

CCO[®] Installation and Operation Instructions Directional LED

IMPORTANT! Read all instructions before installing and using. Installer: This manual must be delivered to the end user.

WARNING!

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

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

- 1. 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.
- 2. 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.
- 4. 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/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 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 ness.
- 8. 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
1	Gasket
2	M4x25 Sheet metal screws

Wire: ED3701

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

Wire: ED3702

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

Mounting:

The ED3700 series directionals should be mounted to a flat surface or one with the least amount of curvature. The mounting location should allow the maximum visibility of the warning device to other road users, while allowing for sufficient wire access.

- Mark drill hole locations on the mounting surface using the directional as a template.
- Drill mounting holes using a #31[0.120"] drill bit.
- 4. Drill a 25/64"[10mm] hole for the wires protruding from the rear of the unit at the location. Remove any sharp edges from this hole.
- 5. Mount the directional along with the mounting gasket, routing the wires through the 10mm hole and use additional grommets or cable protection as necessary to protect the wiring from any sharp edges. Secure the directional to the surface using the #6 self-tapping screws.

SPECIFICATIONS:



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

Phase Opertion:

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 (ED3702) and pattern 13 (ED3701)





SINGLE COLOR Flash Pattern Chart/DE UN SOLO COLOR Tabla de patrones de destello/COULEUR UNIQUE Tableau des effets clignotants															
Pattern	MODE	PATTERNS	Mark	SYNC.		SAE J595				CA T13		ECE R65			
					RED	AMBER	BLUE	WHITE	RED	AMBER	BLUE	RED	AMBER	BLUE	
1	1	Single Flash 75FPM sim. Phase1		yes	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B	N/C	N/C	N/C	
	2	Single Flash 75FPM sim. Phase2	A	yes	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B	N/C	N/C	N/C	
	3	Single Flash 75FPM Alt.		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
	4	Single Flash 120FPM sim. Phase1	В	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	Class 1	Class 1	Class 1	
2	5	Single Flash 120FPM sim. phase2		yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	Class 1	Class 1	Class 1	
	6	Single Flash 120FPM Alt.		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
	7	Double Flash 75FPM sim. Phase1	А	yes	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B	N/C	N/C	N/C	
3	8	Double Flash 75FPM sim. phase2		yes	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B	N/C	N/C	N/C	
	9	Double Flash 75FPM Alt.		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
	10	Double Flash 120FPM sim. Phase1	В	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	Class 1	Class 1	Class 1	
4	11	Double Flash 120FPM sim. phase2		yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	Class 1	Class 1	Class 1	
	12	Double Flash 120FPM Alt.		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
	13-Default	Quad Flash 75FPM sim. Phase1	А	yes	Class 1	Class 1	Class 1	Class 2	N/C	N/C	N/C	N/C	N/C	N/C	
5	14	Quad Flash 75FPM sim. Phase2		yes	Class 1	Class 1	Class 1	Class 2	N/C	N/C	N/C	N/C	N/C	N/C	
	15	Quad Flash 75FPM Alt.		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
	16	Quad Flash 150FPM sim. Phase1		yes	Class 1	Class 1	Class 2	Class 2	N/C	N/C	N/C	N/C	N/C	N/C	
6	17	Quad Flash 150FPM sim. Phase2	С	yes	Class 1	Class 1	Class 2	Class 2	N/C	N/C	N/C	N/C	N/C	N/C	
	18	Quad Flash 150FPM Alt		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
	19	Triple 75FPM sim. Phase1		yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	N/C	N/C	N/C	
7	20	Triple 75FPM sim. Phase2	A	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	N/C	N/C	N/C	
	21	Triple 75FPM Alt.		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
	22	Quint Flash 150FPM sim. Phase1		yes	Class 1	Class 1	Class 2	Class 2	N/C	N/C	N/C	N/C	N/C	N/C	
8	23	Quint Flash 150FPM sim. Phase2	С	yes	Class 1	Class 1	Class 2	Class 2	N/C	N/C	N/C	N/C	N/C	N/C	
	24	Quint Flash 150FPM Alt.		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
9	25	Steady - Single		NO	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
10	26	Steady Burn	N/A	NO	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
11	27	Modulation		NO	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
12	28	2 Double Flash,2 Triple Alt.]	NO	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	
13	29	4 Single Flash ,2 Quad Flash Alt.]	NO	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	

