

**Safety First:** This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained herein that could prevent serious injury or damage.

- Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.
- Whelen Engineering requires the use of waterproof butt splices and/or connectors if that connector could be exposed to moisture. Any unused wires must be sealed (waterproofed) to prevent moisture infiltration.
- Any holes, either created or utilized by this product, should be made both air- and watertight using a sealant recommended by your vehicle manufacturer.
- Failure to use specified installation parts and/or hardware will void the product warranty!

If mounting this product requires drilling holes, the installer **MUST** be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr any holes and remove any metal shards or remnants. Install grommets into all wire passage holes.

- Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owner's manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.
- For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the **NEGATIVE (-)** battery post.
- If this product uses a remote device to activate or control this product, make sure that this control is located in an area that allows both the vehicle and the control to be operated safely in any driving condition.
- Do not attempt to activate or control this device in a hazardous driving situation.
- This product contains either strobe light(s), halogen light(s), high-intensity LEDs or a combination of these lights. Do not stare directly into these lights. Momentary blindness and/or eye damage could result.
- Use only soap and water to clean the outer lens. Use of other chemicals could result in premature lens cracking (crazing) and discoloration. Lenses in this condition have significantly reduced effectiveness and should be replaced immediately. Inspect and operate this product regularly to confirm its proper operation and mounting condition. Do not use a pressure washer to clean this product.
- **WARNING!** All customer supplied wires that connect to the positive (+) terminal of the battery must be sized to supply at least 125% of the maximum operating current and **FUSED** "at the battery" to carry that load. **DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!**
- **FAILURE TO FOLLOW THESE PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**
- It is the responsibility of the installation technician to make sure that the installation and operation of this product will not interfere with or compromise the operation or efficiency of any vehicle equipment.

## Scan-Lock™ and Flash Patterns



Pattern#	Name	Cert.	Pattern#	Name	Cert.
1/2.	<b>SignalAlert™ 75</b>	1,2,3,4	23.	<b>ComAlert™ 150</b>	1, ,3,4
3/4.	<b>Comet 75</b>	1,2,3,4	24.	<b>PingPong™ 120</b>	1,2,3,4
5/6.	<b>Com-Alert 75</b>	1,2,3,4	25.	<b>ActionFlash™ 60</b>	1,2, ,4
7/8.	<b>Long Burst 75</b>	1,2,3,4	26.	<b>ActionFlash™ 120</b>	1,2,3,4
9/10.	<b>Ping-Pong 75</b>	1,2,3,4	27.	<b>Action SF 60/120</b>	1,2, ,4
11/12.	<b>Single 75</b>	1,2,3,4	28.	<b>Action SF120/TF75</b>	1,2,3,4
13/14.	<b>Double 75</b>	1,2,3,4	29.	<b>ModuFlash</b>	
15/16.	<b>Triple 75</b>	1,2,3,4	30.	<b>CalScan</b>	1,2,3,4
17.	<b>SingleFlash 60</b>	1,2, ,4	31.	<b>ActionScan</b>	1, ,3,4
18.	<b>SingleFlash 90</b>	1,2,3,4	32.	<b>SignalAlert™ Steady*</b>	
19.	<b>SingleFlash 120</b>	1,2,3,4	33.	<b>DVI SF 60 Day Ph1</b>	1,2, ,4
20.	<b>SingleFlash 240</b>	1, ,3,4	34.	<b>DVI SF 75 Day PH2</b>	1,2,3,4
21.	<b>DoubleFlash 120</b>	1,2,3,4	35.	<b>DVI SF 75 Day PH1</b>	1,2,3,4
22.	<b>Tripleflash™ 120</b>	1,2,3,4	36.	<b>Steady*</b>	

**\*Patterns 32, 36 not available in 2 or 3 color modes**  
**Note:** SYNC Patterns can be Phase 1 or Phase 2  
**Bold = Sync pattern**

### Scan-Lock™ (WHT/VIO)

Note: In order to change flash patterns, the lighthouse must be on.

**TO CHANGE PATTERNS:** To advance to the next pattern apply +10-30V to the WHT/VIO wire for less than 1 second and release. To cycle back to the previous pattern apply +10-30V to the WHT/VIO wire for more than 1 second and release.

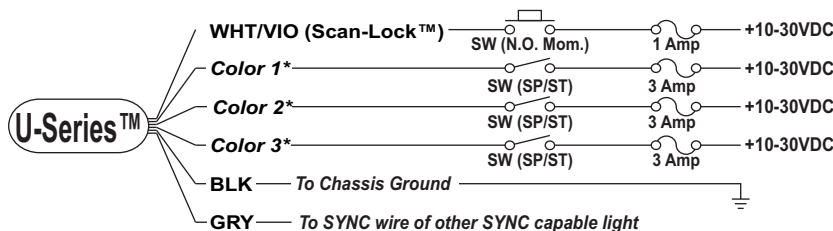
**TO CHANGE THE DEFAULT PATTERN:** When the desired pattern is displayed, allow it to run for more than 5 seconds. The lighthouse will now display this pattern when initially activated.

**TO RESTORE THE FACTORY DEFAULT PATTERN:** This will reset all patterns back to their default settings. With the light turned off, apply power to the WHT/VIO wire. With power applied to the WHT/VIO wire, turn light on. Allow the unit to run for 3 seconds before removing power from the WHT/VIO wire.

**Steady-Lock™** - When connected to a Core™ control system, a lighthouse doesn't require manually scanlocking to the steady pattern. All populated outputs can be sent a Steady-Lock™ signal from Whelen Command®, automatically setting their pattern to Steady. A minimum Whelen Command® version of 2.2.9 is required for this Steady-Lock™ feature.

**NOTE:** Each individual color can be configured to display any of the patterns shown. Additionally, patterns for 2-color and 3-color combinations can also be configured using the Scan-Lock™ procedure, outlined above, while the desired colors are active.

### Wiring Diagram:



\*Color wires vary by model (Duo or Trio)

**NOTE:** All wires are 22 AWG. All switches and fuses are customer supplied.

**WARNING:** Do not install a fuse with a value different from that shown.

