



Installation Instructions Wildcat Series

The Wildcat Series™ single LED head concealed warning light provides high-intensity light output in a compact package. Designed specifically for installation inside existing vehicle head and tail lights, each unit features 16 synchronizable flash patterns, an in-line waterproof power module and 9' cable. This manual provides information about installation, function, safety, maintenance, replacement parts and warranty.



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 bodily/personal injury, and/or death to you and those you are seeking to protect!



Do not install and/or operate this safety product unless you have read and understand 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 you and those you are trying to protect.
2. 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 are 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 s/he can operate the system without losing eye contact with the roadway.
5. It is the responsibility of the vehicle operator to ensure during use 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.
6. The use of this or any other warning device does not ensure all drivers can or will observe or react to a warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, walking on or around traffic lanes.
7. This equipment is intended for use by authorized personnel only. The user is responsible for understanding and obeying all laws regarding warning signal 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:

BLUE, CLEAR, GREEN, PURPLE

Input Voltage: 10 to 30 VDC
 Input Current: 1.0A @ 12.8V, 0.6A @ 25.6V
 Lumens: Blue 155+
 Green 200+
 Clear 660+
 Purple 660+

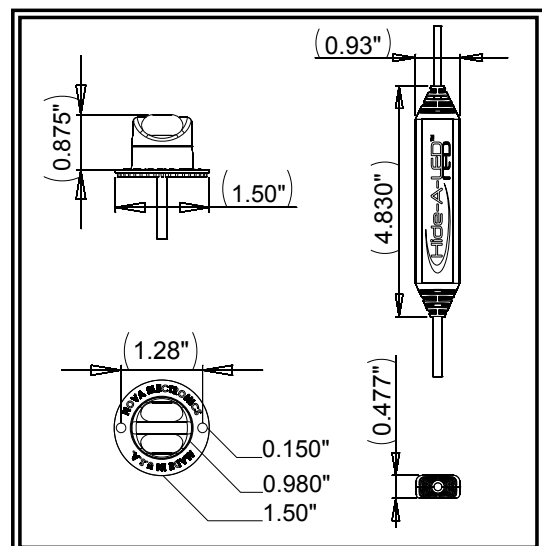
RED, AMBER

Input Voltage: 12.8V (10 to 16 Vdc)
 Input Current: 0.35A
 Lumens: Amber 160+
 Red 123+

SPLIT COLOR

Input Voltage: 10 to 30 VDC
 Input Current: 0.5A
 Lumens: Half of value shown above per side

Dimensions:



Important! This unit is a safety device, and must be connected to a dedicated power source with an in-line fuse.

Important! The Wildcat™ is waterproof only when mounted inside of a lens assembly.

Installation & Mounting:

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

A Wildcat™ LED head may be mounted in the back, bottom or side surface of a lens assembly reflector using the supplied gasket and two #6 screws. Using the LED head as a template, drill two pilot holes for the screws with a 1/8" drill bit and then widen to 0.1160" diameter hole using a #32 drill bit. Drill a 1" diameter hole for the LED head. If the mounting surface is curved additional sealing may be necessary. Use RTV Silicone sealant as needed.

Tip: Apply RTV silicone to the screws to seal the threads

Strap the waterproof power module to the body of the vehicle away from any high heat sources. Do not drill holes through the power module.

Do not touch the power module after it has been running for an extended period of time. The power module will not become hot enough to melt plastic.

Electrical Connections:

The cable on the Wildcat™ is long enough to run across the front or the rear of a vehicle. Trim the cable as needed. The wiring diagram on page 2 shows a typical install.

RED: +V

Connect the +V (red) wire to a power source via an ON/OFF switch. Size the fuse according to the number of heads used in the system. 18 AWG or larger wire is recommended.

BLACK: - GROUND

Connect the ground (black) wire to the vehicle chassis. 18 AWG or larger wire is recommended.

BLUE: Sync & Flash Pattern Selection

The blue wire serves to sync all installed Wildcat LED units (64 units max.) and select the flash pattern. To change to flash pattern, touch the blue wire to the V+ (red) wire. A push button can also be used. Push button not included.

