

# Installation and Operation Instructions ED3794 FLEXIBLE DIRECTIONAL



#### WARNING!

Failure to install or use this product according to manufacturer's recommendations may result in property damage, serious injury, and/or death



Do not install and/or operate this safety product unless you have read and understood the safety information contained in this manual.

- Proper installation combined with operator training in the use, care, and maintenance of emergency warning devices are essential to ensure the
- safety of emergency personnel and the public.

  Emergency warning devices often require high electrical voltages and/or currents. Exercise caution when working with live electrical connections.
- 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.
- Proper placement and installation is 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 they 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/loperator to determine a suitable mounting location ensuring the safety of all passengers inside the vehicle particularly avoiding areas of potential head impact.
- It is the responsibility of the vehicle operator to ensure daily 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 an emergency warning signal. Never take the right-of-way for granted. It is the vehicle operator's responsibility to be sure they can proceed safely before entering an intersection, drive against traffic, respond at a high rate of speed, or walk on or around traffic lanes.
- This equipment is intended for use by authorized personnel only. The user is responsible for understanding and obeying all laws regarding emergency warning 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
2	Screws
1	Installation Guide
1	Mounting Gasket
1	Bezel
1	Alcohol Wipe

#### SPECIFICATIONS:

Input Voltage	12-24VDC						
Current	0.8A Max @ 12VDC 0.5A Max @ 24VDC						
Physical H x W x L	3.9 in x 0.9 in x 0.4 in 9.9 cm x 2.3 cm x 1 cm						
Ship Weight	0.1 lb (0.05 Kg)						

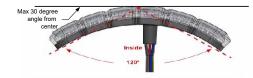
**Important!** This unit is a safety device and it must be connected to its own separate, fused power point to assure its continued operation should any other electrical accessory fail.

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.

## Caution:

- light cannot be twisted or pulled
- do not bend in the lens direction
- Mounts to a surface curvature with a minimum radius of 3 inches.

Maximum flex is 120 degrees





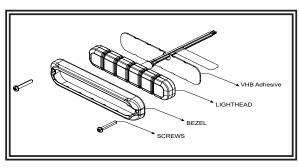
Can not pull the wire because the PCB components will be damaged.



No Twisting

The product can't be twisted because the PCB and components will be damaged.

## Mounting:



### Wire:

RED: Positive, Colors 1 (need to add 5A fuse)
WHITE: Positive, Colors 2 (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 (-22° F to 122°F

#### Mounting on a curved surface:

- Mark hole location using gasket as a template and drill hole for wire exit using 11/32 in. drill bit.
- 2. Wipe surface clean with alcohol wipe. Wait until dry.
- Mount light using VHB adhesive. Peel adhesive backing and apply pressure to adhere to surface for 20 seconds. It is recommended to allow 24 hours for adhesive to fully adhere before powering on light.
- \* Do not use hardware, gasket or bezel when mounting on curved surface.
- \* Max surface curvature 120°.

## Mounting on flat surface:

- Mark wire and screw locations using gasket as a template. Drill wire exit hole using 11/32 in. drill bit. Pre-drill screw holes using 3/64 in. drill bit.
- Peel VHB backing and apply light to surface, aligning screw holes and wire exit. Apply pressure for 20 seconds. Insert screws through bezel to finish mounting lighthead. It is recommended to allow 24 hours for adhesive to fully adhere before powering on light.

