

# WHELEN<sup>®</sup>

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## Installation Guide: Model SSNF360 Sun, Snow & Fog Beacon

### 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.
- 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 the holes and remove any metal shards or remnants. Install grommets into all wire passage holes.
- If this manual states that this product may be mounted with suction cups, magnets, tape or Velcro™, clean the mounting surface with a 50/50 mix of isopropyl alcohol and water and dry thoroughly.
- 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 owners 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 (this does not include products that use cigar power cords).
- If this product uses a remote device for activation or control, make sure that this device is located in an area that allows both the vehicle and the device 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.
- It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.
- **FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**

**For warranty information regarding this product, visit [www.whelen.com/warranty](http://www.whelen.com/warranty)**

The **SSNF360 Series Strobe Beacon** features a combination base which may be used for either 1" (NPT) PIPE MOUNT, or PERMANENT MOUNT. The threading for a 1 inch (NPT) pipe mounting is precast in the die-cast base. A MAGNETIC MOUNT model is also available.

- **Input Voltage: 12 VDC ±20%**
- **Input Current: Strobe - 3 Amps TYP / Incandescent - 2 Amps TYP**
- **Output Power: Strobe - 30 Watts / Incandescent - 26 Watts**
- **4 Selectable Flash Patterns.**
- **Selectable Manual Hi/Lo Intensity Mode.**
- **Pipe / Permanent Mounting Configurations. (Standard)**
- **Magnetic Mount. (Optional)**
- **High/Off/Low Intensity Switch. (Optional)**

### **PERMANENT MOUNTING**

Because of a wide variety of needs concerning the location of mounting holes, the cast aluminum base of the Model S360S is not pre-drilled for its mounting screws. Thus the holes must be drilled by the installer to conform to a particular need. For the convenience of the installer, three dimples are located inside the cast aluminum base which may be used as starter locations to drill the holes, if the location of these dimples meet the installation configuration.

1. Disassemble (see S360S Disassembly Procedure).
2. Drill 0.218 (7/32 inch) diameter holes into the three dimples inside base, or any other location to fit a particular mounting need. Remove shavings.  
**IMPORTANT NOTE:** Make sure during this operation to keep drain hole in the base facing in the opposite direction of the direction of travel of the vehicle.
3. Place the base in position on the mounting surface. Use base as a template to mark the location of the three mounting holes to be drilled, and the location of the center hole to be used as passage for the customer supplied connecting power cable.
4. At the pre-marked locations on the mounting surface, drill the mounting holes. At the marked location of the center hole, drill a 1/2 inch diameter hole to accommodate the customer

**IMPORTANT:** The outer surfaces of this product may be cleaned with mild soap and water. Use of any other chemicals may void product warranty. Do not use a pressure washer.

supplied connecting power cable. Deburr the power cable hole to prevent damage to the cable. You should also install a rubber grommet.

5. Peel away paper backing from enclosed black neoprene base gasket, and affix to the bottom of base surface lining up the three holes in it with the three drilled holes in the base. Position the base on the mounting surface, lining up the drilled holes in the base with the holes located in the mounting surface. Use the three enclosed #10 x 3/4" phillips pan head sheet metal screws to secure the base to the mounting surface.
6. Wire the strobe light power supply to the customer supplied power cable and reassemble the strobe beacon.

### **PIPE MOUNT:**

The cast aluminum base is a combination base which can be used for permanent, or 1 inch (NPT) pipe mounting.

1. Disassemble the strobe power supply assembly.
2. Feed customer supplied power cable through the 1 inch pipe and connect the cable to the wires of the strobe light.
3. Screw the base to the threads of the 1 inch pipe and reassemble the strobe beacon.

**WARNING:** The use of any magnetically mounted warning beacon on the outside of a vehicle while in motion is not recommended and is at the sole discretion and risk of the user

**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!**

**WARNING:** The Strobe Power Supply is a high voltage device. Do not remove tubes or dismantle strobe light head assembly while in operation. Wait 10 minutes after turning off power before starting work or any trouble shooting.

