

# WOLO-LIGHTNING® 80 WATT / 4 OUTLET 12-24 VOLT POWER SUPPLY & STROBE LIGHT KIT 6 Different Light Patterns 8004 & 8104 SERIES INSTALLATION INSTRUCTIONS

Your purchase of Wolo's LIGHTNING strobe light system is the perfect choice to compliment your vehicle's emergency warning lights. Wolo's strobe kits are manufactured with the finest materials. Each light is tested to meet our high standards to ensure that all functions work perfectly. Our quality workmanship and components are Wolo's assurance that this product will provide years of dependable service.

Before installation of the strobe power supply and bulbs is attempted, it is important to read these instructions completely. The lives of people are dependent on the proper installation. The person installing this light must have advanced knowledge of the proper method of installing emergency warning lights to a vehicle as well as knowledge of the vehicle's electrical system. Again, read this manual completely and note any messages marked "**IMPORTANT**" or "**WARNING**". A safe installation will prevent serious injury or damage to the vehicle.

LIGHTNING, is completely wired and does not require any wiring inside the power supply. There are four (4) power cables included in the kit; two (2) that are 3 meters / 9.8 ft. in length for installation in front of vehicle and two (2) that are 5 meters / 16.4 ft. in length for installation in rear of vehicle. Also included in the kit is a control panel, dash mountable with an on/off switch and a push button switch to change the strobe light pattern, all that is required for a successful installation.

Installation of LIGHTNING requires drilling to the vehicle. The installer must carefully inspect both sides of any location that will be drilled to ensure that there are no components, wires and or any vehicle parts that could be damaged when drilling.

**IMPORTANT:** Always de-burr any drilled holes to ensure that there are no sharp edges. Install a rubber grommet into all metal holes that the wires are being routed through.

Always refer to the vehicle's shop manual for the deployment location of the air bags. Never install the control panel switches, wires and/or components in the deployment area of any air bag. Improper installation could reduce the effectiveness of the vehicle's air bag system and/or project an object that could cause serious personal injury or death to the driver or passenger. The user/installer assumes all responsibility to properly access a safe mounting location for the switch control panel, so to provide ultimate safety to the driver and passengers inside the vehicle.

All LIGHTNING models produce both high voltage and high current. To operate this product at peak performance, the black wire should always be connected directly to the (-) negative battery post. If the length of the black wire needs to be made longer, use a minimum 18 gauge or heavier.

The vehicle operator and/or maintenance department should inspect the strobe light system frequently to ensure that all bulbs are functioning and are securely held in the vehicle's light assembly.

These installation instructions should always be kept and stored in a safe location so that they can be referred to when information, maintenance or reinstallation is required. Failure to follow all safety precautions and installation procedures as outlined in these instructions could result in property damage to the vehicle, serious injury or death to you or others.

## WARNING

- All 8004 models contain four (4) strobe bulbs. **At a close distance, never look directly at the bulbs when the power supply is turned on. Momentary blindness and/or permanent eye damage could occur.**
- The strobe power supply produces HIGH VOLTAGE. **Never touch or remove any of the strobe bulbs while in operation. Wait no less than 10 minutes after disconnecting the power supply from it's power source to attempt to handle bulbs or troubleshoot.**
- DO NOT connect the power supply to the vehicle's battery or any other power source until ALL bulbs are mounted and wired to power supply.

FAILURE TO FOLLOW ALL SAFETY WARNINGS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO PRODUCT, VEHICLE OR COULD CAUSE SERIOUS INJURY TO YOU AND PASSENGERS!

## INSTALLATION OF POWER SUPPLY Fig. A

### CAUTION

The power supply is NOT waterproof and must be mounted in a dry location inside vehicle. The power supply should NEVER be exposed to weather conditions such as rain, snow, water and etc. The power supply should be mounted in a well-ventilated location. Never mount the power supply in the vehicle's engine compartment or near a heater duct.

### IMPORTANT

The power supply should be mounted on a metal surface to help prevent radio interference and to act as a heat sink. Doing such will reduce heat from the power supply protecting the electronic components. Make sure that the mounting surface does not get hot from normal vehicle operation.