## 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
-More than 5 sec. for steady burn

## ED3794 DUAL COLOR FLASH PATTERN CHART

			Red & White	PATTERNS		SAE 1995				CAT13			ECE R65			SAE 1845*			
I	Red Wee	White Wire	Wire		SYNC.	RED	AMRER	BUTE	WHITE	RED	AMBER	BLUE	RED	AMRER	BLUE	RED	AMRER	RELIE	WHITE
	1-Default			Single 75FPM Ph1 Color 1 Synchronous Color 3	YES	Class I	Class I	Class I	Class I	Class B	Class B	Cho B	NC	NC	N/C	Class IS ± 30°	Class IS ± 30°	Class IS ± 30°	Class 1S ± 20°
	2		,	Single 75FPM Ph2 Color   Synchronous Color 3	YES	Class I	Class I	Class I	Class I	Class B	Class B	Cho B	NC	NC	NC	Class IS ± 30°	Class IS ± 30°	Class 1S ± 30°	Class 1S ± 20°
	_		-	Single 75FPM Ph I Color 1 Alternately Color 4	YES	NC	N/C	NC	N/C	NC	NC	NC	NC	NC	NC	NiC	NC	NC	NC
	_		4	Single 75FPM Ph2 Color 1 Alternately Color 4	YES	NC	N/C	NC	NC	NC	NC	NC	NC	NC	NC	N/C	NC	N/C	NC
	_	1-Default	-	Single 75FPM Ph I Color 2 Synchronous Color 4	YES	Churl	Class I	Class I	Class I	Class B	Class B	Class B	NC	NC	N/C	Class IS ± 30°	Class 1S ± 30°	Class 1S ± 30°	Class 1S ± 20°
		2	- 6	Single 75FPM Ph2 Color 2 Synchronous Color 4	YES	Class I	Class I	Class I	Class I	Class B	Class B	Class B	NC	NC	NC	Class 1S ± 30°	Class IS ± 30°	Class 1S ± 30°	Class 1S ± 20°
	- 1	- 1	- 1	Single 75FPM Ph1(Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	VES	NC.	N/C	NC	N/C	NC	NC	NC	NC	NiC	NC	NiC	NC	NC	NC
	-	4	8	Single 75FPM Ph2(Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	VES	NC.	N/C	NC	NC	NC.	NC.	NiC	NC	NiC	N/C	NC	NC	NC	NC
	-	- 5		Single 75FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)	YES	NC	N/C	NC	N/C	NC	N/C	NC	NC	NC	N/C	N/C	NC	NC	N/C
2	6		10	Single 37SPPM Ph I Color 1 Synchronous Color 3	YES	NC	N/C	NC	NC	NC	N/C	NC	NC	NC	NC	N/C	NC	NC	N/C
	- 2		11	Single 375FPM Ph7 Color 1 Sunchmone Color 3	VES	NC.	N/C	NC	NC	NC.	NC.	NiC	N/C	NiC	N/C	NC	NC	N/C	NC
			12	Single 375FPM Ph L Color 1 Abrenitely Color 4	VES	NC.	N/C	NC	NC	NC.	NC.	NiC	N/C	NiC	N/C	NC	NC	NC	NC
			13	Single 375FPM Ph2 Color 1 Alternately Color 4	YES	NC.	N/C	NC	NC	NC	NC	NC	NC	NC	N/C	N/C	NC	NC	NC
	_		13	Single 37 SPPM Ph1 Color 2 Synchronous Color 4	YES	NC	N/C	NC NC	N/C	NC NC	NC NC	N/C	N/C	N/C	N/C	N/C	NC NC	NC NC	N/C
		- 2	15	Single 375FPM Ph2 Color 2 Synchronous Color 4	YES	NC	N/C	NC	N/C	NC	N/C	NC	NC	NC	NC	N/C	NC	N/C	NC
	- 8	8	16	Single 375PPM Ph1 (Color 1 Synchronous Color 3) Alternaticly (Color 2 Synchronous Color 4)	VES	NC.	N/C	NC	N/C	NC.	N/C	NC	NC	NC	N/C	N/C	NC	N/C	NC
	-	9	10	Single 37 SPPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4) Single 37 SPPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	VES	NC.	N/C	NC.	N/C	NC.	NC NC	N/C	N/C	N/C	NC.	N/C	NC NC	NC NC	NC NC