DUAL COLOR Flash Pattern Chart/COLOR DOBLE Tabla de patrones de destello/BICOLORE Tableau des effets clignotants																
Demonst	LED Color 1 & Color	LED Color 2 & Color	LED Color 1 & Color 3	PATTERNS	Mark	ranc.	SAE J595					CA T13		ECE R65		
Pattern	3 Red line	4 White line	LED Color 2 & Color 4 Red & White line			STNL.	RED	AMBER	BLUE	WHITE	RED	AMBER	BLUE	RED	AMBER	BLUE
	1-Default		1	Single 75FPM Ph1 Color 1 Synchronous Color 3		yes	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B	N/C	N/C	N/C
	2		2	Single 75FPM Ph2 Color 1 Synchronous Color 3		yes	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B	N/C	N/C	N/C
			3	Single 75FPM Ph1 Color 1 Alternately Color 4	Δ.	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
			4	Single 75FPM Ph2 Color 1 Alternately Color 4		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
1		1-Default	5	Single 75FPM Ph1 Color 2 Synchronous Color 4		yes	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B	N/C	N/C	N/C
		2	8	Sengle / SP PM P42 Coze 2 Synchronous Coze 4 Konde 1958M Bb1(Color 1 Synchronous Color 3) Alexandride (Color 2 Synchronous Color 6)		yes	Class I	Class I	Class I N/C	Class I Nic	Class B	Class B	Class B	NC	NC	N/C
	4	4	8	Single 38FPM Ph/(Calor 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	F	yes	NC	NIC	N/C	NIC	NIC	NC	NC	NC	NC	NC
		5	9	Single 38FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)	-	yes ves	N/C	NC	N/C	NC	NC	N/C	NC	NC	NC	N/C
	6		10	Single 375FPMFPM Ph1 Color 1 Synchronous Color 3		ves	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	7		11	Single 375FPMFPM Ph2 Color 1 Synchronous Color 3		Ves	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
			12	Single 375FPMFPM Ph1 Color 1 Alternately Color 4		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
			13	Single 375FPMFPM Ph2 Color 1 Alternately Color 4	D	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
2		6	14	Single 375FPMFPM Ph1 Color 2 Synchronous Color 4		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
		7	15	Single 375FPMFPM Ph2 Color 2 Synchronous Color 4		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	8	8	16	Single 187FPMFPM Ph1 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	9	9	17	Single 187FPMFPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	н	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	10	10	18	Single 187FPMFPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)		yes	N/C	N/C	N/C	NC	NC	N/C	N/C	NC	N/C	N/C
	11		19	Boable 75FPM Ph1 Color 1 Synchronous Color 3		yes	Class I	Class I	Class I	Class I	Class B Class B	Class B Class B	Class B	NC	NC	N/C
	12		20	Double 75FPM Ph2 Color 1 Synchronous Color 3		yes	V/C	N/C	Class I N/C	NIC	VIIDO B	V/C	V/C	NC	NC	NC
			21	Double /SFPM Phi Color 1 Alemander Color 4 Double 2000 852 Color 1 Alemander Color 4	A	yes ves	N/C	NC	N/C	NC	NC	N/C	NC	NC	NC	N/C
3		11	23	Dauble 25FPM Ph1 Color 2 Surchmann Color 4		VPS	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B	NC	N/C	N/C
		12	24	Double 75FPM Ph2 Color 2 Synchronous Color 4		Ves	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B	N/C	N/C	N/C
	13	13	25	Double 38FPM Ph1 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	14	14	26	Double 38FPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	E	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	15	15	27	Double 38FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
4	16		28	Double 120FPM Ph1 Color 1 Synchronous Color 3		yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	Class 1	Class 1	Class 1
	17		29	Double 120FPM Ph2 Color 1 Synchronous Color 3	в	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	Class 1	Class 1	Class 1
			30	Double 120FPM Ph1 Color 1 Alternately Color 4		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
			31	Doable 120FPM Ph2 Color 1 Alternately Color 4		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
		16	32	Double 120FPM Ph1 Color 2 Synchronous Color 4		yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	Class 1	Class 1	Class 1