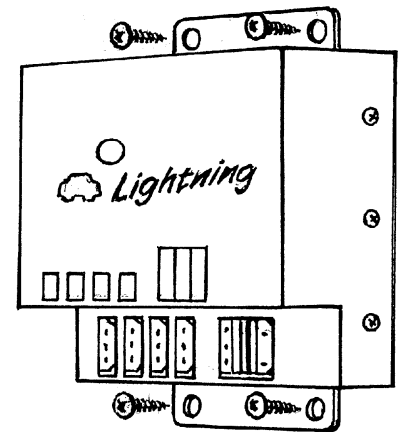


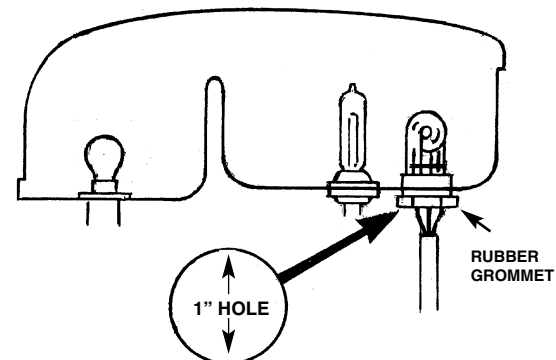
Fig. A

1. Place the power supply on the mounting surface. Using the mounting bracket as a template, mark the four hole locations onto the mounting surface and drill to size using a 1/8" drill.
2. The installer must carefully inspect both sides of the selected mounting location to ensure that there are no components, wires and or any other vehicle part that could be damaged by the drilling.
3. Reposition the power supply to the mounting surface and secure using the sheet metal screws provided.

## INSTALLATION OF THE STROBE BULBS INTO THE HEADLIGHT and TAILLIGHT ASSEMBLIES Fig. B

### IMPORTANT

- The strobe bulbs are going to share the same reflector and lens as the headlight and taillight. Before drilling any hole into the light assembly you must make sure that the position of the strobe bulb will not interfere with the operation or visibility of the vehicles original equipment light.
- The strobe bulb must have a minimum of one (1) inch of open space between the lens, reflector, housing assembly and OEM factory bulb.
- Never install the strobe bulb directly above the OEM factory bulb.
- Before drilling the hole for the strobe bulb, the installer should remove the OEM factory light assembly and reflector.



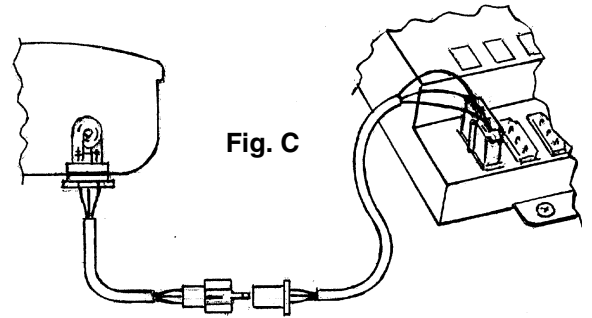
4. Select a position in the headlight or taillight assembly that is flat so that the bulb's grommet will make a good waterproof seal once installed.
5. Using a 1" hole saw, cut a hole in the light assembly in the selected location and de-burr hole.

6. Clean the interior of light assembly and lens of any dust or filings, which may have developed during cutting the hole.
7. Re-install the OEM factory light assembly and reflector.
8. Install the strobe bulb into the one inch hole drilled into the light assembly. Hold the bulbs rubber grommet and use a twisting motion while pushing inward until the grommet's recessed ring engages into the light's assembly.
9. Repeat the same installation procedure for the remaining bulbs.

### WIRING STROBE BULBS Fig. C

**IMPORTANT:** To prevent damage to the power supply, DO NOT connect any power source until all of the strobe bulbs are completely wired to the power supply.

All 8004 models come with four (4) cables that are used to connect the strobe bulbs to the power supply. Each cable has two female plugs, one at each end. The plugs are different and will only connect to its mate, the bulb, or power supply.



10. Four of the cables are 3 meters / 9.8 ft. in length and should be used to connect the vehicle's front strobe bulbs to the power supply position L1 & L2.
11. Two of the cables are 5 meters / 16.4 ft. in length and should be used to connect the vehicle's rear strobe bulbs to the power supply position L3 & L4.

**NOTE:** If you need to lengthen the rear cables, see chart below for proper wire gauge.

**16-30 ft.**  
Use 18 Gauge or heavier

**31-50 ft.**  
Use 16 Gauge or heavier

### MOUNTING SWITCH CONTROL PANEL

Using double face tape or screws

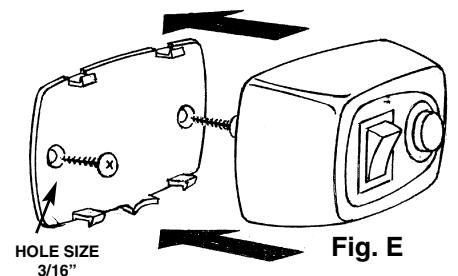
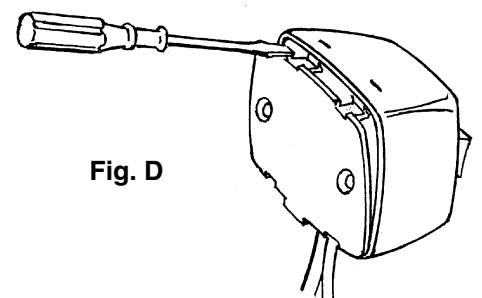
#### TAPE METHOD

12. Select a mounting location for the control panel that is easy to reach. **IMPORTANT:** Be sure that the switch control panel or its wires will not interfere with air bags or the driver's vision.
13. Using the double-sided foam adhesive tape provided, mount the control panel to selected location. Make sure that mounting surface is free from dust, wax etc. A clean surface is necessary so that double-sided tape will hold properly.

