



# Installation and Operation Instructions

## CD3600 Series 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 those you are seeking to protect!



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

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.
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 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, respond at a high rate of speed, or walk 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 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.

## Specifications

<b>Input Voltage:</b>	12 -24VDC	
<b>Work Current:</b>	CD3601A	0.32A @ 12VDC
	CD3601B	0.42A @ 12VDC
	CD3601G	0.51A @ 12VDC
	CD3601R	0.42A @ 12VDC
	CD3601W	0.38A @ 12VDC
	CD3602AW	0.41A @ 12VDC
	CD3602RB	0.43A @ 12VDC
	CD3602RW	0.43A @ 12VDC
	CD3602BW	0.43A @ 12VDC
	CD3601AB	0.41A @ 12VDC
	CD3601AR	0.41A @ 12VDC
<b>Temp. Range:</b>	-40°C to 65°C	
	-40°F to 149°F	

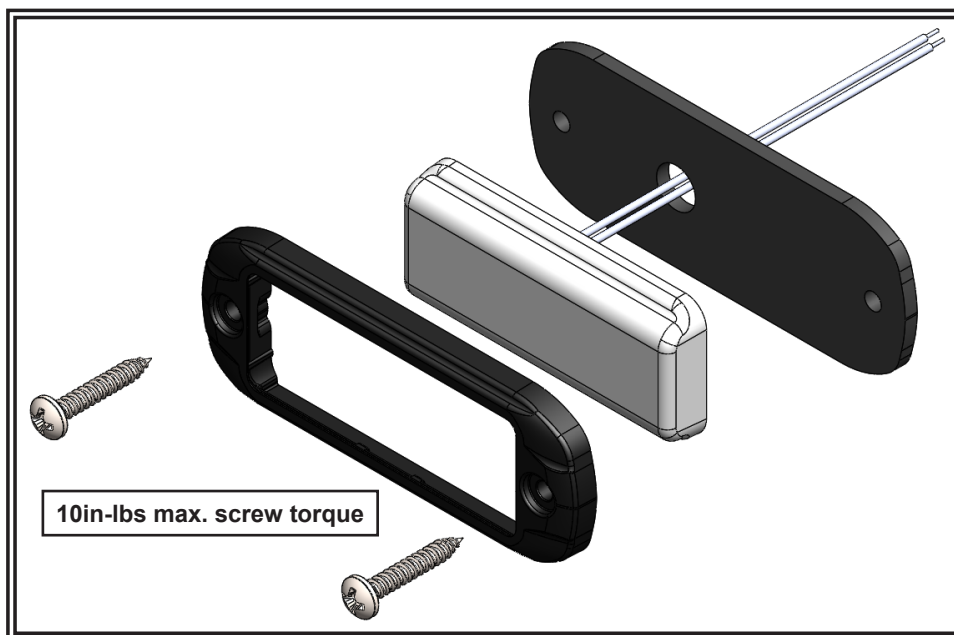
## Installation and Mounting

**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 that the area is free from any electrical wires, fuel lines, vehicle upholstery, etc. that could be damaged.

**Note:** It is recommended to isolate wires/blunt wires that were cut or not used.



**Figure 1**

## Wiring Instructions

### CD3601X

RED Wire: Positive (need to add 2A fuse)  
BLACK Wire: Negative  
BLUE Wire: Pattern Select to Negative, Dimming to Positive  
YELLOW Wire: Synchronized Function

### CD3602XX

RED Wire: Positive, Colors 1 & 3 (need to add 2A fuse)  
WHITE Wire: Positive, Colors 2 & 4 (need to add 2A fuse)  
BLACK Wire: Negative  
BLUE Wire: Pattern Select to Negative, Dimming to Positive  
YELLOW Wire: Synchronized Function

