

WHELEN[®]

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Installation Guide: Towman's Model T-103 2 Light Strobe System

Safety First

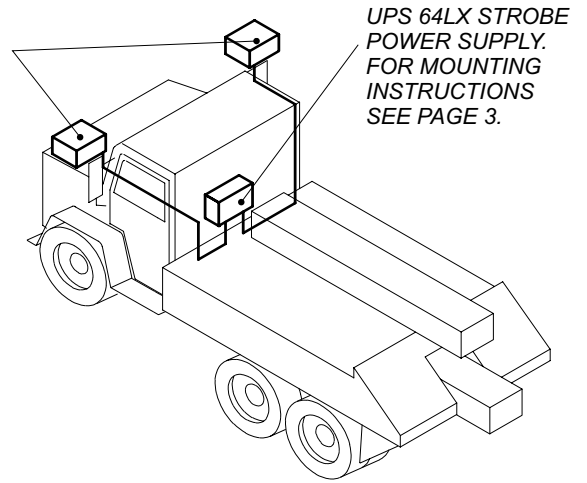
This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained 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 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.**
- **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.**
- **If this product contains strobe light(s), halogen light(s) or high-intensity LEDs, do not stare directly into these lights at a close distance. 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. Lens 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!**

Automotive: D.O.T.

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

MICRO EDGE 360 DEGREES REMOTE STROBE LIGHT HEAD ASSEMBLIES MOUNTED ON EACH SIDE OF CAB.



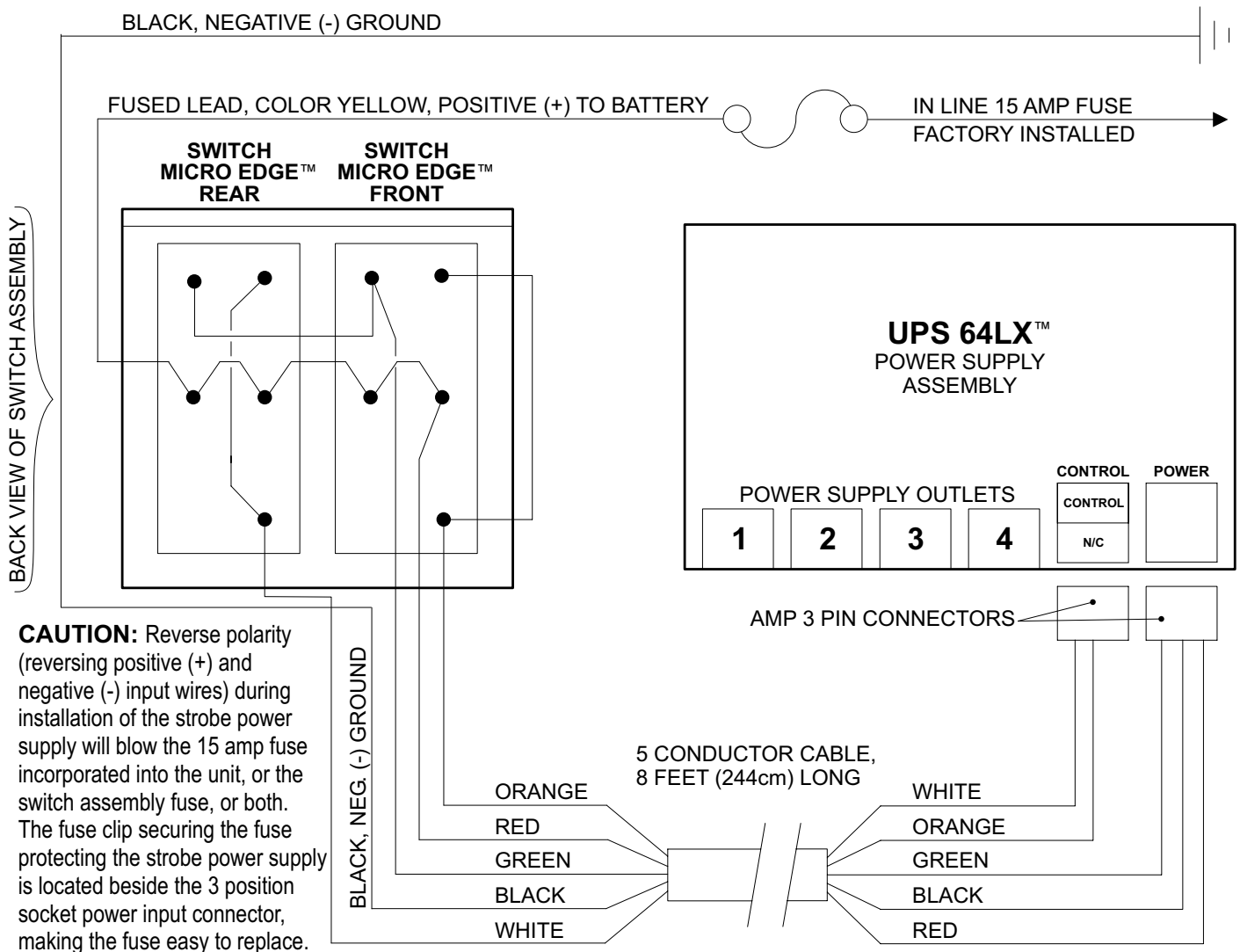
UPS 64LX STROBE POWER SUPPLY. FOR MOUNTING INSTRUCTIONS SEE PAGE 3.

