

WHELEN[®]

ENGINEERING COMPANY INC.

51 Winthrop Road
Chester, Connecticut 06412-0684
Phone: (860) 526-9504
Fax: (860) 526-4078
Internet: www.whelen.com
Sales e-mail: autosale@whelen.com
Canadian Sales e-mail: autocan@whelen.com
Customer Service e-mail: custserv@whelen.com

Installation Guide:
Model(s) 9804F, 9806F
Edge[®] +Plus[™] Lightbar

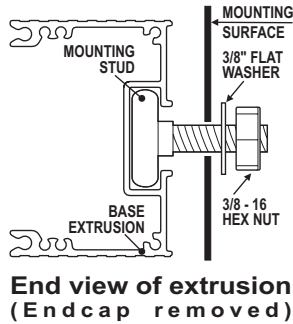
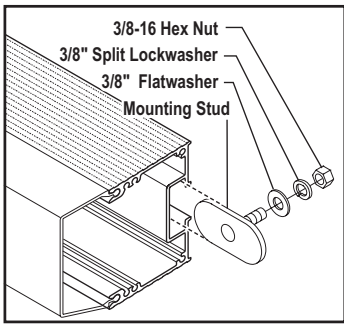
Automotive: Lightbars

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 any 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 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.**
- **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



IMPORTANT! The lightbar should be located a minimum of 16" from any radio antennas!

Mounting:

1. Position the unit in its proposed mounting location to ensure that it fits properly. Draw a pencil line on the mounting surface using the top and bottom of the extrusion as a guide.
2. Four 3/8" holes are required to mount this unit. These holes may be located anywhere along the horizontal centerline of the unit, but must be centered between the upper and lower lines made in step 1. Mark the hole locations off onto the mounting surface.
NOTE: It is best to locate the holes as far apart as possible.
3. Using a 3/8" drill bit drill a hole in each of the areas scribed in the previous step.
4. Remove the endcap without the cable and insert the 4 mounting studs (included) into the extrusion as shown.
5. Position these studs so they are lined up with the mounting holes and insert the studs into the mounting holes.
6. With the unit in position, place 3/8" flat washer and 3/8-16 hex nut onto each bolt and tighten firmly.

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

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!

Strobe Power Supply Specifications (each):

Input Voltage	12 VDC ± 20%
Input Control Current	50mA (TYP)
P.Supply Current Draw (30 watt)	3 amps (fuse @ 5 Amps)
P.Supply Current Draw (60 watt)	6 amps (fuse @ 10 Amps)
P.Supply Current Draw (90 watt)	9 amps (fuse @ 15 Amps)
Flashrate CometFlash®75 FPM per lamp
Flashrate DoubleFlash110 FPM per lamp
Flashrate SingleFlash240 FPM per lamp
Flashrate Sequential3 cycles Comet / 4 cycles Single

Operation:

The lightbar is operated by the control cable exiting the lightbar. Connect the control cable to a high current switch box.

RED	Apply +12VDC.....	Activates 2 Corner Strobes
BLUE	Apply +12VDC.....	Activates 4 Front Strobes
GRAY	Ground (-)	Ground for Corner Strobes
GREEN	Ground (-)	Ground for Front Strobes
ORANGE	Apply +12VDC.....	Runs lightbar in Random Flash pattern
YELLOW	Apply +12VDC.....	Runs lightbar in DoubleFlash pattern
BROWN	No Connection
VIOLET	Apply +12VDC.....	Lightbar runs in Low Power

Low Power / VIOLET:

This function allows the operator to step the lightbar down to low power for nighttime use. The type of switch used depends on how the operator wishes the HI-LO feature to function.

Latching Mode: With the lightbar activated, applying +12 VDC voltage to the VIOLET wire for less than 1 second, the lightbar is latched into low power operation. To restore high power operation turn the unit off then back on again. (a momentary switch is preferred)

Level Mode: With the lightbar activated, applying +12 VDC voltage to the VIOLET wire for more than 1 second holds the lightbar in low power mode until voltage is removed. (a toggle switch is preferred)

Flash Patterns:

The 9804F and 9806F Strobe Lightbars allow you to choose between 4 different flash patterns. CometFlash®, DoubleFlash, SingleFlash and SequentialFlash. To select a pattern:

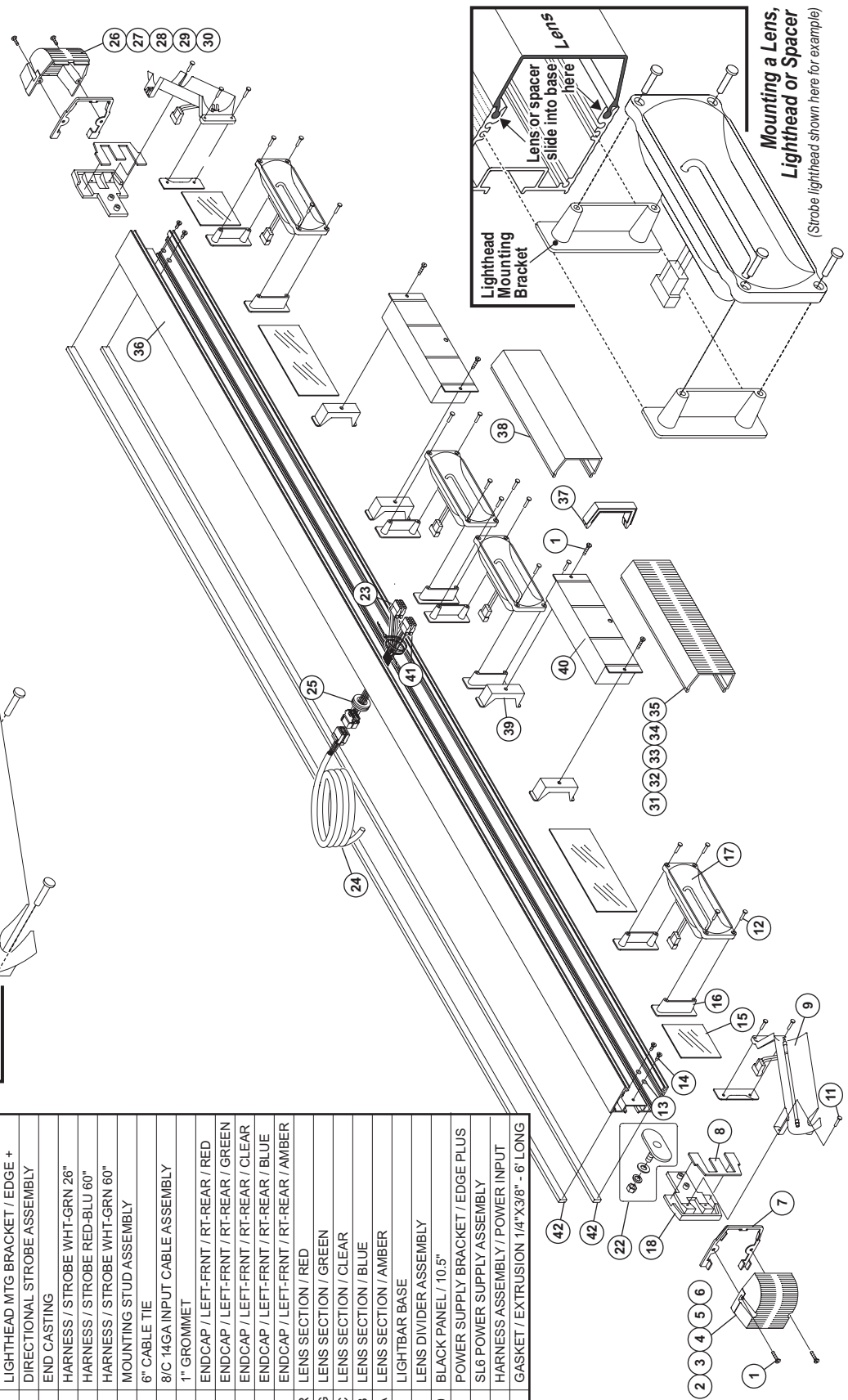
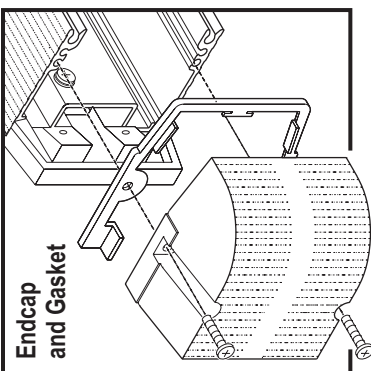
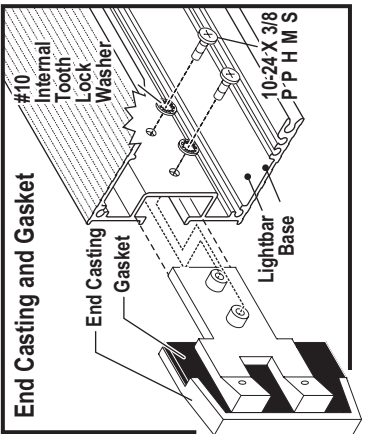
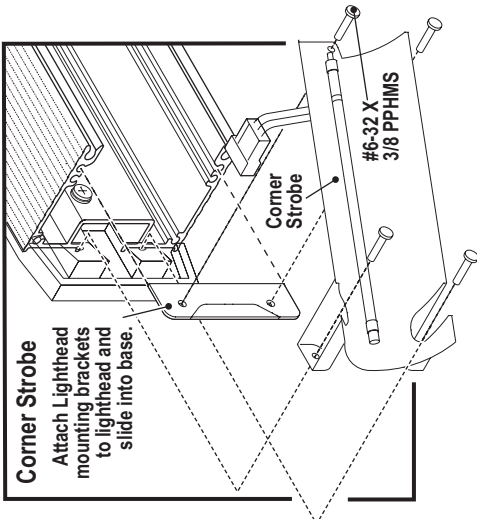
- SingleFlash:** With the lightbar operating, apply +12 volts to the ORANGE wire.
- DoubleFlash:** With the lightbar operating, apply +12 volts to the YELLOW wire.
- SequentialFlash:** With the lightbar operating, apply +12 volts to both the ORANGE and YELLOW wires simultaneously.
- CometFlash®:** default pattern; this will be displayed if no flash pattern is chosen.