## Flash Patterns

### 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 20 (CD3601X) and pattern 36 (CD3602XX)

Pattern	MODE	PATTERNS	SYNC.	SAE J595					CA T13			ECER65		
				RED	AMBER	BLUE	WHITE	GREEN	RED	AMBER	BLUE	RED	AMBER	BLUE
1	1	Single Flash 75FPM sim. Phase 1	yes	yes	yes	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C
	2	Single Flash 75FPM sim. Phase 2	yes	yes	yes	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C
2	3	Single Flash 120FPM sim. Phase 1	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	YES	YES	YES
	4	Single Flash 120FPM sim. Phase 2	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	YES	YES	YES
3	5	Double Flash 75FPM sim. Phase 1	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	N/C	N/C	N/C
	6	Double Flash 75FPM sim. Phase 2	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	N/C	N/C	N/C
4	7	Double Flash 120FPM sim. Phase 1	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	YES	YES	YES
	8	Double Flash 120FPM sim. Phase 2	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	YES	YES	YES
5	9	Quad Flash 75FPM sim. Phase 1	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	N/C	N/C	N/C
	10	Quad Flash 75FPM sim. Phase 2	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	N/C	N/C	N/C
6	11	Quad Flash 150FPM sim. Phase 1	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	YES	YES	YES
	12	Quad Flash 150FPM sim. Phase 2	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	YES	YES	YES
7	13	Triple 75FPM sim. Phase 1	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	N/C	N/C	N/C
	14	Triple 75FPM sim. Phase 2	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	N/C	N/C	N/C
8	15	Quint Flash 150FPM sim. Phase 1	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	N/C	N/C	N/C
	16	Quint Flash 150FPM sim. Phase 2	yes	yes	yes	yes	yes	yes	N/C	N/C	N/C	N/C	N/C	N/C
9	Default	Steady Burn	NO	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
10	18	Modulation	NO	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C
11	19	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	N/C
12	20	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	N/C

