

WHELEN[®]

ENGINEERING COMPANY INC.

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

Installation Guide:
B6R, B6T and B6R M7-series
Warning Lights

Warnings to Installers

Whelen's emergency vehicle warning devices must be properly mounted and wired in order to be effective and safe. Read and follow all of Whelen's written instructions when installing or using this device. Emergency vehicles are often operated under high speed stressful conditions which must be accounted for when installing all emergency warning devices. Controls should be placed within convenient reach of the operator so that they can operate the system without taking their eyes off the roadway. Emergency warning devices can require high electrical voltages and/or currents. Properly protect and use caution around live electrical connections. Grounding or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or vehicle damage, including fire. Many electronic devices used in emergency vehicles can create or be affected by electromagnetic interference. Therefore, after installation of any electronic device it is necessary to test all electronic equipment simultaneously to insure that they operate free of interference from other components within the vehicle. Never power emergency warning equipment from the same circuit or share the same grounding circuit with radio communication equipment. All devices should be mounted in accordance with the manufacturer's instructions and securely fastened to vehicle elements of sufficient strength to withstand the forces applied to the device. Driver and/or passenger air bags (SRS) will affect the way equipment should be mounted. This device should be mounted by permanent installation and within the zones specified by the vehicle manufacturer, if any. Any device mounted in the deployment area of an air bag will damage or reduce the effectiveness of the air bag and may damage or dislodge the device. Installer must be sure that this device, its mounting hardware and electrical supply wiring does not interfere with the air bag or the SRS wiring or sensors. Mounting the unit inside the vehicle by a method other than permanent installation is not recommended as unit may become dislodged during swerving; sudden braking or collision. Failure to follow instructions can result in personal injury. Whelen assumes no liability for any loss resulting from the use of this warning device. **PROPER INSTALLATION COMBINED WITH OPERATOR TRAINING IN THE PROPER USE OF EMERGENCY WARNING DEVICES IS ESSENTIAL TO INSURE THE SAFETY OF EMERGENCY PERSONNEL AND THE PUBLIC.**

Warnings to Users

Whelen's emergency vehicle warning devices are intended to alert other operators and pedestrians to the presence and operation of emergency vehicles and personnel. However, the use of this or any other Whelen emergency warning device does not guarantee that you will have the right-of-way or that other drivers and pedestrians will properly heed an emergency warning signal. Never assume you have the right-of-way. It is your responsibility to proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes. Emergency vehicle warning devices should be tested on a daily basis to ensure that they operate properly. When in actual use, the operator must ensure that both visual and audible warnings are not blocked by vehicle components (i.e.: open trunks or compartment doors), people, vehicles, or other obstructions. It is the user's responsibility to understand and obey all laws regarding emergency warning devices. The user should be familiar with all applicable laws and regulations prior to the use of any emergency vehicle warning device. Whelen's audible warning devices are designed to project sound in a forward direction away from the vehicle occupants. However, because sustained periodic exposure to loud sounds can cause hearing loss, all audible warning devices should be installed and operated in accordance with the standards established by the National Fire Protection Association.

Safety First

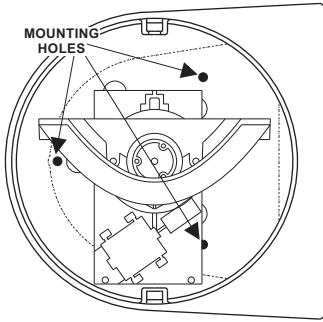
This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained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

⚠ WARNING: This product can expose you to chemicals including Methylene Chloride which is known to the State of California to cause cancer, and Bisphenol A, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

- **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 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 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 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 (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!**

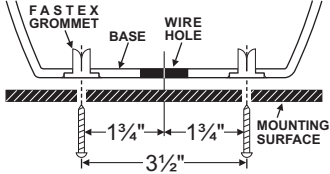
Standard Mounting

TOP VIEW



Thru Hole Mounting

FRONT VIEW / CROSS SECTION



This warning light combines a rotating beacon and an LED lighthouse for double warning. It also meets new NFPA standards for rear upper Zone "C" applications.

Installation:

Before installation, read all warnings on the previous page.

