



Installation and Operation Instructions 12 Series Vantage™ Lightbars Accessories

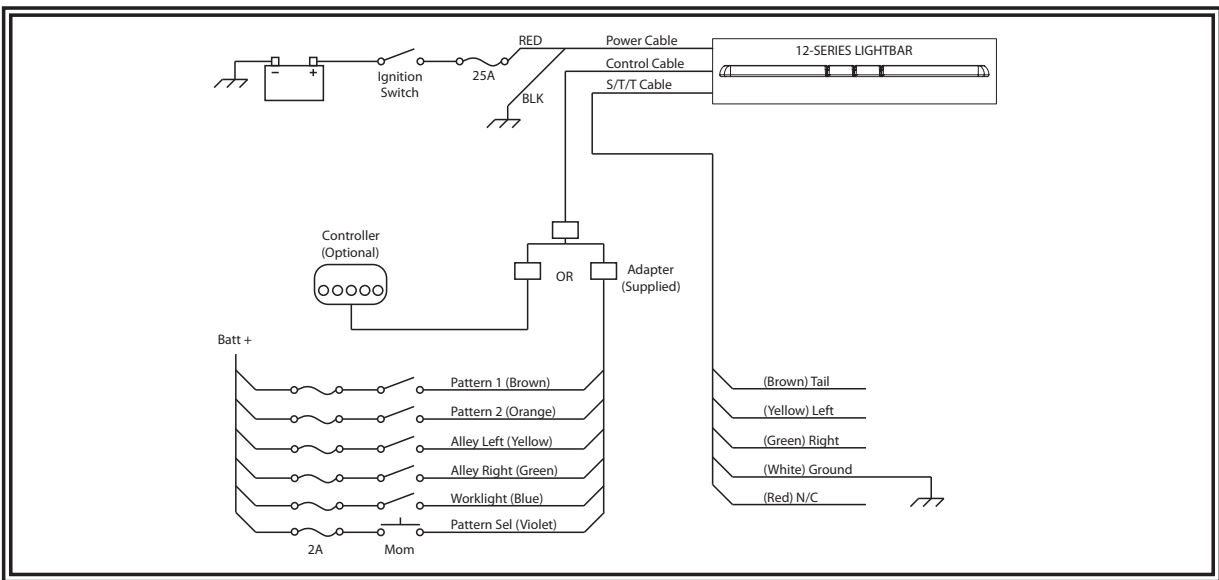
IMPORTANT! Read all instructions before installing and using. Installer: This manual must be delivered to the end user. This manual assumes installation by a suitably qualified Automotive Technician.

WARNING!
Failure to install or use this product according to manufacturer's recommendations may result in property damage, serious bodily/personal injury, and/or death to you and those you are seeking to protect!

Do not install and/or operate this safety product unless you have read and understand the safety information contained in this manual.