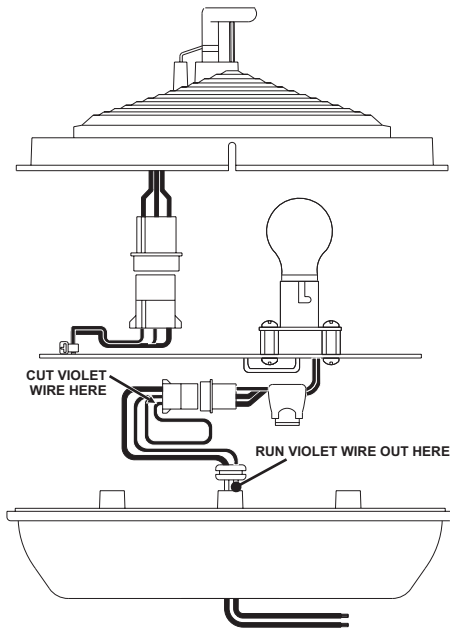
**WARNING:** The aluminum base has a small drain hole on the side, located toward the bottom. This hole must be positioned so that it faces the rear of the vehicle for proper drainage.

### **Customer Supplied Wire / Recommended Size:**

- 16 Ft. MAX** ..... 16 AWG
- 26 Ft. MAX** ..... 14 AWG
- 42 Ft. MAX** ..... 12 AWG

### Hi/Lo Intensity Option:

1. Take the dome and strobe power supply assembly apart (See, "S360S Disassembly Procedure").
2. Locate the VIOLET (looped) wire, cut it at pin 2, and run it out of the bottom of the unit with the BLACK and RED wires.
3. Reassemble the unit.
4. Connecting the VIOLET wire to ground will cause the S360S to operate in high power mode. Removing this wire from ground forces the beacon into low power mode. A two-position switch can be installed so that the operator can easily alternate between high and low power operation (see Switch Control Wiring Schematics Chart).

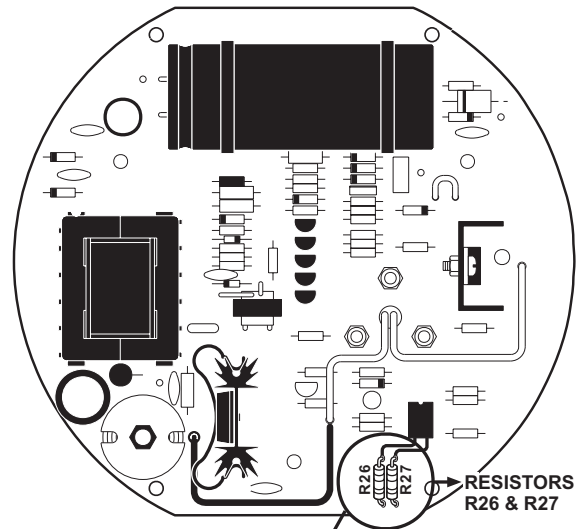


### Flash Pattern Options:

The S360S comes set in its default setting (Comet Flash). You may choose from several other options (Single Flash, Double Flash and Triple Flash) by either cutting out or leaving in one or both of the resistors located on the circuit board.

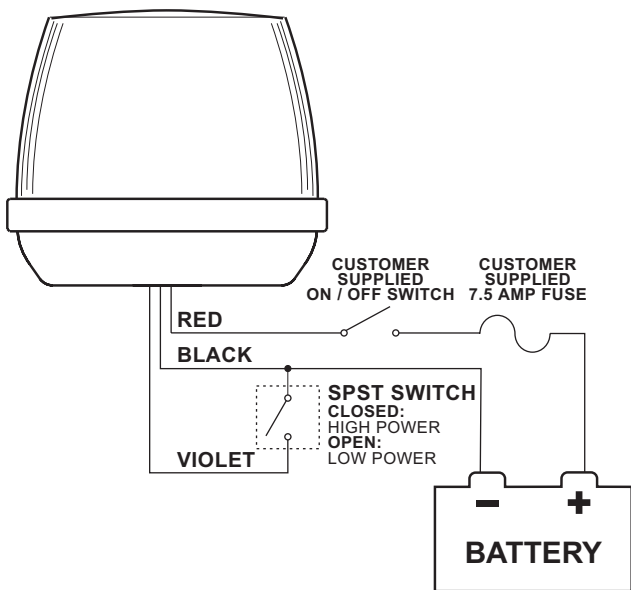
1. First take the unit apart as described under "S360S Disassembly Procedure", to get to the circuit board.
2. Now using the diagram below, find the 2 resistors on the circuit board. Use the chart below to engage whichever flash pattern you choose.

