

Installation and Operation Instructions



CD6007/CD6029/CD6039/CD6047

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

Size:	CD6007	7.7 x 1.9 x 1.7in	Input Voltage:	12 to 24 VDC
	CD6029	29.0 x 1.9 x 1.7in		
	CD6039	39.0 x 1.9 x 1.7in	Max. Output Power:	111 Watts
	CD6047	47.1 x 1.9 x 1.7in		
Input Current:			Temp. Range:	-40°C to 65°C
	CD6007A	3.5 Amps		
	CD6007B	3.5 Amps		
	CD6007RB	3.5 Amps		
	CD6007RW	3.5 Amps		
	CD6029A	3.5 Amps		
	CD6029B	3.4 Amps		
	CD6029RB	3.4 Amps		
	CD6039A	3.3 Amps		
CD6047A	3.3 Amps			

Installation and Mounting

Unpacking & Pre-Installation:

Carefully remove the unit from its packaging and place it on a flat surface. Examine the unit for transit damage. If damage is found, return the product to your local dealer for warranty replacement. Do not use damaged or broken parts.

End Bracket Mounting:

The mounting location should be chosen such that there is maximum visibility to the oncoming traffic.

1. Loosely assemble a mounting bracket to each end of the unit as shown in FIGURE 1 using the included hardware.
2. Position the lightbar in the desired mounting location. Mark and drill two holes for each bracket.
3. Secure the brackets in place on the vehicle using the supplied hardware. Tilt the face of the unit to an angle that optimizes visibility to oncoming traffic and tighten the two screws in each end.

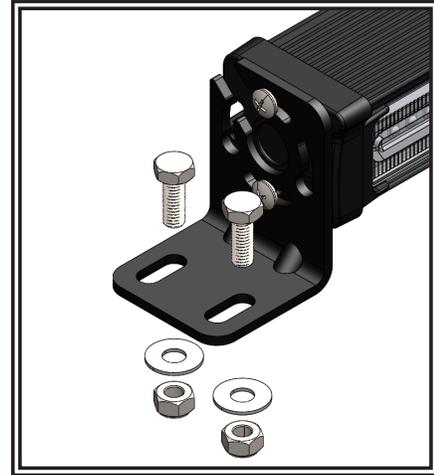


Figure 1

Rear Bracket Mounting:

The mounting location should be chosen such that there is maximum visibility to the oncoming traffic.

1. Loosely assemble the mounting brackets into the rear channel as shown in FIGURE 2 using the included hardware.
2. Position the lightbar in the desired mounting location. Mark and drill a hole to mount each bracket. The brackets should be spaced a minimum of 1/2 the total length apart, i.e., 24" apart on a 48" long product.
3. Secure the brackets in place on the vehicle using supplied hardware. Tighten the nuts holding the brackets to the product.

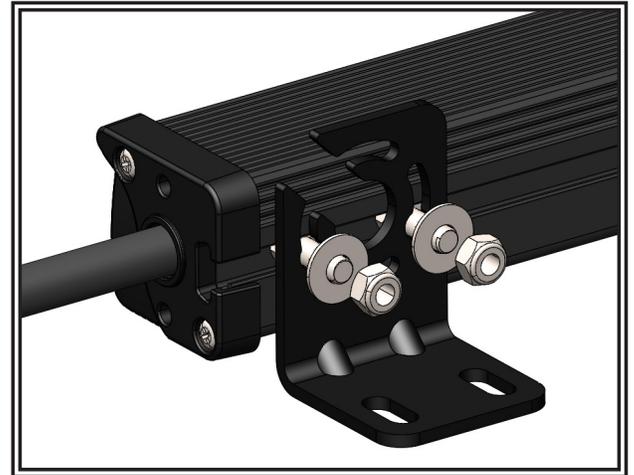


Figure 2

Wiring Instructions

Before attempting to connect the unit's wiring harness, refer to the wiring diagram in FIGURE 3. The wiring diagram describes the function for each wire.

Notes:

1. Larger wires and tight connections will provide longer service life for components. For high current wires it is highly recommended that terminal blocks or soldered connections be used with shrink tubing to protect the connections. Do not use insulation displacement connectors (e.g., 3M Scotchlock type connectors).
2. Route wiring using grommets and sealant when passing through compartment walls. Minimize the number of splices to reduce voltage drop. All wiring should conform to the minimum wire size and other recommendations of the manufacturer and be protected from moving parts and hot surfaces. Looms, grommets, cable ties, and similar installation hardware should be used to anchor and protect all wiring.
3. Fuses or circuit breakers should be located as close to the power takeoff points as possible and properly sized to protect the wiring and devices.
4. Particular attention should be paid to the location and method of making electrical connections and splices to protect these points from corrosion and loss of conductivity.
5. Ground termination should only be made to substantial chassis components, preferably directly to the vehicle battery.
6. Circuit breakers are very sensitive to high temperatures and will "false trip" when mounted in hot environments or operated close to their capacity.

