



Installation and Operation Instructions


V Series Hide-A-LEDs

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:	1.1" deep x 0.9" high x 2.2" wide (with bezel)
Input Voltage:	12/24 VDC
Current Draw:	V SX: 0.7A Max @ 12VDC V SXX: 0.5A Max @ 12VDC
Operating temperature range:	-30 to +50°C
Lumens:	SINGLE COLOR: Amber: 230 Blue: 50 Red: 80 White: 335 DUAL COLOR: Amber: 125 Blue: 30 Red: 55 White: 170 Green: 70

Contents:

1 X HIDE-A-LED head with cable
1 X Mounting Gasket
2 X Round Phillips Head Screws
1 X Bezel
SINGLE COLOR: RED wire: power/positive BLACK wire: ground/negative BLUE wire: pattern select to ground/negative BLUE wire: dimming to power/positive YELLOW wire: synchronized function
DUAL COLOR: RED wire: power/positive Color 1 WHITE wire: power/positive Color 2 BLACK wire: ground/negative BLUE wire: pattern select to ground/negative BLUE wire: dimming to power/positive YELLOW wire: synchronized function

Installation & Mounting:

Before installation, examine the LED heads for transit damage. Do not use damaged or broken parts.

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.

Lamp Mounting:

Pick a location in the vehicle lamp housing that is at least 1" away from any existing bulbs. Drill 1" hole in vehicle lamp reflector housing with hole saw. Mark the two screw hole locations and drill with 3/32" bit. Install the LED head into lamp housing with gasket as shown in Figure 1. Use silicone RTV on the screws to seal the threads. Strap the driver module to a nearby wire harness or body structure. Make electrical connections as described below.

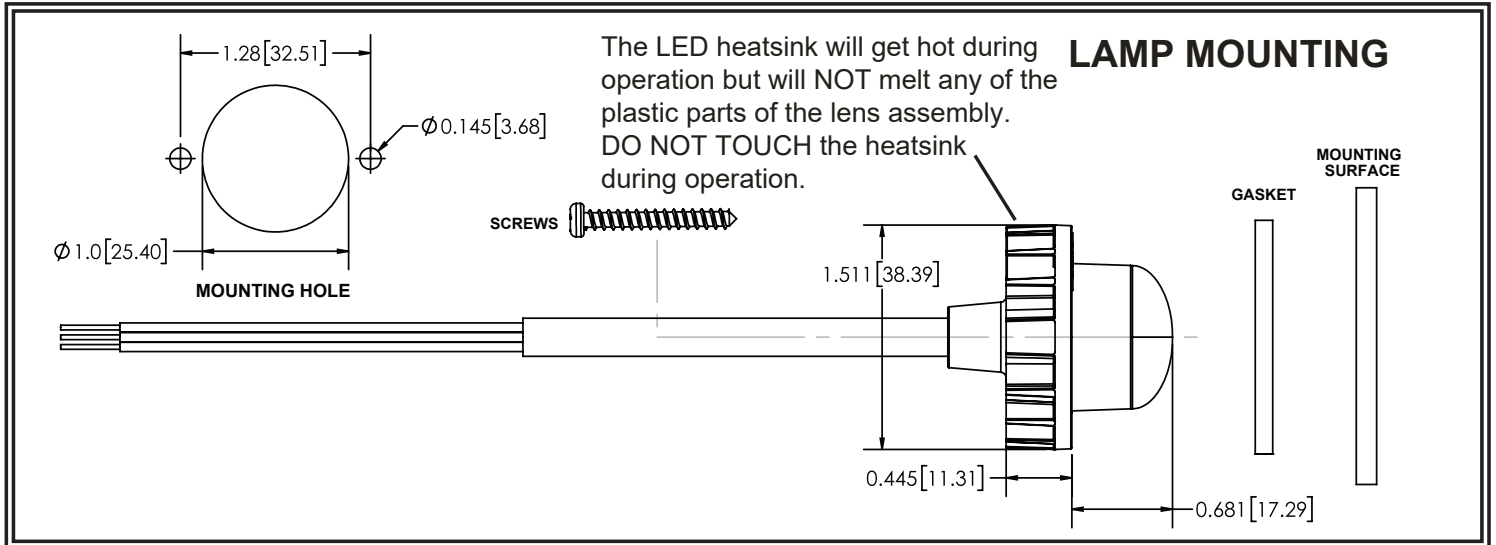


FIGURE 1

Surface Mounting:

Mark and drill mounting hole locations in mounting surface. Make the electrical connections described below and feed the driver module through the mounting hole. Silicone RTV sealant should be used around the mounting and screw holes. Install the bezel using the two screws provided.