WARNING... The Whelen Strobe Light Power Supply is a high voltage device. Do not remove strobe tubes or touch strobe light head assemblies while system is in operation. **WAIT 10 MINUTES AFTER TURNING OFF POWER BEFORE STARTING WORK OR ANY TROUBLE SHOOTING.**

WIRING DIAGRAM TOWMAN'S "SYSTEM T-103"

CONNECTING THE UPS-64LX™ POWER SUPPLY TO THE POWER SOURCE WITH 2 THREE POSITION SWITCHES MOUNTED INTO A BRACKET ASSEMBLY.

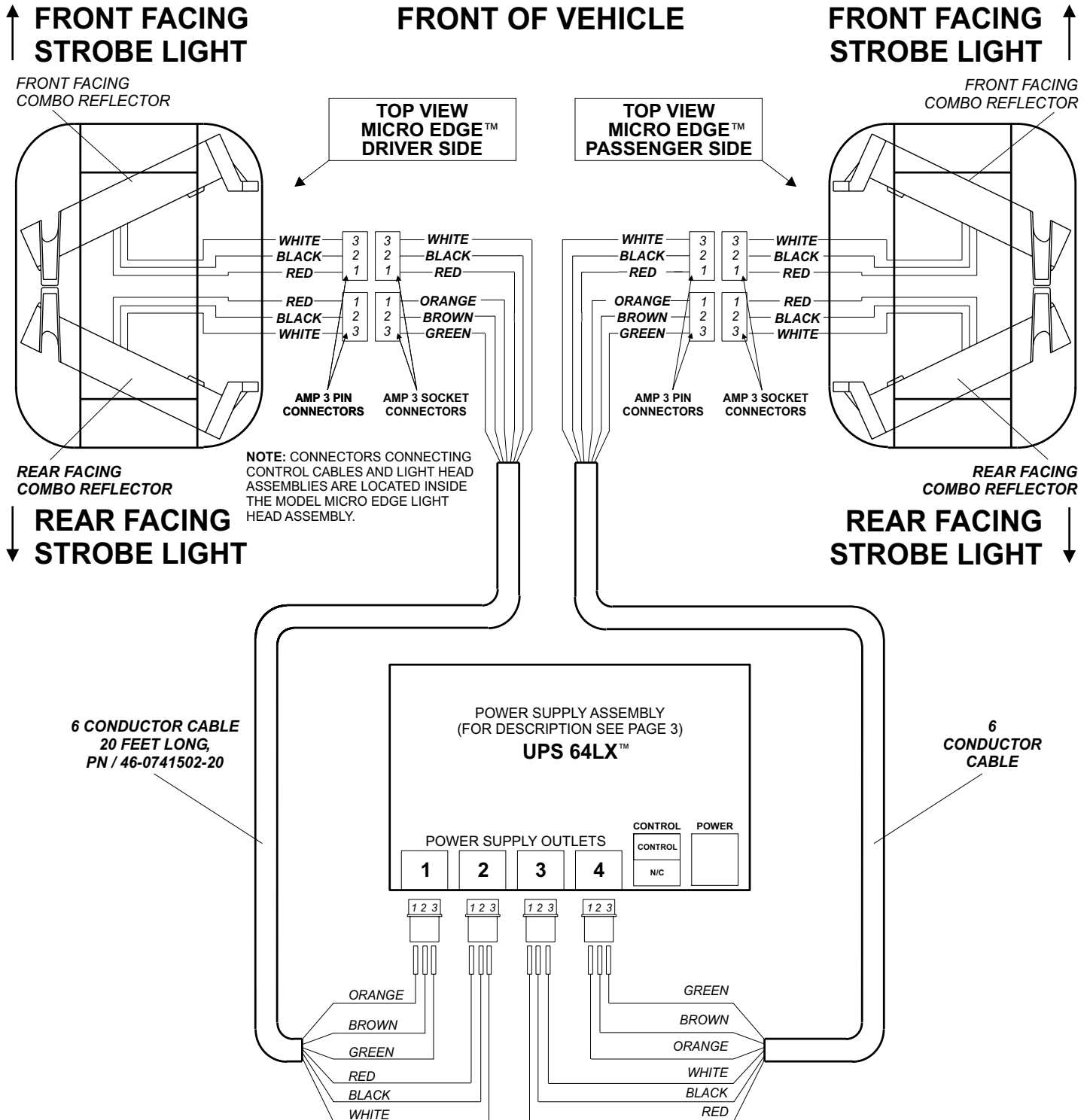
For connection to strobe light head cable assemblies see page 2.



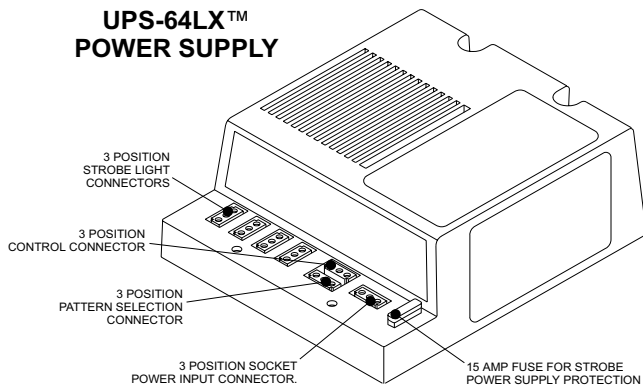
WIRING DIAGRAM TOWMAN'S "SYSTEM T-103"

CONNECTING THE UPS-64LX™ POWER SUPPLY TO THE TWO MICRO EDGE™ STROBE LIGHT ASSEMBLIES.

For Connection to Power Source See Page 1. For Parts See Page 5.



UPS-64LX™ POWER SUPPLY



The UPS64LX Strobe Power Supply, like all Whelen components, can be installed in many different types of vehicles. The guidelines for the installation of this product are written so that no matter what vehicle is being used, the installation and operation of the UPS64LX will be simple and straight forward.

Selecting a Mounting Location...

The most common choice for a mounting area would be a trunk or similar compartment. However, due to the wide variety of vehicles onto which the UPS64LX could be installed, this is not always possible. The following guidelines will help the installer select an acceptable alternative:

- A) The UPS64LX™ should be mounted on a metal surface to aid heat dissipation. Be sure that this surface is not one that either generates or is exposed to excessive heat during normal operation of the vehicle.
- B) Do not select a location where the UPS64LX™ will be exposed to potential damage from any unsecured or loose equipment in the vehicle.
- C) Be sure the area selected will not allow the UPS64LX™ to be exposed to water!
- D) When routing the UPS64LX's wires, it is important to choose a path that will keep these wires away from excessive heat and from any vehicle equipment that could compromise the integrity of the wires (ex. trunk lids, door jams, etc.).