	10	10	18		YES							N/C	N/C		N/C				
		10		Single 375FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)		NC	NC	NC	NC	NC	N/C			NC		N/C	NC	NC	NC
	11		19	Double 75FPM Ph1 Color 1 Synchronous Color 3 Double 75FPM Ph2 Color 1 Synchronous Color 3	YES	Class I	Class I	Class I	Class I	Class B Class B	Class B Class B	Cho B	N/C	N/C N/C	N/C N/C	Class 1S ± 30° Class 1S ± 30°	Class IS ± 30° Class IS ± 30°	Class 15 ± 30°	Class 1S ± 20° Class 1S ± 20°
	12	⊢	20	Double 75FPM Ph2 Color 1 Synchronous Color 3  Double 75FPM Ph1 Color 1 Alternately Color 4	YES	Class I	Class I	Class I	Class I	Class B N/C		Class B	N/C	N/C N/C	N/C			Class IS ± 30° N/C	Class 1S ± 20°
	_	_	21	Double 7SPM Ph1 Color 1 Alternately Color 4  Dauble 7SPM Ph2 Color 1 Alternately Color 4							N/C	N/C				N/C	NC NC	NC NC	
	_				YES	NC	N/C	NC	NC	NC	NC	NC	N/C	NC	N/C	N/C			NC
3	_	- 11	23	Double 75FPM Ph1 Color 2 Synchronous Color 4	YES	Class I	Class I	Class I	Class I	Class B	Class B	Class B	N/C	NC	N/C	Class 1S ± 30°	Class 1S ± 30°	Class 1S ± 30°	Class 1S ± 20°
		12	24	Double 75FPM Ph2 Color 2 Synchronous Color 4	YES	Class I	Class I	Class I	Class I	Class B	Class B	Class B	N/C	NC	N/C	Class 1S±30°	Class 1S ± 30°	Class 1S ± 30°	Class 1S ± 20°
	13	13	25	Double 75FPM Ph1 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	YES	NC	N/C	NC	N/C	NC	NC	NC	N/C	NC	N/C	N/C	NC	N/C	NC
	14	14	26	Double 75FPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	YES	NC	N/C	NC	N/C	NC	NC	NC	N/C	NC	N/C	N/C	NC	NC	NC
	15	15	27	Double 75FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)	YES	NC	N/C	NC	N/C	NC	N/C	NC	NC	NC	N/C	N/C	NC	NC	NC
	16		28	Double 120FPM Ph1 Color 1 Synchronous Color 3	YES	Class I	Class 1	Class I	Class I	NC	N/C	NC	XRI	XAI	XBI	Class 28 ± 30°	Class IS±3№	Class 2S ± 30°	Class 1S ± 20°
	17		29	Double 120FPM Ph2 Color 1 Synchronous Color 3	YES	Class I	Class I	Class I	Class I	NC	NC	NC	XRI	XAI	XB1	Class 2S ± 30°	Class 1S ± 30°	Class 2S ± 30°	Class $1S \pm 20^\circ$
			30	Double 120FPM Ph1 Color 1 Alternately Color 4	YES	NC	NC	NC	N/C	NC	NC	NC	NC	NC	N/C	N/C	NC	NC	NC
4			31	Double 120FPM Ph2 Color 1 Alternately Color 4	YES	NC	NC	NC	N/C	NC	NC	NC	NC	NC	N/C	N/C	NC	NC	NC
		16	32	Double 126FPM Ph1 Color 2 Synchronous Color 4	YES	Class I	Class 1	Class I	Class I	NC	NC	NC	XRI	XAI	XBI	Class 28 ± 30°	Class 1S ± 30°	Class 2S ± 30°	Class 1S ± 20°
		17	33	Double 126FPM Ph2 Color 2 Synchronous Color 4	YES	Class I	Class I	Class I	Class I	NC	NC	NC	XRI	XAI	XB1	Class 2S ± 30°	Class 1S ± 30°	Class 2S ± 30°	Class 1S ± 20°
