

INSTRUCTION SHEET FOR ARJENT™ OPTIONS XCSM6LE AND XCSM6CLE

SAFETY MESSAGE TO INSTALLERS

WARNING

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install this light: you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- In order for the light to function properly, a separate ground connection must be made. If practical, it should be connected to the fusible link at the front fender between the negative (-) battery terminal and chassis ground. At a minimum, it may be attached to a solid metal body or chassis part that will provide an effective ground path as long as the light system is to be used.
- Locate light control so the VEHICLE and CONTROL can be operated safely under all driving conditions.
- Do not attempt to activate or deactivate light control while driving in a hazardous situation.
- You should frequently inspect the light to ensure that it is operating properly and that it is securely attached to the vehicle.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

I. GENERAL.

The Arjent options, XCSM6LE and XCSM6CLE are six head directional LED light assemblies with controllers. Each option is assembled and wired inside the lightbar at the factory. Included with each option is an accessory kit for operation of the controller.

The controller provides two distinctive directional signals: left arrow and right arrow. In addition, a hazard pattern is provided

for use when a directional signal may not be appropriate. When a directional signal is selected, the LED modules are individually illuminated in a sequential sweeping motion until all six LED modules are illuminated.

II. SPECIFICATIONS.

Input Voltage	11 VDC to 16 VDC.
Polarity	Negative ground only.
Operating Temperature Range	-30° C to +65° C
Standby Current	Zero amperes.
+BAT Fuse	10 amperes.
Output Drive	6 amperes.
Flash Rate:	
Directional	35 patterns/min.
Hazard	60 patterns/min.

III. INSTALLATION.

A. Lightbar.

Refer to installation instructions packed with lightbar.

B. Control Head.

WARNING

When installing equipment inside air bag equipped vehicles, the installer **MUST** ensure that the equipment is installed **ONLY** in areas recommended by the vehicle manufacturer.

Failure to observe this warning will reduce the effectiveness of the air bag, damage the air bag, or potentially damage or dislodge the equipment, causing serious injury or death to you or others.

Assemble the control head as shown in figure 1. For proper operation of the unit the switches must be installed as shown. To install the control head, proceed as follows:

NOTE

When selecting a mounting location for the control head, it is necessary to keep in mind the lightbar's cable length. Plan wiring and cable routing before installation.

1. Select a mounting location for the control head that allows the vehicle and controls to be operated safely at all times.
2. Use the control head as a template and scribe two drill position marks at the selected mounting location.

CAUTION

Before drilling holes in ANY part of a vehicle, be sure that both sides of the mounting surface are clear of parts that could be damaged; such as brake lines, fuel lines, electrical wiring or other vital parts.

3. Drill two holes at the previously scribed position marks.

4. Secure the control head to the mounting surface with two user-supplied sheet metal screws.

C. Electrical Connections.

WARNING

Failure to observe this WARNING may result in fire, burns or blindness.

If shorted to vehicle frame, high current conductors can cause hazardous sparks resulting in electrical fires or molten metal.

If additional cable length is required, splice the same gauge (or heavier) wire to the leads.

DO NOT connect this system to the vehicle battery until all other electrical connections are made and mounting of all components is complete.

Verify that no short circuits exist, before connecting to the Positive (+) battery terminal.

1. Power Connection.

NOTE

It is recommended that the controller unit power be obtained from a vehicle circuit that is powered in the RUN, and START positions of the vehicle's ignition.

Route 18-gauge or larger user supplied wire from power source to control head. Ensure that the source is capable of supplying an additional 10-amperes. Do not connect to power source at this time.

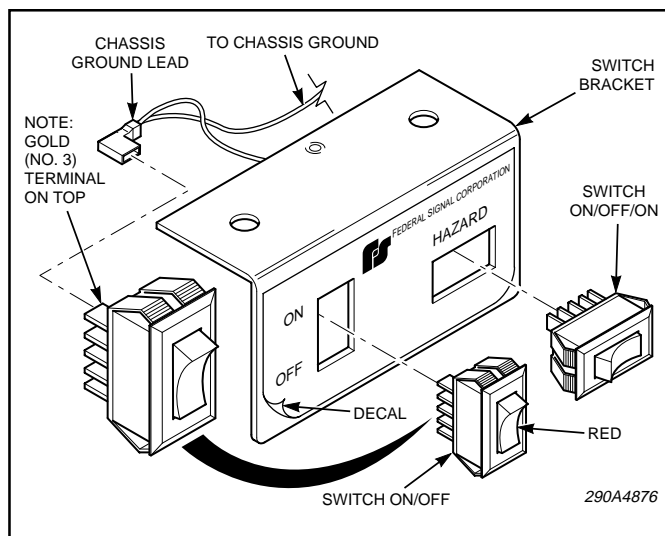


Figure 1.