NOTE: Refer to the illustrations on the following parts pages for disassembly or assembly of your lightbar.

IMPORTANT: This manual is for a standard 9804F or 9806F lightbar. If you "special ordered" this lightbar with "custom options" or no internal power supply, instead of the harness described above, you will have wires with connectors for each lighththead exiting the lightbar. These connectors will be labeled.

Strobe	Wire to a Strobe Power Supply
Halogen Warning	Wire to a +12VDC Power Source
Halogen BTT	Wire to a +12VDC Brake Light circuit
LED B-T-T	Wire to a +12VDC Brake Light circuit
LED with Integral flasher ...	Wire to a +12V Power Source
LED / Non-Flasher	This LED must be connected to an electronic flasher. Allowing the LED to steady burn will damage the lighththead and void the warranty.

QTY/ITEM	PART NUMBER	DESCRIPTION
*	01-0681178-00	MODEL 9808F
8	14-104216-120	#10-24 x 3/4 PPHMS
1	2 68-1141049-50	ENDCAP / RT-FRNT / LEFT-REAR / RED
A/R	3 68-1141049-40	ENDCAP / RT-FRNT / LEFT-REAR / GREEN
A/R	4 68-1141049-30	ENDCAP / RT-FRNT / LEFT-REAR / CLEAR
A/R	5 68-1141049-20	ENDCAP / RT-FRNT / LEFT-REAR / BLUE
A/R	6 68-1141049-10	ENDCAP / RT-FRNT / LEFT-REAR / AMBER
2	7 38-0241050-00	END CAP GASKET
2	8 38-0241047-00	END CASTING GASKET
2	9 02-0361417-00	STROBE REFLECTOR ASSEMBLY
1	10 39-0408313-04	HOUSING / 8 POSITION PIN
2	11 14-062216-060	#6-32 x 3/8 PPHMS
20	12 15-041816-100	#4 x 5/8 PPHMS / WASHER HEAD
4	13 16-1021220-45	#10 INTERNAL TOOTH LOCKWASHER
4	14 14-104216-060	#10-24 x 3/8 PPHMS
7	15 09-1341051-00	FILLER PANEL
8	16 07-241014-000	LIGHTHEAD MTG BRACKET / EDGE +
4	17 02-0340362-00	DIRECTIONAL STROBE ASSEMBLY
2	18 54-161097-600	END CASTING
1	19 02-0281924-02	HARNES / STROBE WHT-GRN 26"
1	20 46-0942241-00	HARNES / STROBE RED-BLU 60"
1	21 46-0942242-00	HARNES / STROBE WHT-GRN 60"
4	22 01-0340472-00	MOUNTING STUD ASSEMBLY
2	23 26-0215001-06	6" CABLE TIE
1	24 02-0242226-20	8/C 14GA INPUT CABLE ASSEMBLY
1	25 21-11233202-0	1" GROMMET
1	26 68-1141048-50	ENDCAP / LEFT-FRNT / RT-REAR / RED
A/R	27 68-1141048-40	ENDCAP / LEFT-FRNT / RT-REAR / GREEN
A/R	28 68-1141048-30	ENDCAP / LEFT-FRNT / RT-REAR / CLEAR
A/R	29 68-1141048-20	ENDCAP / LEFT-FRNT / RT-REAR / BLUE
A/R	30 68-1141048-10	ENDCAP / LEFT-FRNT / RT-REAR / AMBER
5	31 68-118147555R	LENS SECTION / RED
A/R	32 68-118147554G	LENS SECTION / GREEN
A/R	33 68-118147553C	LENS SECTION / CLEAR
A/R	34 68-118147552B	LENS SECTION / BLUE
A/R	35 68-118147551A	LENS SECTION / AMBER
1	36 11-381162-000	LIGHTBAR BASE
6	37 02-0341448-00	LENS DIVIDER ASSEMBLY
2	38 68-3180522990	BLACK PANEL / 10.5"
4	39 07-261104-000	POWER SUPPLY BRACKET / EDGE PLUS
2	40 01-0268033-00	SL6 POWER SUPPLY ASSEMBLY
1	41 46-0942243-00	HARNES ASSEMBLY / POWER INPUT
2	42 38-0316275-00	GASKET / EXTRUSION 1/4"X3/8" - 6" LONG