General Wiring Instructions:

1. After the lightbar has been mounted, route the power cable's red wire to a fused, ignition-switched power point as shown in FIGURE 3. Use an in-line 10 amp slow blow fuse on the positive line. Connect the black wire directly to the negative battery terminal. A minimum size of 18 AWG wire should be used on the power and ground lines.
2. Use cable ties and grommets to secure and protect all cables and wires.

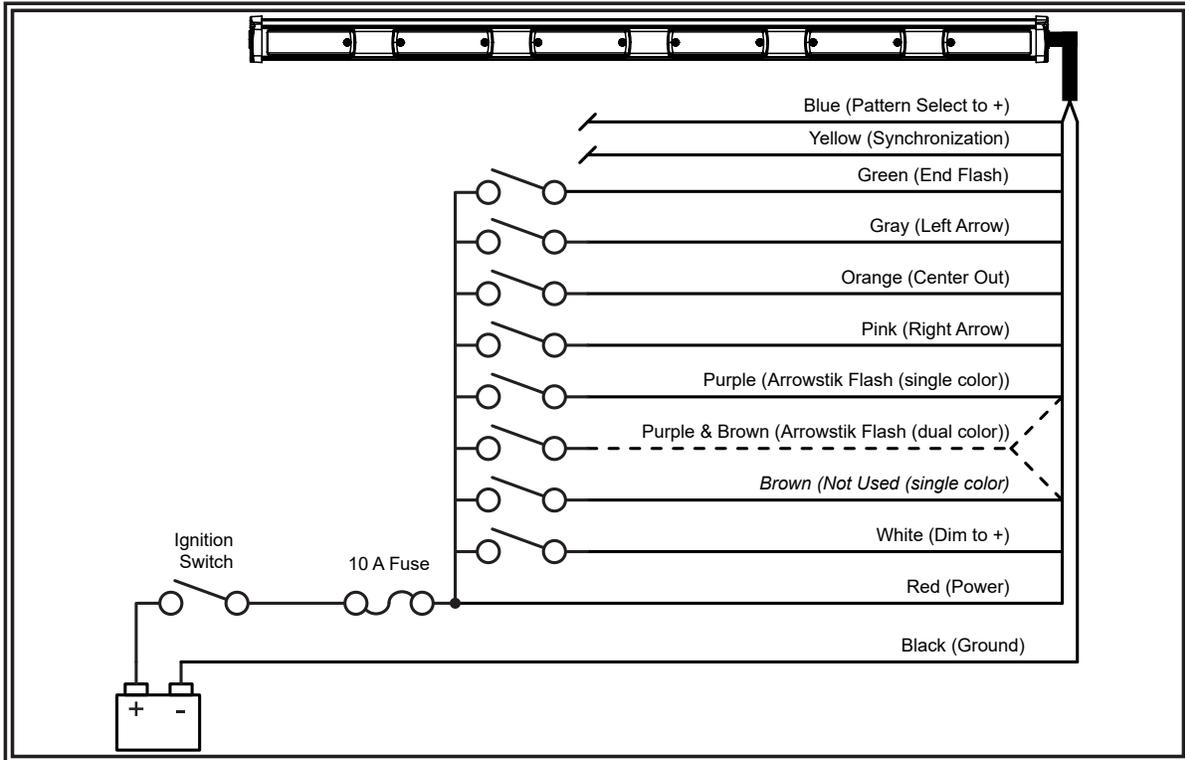


Figure 3 - 6-Head Models

