. of Warning Patterns:** 18

**Operating Voltage:** 12~24VDC

**Avg. Current:** 0.79A @12VDC / 0.395A @24VDC  
(varies with flash pattern)

**Max. Current:** 1.58A @12VDC / 0.79A @24VDC

**Avg. Power:** 9.48 Watt (varies with flash pattern)

**Max. Power:** 18.96Watt

**Wires:** Black - GND: 120cm (20AWG)  
Red - Warning Mode 1: 120cm (20AWG)  
White - Warning Mode 2: 120cm (20AWG)  
Yellow - Flash Patterns & Sync: 120cm (20AWG)

**Fuse Rating:** 3A

**Synchronization:** up to 20 units

**LED Color:** Red, Blue, Green, Amber, or White

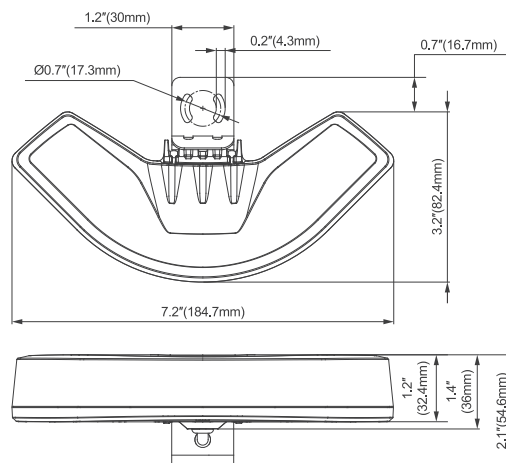
**Lens Color:** Blue, Amber, or Clear

**Storage Temp.:** -40°C to +75°C

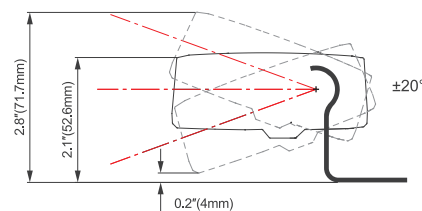
**Working Temp.:** -40°C to +60°C

### DIMENSIONS

#### w/ Mini L-bracket



#### Adjustable Angle



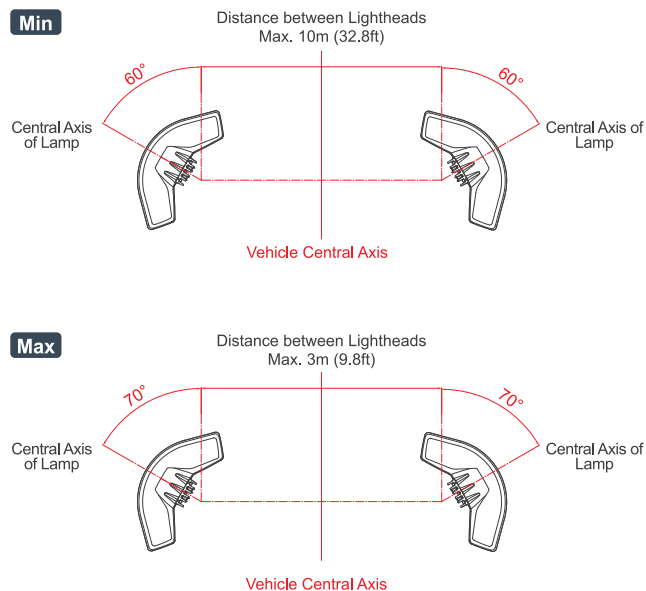
### FLASH PATTERN

FP#	Flash Pattern			
1	Double	[2Hz]	10	Quad [SAE]
2	Single	[2Hz]	11	Quint [SAE]
3	Triple	[2Hz]	12	Mega
4	Quad	[2Hz]	13	Giga
5	Random		14	Ultra [SAE]
6	Steady EF*		15	Single-Quad
7	Single	[SAE/CA13]	16	Single H/L
8	Double	[SAE]	17	Single-Triple-Quint
9	Triple	[SAE]	18	Steady Scene (Cruise Mode)

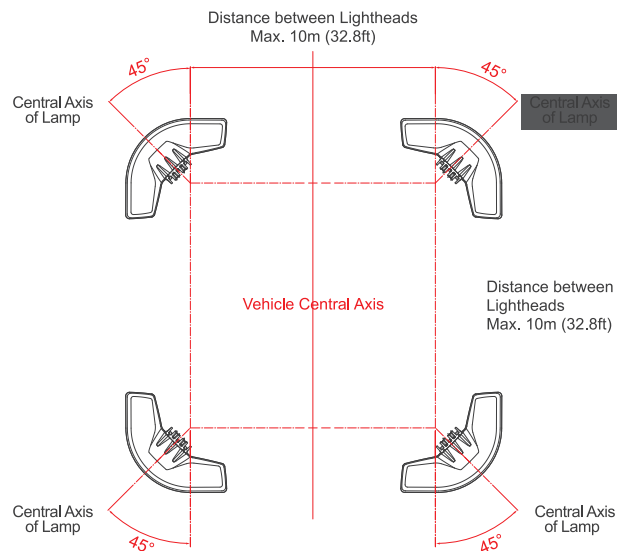
\* For use with external flash controller.