1. Dismantle the light by first removing the screw which fastens the clamp ring that holds lens on and remove the lens.
2. Position the base housing onto the vehicle so that the lower light device is facing directly rearward, locate the three mounting holes drilled into the base housing (See above) and mark them off on the mounting surface of the vehicle.
3. Remove the unit and position the base gasket onto the vehicle. Line the gasket up with the marks you made for the mounting screws and mark off the center wire access hole.
4. Drill the base mounting holes for the three #10 sheet metal screws and for the center wire access hole (Grommet as needed. Customer supplied).
5. Feed the wires out of the unit, through the mounting gasket and through the access hole and connect them to your power source. (See wiring)
6. Attach the base to the vehicle with the 3 sheet metal screws supplied, then reassemble and test the unit.

OPTIONAL MOUNTING: To install the unit using "Thru Hole Mounting", on the mounting surface, drill two holes, sized for a 1/4" sheet metal screw following the diagram above. Be sure that these markings reflect the desired direction that the unit will face once installed. Insert the customer supplied screws up through the bottom of the base and tighten to secure.

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!**

Lo Intensity / Violet Wire: This feature allows the user to step the unit down to low power operation for nighttime use.

Apply positive voltage to the VIOLET wire to put the lighthouse into low power. Remove voltage from the VIOLET wire to restore high power operation.

Scan-Lock™ / White-Violet Wire: Flash pattern selection.

To change flash patterns, first turn the lighthouse on:

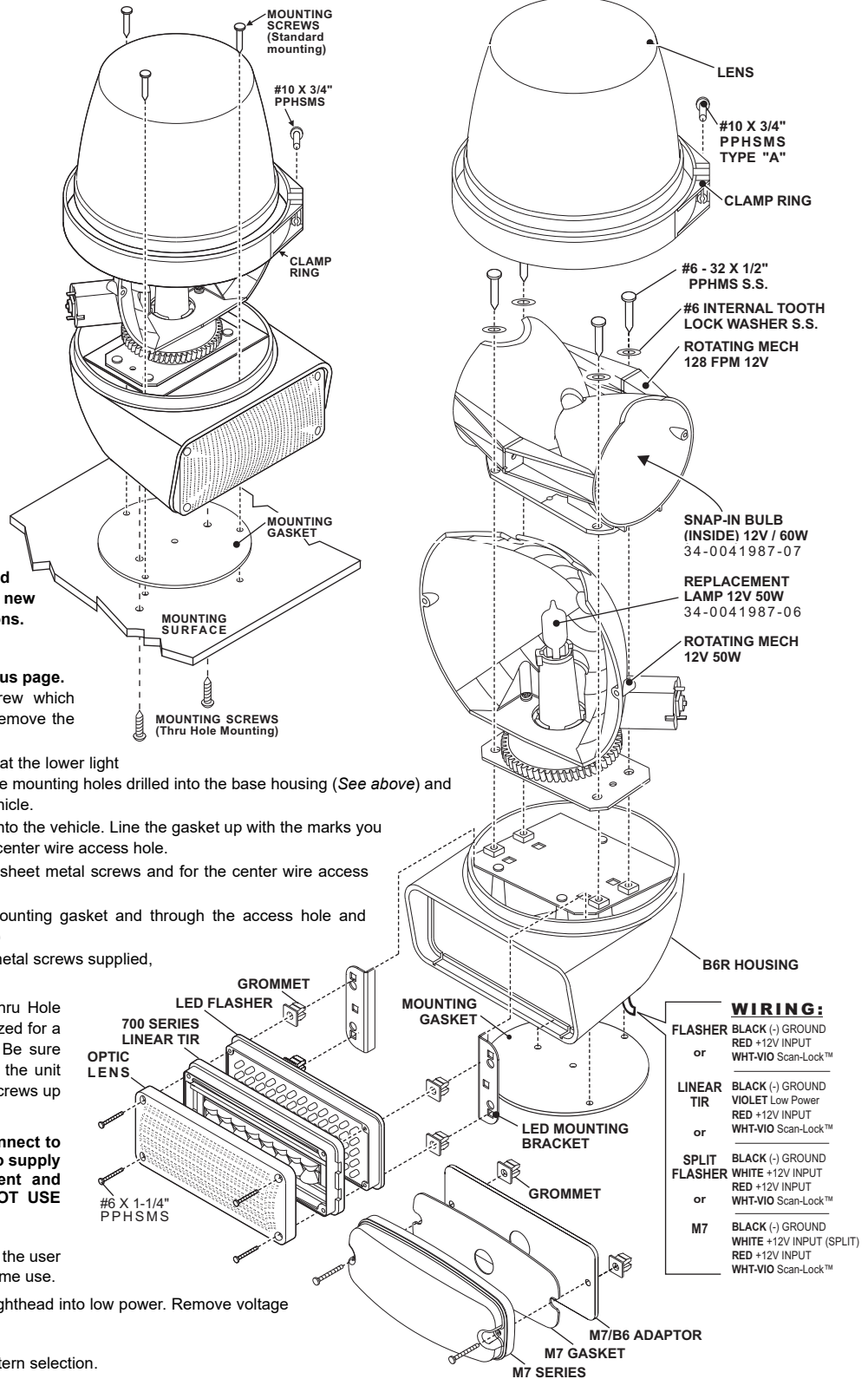
TO CYCLE THROUGH ALL PATTERNS: Apply +12 volts to the WHITE-VIOLET wire for less than 1 second and release to cycle forward. Apply +12 volts to the WHITE-VIOLET wire for more than 1 second and release to cycle backward.