**IMPORTANT:** THE ADHESIVE HOLDING POWER BECOMES MAXIMUM IN ABOUT 24 HOURS. LIMIT MOVING OR PUTTING PRESSURE ONTO THE KEYBOARD UNTIL THEN.

#### SCREW METHOD Fig. D & E

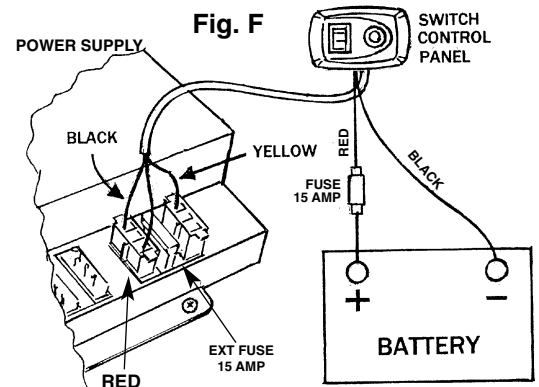
14. Remove the control panel's backing plate using a flat tip screwdriver.
15. Using the backing plate as a template, mark the two hole locations onto the mounting surface where the switch panel will be mounted and drill to size using a 3/16" drill. **IMPORTANT:** The installer must carefully inspect both sides of the mounting location before drilling any holes to ensure that there are no components, wires and or any vehicle part that could be damaged by drilling.
16. Position the backing plate on the mounting surface and secure using the two sheet metal screws provided that have the countersunk head.
17. The control panel is carefully pushed onto the backing plate.



## WIRING SWITCH CONTROL PANEL TO 12-24 VOLTS. Fig. F

**WARNING:** The power supply has an external 15-amp fuse to protect its internal circuit. The 15-amp in-line fuse attached to the red wire must be connected “AT A POWER SOURCE” so to protect the wire connection between the power source and power supply.

18. **BLACK WIRE:** Is connected to ground (-). Secure the BLACK to the negative battery post or under any metal body bolt. Make sure that the METAL surface around the bolt that secures the wire is clean of rust and paint so to make a good electrical connection.
19. **RED WIRE:** Is connected to 12-24 volts (+) positive. Using the inline fuse provided, connect the red wire to the vehicles fuse block or (+) positive battery post. Remove fuse from the inline fuse holder until all wiring is completed.
20. The plug with the **YELLOW** wire is connected to the power supply in the position marked “CONTROL”.
21. The plug with the **RED & BLACK** wires is connected to the power supply in the position marked “12-24 VOLTS”.
22. Inspect all wiring and make sure all connections are secure. Install fuse back into the inline fuse holder.



## INSTALLATION IS COMPLETE

Position the on/off switch to “ON”. Press and release the push button to change the light pattern.

### Flash Pattern

1. Triple Fast Flash
2. Triple Flash
3. Rapid Rate
4. Action Flash
5. Triple Flash
6. Triple Flash

### Strobe Sequence

- L1 & L4 – L2 & L3
- L1, L2, L3, L4
- L1 & L3 – L2 & L4
- L1 & L4 – L2 & L3 – L1 – L2 – L3 – L4
- L1 & L4
- L2 & L3

## DESCRIPTION OF LIGHT PATTERN

- Pattern 1.** Lights L1 & L4 - L2 & L3 function together
- Pattern 2.** All lights function together
- Pattern 3.** Lights L1 & L3 - L2 & L4 function together
- Pattern 4.** Lights L1 & L4 - L2 & L3 function together then all lights function together
- Pattern 5.** Lights L1 & L4 function together
- Pattern 6.** Lights L2 & L3 function together

## SPECIFICATIONS

- Input Voltage: 12-24 VDC
- Current: 4.15 amps @ 12.5 VDC
- Output Power: 80 Watts
- Flash Patterns: 6
- Output circuit protection
- Included: Two cables 3 meters / 9.8 ft in length with locking connectors
- Included: Two cables 5 meters / 16.4 ft in length with locking connectors
- Included: Switch control panel
- Power Supply Dimensions: L 5-1/2 in. x H 5-3/8 in. x D 1-3/4 in.