	18	18	34	Double 120FPM Ph1 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	YES	NC	NC	NC	N/C	NC	NC	NC	NC	NC	N/C	N/C	NC	NC	NC
	19	19	35	Double 120FPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	YES	NC	N/C	NC	N/C	NC	NC	NC	N/C	NC	N/C	N/C	NC	NC	N/C
	20	20	36	Double 126FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)	YES	NC	N/C	NC	N/C	NC	NC	NC	NC	N/C	N/C	N/C	NC	NC	NC
	21		37	Triple 75FPM Ph1 Color 1 Synchronous Color 3	YES	Class I	Class I	Class I	Class I	Class B	Class B	Class B	NC	NC	N/C	Class 28 ± 30°	Class 1S ± 30°	Class 1S ± 30°	Class 1S ± 20°
	22		38	Triple 75FPM Ph2 Color 1 Synchronous Color 3	YES	Class I	Class I	Class I	Class I	Class B	Class B	Class B	N/C	NC	N/C	Class 28 ± 30°	Class 1S ± 30°	Class 1S ± 30°	Class 1S ± 20°
			39	Triple 75FPM Ph1 Color 1 Alternately Color 4	YES	NC	N/C	NC	N/C	NC	NC	NC	N/C	NC	N/C	N/C	NC	NC	NC
			40	Triple 75FPM Ph2 Color 1 Alternately Color 4	YES	NC	N/C	NC	N/C	NC	NC	NC	N/C	NC	N/C	N/C	NC	NC	N/C
5		21	41	Triple 75FPM Ph1 Color 2 Synchronous Color 4	YES	Class I	Class I	Class I	Class I	Class B	Class B	Class B	N/C	NC	N/C	Class 2S ± 30°	Class IS ± 30°	Class 1S ± 30°	Class 1S ± 20°
		22	42	Triple 75FPM Ph2 Color 2 Synchronous Color 4	YES	Class I	Class I	Class I	Class I	Class B	Class B	Cho B	NC	NC	N/C	Class 2S ± 30°	Class 1S ± 30°	Class 1S ± 30°	Class 1S ± 20°
	23	23	43	Triple 75FPM Ph1 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	YES	NC	N/C	NC	N/C	NC	NC	NC	NC	NC	N/C	N/C	NC	NC	NC
	24	24	44	Triple 75FPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	YES	NC	N/C	NC	N/C	NC	NC	NC	NC	NC	N/C	N/C	NC	NC	N/C
	25	25	45	Triple 75FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)	YES	NC	N/C	NC	N/C	NC	NC	NC	NC	NC	N/C	N/C	NC	N/C	NC
	26		46	Quad 75FPM Ph1 Color 1 Synchronous Color 3	YES	Class I	Class I	Class I	Class I	NC	NC	NC	NC	NC	NC	Class 2S ± 30°	Class IS ± 30°	Class 1S ± 30°	Class 1S ± 20°
6	27		47	Ound 75FPM Ph2 Color 1 Synchronous Color 3	YES	Class I	Class I	Class I	Class I	NC	NC	NC	NC	NC	NC	Class 2S ± 30°	Class IS ± 30°	Class 1S ± 30°	Class 1S ± 20°
			48	Ornal 2SEPM Ph.I. Color. I. Altermately Color. 4	VES	NC	N/C	NC	N/C	NC	NC	NiC	NC	NC	NC	NiC	NC	NC	NC
	-	-	-00	Oracl 2SFPM Ph2 Color 1 Alternately Color 4	VES	NC.	N/C	NC	NC	NC.	NC.	NiC	N/C	NiC	N/C	NC	NC	NC	NC NC
		26	50	Ound 75FPM Ph1 Color 2 Synchronous Color 4	YES	Class I	Class I	Class I	Class I	NC	NC	NC	NC	NC	NC	Class 2S ± 30°	Class IS ± 30°	Class 1S ± 30°	Class 1S ± 20°
		27	51	Ound 75FPM Ph2 Color 2 Synchronous Color 4	YES	Class I	Class I	Class I	Class I	NC	NC	NC	NC	NC	N/C	Class 2S ± 30°	Class IS ± 30°	Class 1S ± 30°	Class 1S ± 20°