- E) When the best mounting location has been determined, securely fasten the UPS64LX™ to its mounting surface using the supplied hardware.

WARNING: The Strobe Light Power Supply is a high voltage device. Do not touch or remove tube assembly in strobe light head assemblies while in operation. Wait 10 minutes after disconnecting the unit from its power source before starting work or troubleshooting on power supply or system.

CAUTION: As it will be necessary to drill holes into the mounting surface, 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!

Installation...

1. Position the UPS64LX in its proposed mounting location to ensure that it fits properly. With the UPS64LX™ in place, insert an awl or other suitable tool into the mounting screw area of the power supply and scribe the areas to be drilled.
2. Remove the UPS64LX™ from its mounting area and, using a drill bit sized for a #10 sheet metal screw, drill a hole in each of the areas scribed in the previous step.
3. Return the UPS64LX™ to its mounting location and using the supplied #10 sheet metal screws, mount the UPS64LX™ onto its mounting surface.

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 the load!

Wiring...

2. Connect the RED wire to a fuse block (customer supplied) and then to the POSITIVE terminal on the battery.

NOTE! Although a 15 amp fuse (customer supplied) is required to be used in the fuse block, do not install the fuse until all of the wire connections are completed.

3. Connect the BLACK wire to the factory chassis ground adjacent to the battery.

CAUTION: Reversing polarity (Reversing Positive and Ground-wires) during the installation of a strobe light power supply, will blow either the 15 amp fuse incorporated into the unit, or the inline 15 amp fuse located on the positive (+) wire connected to the power source.

The Micro-Edge™

is a dual Xenon tube, 270° remote strobe light head assembly. Each unit is either designed for left or right side mounting on vehicle. The cable assembly used to connect the Micro-Edge™ light head assemblies to the Model UPS-64LX™ Strobe Light Power Supply, is a 6 conductor cable 20 feet long. One end of the cable is connected on the inside of the Micro-Edge™, and on the other end to factory installed 3 pin connectors. Each one of the Micro-Edge™ light head assemblies is labeled underneath to indicate on which side of the vehicle they should be mounted. When connecting the connectors to the strobe light power supply, observe the color

coding and proper positioning of these connectors. (See Wiring Diagram, Page 2.)

NOTE: During installation, when passing the cable through metal surfaces, remove the burrs from the edges of the holes and if possible use rubber grommets to protect the cable. It is also advisable to support the cable with ty-wraps, cable clamps, or any other means to prevent the cable from shifting around or putting tension on the connectors.

The wiring assembly which connects the UPS-64LX™ strobe power supply to the switch control assembly is a 5 conductor cable assembly, 8 feet long.

Control Switch Assembly

The switch control assembly is factory assembled to the 5 conductor cable, and consists of two DPDT (Double Pole, Double Throw) switches.