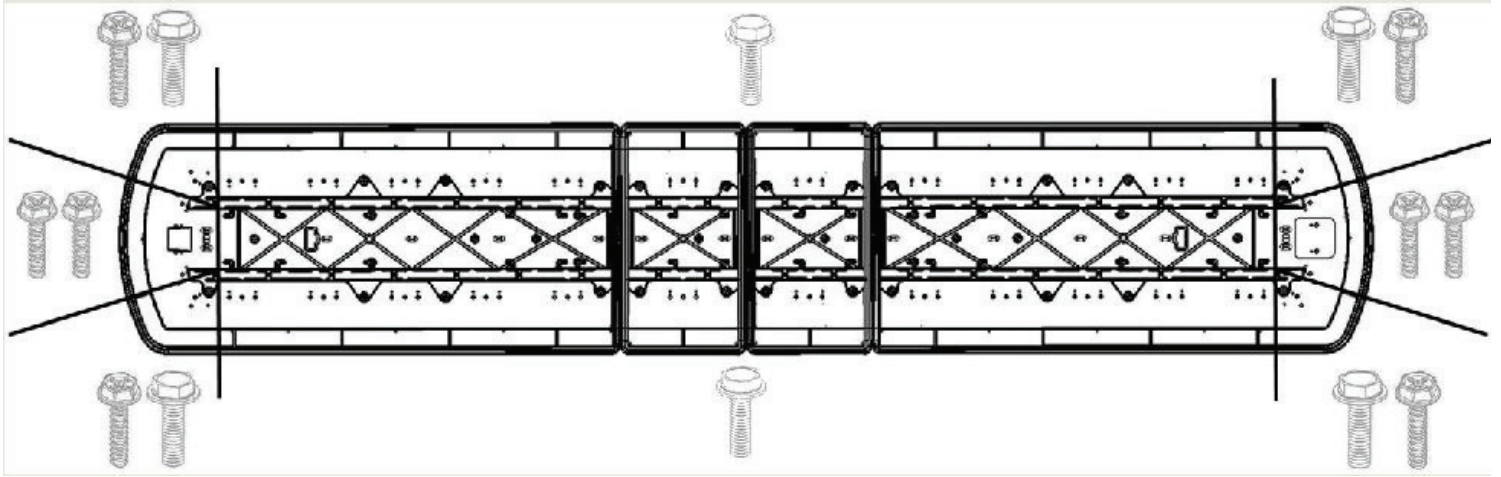
1. Proper installation combined with operator training in the use, care and maintenance of emergency warning devices are essential to ensure the safety of emergency personnel and the public.
2. Emergency warning devices often require high electrical voltages and/or currents. Exercise caution when working with live electrical connections.
3. This product must be properly grounded. Inadequate grounding and/or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.
4. Proper placement and installation is vital to the performance of this warning device. Install this product so that output performance of the system is maximized and the controls are placed within convenient reach of the operator so that s/he can operate the system without losing eye contact with the roadway.
5. It is the responsibility of the vehicle operator to ensure daily that all features of this product work correctly. In use, the vehicle operator should ensure the projection of the warning signal is not blocked by vehicle components (i.e., open trunks or compartment doors), people, vehicles or other obstructions.
6. The use of this or any other warning device does not ensure all drivers can or will observe or react to an emergency warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, drive against traffic, respond at a high rate of speed, or walk on or around traffic lanes.
7. This equipment is intended for use by authorized personnel only. The user is responsible for understanding and obeying all laws regarding emergency warning devices. Therefore, the user should check all applicable city, state, and federal laws and regulations. The manufacturer assumes no liability for any loss resulting from the use of this warning device.
8. This product may contain high intensity LEDs staring directly into these lights could result in temporary and/or permanent vision impairment.

CAUTION!
Disconnect the battery before wiring up the lightbar, to prevent accidental shorting, arcing and/or electrical shock.



LED MODULE INSTALLATION:

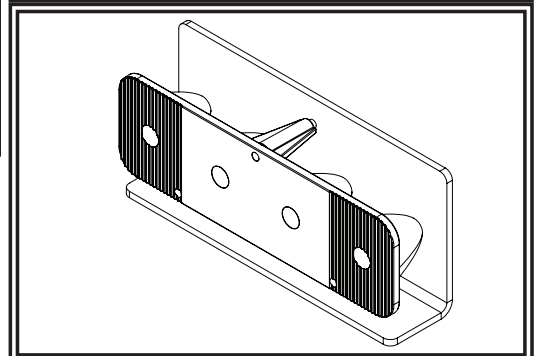
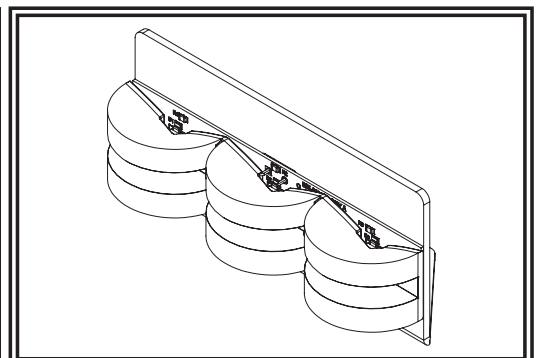
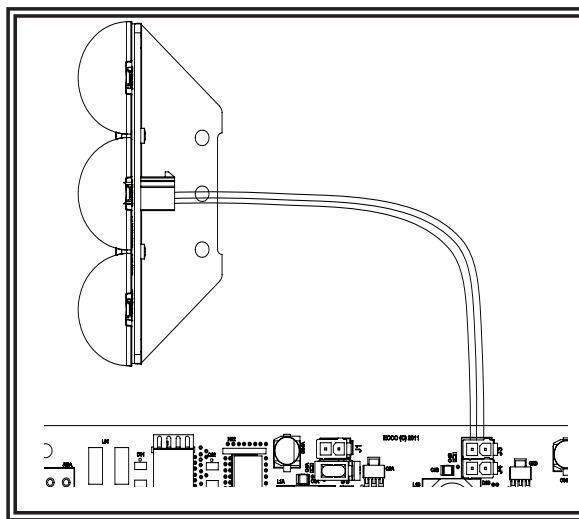
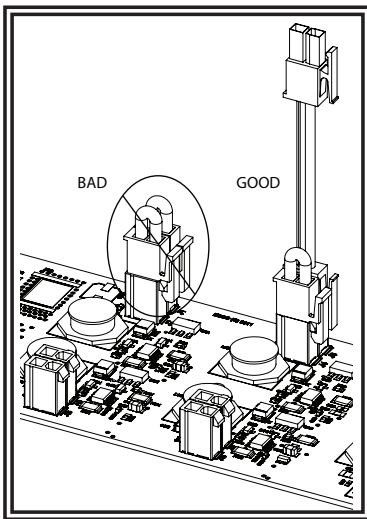
- REMOVE THE LENSES
 - Remove the screws holding the lenses in place. Take care not to lose the O-rings, as they help seal the lightbar from the rain.
 - Carefully remove the lenses. Starting at one corner, lift the lenses up, then work around the bases.
 - The lenses, while tough, can scratch easily. Set them someplace safe.
- CHOOSE LED MODULES' LOCATIONS IN LIGHTBAR
- PREPARE MODULES' LOCATIONS IN LIGHTBAR
 - Remove P-Clips, if necessary. The P-clips take the place of the warning modules in some lightbars. If the P-clips are replaced with light modules, they do not have to be relocated in the lightbar and may be discarded.





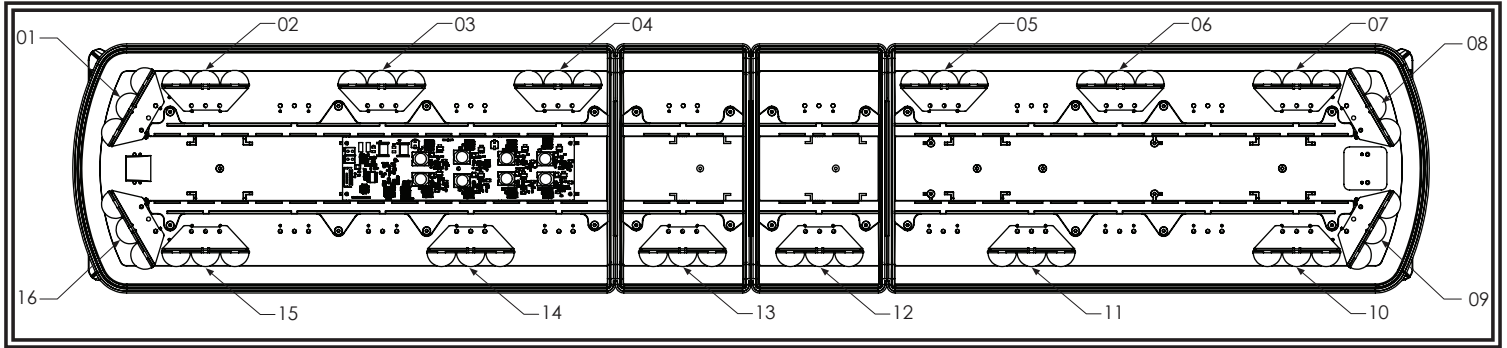
- MOUNT MODULES USING SUPPLIED HARDWARE
 - Align the modules with the screw hole patterns in the lightbar base. There are bosses that help align the modules as the screws are added.
 - Attach the modules using the screws as per the diagram above. The plastite screws are used in the end of the bar, and the machine screws are used in the front/back facing modules. For all screws, torque the screws to 8(+/-1) in-lbs.
 - Wire the modules per the following sections.

