

LED Traffic Arrows and Split Traffic Arrows

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

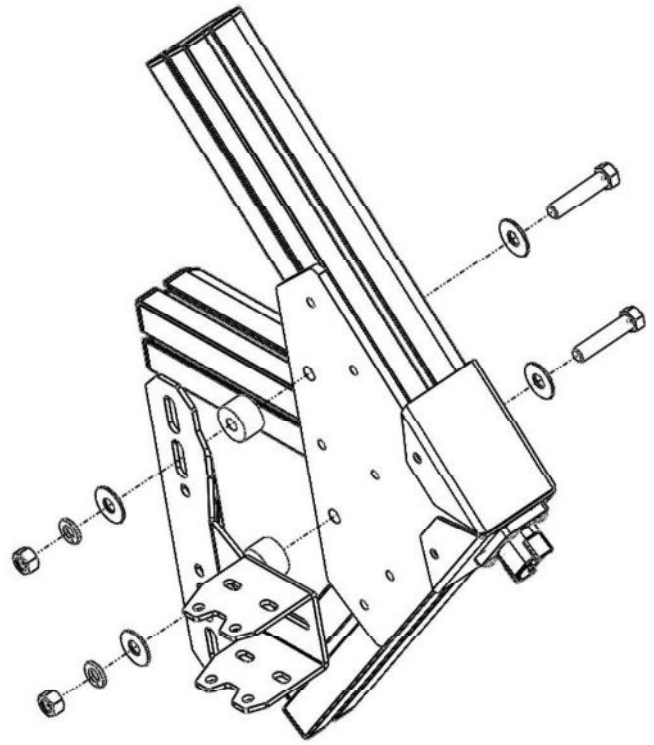
FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY AND/OR DEATH TO YOU AND YOUR PASSENGERS

- 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.
- Never mount this product with magnets as its weight may cause the product to slip and alter the intended direction of travel.
- Arrows and Traffic Directors are meant to be mounted rear facing (unless otherwise labeled). Any other orientation or movement into any other orientation may result in damage to the product or void the warranty. If you have a unique application or orientation, please contact SWS before proceeding.
- 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.
- Always be aware of the pattern and its effect on traffic when activating the Traffic Directing Device.
- 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.

- **Select a surface where the light is visible and free of obstruction.**
- **Mounting brackets are available from the manufacturer.**
- **A straight level is highly recommended to ensure the light is level.**
- **Ensure the vehicle is on level ground when installing.**
- **Note that the connector or wire harness is to be on the drivers side of the vehicle.**

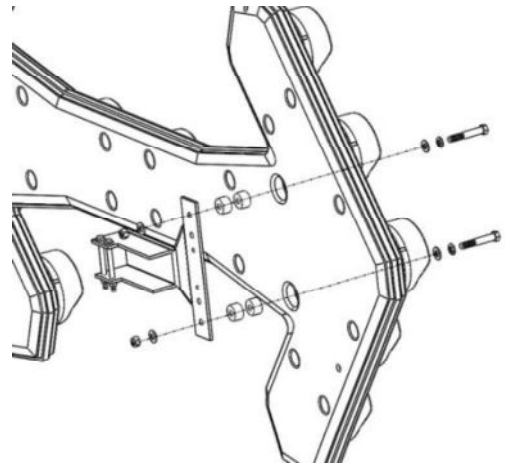
Mounting Arrows (Aluminum Extrusion Body)

- **Take note of the “This Side Up” label on the central shaft.**
1. Arrows are to be mounted through the arrow plate and not the T-slot (see image above).
 2. If you are not using SWS mounting brackets, you must drill holes in the mounting surface. A minimum of four are required for arrows less than 60” in length. For split arrows or arrows longer than 60”, two extra $\frac{5}{16}$ ” holes need to be drilled for the extra support bolts in the shaft. They should be approximately 2” from the center/end of the arrow/split arrow.
 3. Place flat washers on each bolt then pass them through the arrow plate as in the image above.
 4. If you have a split arrow or an arrow over 60” in length, slide a $\frac{1}{4}$ ”-20 bolt into the T-slot(s).
 5. Place a spacer on each bolt from the back of the arrow then pass the bolts through the mounting surface. For Split Arrows and arrows longer than 60” be sure to use the longer spacers on the shaft bolts.
 6. From the back add a flat washer, a lock washer, and nut.
 7. Tighten the nuts using a wrench or ratchet and socket.