Pattern	Color 1	Color 2	Color 1 & Color 2	PATTERNS	SYNC.	SAE J 595					CA T13			ECE R65		
	Red line	White line	Red & White line			RED	AMBER	BLUE	WHITE	GREEN	RED	AMBER	BLUE	RED	AMBER	BLUE
1	1		1	SAE/T13 SAE/T13 Single 75FPM Ph1 Color 1	yes	yes	yes	yes	yes	yes	yes	yes	yes			
	2		2	SAE/T13 SAE/T13 Single 75FPM Ph2 Color 1	yes	yes	yes	yes	yes	yes	yes	yes	yes			
		1	3	SAE/T13 Single 75FPM Ph1 Color 2	yes	yes	yes	yes	yes	yes	yes	yes	yes			
		2	4	SAE/T13 Single 75FPM Ph2 Color 2	yes	yes	yes	yes	yes	yes	yes	yes	yes			
	3	3	5	SAE/T13 Single 38FPM Ph1 Color 1 Alternately Color 2	yes											
	4	4	6	SAE/T13 Single 38FPM Ph2 Color 1 Alternately Color 2	yes											
2	5	5	7	SAE/T13 Single 38FPM Ph1 Color 2 Alternately Color 1	yes											
	6		8	Single 375FPMFPM Ph1 Color 1	yes											
	7		9	Single 375FPMFPM Ph2 Color 1	yes											
		6	10	Single 375FPMFPM Ph1 Color 2	yes											
		7	11	Single 375FPMFPM Ph2 Color 2	yes											
	8	8	12	Single 187FPMFPM Ph1 Color 1 Alternately Color 2	yes											
3	9	9	13	Single 187FPMFPM Ph2 Color 1 Alternately Color 2	yes											
	10	10	14	Single 187FPMFPM Ph1 Color 2 Alternately Color 1	yes											
	11		15	SAE/T13 Double 75FPM Ph1 Color 1	yes	yes	yes	yes	yes	yes						
	12		16	SAE/T13 Double 75FPM Ph2 Color 1	yes	yes	yes	yes	yes	yes						
		11	17	SAE/T13 Double 75FPM Ph1 Color 2	yes	yes	yes	yes	yes	yes						
		12	18	SAE/T13 Double 75FPM Ph2 Color 2	yes	yes	yes	yes	yes	yes						
4	13	13	19	SAE/T13 Double 38FPM Ph1 Color 1 Alternately Color 2	yes											
	14	14	20	SAE/T13 Double 38FPM Ph2 Color 1 Alternately Color 2	yes											
	15	15	21	SAE/T13 Double 38FPM Ph1 Color 2 Alternately Color 1	yes											
	16		22	ECER65/SAE Double 120FPM Ph1 Color 1	yes	yes	yes	yes	yes	yes				yes	yes	yes
	17		23	ECER65/SAE Double 120FPM Ph2 Color 1	yes	yes	yes	yes	yes	yes				yes	yes	yes
		16	24	ECER65/SAE Double 120FPM Ph1 Color 2	yes	yes	yes	yes	yes	yes				yes	yes	yes
5		17	25	ECER65/SAE Double 120FPM Ph2 Color 2	yes	yes	yes	yes	yes	yes				yes	yes	yes
	18	18	26	ECER65/SAE Double 60FPM Ph1 Color 1 Alternately Color 2	yes											
	19	19	27	ECER65/SAE Double 60FPM Ph2 Color 1 Alternately Color 2	yes											
	20	20	28	ECER65/SAE Double 60FPM Ph1 Color 2 Alternately Color 1	yes											
	21		29	SAE/T13 Triple 75FPM Ph1 Color 1	yes	yes	yes	yes	yes	yes						
	22		30	SAE/T13 Triple 75FPM Ph2 Color 1	yes	yes	yes	yes	yes	yes						
6		21	31	SAE/T13 Triple 75FPM Ph1 Color 2	yes	yes	yes	yes	yes	yes						
		22	32	SAE/T13 Triple 75FPM Ph2 Color 2	yes	yes	yes	yes	yes	yes						
	23	23	33	SAE/T13 Triple 38FPM Ph1 Color 1 Alternately Color 2	yes											
	24	24	34	SAE/T13 Triple 38FPM Ph2 Color 1 Alternately Color 2	yes											
	25	25	35	SAE/T13 Triple 38FPM Ph1 Color 2 Alternately Color 1	yes											
	26		36	SAE/T13 Quad 75FPM Ph1 Color 1	yes	yes	yes	yes	yes	yes						
7	27		37	SAE/T13 Quad 75FPM Ph2 Color 1	yes	yes	yes	yes	yes	yes						
		26	38	SAE/T13 Quad 75FPM Ph1 Color 2	yes	yes	yes	yes	yes	yes						
		27	39	SAE/T13 Quad 75FPM Ph2 Color 2	yes	yes	yes	yes	yes	yes						
	28	28	40	SAE/T13 Quad 38FPM Ph1 Color 1 Alternately Color 2	yes											
	29	29	41	SAE/T13 Quad 38FPM Ph2 Color 1 Alternately Color 2	yes											
	30	30	42	SAE/T13 Quad 38FPM Ph1 Color 2 Alternately Color 1	yes											
8	31		43	ECER65/SAE Quad 120FPM Ph1 Color 1	yes	yes	yes	yes	yes	yes						
	32		44	ECER65/SAE Quad 120FPM Ph2 Color 1	yes	yes	yes	yes	yes	yes						
		31	45	ECER65/SAE Quad 120FPM Ph1 Color 2	yes	yes	yes	yes	yes	yes						
		32	46	ECER65/SAE Quad 120FPM Ph2 Color 2	yes	yes	yes	yes	yes	yes						
	33	33	47	ECER65/SAE Quad 60FPM Ph1 Color 1 Alternately Color 2	yes											
	34	34	48	ECER65/SAE Quad 60FPM Ph2 Color 1 Alternately Color 2	yes											
9	35	35	49	ECER65/SAE Quad 60FPM Ph1 Color 2 Alternately Color 1	yes											
	8		50	Modulation Color 1 Alternately Color 2	no											
	9		51	2 Double,2 Quad Color 1 Alternately Color 2	no											
	10		52	4 Single,2 Triple Color 1 Alternately Color 2	no											
	11		53	1Double 1Triple 1Quad Color 1 Alternately Color 2	no											
	12	36-Default	54-Default	Steady burn-Color 1	no											
		36-Default	55	Steady burn-Color 2	no											

## Troubleshooting

The CD3600 Series are factory tested and approved. If any of the functions of the device fail to operate, please check the following:

PROBLEM	QUESTION		CAUSE	SOLUTION
Product does not function when turned on	Are LEDs functioning properly?	Yes	a. Plug is loose or disconnected	a. Reconnect plug
			b. Poor ground connection	b. Reconnect ground
		No	a. Power has been disconnected	a. Check connections at the battery and plug

## Warranty

### Manufacturer Limited Warranty Policy:

Manufacturer warrants that on the date of purchase this product will conform to Manufacturer's specifications for this product (which are available from the Manufacturer upon request). This Limited Warranty extends for Sixty (60) months from the date of purchase.