TO SET A PATTERN AS DEFAULT: Allow the desired pattern to run for more than 5 seconds. The lighthouse will now display this pattern when active.

TO RESET TO THE FACTORY DEFAULT PATTERN: Turn off power, apply +12 volts to the WHITE-VIOLET wire, turn power on.

IMPORTANT WARNING!

CAUTION! DO NOT LOOK DIRECTLY AT THESE LED'S WHILE THEY ARE ON. MOMENTARY BLINDNESS AND/OR EYE DAMAGE COULD RESULT!

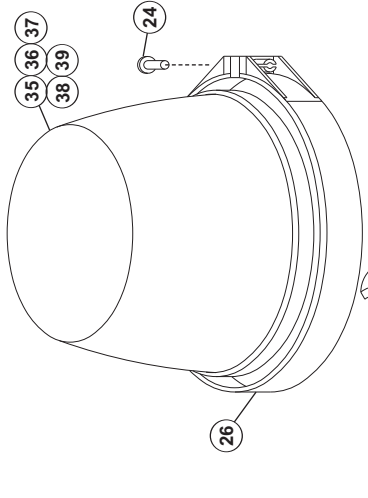


WIRING:

| | |
|---------|--------------------------|
| FLASHER | BLACK (-) GROUND |
| | RED +12V INPUT |
| or | WHT-VIO Scan-Lock™ |
| LINEAR | BLACK (-) GROUND |
| TIR | VIOLET Low Power |
| | RED +12V INPUT |
| or | WHT-VIO Scan-Lock™ |
| SPLIT | BLACK (-) GROUND |
| FLASHER | WHITE +12V INPUT |
| or | RED +12V INPUT |
| | WHT-VIO Scan-Lock™ |
| M7 | BLACK (-) GROUND |
| | WHITE +12V INPUT (SPLIT) |
| | RED +12V INPUT |
| | WHT-VIO Scan-Lock™ |

FLASH PATTERNS:

- | | | |
|---------------------|-------------------------|--------------------------|
| 1. SignalAlert™ 75 | 13. SignalAlert™ | 9. SingleFlash 375 Alt. |
| 2. SignalAlert™ 150 | 14. Steady | 10. SingleFlash 375 Sim. |
| 3. SingleFlash 375 | 15. Steady-Brake | 11. SingleFlash 150 Alt. |
| 4. SingleFlash 150 | FLASH PATTERNS | 12. SingleFlash 150 Sim. |
| 5. SingleFlash 75 | SPLIT / 4 WIRE: | 13. SingleFlash 75 Alt. |
| 6. DoubleFlash 150 | 1. SignalAlert™ 75 Alt. | 14. SingleFlash 75 Sim. |
| 7. DoubleFlash 75 | 2. SignalAlert™ 75 Sim. | 15. ActionFlash™ Alt. |
| 8. CometFlash® 75 | 3. CometFlash® 75 Alt. | 16. ActionFlash™ Sim. |
| 9. ActionFlash™ | 4. CometFlash® 75 Sim. | 17. ModuFlash™ Alt. |
| 10. ModuFlash™ | 5. DoubleFlash 150 Alt. | 18. ModuFlash™ - Sim. |
| 11. ComAlert™ | 6. DoubleFlash 150 Sim. | 19. ActionScan™ |
| 12. ActionScan™ | 7. DoubleFlash 75 Alt. | 20. SSNF CH-1 Flash |
| | 8. DoubleFlash 75 Sim. | CH-2 Steady |