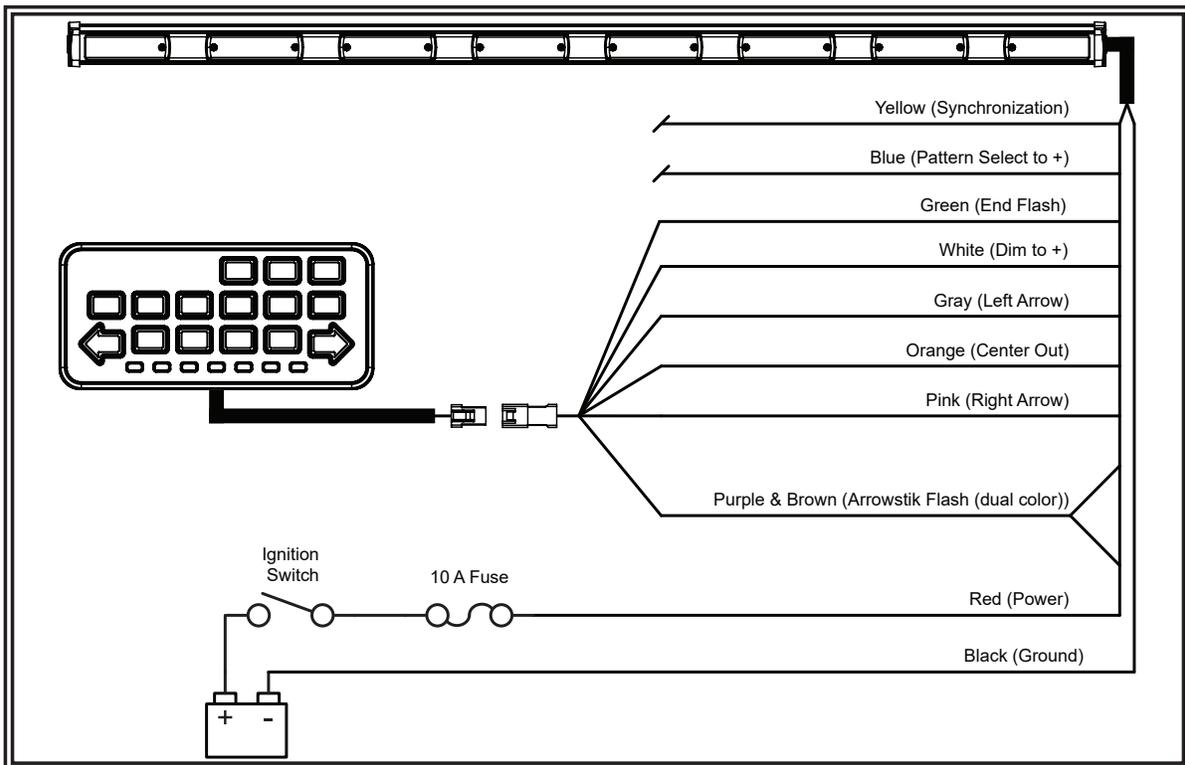


Figure 4 - 8-Head Models

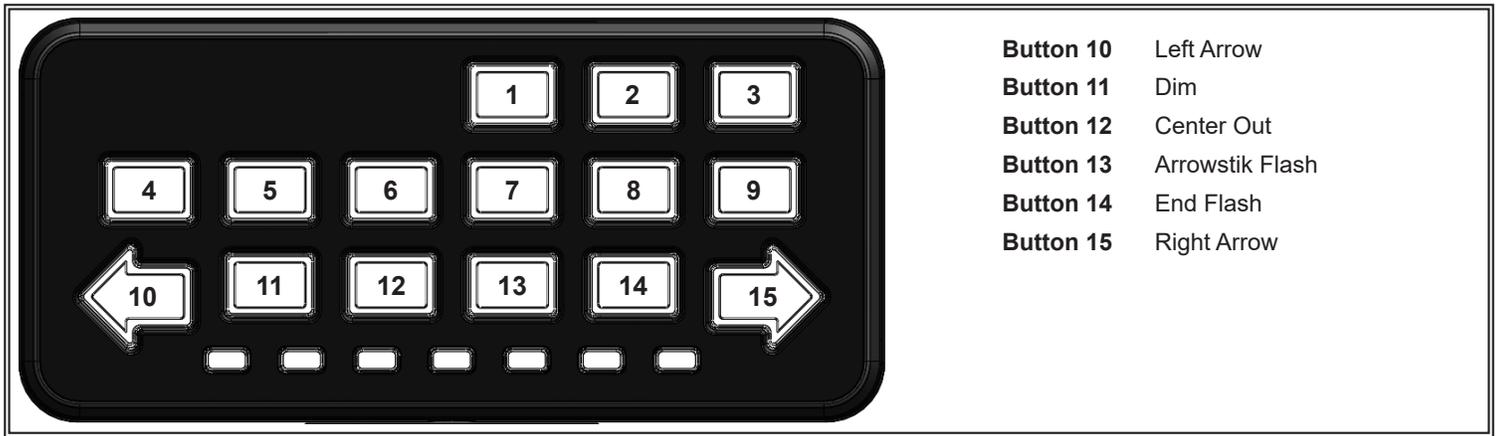


Figure 5 - Controller

Flash Patterns

Flash Pattern Selection:

The flash pattern may be changed by touching the blue wire to positive for the following intervals while the desired function is active:

- Pressing momentarily will increment the pattern by one
- Pressing for 3-5seconds will decrement the pattern by one.
- Pressing for more than 8seconds will change to the default pattern.