QTY	ITEM	PART NUMBER	DESCRIPTION
	*	01-0681174-00	MODEL 9804F
6	1	14-104216-120	#10-24 x 3/4 PPHMS
1	2	68-1141049-50	ENDCAP / RT-FRNT / LEFT-REAR / RED
AVR	3	68-1141049-40	ENDCAP / RT-FRNT / LEFT-REAR / GREEN
AVR	4	68-1141049-30	ENDCAP / RT-FRNT / LEFT-REAR / CLEAR
AVR	5	68-1141049-20	ENDCAP / RT-FRNT / LEFT-REAR / BLUE
AVR	6	68-1141049-10	ENDCAP / RT-FRNT / LEFT-REAR / AMBER
2	7	38-0241050-00	END CAP GASKET
2	8	38-0241047-00	END CASTING GASKET
2	9	02-0361417-00	STROBE REFLECTOR ASSEMBLY
2	10	38-0316275-00	GASKET / EXTRUSION 1/4"X3/8" / 6' LONG
2	11	14-062216-060	#6-32 x 3/8 PPHMS
12	12	15-041816-100	#4 x 5/8 PPHMS / WASHER HEAD
4	13	16-1021220-45	#10 INTERNAL TOOTH LOCKWASHER
4	14	14-104216-060	#10-24 x 3/8 PPHMS
4	15	09-1341051-00	FILLER PANEL
6	16	07-241014-000	LIGHTHEAD MOUNTING BRACKET / EDGE +
2	17	02-0340362-00	DIRECTIONAL MOUNTING ASSEMBLY
2	18	54-161097-600	END CASTING
4	19	01-0340472-00	MOUNTING STUD ASSEMBLY
1	20	02-042226-20	STROBE INPUT CABLE
1	21	21-11233202-0	1" GROMMET
4	22	68-118147555R	LENS SECTION / RED / 17.375"
AVR	23	68-118147554G	LENS SECTION / GREEN / 17.375"
AVR	24	68-118147553C	LENS SECTION / CLEAR / 17.375"
AVR	25	68-118147552B	LENS SECTION / BLUE / 17.375"
AVR	26	68-118147551A	LENS SECTION / AMBER / 17.375"
4	27	02-0341448-00	LENS DIVIDER ASSEMBLY
1	28	68-3180522990	BLACK PANEL / 10.5"
2	29	07-261104-000	POWER SUPPLY BRACKET / EDGE PLUS
1	30	01-0268182-00	SLS6 POWER SUPPLY ASSEMBLY
1	31	46-0942242-00	HARNES / STROBE WHT-GRN 60"
1	32	46-0942241-00	HARNES / STROBE RED-BLU 60"
2	33	26-0215001-06	6" CABLE TIE
1	34	11-381161-000	LIGHTBAR BASE
1	35	68-1141048-50	ENDCAP / LEFT-FRNT / RT-REAR / RED
AVR	36	68-1141048-40	ENDCAP / LEFT-FRNT / RT-REAR / GREEN
AVR	37	68-1141048-30	ENDCAP / LEFT-FRNT / RT-REAR / CLEAR
AVR	38	68-1141048-20	ENDCAP / LEFT-FRNT / RT-REAR / BLUE
AVR	39	68-1141048-10	ENDCAP / LEFT-FRNT / RT-REAR / AMBER
1	40	38-0320943-00	ADHESIVE STRIP / 2-SIDED
1	41	26-0620942-04	WIRE COVER / BLACK
1	42	46-0942244-00	HARNES / POWER INPUT