Mounting (54xxx Series Arrows)

- **Take note of the “This Side Up” label on one of the corner lightheads.**
1. Place a spring washer onto each bolt, followed by a flat washer.
 2. Pass the bolts through the 4 mounting holes on the arrow.
 3. Place two nylon spacers onto each of the bolts from the rear of the arrow.
 4. Pass the bolts through the mounting surface or bracket (as pictured right).
 5. Place a flat washer onto the bolt from the reverse side of the mounting surface.
 6. Secure each of the bolts in place with a hex nut. Do not over-tighten the bolts.

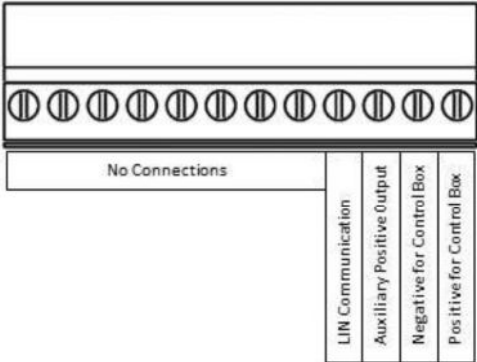


Wiring (50xxx Series, 57xxx Series, and 58xxx Series Arrows & Split Arrows)

- This product is supplied with a 12" pigtail (50xxx and 58xxx) off the product with a 9 position twist lock connection or there is a connector in the endcover (57xxx).
- It is highly recommended that you purchase SWS extension cables to connect to its control box.
- Follow the "Fleet Wiring Harness Install" section of the instructions that are with the control box.
- The wiring is the same for split arrows, however a junction cable is required between the two arrow halves.

Wiring (54xxx Series Arrows)

- Check the photo-sensor on the top arm of the passenger side of the vehicle. Due to shipping concerns, the photo-sensor may have been intentionally left unscrewed from the body of the arrow.
- If it is not fixed to the arrow body, rotate it counterclockwise two rotations and then secure it to the arrow body by screwing it into the mounting hole.
- This product is supplied with a 12" pigtail with a weatherproof connector.
- It is highly recommended that you purchase SWS extension cables to connect to its supplied control box.
- When wiring this product, **do not** refer to the "Fleet + Wiring Harness" installation section of the instructions that came with your control box



Wire Colour	Min. Wire Gauge	Wire Connection
Red	16AWG	Connect to Fused Positive (+) of Power Source
Black	16AWG	Connect to Negative (-) of Power Source
White	16AWG	Connect to 9 th slot from left of the control box connector (LIN Communication Slot)

Trouble Shooting

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

- Check all connections for breakage or corrosion.
- Ensure all connectors are locked and in place.
- Ensure the WHITE LIN Communication wire is in the correct slot (where applicable).
- Check to see if the fuse has blown within the vehicle or the inline fuse. If it has, replace with a fuse of the exact same amp rating.
- Check to see if the fuse has blown on the back of the control box. 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.

Note: The 58XXX/59XXX Orion Family, under normal operation will have humidity and moisture appear on the lens. This is totally normal, and the product is designed to dry up inside while the vehicle is moving down the road. All the internal electronics are potted and completely encapsulated for protection from moisture, salt, and brine and will never fail from corrosion caused by harsh environments.

CALL SWS WARNING LIGHTS INC. (1-877-357-0222) FOR FURTHER ASSISTANCE