2. Control Head Connections.

a. Route brown, violet and white/gray (from the lightbar's cable assembly) wires to control head mounting location.

b. See figure 2. Crimp five 1/4" straight terminals on the wire ends. Connect terminals on the switches as shown.

3. Illuminated Power Switch.

CAUTION

Improper wiring of the illuminated switch feature will result in controller board damage. Ensure that the chassis ground lead is connected to the gold (pin #3) terminal and that the unterminated end of the lead is connected to a known good chassis ground.

a. See figure 2. Connect the right angle terminal on the switch bracket ground lead to the gold (pin #3) terminal of the on/off switch.

b. Route the unterminated end of the ground lead to a known good chassis ground. Cut the lead to length and crimp the supplied ring terminal on the lead.

NOTE

If necessary, additional 18-gauge wire may be spliced to the ground lead.

c. Secure the lead to the chassis ground with a user-supplied screw.

D. Inspection and Final Installation.

1. Ensure that there are no loose wire strands or other bare wires, which may cause a short circuit. Also, all wires must be protected from any sharp edges which could eventually cut through the insulation.

2. Connect the 18-gauge user supplied wire to the (+) positive terminal of power source using an in-line, user-supplied fuseholder and 10A fuse. Locate the fuse as near to the source as possible to protect entire length of wire.

3. Read and understand paragraph IV OPERATION and test for proper operation of all functions.

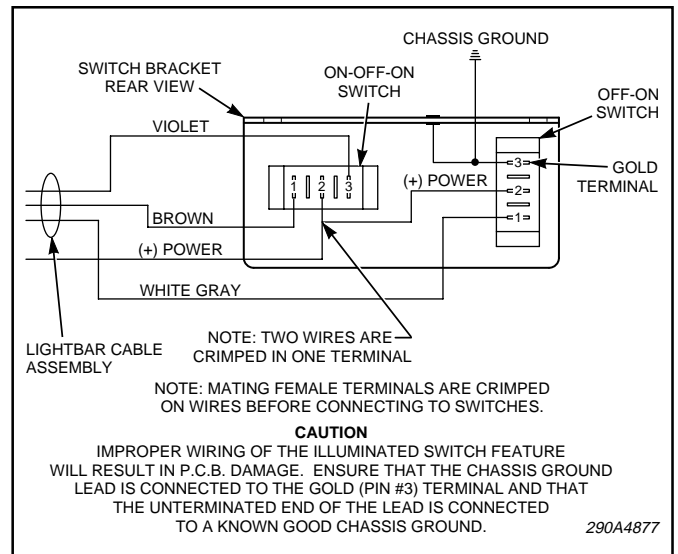


Figure 2.

IV. OPERATION.

SAFETY MESSAGE TO OPERATORS



Peoples' lives depend on your safe use of our products. Listed below are some important safety instructions and precautions you should follow:

- **Although your warning system is operating properly, it may not be completely effective. People may not see or heed your warning signal. You must recognize this fact and continue driving cautiously.**
- **Also, situations may occur which obstruct your warning signal when natural or man-made objects are between your vehicle and others, such as: raising your hood or trunk lid. If these situations occur, be especially careful.**
- **At the start of your shift, you should ensure that the light is securely attached and all lamps are operating properly.**
- **If a selected function does not perform properly or if any of the lamps remain illuminated when the control is off, disconnect the power connector from the control unit and contact the nearest service center.**

Failure to follow these safety precautions may result in property damage, serious injury, or death to you, to passengers, or to others.

A. *On/Off Switch.*

1. OFF Position.

The unit is not powered.

2. ON Position.

a. The switch will illuminate. If the switch does not illuminate, check the switch bracket ground lead for proper chassis ground connection

b. The directional/hazard patterns will operate as selected by the Hazard Rocker Switch.

B. *Hazard Rocker Switch.*

1. LEFT Position.

In this position, the lights produce a left arrow flashing pattern, instructing traffic to move left.

2. CENTER Position.

In this position, an alternating pattern is produced. The two middle lights light alternately with the two outside lights on each side.

3. RIGHT Position.

In this position, the lights produce a right arrow flashing pattern, instructing traffic to move right.

V. MAINTENANCE.

LED Light Replacement.

Refer to instructions packaged with lightbar for details on how to replace the LED Light assemblies.

VI. REPLACEMENT PARTS.

Description	Part No.
Switch Kit Assembly	8583321
Controller PCB Assembly	2001228-02

VII. SERVICE.

Communication and shipment should be addressed to:

Service Department
Federal Signal Corporation
2645 Federal Signal Drive
University Park, IL 60466
1-800-433-9132