**STROBE POWER SUPPLY ASSEMBLY  
(CIRCUIT BOARD / BOTTOM)**



R26 RESISTOR	R27 RESISTOR	FLASH PATTERN
LEAVE IN	LEAVE IN	COMET FLASH
LEAVE IN	CUT OUT	TRIPLE FLASH
CUT OUT	LEAVE IN	DOUBLE FLASH
CUT OUT	CUT OUT	SINGLE FLASH

**CometFlash:** Is the default setting.  
**Tripleflash:** Leave R26 in and cut R27 out.  
**DoubleFlash:** Cut R26 out and leave R27 in.  
**SingleFlash:** Cut both resistors out.



## S360S Disassembly Procedure

**WARNING:** The Strobe Power Supply is a high voltage device. Do not remove tubes or dismantle strobe light head assembly while in operation. Wait 10 minutes after turning off power before starting work or any trouble shooting.

**IMPORTANT:** Be sure to tape or remove any unused wires.

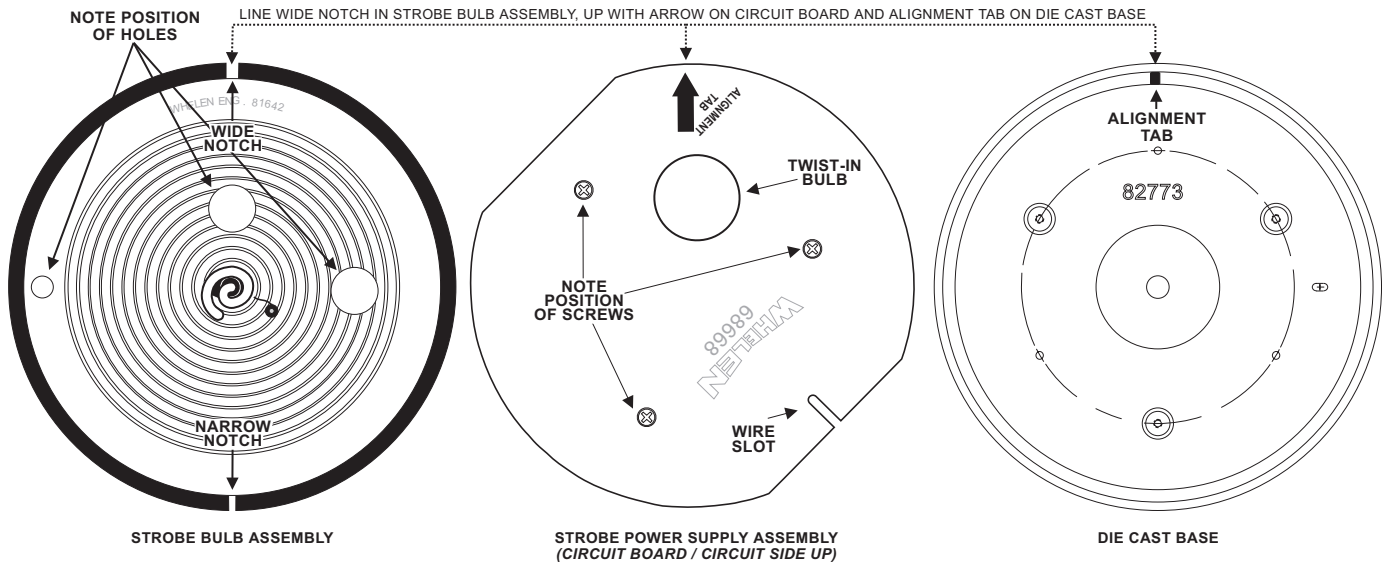
1. Remove the clamp ring screw and the clamp ring.
2. Remove the light bulb (Item 14) then carefully remove the optic dome, the inner optic lens and upper reflector.
3. Lift out the strobe tube assembly and unplug it.
4. Remove the 3 screws holding the circuit board to the base casting, and lift the circuit board off.

## S360S Assembly Procedure:

1. Feed the strobe wires out through the wire slot in the strobe power supply assembly. Attach the power supply assembly to the aluminum base using the 3 screws and lock washers.