SINGLE COLOR XT Stick [CD6029,CD6039,CD6047] Flash Pattern Chart

Pattern	MODE	PATTERNS	SYNC.	SAE J595				CA T13		
				RED	AMBER	BLUE	WHITE	RED	AMBER	BLUE
1	1	Quint Alt	yes	Class 1	Class 1	Class 1	Class 1	N/C	Class B	N/C
	2	Quint In-Out	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	3	Quint Checkerboard	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	4	Quint Phase 1	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	5	Quint Phase 2	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
2	6	Quad Alt	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	7	Quad In-Out	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	8	Quad Checkerboard	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	9	Quad Phase 1	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	10	Quad Phase 2	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
3	11	Single 75 Alt.	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	12	Single 75 In-Out	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	13	Single 75 Checkerboard	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	14	Single 75 Phase 1	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	15	Single 75 Phase 2	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
4	16	Single 375 Alt	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	17	Single 375 In-Out	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	18	Single 375 Checkerboard	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	19	Single 375 Phase 1	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	20	Single 375 Phase 2	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
5	21	Modulation Alt	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	22	Modulation In-Out	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	23	Modulation Checkerboard	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	24	Modulation Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
6	25	Quad Single Alt.	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
7	26	Single-Double 60	yes	Class 1	N/C	Class 1	Class 1	N/C	N/C	N/C
	27	Single-Double 90	yes	Class 1	N/C	Class 1	Class 1	N/C	N/C	N/C
	28	Single-Double 120	yes	Class 1	N/C	Class 1	Class 1	N/C	N/C	N/C
	29	Steady Single 75	yes	Class 1	N/C	Class 1	Class 1	N/C	N/C	N/C
8	30	Steady	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C

SINGLE COLOR XT Stick [CD6029,CD6039,CD6047] Flash Pattern Chart

Pattern	MODE	PATTERNS	SYNC.	SAE J595				CA T13		
				RED	AMBER	BLUE	WHITE	RED	AMBER	BLUE
Left Arrow	1	Building Arrow	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	2	Building Arrow -Fast	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	3	Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	4	2 Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	5	3 Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	6	4 Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	7	Traveling Ball - 3 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	8	Build/Collapse	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	9	Left Side Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
Center Out	10	Center Out Buidling	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	11	Center Out Buidling Fast	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	12	Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	13	2 Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	14	3 Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	15	4 Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	16	Traveling Ball - 3 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	17	Build/Collapse	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	18	Arrow Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
Right Arrow	19	Building Arrow	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	20	Building Arrow - Fast	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	21	Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	22	2 Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	23	3 Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	24	4 Traveling Ball - 2 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	25	Traveling Ball - 3 Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	26	Build/Collapse	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	27	Right Side Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
End Flash	28	Cycle Flash	yes	N/C	N/C	N/C	N/C	N/C	N/C	N/C
	29	Double Flash 70 fpm	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	30	Quad Pop Flash 70fpm	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	31	Triple Flash 70 fpm	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	32	Single Flash 70 fpm	yes	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B
	33	Quint Flash 70 fpm	yes	Class 1	Class 1	Class 1	Class 1	Class B	Class B	Class B
	34	Triple Pop Flash 70 fpm	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C
	35	Quad Flash 70fpm	yes	Class 1	Class 1	Class 1	Class 1	N/C	N/C	N/C