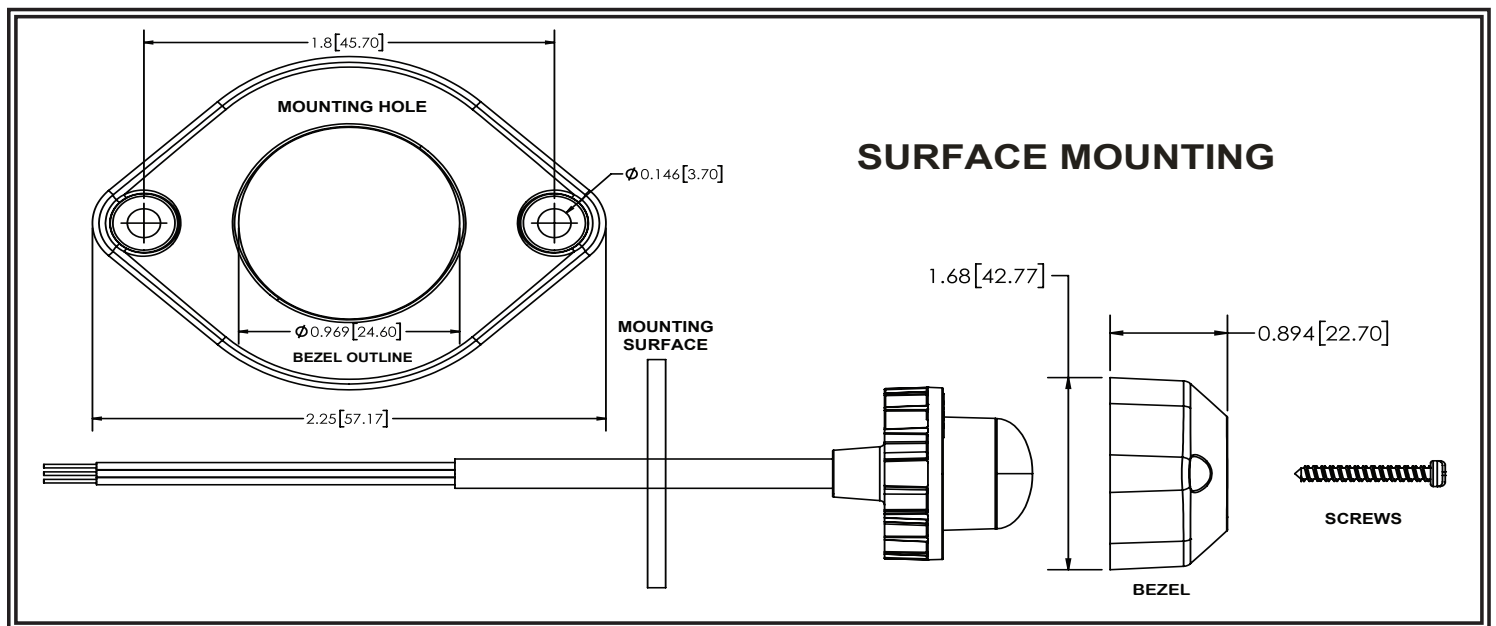


FIGURE 2

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 last pattern

VSX Flash Pattern Chart

PATTERN	MODE	FLASH PATTERN	SYNC	SAE J595			
				RED	AMBER	BLUE	WHITE
1	1	Single Flash 75FPM sim. Phase1	yes	Class 2	Class 2	Class 2	Class 2
	2	Single Flash 75FPM sim. Phase2	yes	Class 2	Class 2	Class 2	Class 2
	3	Single Flash 75FPM Alt.	yes	N/C	N/C	N/C	N/C
2	4	Single Flash 120FPM sim. Phase1	yes	Class 2	Class 2	Class 3	Class 2
	5	Single Flash 120FPM sim. Phase2	yes	Class 2	Class 2	Class 3	Class 2
	6	Single Flash 120FPM Alt.	yes	N/C	N/C	N/C	N/C
3	7	Double Flash 75FPM sim. Phase1	yes	Class 2	Class 2	Class 2	Class 2
	8	Double Flash 75FPM sim. Phase2	yes	Class 2	Class 2	Class 2	Class 2
	9	Double Flash 75FPM Alt.	yes	N/C	N/C	N/C	N/C
4	10	Double Flash 120FPM sim. Phase1	yes	Class 2	Class 2	Class 3	Class 2
	11	Double Flash 120FPM sim. Phase2	yes	Class 2	Class 2	Class 3	Class 2
	12	Double Flash 120FPM Alt.	yes	N/C	N/C	N/C	N/C
5	13-Default	Quad Flash 75FPM sim. Phase1	yes	Class 2	Class 2	Class 2	Class 2
	14	Quad Flash 75FPM sim. Phase2	yes	Class 2	Class 2	Class 2	Class 2
	15	Quad Flash 75FPM Alt.	yes	N/C	N/C	N/C	N/C
6	16	Quad Flash 150FPM sim. Phase1	yes	Class 2	Class 2	Class 3	Class 2
	17	Quad Flash 150FPM sim. Phase2	yes	Class 2	Class 2	Class 3	Class 2
	18	Quad Flash 150FPM Alt.	yes	N/C	N/C	N/C	N/C
7	19	Triple 75FPM sim. Phase1	yes	Class 2	Class 2	Class 2	Class 2
	20	Triple 75FPM sim. Phase2	yes	Class 2	Class 2	Class 2	Class 2
	21	Triple 75FPM Alt.	yes	N/C	N/C	N/C	N/C
8	22	Quint Flash 150FPM sim. Phase1	yes	Class 3	Class 2	Class 3	Class 3
	23	Quint Flash 150FPM sim. Phase2	yes	Class 3	Class 2	Class 3	Class 3
	24	Quint Flash 150FPM Alt.	yes	N/C	N/C	N/C	N/C
9	25	Steady - Single	No	N/C	N/C	N/C	N/C
10	26	Steady Burn	No	N/C	N/C	N/C	N/C
11	27	Modulation	No	N/C	N/C	N/C	N/C
12	28	2 Double Flash, 2 Triple Flash Alt.	No	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

TroubleShooting:
HEAD NOT FLASHING:

Check the RED and BLACK wires for a reversed connection. (Reverse connection will not damage the unit). Check RED and BLACK wires for either a bad splice or a corroded ground connection.

VSXX Flash Pattern Chart

Pattern	LED Color 1 & Color 3 Red Wire	LED Color 2 & Color 4 White Wire	LED Color 1 & 3 LED Color 2 & 4 Red & White Wire	FLASH PATTERN	SYNC	SAE J595				
						Red	Amber	Blue	White	Green
1	1-Default		1-Default	Single 75FPM Ph1 Color 1	yes	Class 3	Class 2	Class 3	Class 3	Class 3
	2		2	Single 75FPM Ph2 Color 1	yes	Class 3	Class 2	Class 3	Class 3	Class 3
			3	Single 75FPM Ph1 Color 1 Alternately Color 4	yes	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
