

LED Product Wiring Instructions

The following is a list of recommended practices for the installation and operation of your light.

FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY AND/OR DEATH TO YOU AND YOUR PASSENGERS

- Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures. You may need to consult a professional for installation.
- SWS Warning Lights Inc. recommends the use of waterproof butt splices and/or connectors for all electrical connections. It is recommended that the use of good dielectric grease be used on all connections where possible.
- 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. Also de-burr the holes and remove any metal shards or remnants. Grommets are recommended for all wire holes.
- Do not mount the light close to antennae or radio equipment, as they may cause electromagnetic interference. After installation of the light, it is necessary to test all electronic equipment simultaneously to ensure 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.
- Do not install this product or route any wires in the deployment area of your air bag or areas that interfere with the operation of the vehicle. Refer to your vehicle owner's manual for the air bag deployment area and recommended mounting areas for warning lights and other equipment.
- Do not use circuit breakers when installing these products. Use automotive grade fuses only.
- Do not attempt to activate or control the device with the vehicle in motion or in a hazardous driving environment. The vehicle should be stopped and in park before control of the light is attempted.
- Do not stare directly into these lights. Momentary blindness and/or eye damage could result.
- Use only soap and water to clean the product. Use of other chemicals could result in degradation and discolouration of the lens/dome.
- Do not use a pressure washer to clean this product.
- Inspect and operate this product regularly to confirm its proper operation and mounting condition.
- It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.
- SWS endeavours to maintain installation instructions for its products according to the latest requirements of vehicle manufacturers. SWS cannot guarantee, and shall not be held liable for, changes or updates a vehicle manufacturer may make which render SWS's products inoperable or otherwise.
- SWS Warning Lights Inc. and its subsidiaries are not responsible for any damages due to improperly mounted or improperly wired lighting equipment.

- If your light is supplied with a switch, refer to the switch instructions as well as the table below to properly connect the two products.

Wiring

- All extension wires need to be appropriately sized depending upon the length that they are to travel. SWS recommends that for every 10ft. of length, the gauge be increased (i.e. for a length of 20ft, the power wires should be 14-16AWG).
- If you are unsure of your wire gauge or want to use a lesser gauge, check the voltage at the end of the wire length to ensure the light will receive adequate power
- Refer to product label and selling information for proper input voltage.

Wire Colour	Wire Gauge	Wire Function
Red	18AWG	Positive (+) Connection
Black	18AWG	Negative/Ground (-) Connection
Green	20AWG	Pattern Select
Violet (if applicable)	20AWG	Dimming Option
Blue (if applicable)	20AWG	Sync./Alt. Selection
White (if applicable)	20AWG	LIN Communication

Operation

Pattern Select:

- The GREEN wire allows you to select amongst a number of different flash patterns.
- To scroll through the patterns, momentarily touch the GREEN wire to the RED (POSITIVE) wire or momentarily touch the GREEN wire to the BLACK (GROUND) wire.
- A momentary switch kit will allow you to cycle through patterns (switch 766163)
- If you have a cigarette cord, the pattern can be selected by using the momentary switch to cycle through the patterns.

Dimming:

- Magnetic Mount lights **do not** have the ability to dim.
- The VIOLET wire if present allows for optional dimming. If you are not using the dimming feature, isolate and stow away the violet wire.
- To use the AutoDim feature, permanently connect the VIOLET wire to the BLACK (NEGATIVE) wire. The internal sensor will be activated and automatically adjust the light output when darkness is detected.
- To manually dim the light, connect the VIOLET wire to the RED (POSITIVE) wire. This should be done via an external switch.

Sync./Alt.

- Magnet Mount versions **do not** have the ability to sync./alt.
- The BLUE and WHITE wires if present are used for the intelligent network to synchronize up to 16 lights. If the light is to operate independently or if there is only one light present, these wires can be stowed away for future use if desired.

- Choose a master. The master light will control the operation (except power) and features (dimming, pattern select etc.) of itself and all slaves in the network. To make the light a **master**, connect its WHITE wire with all other WHITE wires of the lights to be in the network.
- To make the light a **slave**, connect its WHITE wire with all other white wires and isolate and stow away its GREEN and VIOLET wires as the light will take commands from the master light.
- To make the slave light **synchronize**, connect its BLUE wire to the RED (POSITIVE) wire.
- To make the slave light **alternate**, connect its BLUE wire to the BLACK (NEGATIVE) wire.

Features

BatteryCheck

The BatteryCheck feature is a factory-installed feature on some models that will detect the voltage across your vehicle's battery. If your battery's voltage goes below an ideal preset value, the light will switch to a unique alert pattern prompting you to start your vehicle to charge your battery. Once the battery goes above the ideal level, the light will resume its previous operation.

BatteryCheck – Enable/Disable (Fleet Plus models purchased after Jan.31, 2017 Only)

Before boot up, hold the GREEN(SELECT) line to either RED(POSITIVE) OR BLACK(NEGATIVE).
Release the GREEN(SELECT) line on desired flash:

- Three second hold on bootup = single flash, battery check disabled
- Six second hold on bootup = double flash, battery check enabled
- Eight second hold on bootup = no change to programming and light resumes normal operation

Troubleshooting

Dome Removal (where applicable)

- There are no user serviceable parts inside these lights.
- Unless dome is damaged and must be replaced, removal of dome may void warranty.

If your light fails to work, please follow these troubleshooting tips before calling the factory:

- Check all connections for breakage or corrosion.
- Check to see if the fuse has blown within the vehicle. If it has, replace with a fuse of the exact same amp rating.
- For long power wire lengths, ensure the voltage at the light connection is adequate. If not, you may have to shorten the length or increase the wire gauge.
- Ensure vehicle's battery is charged and that the charging system is functional.
- If the light fails to come out of AutoDim, be sure the top of the dome/lens of the minibar/beacons is clear of debris.

CALL SWS (1-877-357-0222) FOR FURTHER ASSISTANCE