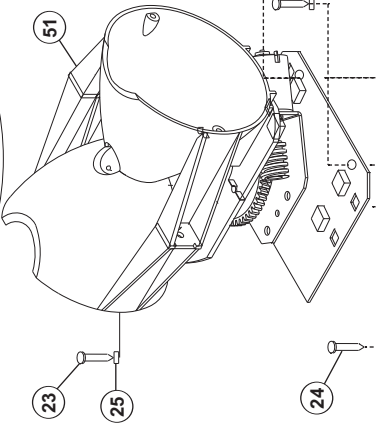


Upper Dome Color & Rotator Type
 1 = AMBER-DUAL
 2 = BLUE-DUAL
 3 = CLEAR-DUAL
 4 = GREEN-DUAL
 5 = RED-DUAL

LED Style
 5 = 5mm FLASHER
 M = LINEAR TIR FLASHER
 7 = M7 LED

PART NUMBER KEY:
 01-0683693

LED/Lens Color
 UPPER DOME COLOR
 LED STYLE

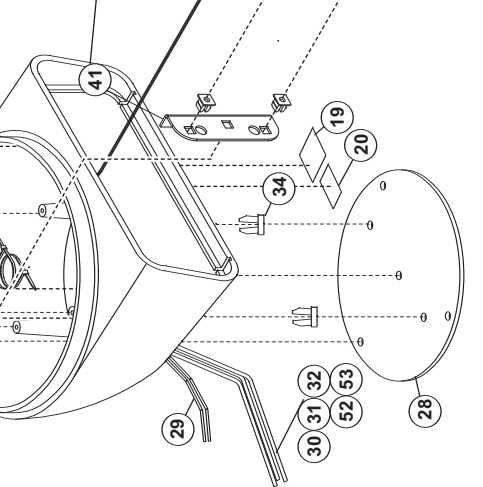
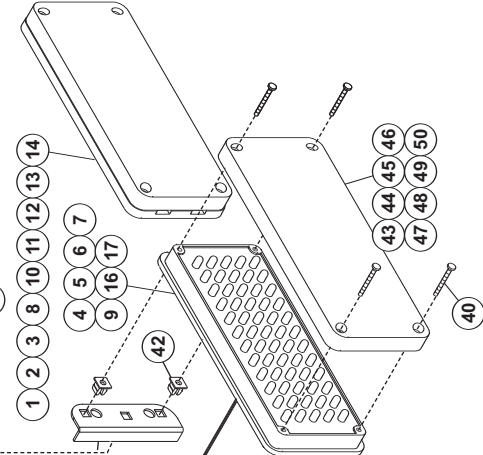
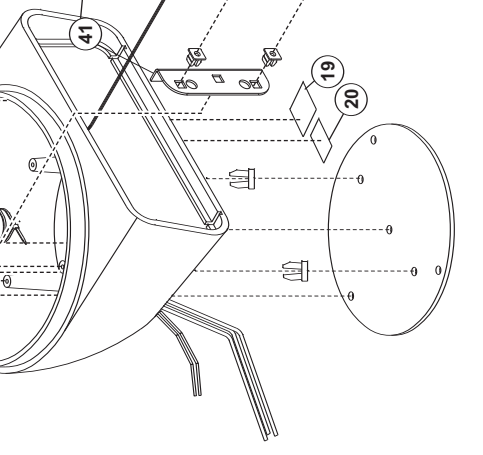
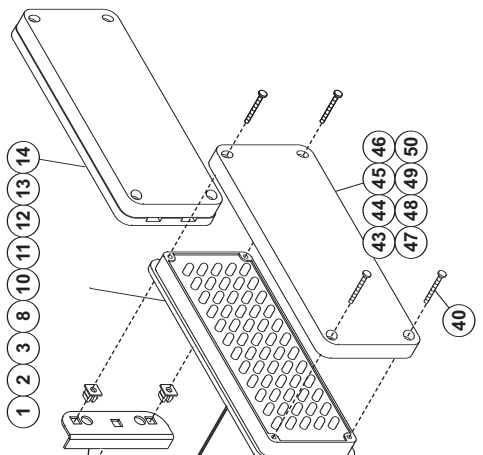
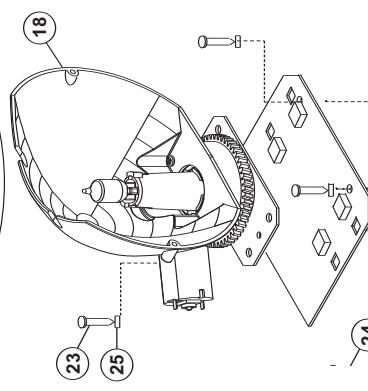
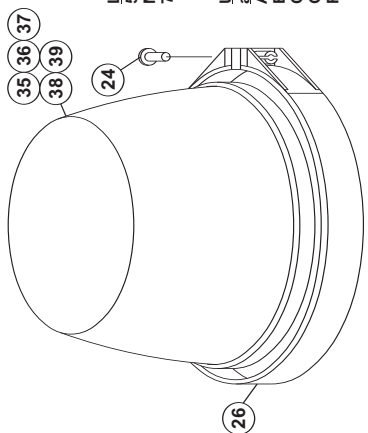