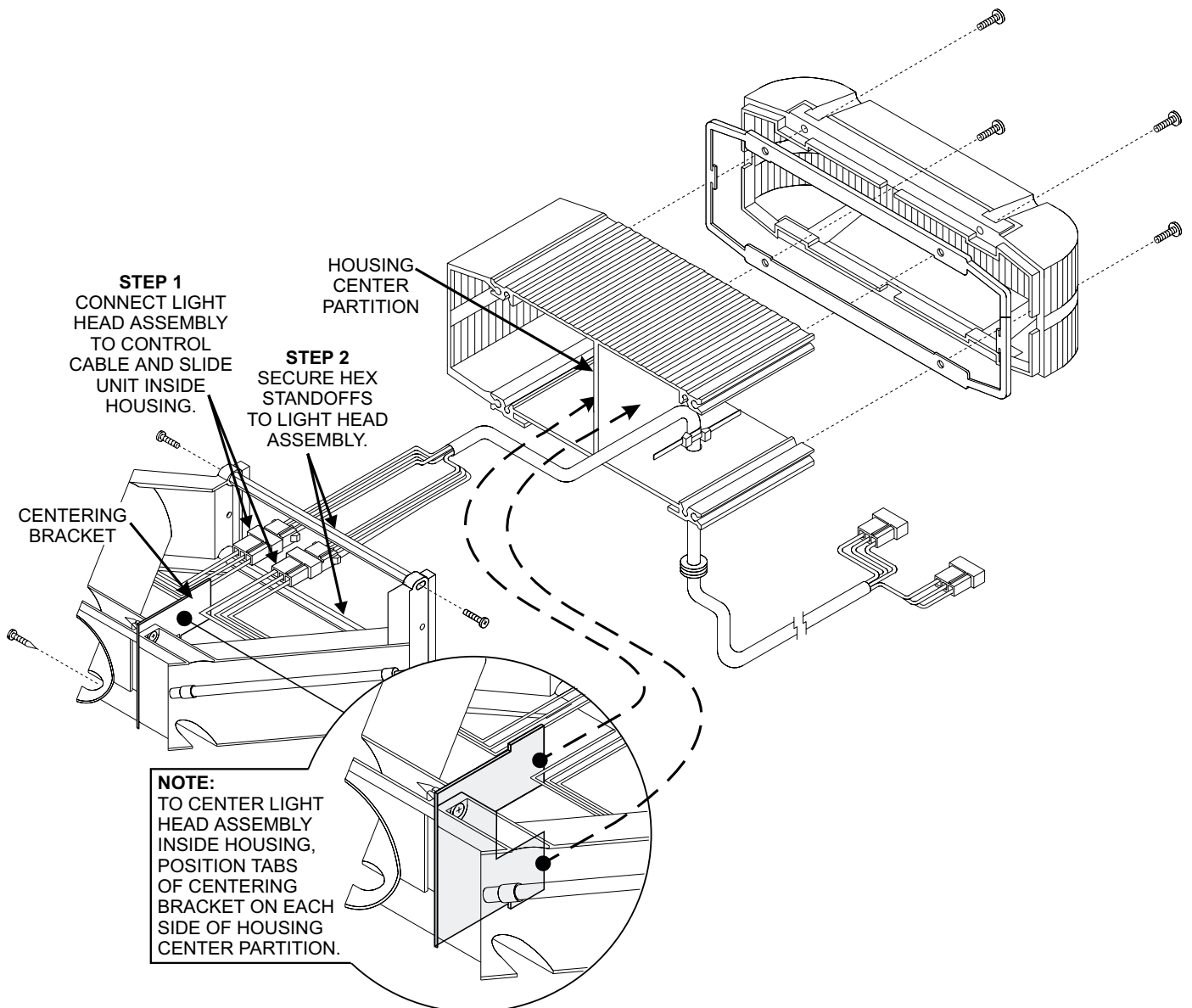
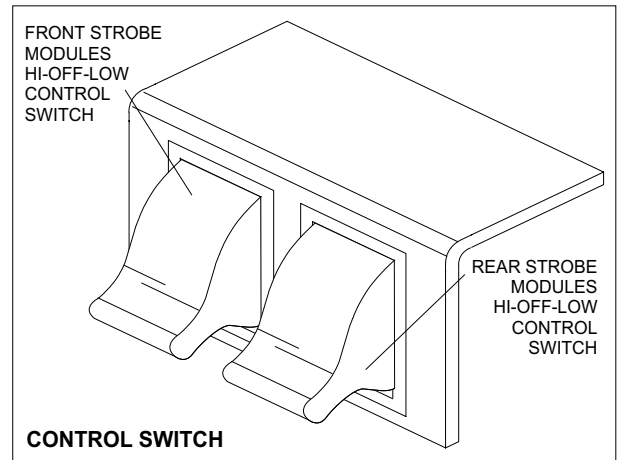
The DPDT switches are 3-position "ON-OFF-ON" switches, which control both the front and rear strobe modules of the remote strobe lighthouse assemblies.