		1-Default	5	Single 75FPM Ph1 Color 2	yes	Class 3	Class 2	Class 3	Class 3	Class 3
		2	6	Single 75FPM Ph2 Color 2	yes	Class 3	Class 2	Class 3	Class 3	Class 3
	3	3	7	Single 75FPM Ph1 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	4	4	8	Single 75FPM Ph2 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
2	5	5	9	Single 75FPM (Color 1 Alternately Color2) Alternately (Color 3 Alternately Color 4)	yes	N/C	N/C	N/C	N/C	N/C
	6		10	Single 375FPM Ph1 Color 1	yes	N/C	N/C	N/C	N/C	N/C
	7		11	Single 375FPM Ph2 Color 1	yes	N/C	N/C	N/C	N/C	N/C
			12	Single 375FPM Ph1 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
			13	Single 375FPM Ph2 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
		6	14	Single 375FPM Ph1 Color 2	yes	N/C	N/C	N/C	N/C	N/C
		7	15	Single 375FPM Ph2 Color 2	yes	N/C	N/C	N/C	N/C	N/C
	8	8	16	Single 375FPM Ph1 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
3	9	9	17	Single 375FPM Ph2 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	10	10	18	Single 375FPM (Color 1 Alternately Color2) Alternately (Color 3 Alternately Color 4)	yes	N/C	N/C	N/C	N/C	N/C
	11		19	Double 75FPM Ph1 Color 1	yes	Class 3	Class 3	Class 3	Class 3	Class 3
	12		20	Double 75FPM Ph2 Color 1	yes	Class 3	Class 3	Class 3	Class 3	Class 3
			21	Double 75FPM Ph1 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
			22	Double 75FPM Ph2 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
		11	23	Double 75FPM Ph1 Color 2	yes	Class 3	Class 3	Class 3	Class 3	Class 3
		12	24	Double 75FPM Ph2 Color 2	yes	Class 3	Class 3	Class 3	Class 3	Class 3
4	13	13	25	Double 75FPM Ph1 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	14	14	26	Double 75FPM Ph2 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
		15	27	Double 75FPM (Color 1 Alternately Color2) Alternately (Color 3 Alternately Color 4)	yes	N/C	N/C	N/C	N/C	N/C
	16		28	Double 120FPM Ph1 Color 1	yes	Class 3	Class 2	Class 3	Class 3	Class 3
	17		29	Double 120FPM Ph2 Color 1	yes	Class 3	Class 2	Class 3	Class 3	Class 3
			30	Double 120FPM Ph1 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
			31	Double 120FPM Ph2 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
		16	32	Double 120FPM Ph1 Color 2	yes	Class 3	Class 2	Class 3	Class 3	Class 3
4		17	33	Double 120FPM Ph2 Color 2	yes	Class 3	Class 2	Class 3	Class 3	Class 3
	18	18	34	Double 120FPM Ph1 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	19	19	35	Double 120FPM Ph2 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	20	20	36	Double 120FPM (Color 1 Alternately Color2) Alternately (Color 3 Alternately Color 4)	yes	N/C	N/C	N/C	N/C	N/C