LED Style
 5 = 5mm FLASHER
 M = LINEAR TIR FLASHER
 7 = M7 LED

Upper Dome Color and Rotator Type
 A = AMBER/SINGLE
 B = BLUE/SINGLE
 C = CLEAR/SINGLE
 G = GREEN/SINGLE
 R = RED/SINGLE

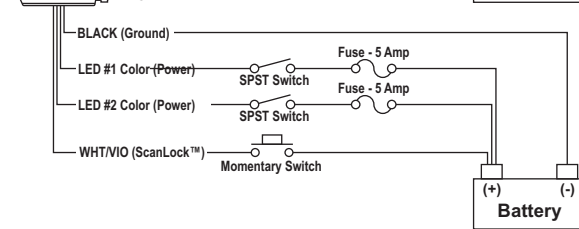
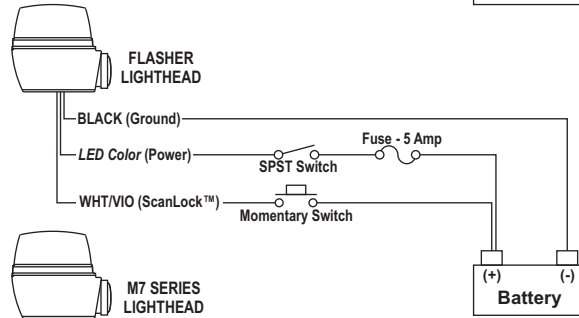
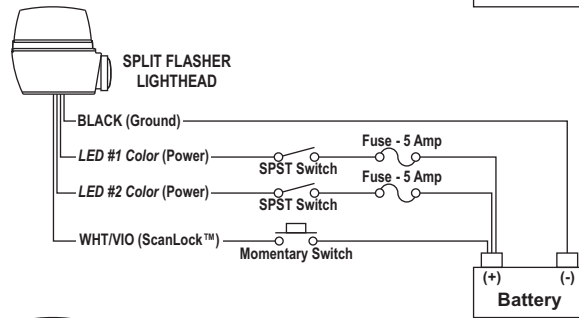
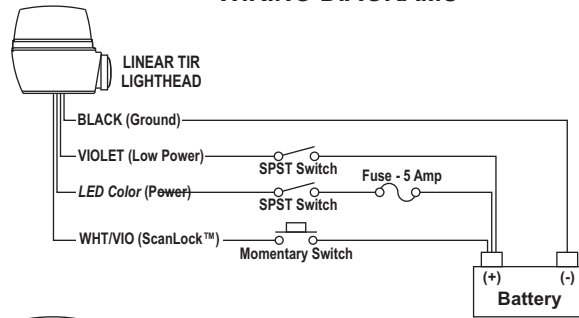
PART NUMBER KEY:
 01-0683693