## APPROVED MOUNTING POSITION

**Category 'HT' - 270° Warning Coverage**  
(One Pair of Units at the Front or Rear of Vehicle)



**Category 'T' - 360° Warning Coverage**  
(Four Units Mounted on the Vehicle)



## PART NO.

- **M075-1x13y-000** (SAE)
- **M075-2x131-000** (ECE R65 I & R10, Amber LED & Amber Lens)\*
- **M075-2x13A-000** (ECE R65 I & R10, Amber LED & Clear Lens)\*
- **M075-4x132-000** (ECE R65 II & R10, Blue LED & Blue Lens)\*
- **M075-4x13B-000** (ECE R65 II & R10, Blue LED & Clear Lens)\*
- **M075-4x13R-000** (ECE R65 II & R10, Red LED & Clear Lens)\* **NEW!**
- **M075-3x13y-000** (ECE R10 only)

\* Actual approval is based on the mounting & configuration.

### Replace **x** for no. of unit per box

- 0 = Single Unit Pack, w/ one Mini L-Bracket
- 1 = One Pair (2 Units) Pack, w/ two Mini L-Brackets

### Replace **y** for Color

- 1 = Amber LED, Amber Lens
- 2 = Blue LED, Blue Lens
- A = Amber LED, Clear Lens
- B = Blue LED, Clear Lens
- R = Red LED, Clear Lens
- G = Green LED, Clear Lens
- W = White LED, Clear Lens

## ACCESSORIES

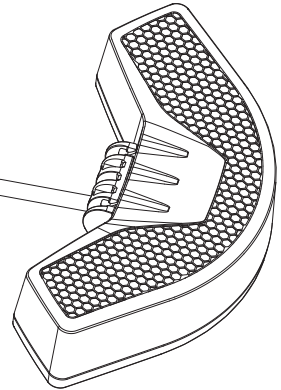
**99-M075M00-000**  
L-Bracket Double Stack



# 9 LED CORNER WARNING LIGHTHEAD MANUAL

## Wiring

- To Chassis Ground:..... **BLACK**
- To+VDC for Warning Mode ① (fuse @ 3A):..... **RED**  
Default Flash Pattern - FP#1 Double [2Hz]
- To+VDC for Warning Mode ② (fuse @ 3A):..... **WHITE**  
Default Flash Pattern - FP#18 Steady Scene (Cruise Mode)
- For Warning Mode ① Low Power Operation: **RED+WHITE**
- For Synchronization and Flash Pattern:...**YELLOW**



Connect **YELLOW** wires of all lightheades together for synchronization.  
(All lightheades should be set to the same Flash Pattern)

**NOTE:** When arranging lightheades to comply with ECE R65 CAT "HT" or "T", all units must be synchronized.

## Operation

### For Flash Pattern Selection:

Each warning mode may select and save one flash pattern. While activating a warning mode, momentarily apply **YELLOW** wire to **+VDC**:

- Once to the next pattern.
- Quick three times to the default flash pattern (FP#1 or FP#18).

Flash Pattern						
1	Double	[2Hz]	7	Single	[SAE/CA13]	13 Giga
2	Single	[2Hz]	8	Double	[SAE]	14 Ultra [SAE]
3	Triple	[2Hz]	9	Triple	[SAE]	15 Single-Quad
4	Quad	[2Hz]	10	Quad	[SAE]	16 Single H/L
5	Random		11	Quint	[SAE]	17 Single-Triple-Quint
6	Steady EF*		12	Mega		18 Steady Scene (Cruise Mode)

\* For use with external flash controller.

### For Low Power Operation / Disabling Low Power Operation:

While Warning Mode ① is activated, apply **WHITE** wire to **+VDC** for Low Power Operation.

To disable Low Power Operation, momentarily apply **YELLOW** wire to **+VDC** once to force High Power Operation and permanently disable Low Power Operation. Re-activate Low Power Operation by momentarily apply **YELLOW** wire to **+VDC** again.