Note: Do not touch the blue wire to the ground (black) wire. This disrupts the flash pattern sync function.

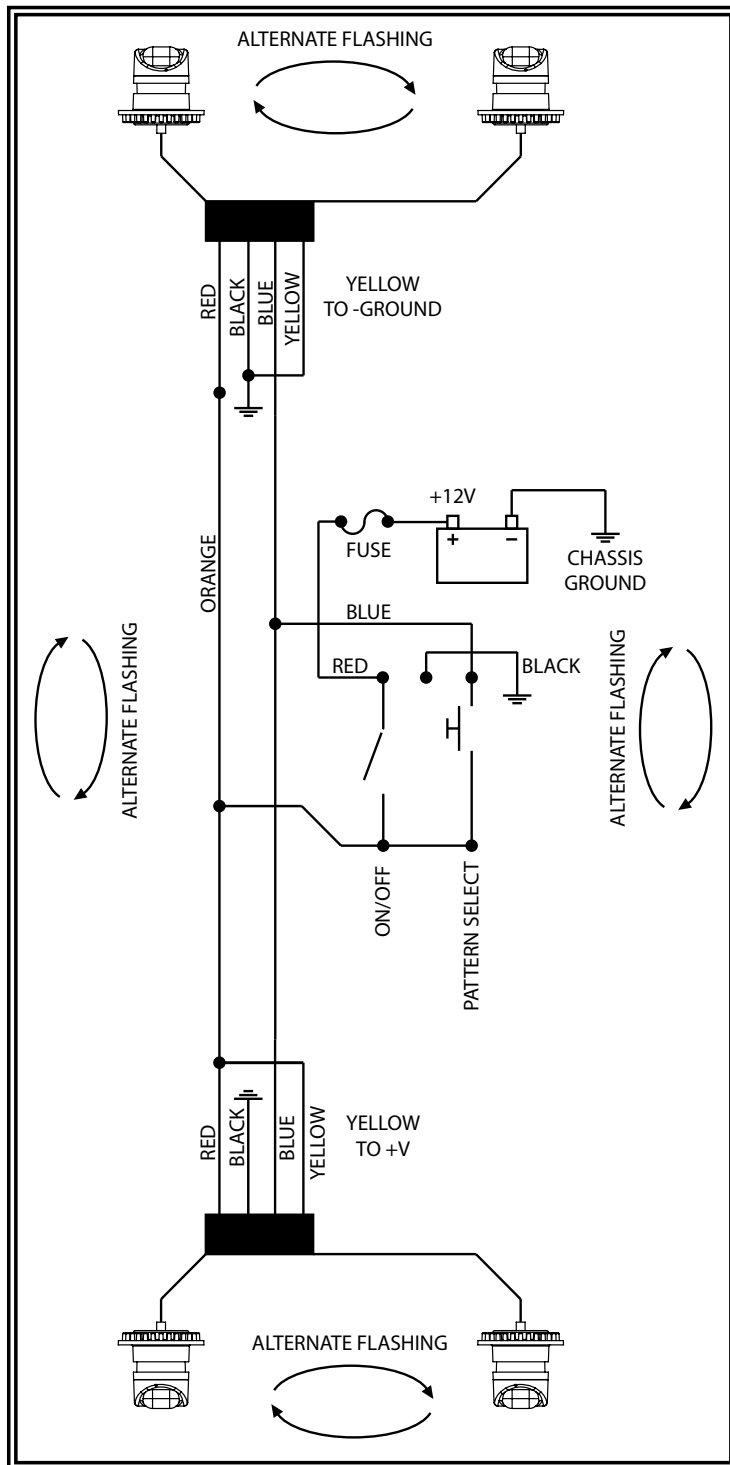
YELLOW: Alternating / Simultaneous Flash Pattern Selection

The yellow wire functions to switch between synchronized or alternating flash patterns between LED units. All blue wires must be connected between units for the yellow wire to function as described. All units that have the yellow and V+(red) wires connected will have a synchronized flash. Similarly, all units that have the yellow and ground (black) wires connected will have a synchronized flash. The units with yellow connected to V+ and yellow connected to ground will alternate in flash pattern to one another. A steady on flash pattern is not available while the yellow wire is in use.