LED/Lens Color
 Upper Dome Color
 LED Style



| QTY | QTY | QTY | ITEM | PART NUMBER | DESCRIPTION |
|-----|-----|-----|------|----------------|---|
| | | * | | 01-06836935__ | B6R SERIES LED |
| | | * | | 01-06836937__ | B6R SERIES M7 |
| * | | | | 01-0683693M__ | B6R SERIES LINEAR TIR |
| A/R | - | - | 1 | 01-0286419410 | 700 LINEAR TIR / AMBER / CLEAR / 4 WIRE |
| A/R | - | - | 2 | 01-0286419420 | 700 LINEAR TIR / BLUE / CLEAR / 4 WIRE |
| A/R | - | - | 3 | 01-0286419440 | 700 LINEAR TIR / GREEN / CLEAR / 4 WIRE |
| - | - | A/R | 4 | 01-0283461-15 | 700 LED FLASHER / AMBER |
| - | - | A/R | 5 | 01-0283461-25 | 700 LED FLASHER / BLUE |
| - | - | A/R | 6 | 01-0283461-45 | 700 LED FLASHER / GREEN |
| - | - | A/R | 7 | 01-0283461-55 | 700 LED FLASHER / RED |
| A/R | - | - | 8 | 01-0286419450 | 700 LINEAR TIR / RED / CLEAR / 4 WIRE |
| - | - | A/R | 9 | 01-0283461-35 | 700 LED FLASHER / WHITE |
| A/R | - | - | 10 | 01-0286419430 | 700 LINEAR TIR / WHITE / CLEAR / 4 WIRE |
| A/R | - | - | 11 | 01-02864194A0 | 700 LINEAR TIR / AMB-AMB / 4 WIRE |
| A/R | - | - | 12 | 01-02864194B0 | 700 LINEAR TIR / BLU-BLU / 4 WIRE |
| A/R | - | - | 13 | 01-02864194G0 | 700 LINEAR TIR / GRN-GRN / 4 WIRE |
| A/R | - | - | 14 | 01-02864194R0 | 700 LINEAR TIR / RED-RED / 4 WIRE |
| A/R | A/R | A/R | 15 | 10-0522496-05 | LABEL / MODEL B6T SERIES |
| - | - | A/R | 16 | 01-0283461-J5 | 700 LED FLASHER - RED/BLUE |
| - | - | A/R | 17 | 01-0283461-D5 | 700 LED FLASHER - RED/WHITE |
| A/R | A/R | A/R | 18 | 02-0382968-00 | B6R ROT. MECH. 150 FPM-12V-50W |
| 1 | 1 | 1 | 19 | 10-0320776-00 | LABEL / MADE IN USA FLAG |
| A/R | A/R | A/R | 20 | 10-0522496-03 | LABEL / MODEL B6R SERIES |
| 1 | 1 | 1 | 21 | 11-483144-011 | HOUSING / MODEL B6R - POLISHED |
| 1 | 1 | 1 | 22 | 01-0482951-00 | KIT / PACKING B6R SERIES |
| 3 | 3 | 3 | 23 | 14-062216-080 | SCREW / #6-32 X 1/2" PPHMS S.S. |
| 1 | 1 | 1 | 24 | 15-101416-120 | SCREW / #10 X 3/4" PPHMS TYPE A |
| 3 | 3 | 3 | 25 | 16-0621020-32 | WASHER / #6 INTERNAL TOOTH LOCK SS |
| 1 | 1 | 1 | 26 | 19-261465-000 | CLAMP RING |
| 2 | 2 | 2 | 27 | 26-0215001-06 | TY-WRAP / 6" BLACK |
| REF | REF | REF | 28 | 38-0242422-00 | GASKET / MOUNTING |
| 1 | 1 | 1 | 29 | 46-0942425-00 | HARNES / INPUT B6R ROTATOR |
| A/R | A/R | A/R | 30 | 67-10118991800 | WIRE / 18 GA 18" WHITE |
| 1 | 1 | 1 | 31 | 67-10118221800 | WIRE / 18 GA 18" RED |
| 1 | 1 | 1 | 32 | 67-10118001800 | WIRE / 18 GA 18" BLACK |
| A/R | A/R | A/R | 33 | 25-0510223-05 | BUTT TERMINAL / 22-16 INLINE |