The DPDT switches when pushed downward, puts the strobe lights into low power, or 30% of their high power intensity. This feature is most useful when full light intensity at high power may not be needed, such as for night use. To set the strobe lights into the high power mode, position the switches into the up-ward position. (Switch positions are indicated on the face of the switch assembly.)

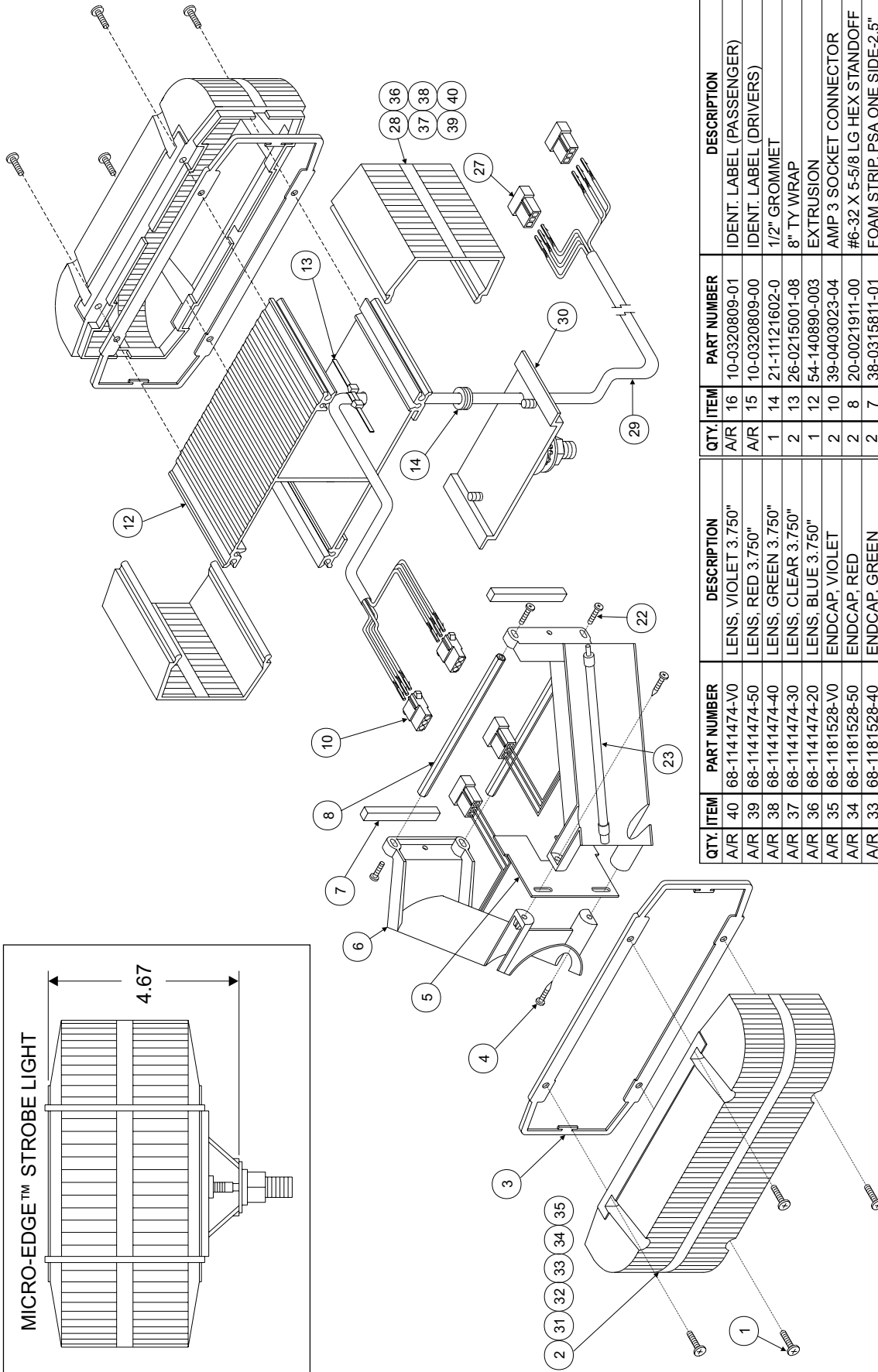
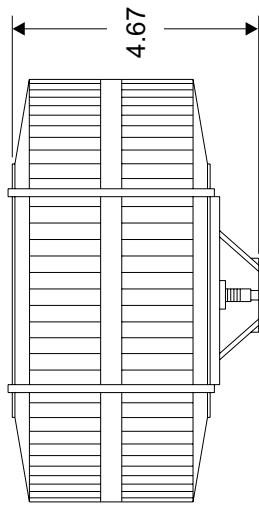
When installing, secure cable properly to prevent it from shifting. Place switch assembly in a convenient and accessible location.