SPLIT COLOR: Split color heads will alternate between the two colors. The YELLOW wire on these units will coordinate the colors that will synchronize or alternate flash patterns.

Wiring Diagram:

Installation of a 4 Wildcat heads™ using an on/off switch as well as a momentary switch to select flash patterns (not supplied).



Flash Patterns:

POWER-UP RESET:

Before powering on the system for the first time, a POWER-UP RESET is recommended to ensure that all heads are synchronized. Turn the power switch to on and briefly touch the blue wire to the V+ (red) wire. This will reset all LED units to a double flash. If you have installed a pattern select push button, hold the button down while turn the power switch to ON.

To switch flash patterns, briefly touch the blue wire to the V+ (red) wire to cycle through the flash patterns as outlined below.

STANDARD PATTERNS			
#	Pattern:	Frequency:	Description:
1	Quad Flash	1.25 Hz	75 Quad Flashes Per Minute
2	Double Flash	1.25 Hz	75 Double Flashes Per Minute
3	Triple Flash	1.53 Hz	92.3 Triple Flashes Per Minute
4	DeciBlast	1.42 Hz	85.5 Deci Flashes Per Minute
5	Single Flash	1.25 Hz	75 Single Flashes Per Minute
6	Mega Flash	1.90 Hz	114 Single Flashes Per Minute
7	Triple+Burst	1.37 Hz	82.5 Triple+Burst Flashes Per Minute
8	Steady On		Steady on. Split Color = Fast Mega
CYCLE PATTERNS			
9	Cycle All		Cycle through patterns 1 to 7
10	Double-Triple+Burst		2 Double, 2 Triple+Burst cycle
11	Cycle Classic		1 Double, 1 Quad, 2 Mega cycle
12	Quad-Mega		3 Quad, 4 Mega cycle
13	Single-Quad		2 Single, 2 Quad cycle
14	DeciBlast-Quad		2 DeciBlast, 2 Quad cycle
15	Single-Triple-DeciBlast		2 Single, 2 Triple, 2 DeciBlast cycle
16	Mega-Triple+Burst		1 Mega, 1 Triple+Burst cycle

STANDARD PATTERNS:

The Wildcat™ comes with patterns 1 through 8 enabled by default. Add patterns 9 through 16 by following the instructions listed below.

CYCLE PATTERNS:

Patterns 9 through 16 may be added by doing the following:

1) Touch BLUE wires to +V (RED wire) while applying power.

If you have installed a pattern select push-button, press and hold pattern select while turning power switch ON.

2) Hold BLUE wires on +V for 5 SECONDS (heads will not be flashing during this time). After 5 SECONDS the heads will flash once or twice to indicate the flash pattern list that has been selected:

ONE FLASH = Standard Patterns only.

TWO FLASHES = Standard + Cycle patterns.

3) Remove the BLUE wires from +V (or release push-button).

The flash pattern selected will remain the same through the addition or removal of patterns 9 through 16 or loss of power.

Troubleshooting:

HEAD NOT FLASHING:

Check the RED and BLACK wires for a reversed connection. (Reverse connections will not damage the unit). Ensure that the red and black wires have secure connections and are free of corrosion.

HEADS NOT SYNCHRONIZING:

Check for a short circuit on the BLUE wire to either +V or GROUND. Salt water on the wire connections will short circuit the sync signal on the BLUE wire. Check for non-functional heads in the system. If any one of the heads has a bad GROUND connection, the syncing function may be compromised. Any red and black wires that have been incorrectly installed may also disrupt the syncing function.

FLASH PATTERN CHANGING:

If the flash pattern is changing sporadically, there may be a short in the wiring. Be sure that water cannot reach any of the wiring connections. A poor connection to ground may also be a cause.

Manufacturer Limited Warranty and Limitation of Liability:

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10986 North Warson Road
St. Louis, MO 63114
Customer Service
(314) 426-2700
cs-c3@code3esg.com
www.code3esg.com

A Division of ESG | www.eccogroup.com