| REF | REF | REF | 34 | 21-12081205-3 | SCREW GROMMET, FASTEX |
| A/R | A/R | A/R | 35 | 68-4161381-10 | LENS / B6R - AMBER |
| A/R | A/R | A/R | 36 | 68-4161381-20 | LENS / B6R - BLUE |
| A/R | A/R | A/R | 37 | 68-4161381-30 | LENS / B6R - CLEAR |
| A/R | A/R | A/R | 38 | 68-4161381-40 | LENS / B6R - GREEN |
| A/R | A/R | A/R | 39 | 68-4161381-50 | LENS / B6R - RED |
| 4 | - | 4 | 40 | 15-061416-200 | SCREW / #6 X 1-1/4" PPHMS |
| 2 | 2 | 2 | 41 | 07-242837-000 | LED MTG. BRACKET / B6R HOUSING |
| 4 | 2 | 4 | 42 | 13-062C40-16J | SCREW GROMMET / #6 FASTEX |
| - | - | A/R | 43 | 68-1183582-1S | LENS / AMBER OPTIC with SEAL |
| - | - | A/R | 44 | 68-1183582-2S | LENS / BLUE OPTIC with SEAL |
| - | - | A/R | 45 | 68-1183582-3S | LENS / CLEAR OPTIC with SEAL |
| - | - | A/R | 46 | 68-1183582-4S | LENS / GREEN OPTIC with SEAL |
| - | - | A/R | 47 | 68-1183582-5S | LENS / RED OPTIC with SEAL |
| - | - | A/R | 48 | 02-0363417RBS | LENS / RED-BLUE OPTIC with SEAL |
| - | - | A/R | 49 | 02-0363417RCS | LENS / RED-CLEAR OPTIC with SEAL |
| - | - | A/R | 50 | 02-0363417RAS | LENS / RED-AMBER OPTIC with SEAL |
| A/R | A/R | A/R | 51 | 02-0382968-02 | B6T ROT. MECH. 128 FPM-12V-50W |
| 1 | 1 | 1 | 52 | 67-1011897180 | WIRE, 18 GA 18" WHT/VIO |
| A/R | - | A/R | 53 | 67-1011877180 | WIRE / 18 GA 18" VIOLET |
| - | 1 | - | 54 | 38-0143750-00 | GASKET / DIE CUT M7 |
| - | 1 | - | 55 | 07-743879-000 | M7 TO B6R-B6T ADAPTOR PLATE |
| - | 2 | - | 56 | 15-081416-160 | SCREW / #8 X 1" PPHMS |
| - | A/R | - | 57 | 02-036A796-A0 | SUB ASSY / M7 SYNC AMB-AMB |
| - | A/R | - | 58 | 02-036A796-B0 | SUB ASSY / M7 SYNC BLU-BLU |
| - | A/R | - | 59 | 02-036A796-30 | SUB ASSY / M7 SYNC WHT-CLR |
| - | A/R | - | 60 | 02-036A796-R0 | SUB ASSY / M7 SYNC RED-RED |
| - | A/R | - | 61 | 02-036A796-10 | SUB ASSY / M7 SYNC AMB-CLR |
| - | A/R | - | 62 | 02-036A796-20 | SUB ASSY / M7 SYNC BLU-CLR |
| - | A/R | - | 63 | 02-036A796-50 | SUB ASSY / M7 SYNC RED-CLR |

WIRING DIAGRAMS



IMPORTANT! Before returning the vehicle to active service, visually confirm the proper operation of this product, as well as all vehicle components/equipment.

IMPORTANT! 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!

CAUTION! Permanent mounting of this product will require drilling. It is absolutely necessary to make sure that no other vehicle components could be damaged by this process. Check both sides of the mounting surface before starting. If damage is likely, select a different mounting location.