When connecting the cable to the power source, be sure that the control switches on the control switch assembly are in the

"OFF" (horizontal) position. Connect the BLACK WIRE, Negative (-) to the battery negative, and connect the YELLOW WIRE with the factory installed 15 amp fuse to 13 volts DC battery positive (+).



MICRO-EDGE™ STROBE LIGHT



QTY.	ITEM	PART NUMBER	DESCRIPTION	QTY.	ITEM	PART NUMBER	DESCRIPTION
A/R	40	68-1141474-V0	LENS, VIOLET 3.750"	A/R	16	10-0320809-01	IDENT. LABEL (PASSENGER)
A/R	39	68-1141474-50	LENS, RED 3.750"	A/R	15	10-0320809-00	IDENT. LABEL (DRIVERS)
A/R	38	68-1141474-40	LENS, GREEN 3.750"	1	14	21-11121602-0	1/2" GROMMET
A/R	37	68-1141474-30	LENS, CLEAR 3.750"	2	13	26-0215001-08	8" TY WRAP
A/R	36	68-1141474-20	LENS, BLUE 3.750"	1	12	54-140890-003	EXTRUSION
A/R	35	68-1181528-V0	ENDCAP, VIOLET	2	10	39-0403023-04	AMP 3 SOCKET CONNECTOR
A/R	34	68-1181528-50	ENDCAP, RED	2	8	20-0021911-00	#6-32 X 5-5/8 LG HEX STANDOFF
A/R	33	68-1181528-40	ENDCAP, GREEN	2	7	38-0315811-01	FOAM STRIP, PSA ONE SIDE-2.5"
A/R	32	68-1181528-30	ENDCAP, CLEAR	2	6	02-0361417-00	EDGE COMBO
A/R	31	68-1181528-20	ENDCAP, BLUE	1	5	07-241473-000	CENTERING BRACKET
1	30	02-038132309SC	MTG. BKT. ASSY.	2	4	15-041816-160	#4 X 1 PPHSMS (WASHER HEAD)
1	29	46-0741710-20	WIRING HARNESS 20'	2	3	38-0261131-00	ENDCAP GASKET
A/R	28	68-1141474-10	LENS (AMBER)	A/R	2	68-1181528-10	ENDCAP (AMBER)
2	27	39-0403013-04	AMP 3 PIN CONNECTOR	8	1	14-104286-16J	10-24 X 1.25 TORX HEAD
1	26	10-0520810-02	MODEL NO. LABEL	*	*	01-0280971-(-)	MICRO-EDGE STROBE LIGHT ASSY
2	23	36-0141409-00	FLASH TUBE, LINEAR				
4	22	14-062216-100	#6-32 X 5/8 LG PPHMS				

**TOWMAN "SYSTEM T-103"
REPLACEMENT PARTS LIST**