**IMPORTANT:** Be sure the alignment tab in the aluminum base lines up with the arrow labeled "ALIGNMENT TAB" etched into the circuit board and the wider of the 2 notches on the bulb assembly.

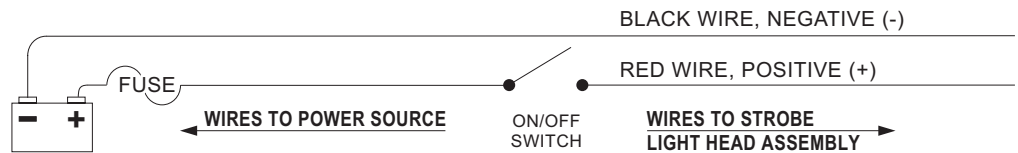
2. Connect the wires and place the strobe bulb assembly on top of the base. (Be careful to line the wide notch in the strobe bulb assembly up with the wire slot in the strobe power supply assembly as shown below).
3. Place the inner optic lens on top of the strobe and the upper reflector on top of the optic lens.
4. Attach the optic dome to the base with the clamp ring and screw. *Be sure to position the clamp ring with the screw facing the rear of the vehicle.*



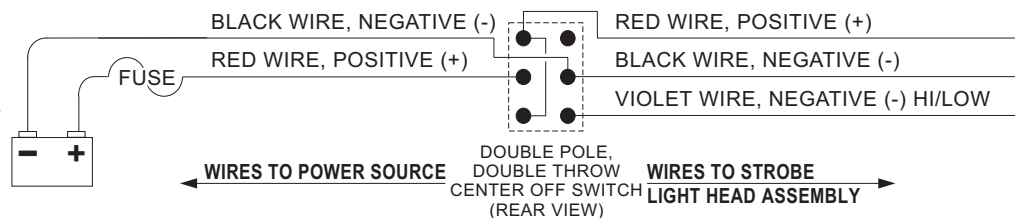
## SWITCH CONTROL WIRING SCHEMATICS FOR THE S360S STROBE LIGHT

**NOTE: ALL SWITCHES AND FUSES ARE CUSTOMER SUPPLIED. USE 10 AMP FUSE FOR 12 VDC OPERATION.**

**MODEL S360S STANDARD. ON/OFF SWITCHING FOR HIGH POWER ONLY.**



**MODEL S360S STANDARD. HIGH-OFF-LOW SWITCHING.**  
**NOTE:** Cut Violet (looped) wire, run it out of unit with black and red wires. When the violet wire is grounded, you are in the high mode and when the violet wire is floating you are in the low mode.



## S360S Replacement Parts Listing

QTY	ITEM	PART NUMBER	DESCRIPTION
		01-0683344-XX	LIGHT ASSY. MODEL SSNF360 / SUN-SNOW-FOG
1	1	11-382773-007	BASE CASTING / BLACK
1	2	02-0168669-00	PCB ASSY / MODEL SSNF360 / SUN-SNOW-FOG
1	3	36-0368256-00	ASSEMBLY, MODEL SSTUBE
1	4	68-2180412-30	INNER OPTICS LENS / CLEAR
1	5	68-5981643-01	UPPER REFLECTOR / SS360
1	6	19-261465-000	CLAMP RING / SS360
1	7	15-101416-120	N0.10 X 3/4" PH SHEET METAL SCREW
3	8	15-066939-056	6-32 X 5/16 HEX WASHER HD THD FORMING SCREW
1	9	21-11091202-0	3/8 GROMMET / P/N 901132093
1	10	02-0483344-00	INSTALLATION KIT / MODEL SSNF360
1	14	34-0412020-00	REPLACEMENT LIGHTBULB
1	23	46-0722300-00	POWER INPUT CONNECTOR ASSEMBLY
OPT	24	68-2180347-06	SUPER STROBE DOME / SPLIT
OPT	24	68-2180347-10	SUPER STROBE DOME / AMBER
OPT	24	68-2180347-20	SUPER STROBE DOME / BLUE
OPT	24	68-2180347-30	SUPER STROBE DOME / CLEAR
OPT	24	68-2180347-40	SUPER STROBE DOME / GREEN
OPT	24	68-2180347-50	SUPER STROBE DOME / RED
OPT	24	68-2180347-V0	SUPER STROBE DOME / VIOLET
OPT	31	11-382773-011	BASE CASTING / POLISHED