	12	17	33	Double 1209 PM Ph2 Color 2 Synchronous Color 4 Double 60E004 Db1 (Color 1 Scondaronous Color 2) Alternative (Color 2 Scondaronous Color 4)		yes	Class I N/C	Class I N/C	Class I N/C	Class I N/C	NC	N/C	NC	Class I N/C	Class I N/C	Class I N/C
	19	19	15	Dankle fillEPM Pk2 (Calar 1 Synchroneur Celer 3) Alternately (Celer 2 Synchroneur Celer 4) Dankle filEPM Pk2 (Calar 1 Sonchroneur Celer 3) Alternately (Celer 2 Sonchroneur Celer 4)	E	yes ves	N/C	NC	N/C	NC	NC	N/C	NC	NC	NC	N/C
	29	20	36	Double 60FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)	· ·	VPS	N/C	N/C	N/C	N/C	N/C	N/C	NC	NC	N/C	N/C
	21		37	Triple 75FPM Ph1 Color 1 Synchronous Color 3		Ves	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	N/C	N/C	N/C
	22		38	Triple 75FPM Ph2 Color 1 Synchronous Color 3	F	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	N/C	N/C	N/C
			39	Triple 75FPM Ph1 Color 1 Alternately Color 4		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
			40	Triple 75FPM Ph2 Color 1 Alternately Color 4	~	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
5		21	41	Triple 75FPM Ph1 Color 2 Synchronous Color 4		yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	N/C	N/C	N/C
		22	42	Triple 75FPM Ph2 Color 2 Synchronous Color 4		yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	N/C	N/C	N/C
	23	23	43	Triple 38FPM Ph1 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	24	24	4	Triple 35FPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	E	yes	N/C	N/C	N/C	N/C	N/C	N/C	NC	NC	N/C	N/C
	23	25	48	Triple 39PPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)		yes	N/C	NC	NU	NU	NC	NU	NC	NU	NC	N/C
6	20		40	Danie (SEPM Ph2 Color 1 Spectroment Color 3		yes	Class 1	Class 1	Class I Class 1	Class 1	NIC	NC	NC	NC	NC	N/C
			48	Quad 75FPM Ph1 Color 1 Alternately Color 4		Ves	N/C	NC	N/C	N/C	N/C	N/C	NC	NC	N/C	N/C
			49	Quid 75FPM Ph2 Color 1 Alternately Color 4	A	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
		26	50	Quid 75FPM Ph1 Color 2 Synchronous Color 4		yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	N/C	N/C	N/C
		27	51	Quad 75FPM Ph2 Color 2 Synchronous Color 4		yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	N/C	N/C	N/C
	28	28	52-Default	Quad 38FPM Ph1 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	29	29	53	Quad 33FPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	E	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	30	30	54	Quad 33FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
7	31		55	Quad 120FPM Ph1 Color 1 Synchronous Color 3		yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C	N/C	N/C	N/C
	32		56	Quad 1200 PM Ph2 Color 1 Synchronous Color 3	ļ	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	NC	N/C	N/C	N/C
			57	Quad OVETIM PRI CORE 1 Alternately Color 4 Owned D00000 06/2 Color 1 Alternately Color 4	В	yes	N/C	NC	NC	NIC	NC	N/C	NC	NC	N/C	N/C
		21	26	pane sawe menos conse e conditately Coller 4 Once ED00B0A Biol Color A Spendermente Coller A	ŀ	yes	Class 1	Class 1	Chec 1	Clare 1	NIC	NC	NC	NC	NC	NC
		32	60	Ound 120FPM Ph2 Color 2 Synchronous Color 4		yes.	Class 1	Class 1	Class 1	Class 1	NC	N/C	NC	NC	N/C	N/C
	33	33	61	Quad 60FPM Ph1 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)		Ves	N/C	NC	N/C	N/C	N/C	N/C	NC	NC	N/C	N/C
	34	34	62	Quad 60FPM Ph2 (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	F	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	35	35	63	Quad 60FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)		yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
8			64	Modulation (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)		no	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
9			65	2 Double,2 Quad (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)		no	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
10			66	4 Single,2 Triple (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)	N/A	no	N/C	NC	N/C	N/C	N/C	N/C	NC	N/C	N/C	N/C
11			67	IDoube 1Triple IQuad (Color 1 Synchronous Color 3) Alternately (Color 2 Synchronous Color 4)		no	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
12	36		68	Steady burn-Color 1 & 3		no	N/C	N/C	N/C	N/C	N/C	N/C	NC	N/C	N/C	N/C
	67	1/2	Security Parts A cost / A a		10	 NIL: 	 DOT 	 N/L: 	 NRC 	N/S	N/IC	N/X C	NIX .	N/L	N/10	