



# ECCO®

## Installation and Operation Instructions

### Directional LED

ED3706 and ED3712 directional LEDs are bright and versatile warning lights that are suited to a wide variety of applications. Their low profile, narrow shape and multiple mounting options make them easy to install virtually anywhere on a vehicle. The four mounting options (surface, edge, self-adhesive and permanent) and 30 degrees of adjustable pivoting provide superior flexibility when positioning the lights for optimum warning capability. Both models offer multiple flash patterns and multiple units can be synchronized to operate either simultaneously or alternately with each other.

ED3706 models feature 6 LEDs and are available in either single color or split-color\* (3 LEDs of each color) combinations with optics that provide single-axis light output. The ED3712 is a dual-color\* light featuring 12 LEDs (6 of each color) and is available in 7 color configurations with optics that offer wider, off-axis coverage.

\* Split Color = One horizontal row of LEDs is split 50/50 between the two colors (only one half of the light can illuminate in each color). Dual Color = Two horizontal rows of LEDs (one of each color) span the width of the light (the entire light can illuminate in each color)



#### WARNING!

Failure to install or use this product according to manufacturers recommendations may result in property damage, serious injury, and/or death to those you are seeking to protect!



#### Do not install and/or operate this safety product unless you have read and understand the safety information contained

1. Proper installation combined with operator training in the use, care, and maintenance of emergency warning devices are essential to ensure the safety of you and those you are seeking to protect.
2. Exercise caution when working with live electrical connections.
3. This product must be properly grounded. Inadequate grounding and/or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.
4. Proper placement and installation are vital to the performance of this warning device. Install this product so that output performance of the system is maximized and the controls are placed within convenient reach of the operator so that s/he can operate the system without losing eye contact with the roadway.
5. Do not install this product or route any wires in the deployment area of an air bag. Equipment mounted or located in an air bag deployment area may reduce the effectiveness of the air bag or become a projectile that could cause serious personal injury or death. Refer to the vehicle owner's manual for the air bag deployment area. It is the responsibility of the user/operator to determine a suitable mounting location ensuring the safety of all passengers inside the vehicle particularly avoiding areas of potential head impact.
6. It is the responsibility of the vehicle operator to ensure during use that all features of this product work correctly. In use, the vehicle operator should ensure the projection of the warning signal is not blocked by vehicle components (i.e., open trunks or compartment doors), people, vehicles or other obstructions.
7. The use of this or any other warning device does not ensure all drivers can or will observe or react to a warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes.
8. This equipment is intended for use by authorized personnel only. The user is responsible for understanding and obeying all laws regarding warning signal devices. Therefore, the user should check all applicable city, state, and federal laws and regulations. The manufacturer assumes no liability for any loss resulting from the use of this warning device.

#### CONTENTS:

1	Light Head
1	Multi-Mount Base: Includes- 2- M4X25 Sheet metal screws 2- Split washers 2- M3.5x10 screws 2- M3 washers
1	Adhesive Pad
1	Edge Mount Bracket: Includes- 2- M3.5x10 screws
1	Surface Mount Bracket: Includes- 2- 4x15 Sheet metal screws 1- EVA foam gasket

#### SPECIFICATIONS:

Input Voltage	12-24VDC
Work Current	ED3706 = 0.9A@12VDC
	ED3712 = 1.5A@12VDC

**Important!** This unit is a safety device and it must be connected to its own separate, fused power point to assure its continued operation should any other electrical accessory fail.

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

#### WIRE: ED3706

RED: Positive (need to add 2A Fuse)  
BLACK: Negative  
BLUE: Pattern Switch  
YELLOW: Synchronized Function  
(Up to 8 units can be Synchronized)

#### WIRE: ED3712

RED: Positive, Colors 1 & 3 (need to add 5A Fuse)  
WHITE: Positive, Colors 2 & 4 (need to add 5A Fuse)  
BLACK: Negative  
BLUE: Pattern Select to negative  
YELLOW: Synchronized Function  
(Up to 8 units can be Synchronized)

#### OPERATION ENVIRONMENT:

**Ambient Temperature:** -30 to 50°C

#### PHASE OPERATION:

Phase 1 (Ph1) flashes simultaneously with Ph1  
Phase 2 (Ph2) flashes simultaneously with Ph2  
Ph1 alternates with Ph2

(Up to 8 units can be Synchronized)

#### Apply BLUE TO BLACK wire:

- Less than 1 sec. for next pattern
- Between 1-3 sec for previous pattern
- Between 3-5 sec. for factory default pattern
- More than 5 sec. for pattern 12 (ED3712) and pattern 13 (ED3706)









ED3712 Series Flash Pattern Chart

					SAE J595					CAT13			ECE R65		
PAT- TERN	LED color 1 & Color 3 Red line	LED Color 2 & Color 4 White line	LED Color 1 & Color 3 LED Color 2 & Color 4 White & Red line	ED3712 FLASH PATTERN	SYNCH	RED	AMBER	BLUE	WHITE	RED	AMBER	BLUE	RED	AMBER	BLUE
12	35		68	Steady burn- Color 1 & 3	NO	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
		35	69	Steady burn- Color 2 & 4	NO	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C

**Trouble Shooting**

The ED3706-ED3712 series has been factory tested and approved. If the functions of the device fail, please check the following:

1. After connecting with the power supply, be sure that the power source end is joined correctly. Make sure there is not a short circuit.
2. Plug in the device; ensure the LED power switch is on.
3. Make sure unit is grounded properly.

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