5	21		37	Triple 75FPM Ph1 Color 1	yes	Class 3	Class 3	Class 3	Class 3	Class 3
	22		38	Triple 75FPM Ph2 Color 1	yes	Class 3	Class 3	Class 3	Class 3	Class 3
			39	Triple 75FPM Ph1 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
			40	Triple 75FPM Ph1 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
		21	41	Triple 75FPM Ph1 Color 2	yes	Class 3	Class 3	Class 3	Class 3	Class 3
		22	42	Triple 75FPM Ph2 Color 2	yes	Class 3	Class 3	Class 3	Class 3	Class 3
	23	23	43	Triple 75FPM Ph1 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	24	24	44	Triple 75FPM Ph2 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	25	25	45	Triple 75FPM (Color 1 Alternately Color 2) Alternately (Color 3 Alternately Color 4)	yes	N/C	N/C	N/C	N/C	N/C
6	26		46	Quad 75FPM Ph1 Color 1	yes	Class 3	Class 2	Class 3	Class 3	Class 3
	27		47	Quad 75FPM Ph2 Color 1	yes	Class 3	Class 2	Class 3	Class 3	Class 3
			48	Quad 75FPM Ph1 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
			49	Quad 75FPM Ph2 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
		26	50	Quad 75FPM Ph1 Color 2	yes	Class 3	Class 2	Class 3	Class 3	Class 3
		27	51	Quad 75FPM Ph2 Color 2	yes	Class 3	Class 2	Class 3	Class 3	Class 3
	28	28	52	Quad 75FPM Ph1 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	29	29	53	Quad 75FPM Ph2 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	30	30	54	Quad 75FPM (Color 1 Alternately Color2) Alternately (Color 3 Alternately Color 4)	yes	N/C	N/C	N/C	N/C	N/C
7	31		55	Quad 120FPM Ph1 Color 1	yes	Class 3	Class 3	Class 3	Class 3	Class 3
	32		56	Quad 120FPM Ph2 Color 1	yes	Class 3	Class 3	Class 3	Class 3	Class 3
			57	Quad 120FPM Ph1 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
			58	Quad 120FPM Ph2 Color 1 Alternately Color 4	yes	N/C	N/C	N/C	N/C	N/C
		31	59	Quad 120FPM Ph1 Color 2	yes	Class 3	Class 3	Class 3	Class 3	Class 3
		32	60	Quad 120FPM Ph2 Color 2	yes	Class 3	Class 3	Class 3	Class 3	Class 3
	33	33	61	Quad 120FPM Ph1 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	34	34	62	Quad 120FPM Ph2 Color 1 Alternately Color 2	yes	N/C	N/C	N/C	N/C	N/C
	35	35	63	Quad 120FPM (Color 1 Alternately Color2) Alternately (Color 3 Alternately Color 4)	yes	N/C	N/C	N/C	N/C	N/C
8		64	Modulation Color 1 Alternately Color 2	no	N/C	N/C	N/C	N/C	N/C	
9		65	2 Double, 2 Quad Color 1 Alternately Color 2	no	N/C	N/C	N/C	N/C	N/C	
10		66	4 Single, 2 Triple Color Alternately Color 2	no	N/C	N/C	N/C	N/C	N/C	
11		67	1 Double, 1 Triple, 1 Quad Color Alternately Color 2	no	N/C	N/C	N/C	N/C	N/C	
12	36		68	Steady burn-Color 1	no	N/C	N/C	N/C	N/C	N/C
		36	69	Steady burn-Color 2	no	N/C	N/C	N/C	N/C	N/C

TroubleShooting:
HEAD NOT FLASHING:

Check the RED and BLACK wires for a reversed connection. (Reverse connection will not damage the unit). Check RED and BLACK wires for either a bad splice or a corroded ground connection.

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