	28	28	52-Default	Ouad 75FPM Ph   (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	YES	NC.	N/C	NC.	N/C	NC	NC	N/C	N/C	N/C	NC	N/C	NC NC	N/C	N/C
	29	29	53	Ouad 75FPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	YES	NC	N/C	NC	NC	NC	NC	NC	NC	NC	NC	N/C	NC	NC	N/C
	30	30	54	Quad 75FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)	VES	NC	N/C	NC	N/C	NC	N/C	NC	NC	NC	N/C	N/C	NC	NC	N/C
	30	30	54 55	Quad 75PPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)  Ouad 120FPM Ph I Color 1 Synchronous Color 3	YES	Class I	_	Churl	Class I	NC NC	N/C	N/C	N/C	N/C	N/C	Class 2S ± 30°	Class IS ± 30°	Class IS ± 30°	Class 1S ± 20°
7	31	-	56 56	Quad 120FPM Ph1 Color   Synchronous Color 3 Ouad 120FPM Ph2 Color   Synchronous Color 3	YES	Class I	Class I	Class I	Class I	NC NC	N/C	N/C	N/C	N/C	N/C	Class 2S ± 30° Class 2S ± 30°	Class IS ± 30° Class IS ± 30°	Class 1S ± 30° Class 1S ± 30°	Class 1S ± 20° Class 1S ± 20°
	.52	_	56 57	Quad 120FPM Ph2 Color 1 Synchronous Color 3 Ouad 120FPM Ph1 Color 1 Alternately Color 4	YES	NC NC	N/C	NC NC	N/C	NC NC	NC NC	N/C	N/C	N/C	N/C	Class 2S ± 30° N/C	Class IS ± 30° NC	Class IS±30° NC	Class 15 ± 20° N.C.
	_		57			NC NC				NC NC	NC NC				N/C	N/C	NC NC	NC NC	NC NC
	_	- 11	58	Quad 120FPM Ph2 Color 1 Alternately Color 4 Ouad 120FPM Ph1 Color 2 Synchronous Color 4	YES		N/C	NC	N/C		NC NC	NC	NC	N/C		Class 2S ± 30°	Class IS ± 30°	Class IS ± 30°	Class 1S ± 20°
	-	31	59 60		YES	Class I	Class I	Class I	Class I	NC	NC NC	NC	NC	N/C	N/C				
	_	32		Quad 120FPM Ph2 Color 2 Synchronous Color 4	YES	CBS	Class I	Class I	Class I	NC.		NC	N/C	N/C	N/C	Class 2S ± 30°	Class 1S ± 30°	Class 1S ± 30°	Class 1S ± 20°
	33	33	61	Quad 120FPM Ph1 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	YES	NC	N/C	NC	N/C	NC	NC	NC	N/C	NC	N/C	N/C	NC	NC	NC
	34	34	62	Quad 120FPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	YES	NC	N/C	NC	N/C	NC	NC	NC	N/C	NC	N/C	N/C	NC	N/C	NC
	35	35	63	Quad 120FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)	YES	NC	NC	NC	N/C	NC	NC	NC	N/C	NC	N/C	N/C	NC	NC	NC
8			64	Modulation (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	NO.	NC	N/C	NC	N/C	NC	N/C	NC	NC	NC	N/C	N/C	NC	NC	NC
9			65	2 Double, 2 Quad (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	NO.	NC	N/C	NC	N/C	N/C	N/C	NC	NC	NC	N/C	N/C	NC	NC	NC
10			- 66	4 Single, 2 Triple. (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	NO	NC	N/C	NC	NC	NC	NC	NC	NC	N/C	N/C	N/C	NC	NC	N/C
- 11			67	l Double, 1 Triple, 1 Quad (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	NO	NC	N/C	NC	N/C	NC	N/C	NC	NC	NC	N/C	N/C	NC	NC	N/C
12	36		68	Steady barn - Color I & 3	NO.	NC	N/C	NC	N/C	NC	N/C	NC	NC	NC	N/C	N/C	NC	NC	N/C