WARNING MODULES:

- Connect the provided harness to the PCB driver board in one of the locations not taken up by another module. If the location has a jumper, remove it. Check the diagram below for rough module location.
 - If you are placing the harness into an unoccupied location, you will need to place a jumper(provided) beside the harness location. **NOTE: Do not place two jumpers side-by-side in the same location.**

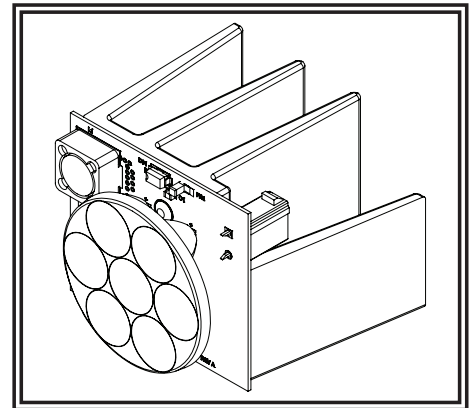
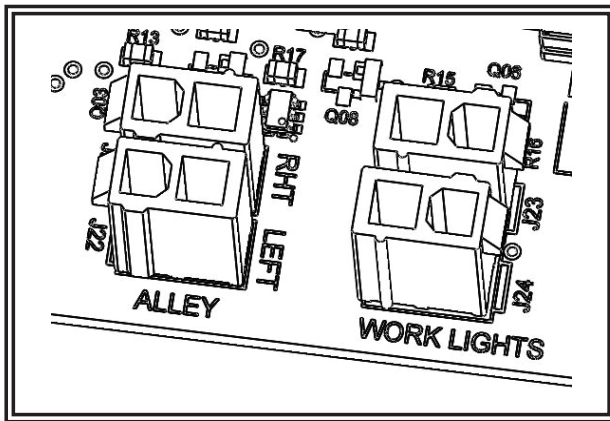


- Route the harness from the driver board, under the base arches if necessary, to the warning module.
- Repeat above until all warning modules are connected.
- Supply the lightbar with 12VDC.
- Cycle through the flash patterns to determine if the placement/wiring of the warning modules is correct.
 - If the lightbar is equipped with a hand held controller, press the POWER 1  button. If the lightbar is not equipped with a controller, connect the brown wire on the control cable to the +V. The last stored flash pattern should start.
 - Press the PATTERN SELECT  button or touch the violet wire to advance the flash pattern.
 - Note the operation of the newly installed warning modules. If the warning modules' connections need to be moved, you can do so without turning the lightbar off.
 - **NOTE: If any warning module is not flashing at all, check that its connections are secure and that there is either another warning module or a jumper in the coincident driver connection.**
- Once the lightbar is flashing as desired, remove it from the power source.



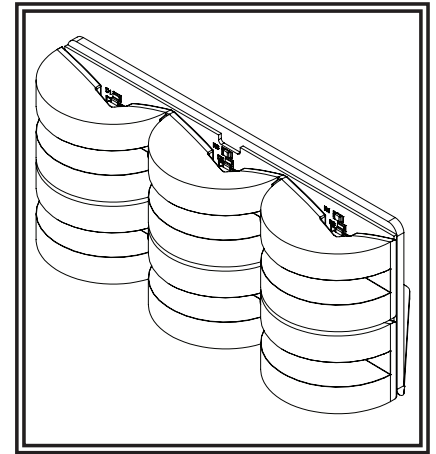
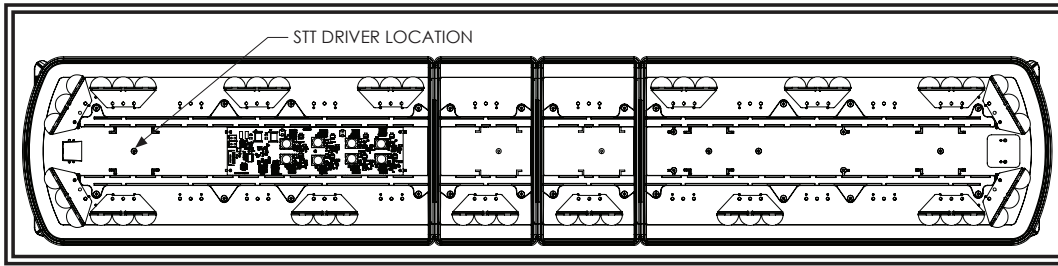
Alley/Takedown/Worklight LED Modules:

- Connect the module to the driver board using the provided harness. The driver is labeled with the light functions. Be sure to run the harness under the base arches if necessary.
 - For alley lights, use locations J21 and J22 (ALLEY RHT and ALLEY LEFT).
 - For worklights/takedown lights, use locations J23 and J24 (WORK LIGHTS).
- Supply the lightbar with 12VDC.
- Test LED module operation. If the lightbar has a controller, use the buttons to check light function. If it does not have a controller, refer to the wiring diagram for clarification.



Stop/Tail/Turn LED Modules:

- STT Driver
 - Place the STT Driver in the location and orientation as shown in the following figure. Use the provided Plastite screws to attach the driver to the lightbar.
- STT Power Cord
 - The STT power cord's connector is too large to pass through the wire exit with other cables. Pass the cord through the wire exit from the inside out, then connect the cord to the STT driver board connector.
- STT LED modules
 - Connect the STT LED modules to the STT driver using the supplied harnesses. The ends with the ferrites connect to the driver. Be sure to route the harnesses under the arches between the base sections.
 - Test the STT features using 12VDC. Refer to the wiring diagram.
- SECURE THE HARNESS WIRES
 - Tuck the slack of the wire harnesses into the wire channels. Be careful to avoid having any part of the harness over the top edge, as it will become pinched when the lens is reattached.

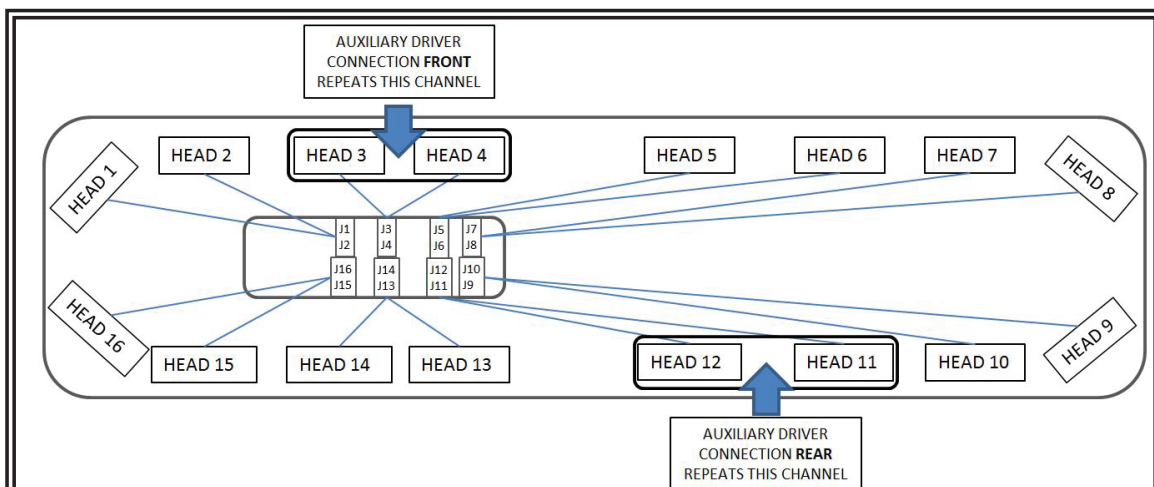
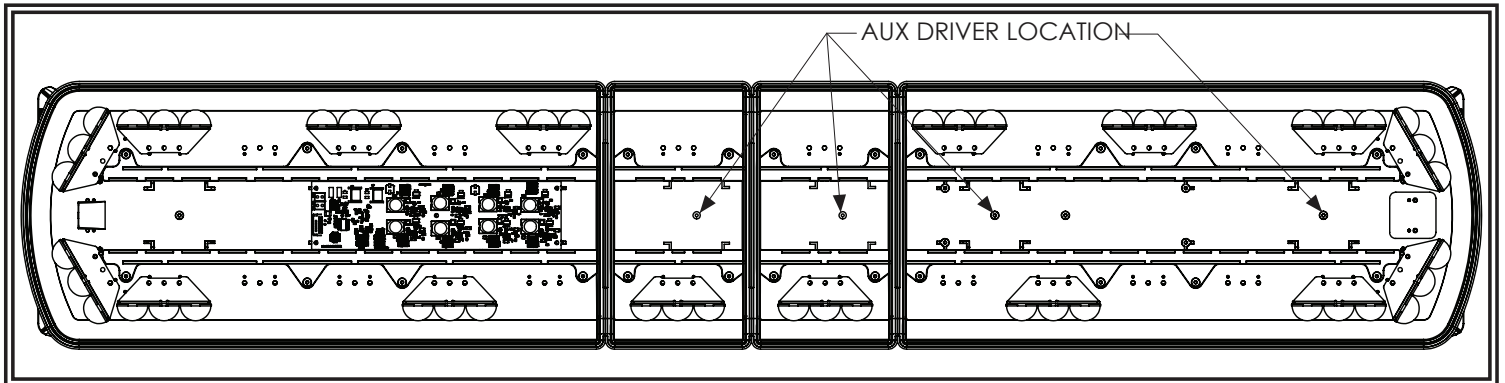