CD6007		Head 1	Head 2
P1	Single Flash 75FPM SIM Ph1	Color 1	Color 1
P2	Single Flash 75FPM SIM Ph2	Color 1	Color 1
P3	Single Flash 75FPM ALT Ph1	Color 1	Color 1
P4	Single Flash 75FPM ALT Ph2	Color 1	Color 1
P5	Double Flash 75FPM SIM Ph1	Color 1	Color 1
P6	Double Flash 75FPM SIM Ph2	Color 1	Color 1
P7	Double Flash 75FPM ALT Ph1	Color 1	Color 1
P8	Double Flash 75FPM ALT Ph2	Color 1	Color 1
P9	Quad Flash 75FPM SIM Ph1	Color 1	Color 1
P10	Quad Flash 75FPM SIM Ph2	Color 1	Color 1
P11	Quad Flash 75FPM ALT Ph1	Color 1	Color 1
P12	Quad Flash 75FPM ALT Ph2	Color 1	Color 1
P13	Single Flash 120FPM SIM Ph1	Color 1	Color 1
P14	Single Flash 120FPM SIM Ph2	Color 1	Color 1
P15	Single Flash 120FPM ALT Ph1	Color 1	Color 1
P16	Single Flash 120FPM ALT Ph2	Color 1	Color 1
P17	Double Flash 120FPM SIM Ph1	Color 1	Color 1
P18	Double Flash 120FPM SIM Ph2	Color 1	Color 1
P19	Double Flash 120FPM ALT Ph1	Color 1	Color 1
P20	Double Flash 120FPM ALT Ph2	Color 1	Color 1
P21	Quad Flash 120FPM SIM Ph1	Color 1	Color 1
P22	Quad Flash 120FPM SIM Ph2	Color 1	Color 1
P23	Quad Flash 120FPM ALT Ph1	Color 1	Color 1
P24	Quad Flash 120FPM ALT Ph2	Color 1	Color 1
P25	WAG WAG 350FPM SIM Ph1	Color 1	Color 1
P26	WAG WAG 350FPM SIM Ph2	Color 1	Color 1
P27	WAG WAG 350FPM ALT Ph1	Color 1	Color 1
P28	WAG WAG 350FPM ALT Ph2	Color 1	Color 1
P29	Single Flash 75FPM SIM Ph1	Color 2	Color 2
P30	Single Flash 75FPM SIM Ph2	Color 2	Color 2
P31	Single Flash 75FPM ALT Ph1	Color 2	Color 2
P32	Single Flash 75FPM ALT Ph2	Color 2	Color 2
P33	Double Flash 120FPM SIM Ph1	Color 2	Color 2
P34	Double Flash 120FPM SIM Ph2	Color 2	Color 2
P35	Double Flash 120FPM ALT Ph1	Color 2	Color 2
P36	Double Flash 120FPM ALT Ph2	Color 2	Color 2
P37	Single Flash 75FPM SIM Ph1	Color 1	Color 2
P38	Single Flash 75FPM SIM Ph2	Color 1	Color 2
P39	Single Flash 75FPM ALT Ph1	Color 1	Color 2
P40	Single Flash 75FPM ALT Ph2	Color 1	Color 2
P41	Double Flash 120FPM SIM Ph1	Color 1	Color 2
P42	Double Flash 120FPM SIM Ph2	Color 1	Color 2
P43	Double Flash 120FPM ALT Ph1	Color 1	Color 2
P44	Double Flash 120FPM ALT Ph2	Color 1	Color 2
P45	Single Flash 75FPM SIM Ph1	Color 2	Color 1
P46	Single Flash 75FPM SIM Ph2	Color 2	Color 1
P47	Single Flash 75FPM ALT Ph1	Color 2	Color 1
P48	Single Flash 75FPM ALT Ph2	Color 2	Color 1
P49	Double Flash 120FPM SIM Ph1	Color 2	Color 1
P50	Double Flash 120FPM SIM Ph2	Color 2	Color 1
P51	Double Flash 120FPM ALT Ph1	Color 2	Color 1
P52	Double Flash 120FPM ALT Ph2	Color 2	Color 1
P53	STEADY BURN & Single Flash 75FPM ALT Ph1	Color 1	Color 1
P54	Single Flash 75FPM ALT Ph1 & STEADY BURN	Color 1	Color 1
P55	STEADY BURN & Single Flash 75FPM ALT Ph1	Color 1	Color2
P56	Single Flash 75FPM ALT Ph1 & STEADY BURN	Color 1	Color2
P57	STEADY BURN & Single Flash 75FPM ALT Ph1	Color2	Color 1
P58	Single Flash 75FPM ALT Ph1 & STEADY BURN	Color2	Color 1
P59	STEADY BURN & Quad Flash 75FPM ALT Ph1	Color 1	Color 1
P60	Quad Flash 75FPM ALT Ph1 & STEADY BURN	Color 1	Color 1
P61	STEADY BURN & Quad Flash 75FPM ALT Ph1	Color 1	Color2
P62	Quad Flash 75FPM ALT Ph1 & STEADY BURN	Color 1	Color2
P63	STEADY BURN & Quad Flash 75FPM ALT Ph1	Color2	Color 1
P64	Quad Flash 75FPM ALT Ph1 & STEADY BURN	Color2	Color 1
P65	STEADY BURN	Color 1	Color 1
P66	STEADY BURN	Color 2	Color 2
P67	OFF	N/A	N/A

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.

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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.



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