**DAMAGE TO PARTS OR PRODUCTS RESULTING FROM TAMPERING, ACCIDENT, ABUSE, MISUSE, NEGLIGENCE, UNAPPROVED MODIFICATIONS, FIRE OR OTHER HAZARD; IMPROPER INSTALLATION OR OPERATION; OR NOT BEING MAINTAINED IN ACCORDANCE WITH THE MAINTENANCE PROCEDURES SET FORTH IN MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS VOIDS THIS LIMITED WARRANTY.**

### Exclusion of Other Warranties:

MANUFACTURER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE IMPLIED WARRANTIES FOR MERCHANTABILITY, QUALITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, USAGE OR TRADE PRACTICE ARE HEREBY EXCLUDED AND SHALL NOT APPLY TO THE PRODUCT AND ARE HEREBY DISCLAIMED, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ORAL STATEMENTS OR REPRESENTATIONS ABOUT THE PRODUCT DO NOT CONSTITUTE WARRANTIES.

### Remedies and Limitation of Liability:

MANUFACTURER'S SOLE LIABILITY AND BUYER'S EXCLUSIVE REMEDY IN CONTRACT, TORT (INCLUDING NEGLIGENCE), OR UNDER ANY OTHER THEORY AGAINST MANUFACTURER REGARDING THE PRODUCT AND ITS USE SHALL BE, AT MANUFACTURER'S DISCRETION, THE REPLACEMENT OR REPAIR OF THE PRODUCT, OR THE REFUND OF THE PURCHASE PRICE PAID BY BUYER FOR NON-CONFORMING PRODUCT. IN NO EVENT SHALL MANUFACTURER'S LIABILITY ARISING OUT OF THIS LIMITED WARRANTY OR ANY OTHER CLAIM RELATED TO THE MANUFACTURER'S PRODUCTS EXCEED THE AMOUNT PAID FOR THE PRODUCT BY BUYER AT THE TIME OF THE ORIGINAL PURCHASE. IN NO EVENT SHALL MANUFACTURER BE LIABLE FOR LOST PROFITS, THE COST OF SUBSTITUTE EQUIPMENT OR LABOR, PROPERTY DAMAGE, OR OTHER SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES BASED UPON ANY CLAIM FOR BREACH OF CONTRACT, IMPROPER INSTALLATION, NEGLIGENCE, OR OTHER CLAIM, EVEN IF MANUFACTURER OR A MANUFACTURER'S REPRESENTATIVE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. MANUFACTURER SHALL HAVE NO FURTHER OBLIGATION OR LIABILITY WITH RESPECT TO THE PRODUCT OR ITS SALE, OPERATION AND USE, AND MANUFACTURER NEITHER ASSUMES NOR AUTHORIZES THE ASSUMPTION OF ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH SUCH PRODUCT.

This Limited Warranty defines specific legal rights. You may have other legal rights which vary from jurisdiction to jurisdiction. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages.

### Product Returns:

If a product must be returned for repair or replacement\*, please contact our factory to obtain a Return Goods Authorization Number (RGA number) before you ship the product to Code 3®, Inc. Write the RGA number clearly on the package near the mailing label. Be sure you use sufficient packing materials to avoid damage to the product being returned while in transit.

\*Code 3®, Inc. reserves the right to repair or replace at its discretion. Code 3®, Inc. assumes no responsibility or liability for expenses incurred for the removal and /or reinstallation of products requiring service and/or repair.; nor for the packaging, handling, and shipping; nor for the handling of products returned to sender after the service has been rendered.



10986 North Warson Road, St. Louis, MO 63114 USA

**Technical Service** USA (314) 996-2800

c3\_tech\_support@code3esg.com

**CODE3ESG.com**

An ECCO SAFETY GROUP™ Brand

**ECCOSAFETYGROUP.com**