**NOTE:** When arranging lightheades to comply with ECE R65 Class 1, disable Low Power Operation or make **RED** and **WHITE** wire in mutually exclusive switching.

### For Simultaneous or Alternating Synchronization:

1. Power up the unit by applying **+VDC** to **RED** or (**WHITE**) and **YELLOW** wires simultaneously to enter **SETTING MODE**; the lighthead will display its current Group in short flashes:
  - Single flash = Group 1
  - Double flash = Group 2
2. Remove **YELLOW** wire from **+VDC** then momentarily apply to **+VDC** again for less than 3 seconds to change to the desired Group:
  - Lightheades of the same Group will flash together.
  - Lightheades of two different Groups will flash alternately.
3. Save and exit **SETTING MODE** by disconnecting all power.

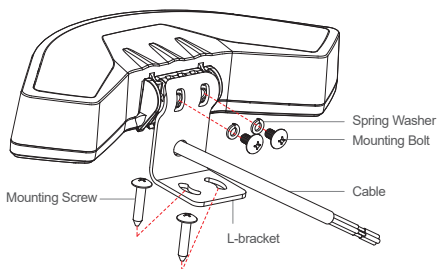
**NOTE:** All warning modes share the same Group setting.

### Reset Factory Default Settings:

1. Power up the unit by applying **+VDC** to **RED** and **YELLOW** wires simultaneously to enter **SETTING MODE**.
2. Remove **YELLOW** wire from **+VDC** then apply to **+VDC** again for more than 5 seconds. The lighthead will display fast short flashes to indicate restoring successfully.

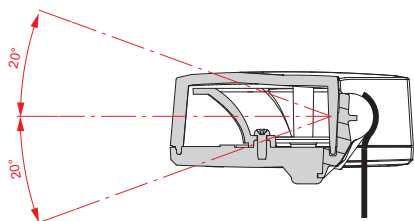
## Installation

### L-bracket mount



1. Locate a suitable mounting location and secure the L-bracket onto the surface with provided screws.
2. Feed the cable through the wiring hole and route it towards the control panel or switches.
3. Level the lighthouse by adjusting  $\pm 20$  degree for optimum warning effect.
4. Secure the lighthouse onto the L-bracket.  
[Set driver torque value at 5.5~6.5 kgf-cm (4.77~5.64 lbf-in)]

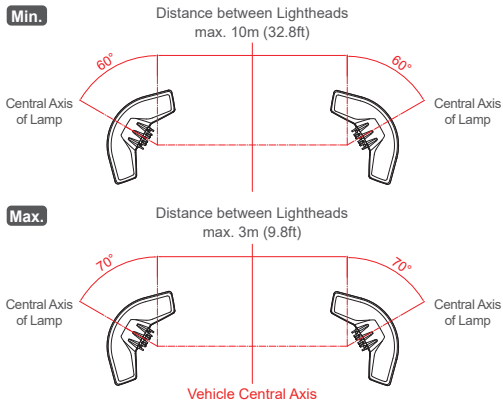
### Adjustable Angle



## Approved Mounting Position

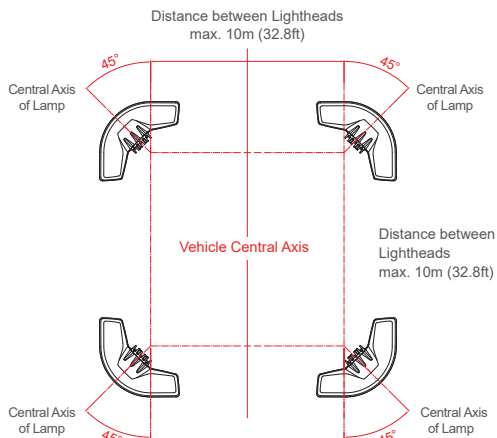
This 9-LED corner lighthouse may be set up in pair to meet ECE R65 CAT. HT or in four to meet CAT. T Follow the graphs carefully to fulfill the approval requirement.

### Category 'HT' - 270° Warning Coverage (One Pair of Units at the Front or Rear of Vehicle)



**NOTE:** When arranging lighthouses with ECE R65 Class 1 approval, disable Low Power Operation or make **RED** and **WHITE** wire in mutually exclusive switching.

### Category 'T' - 360° Warning Coverage (Four Units Mounted on the Vehicle)



**NOTE:** When arranging lighthouses with ECE R65 Class 1 approval, disable Low Power Operation or make **RED** and **WHITE** wire in mutually exclusive switching.

## ⚠ IMPORTANT

As long as the efficiency of the special warning lamp is to be secured all around the vehicle, it is the obligation of the installer to maintain detection of the failure of a part of a special warning system on the vehicle.