REPLACE THE LENSES

- Gently work the lenses back onto the bases, the reverse of removal. Avoid scraping the gasket ringing the base sections.
- Place the O-ring and screws in the lens holes, then reattach the screws.

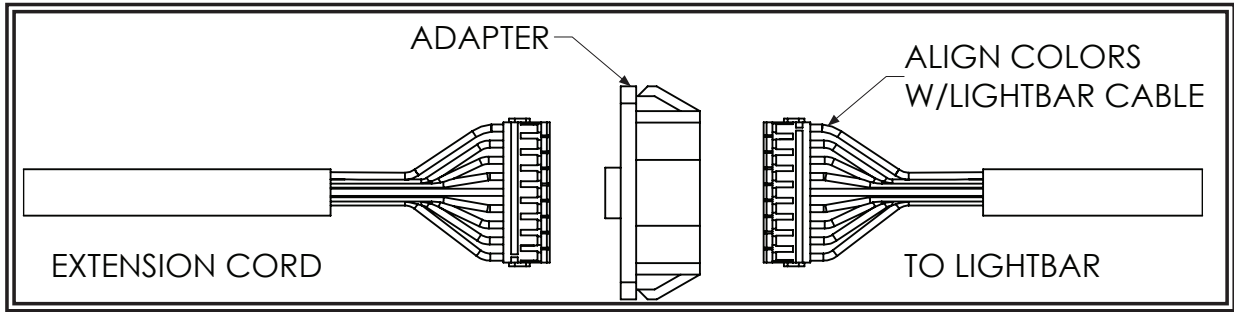
AUXILIARY DRIVER INSTALLATION

- REMOVE THE LENSES
 - Remove the lenses per the LED MODULE INSTALLATION instructions above.
- CHOOSE AUXILIARY DRIVER LOCATION IN LIGHTBAR
 - Place the Auxiliary Driver in one of the available mounting locations shown.
 - Attach the driver using the provided screw. Torque the screw to 8(+/-1) in-lbs. or roughly hand tight. Do not over-torque the screw.
- CONNECT WARNING MODULES TO AUXILIARY DRIVER
 - Use the provided harness wires to connect the auxiliary driver to the main lightbar driver board. Route all harnesses under the base sections as necessary. The connections are printed on the PCA:
 - Connect **AUX DRIVER 2A MAX** on the main driver to **POWER** on the auxiliary driver.
 - Connect **DRIVER JUMPER** on the main driver to **SIGNAL** on the auxiliary driver.
 - **IMPORTANT: Misconnecting these wires with power supplied will result in lightbar damage. Check connections carefully before testing lightbar operation.**
 - Use the harnesses included with the warning modules to connect to the auxiliary driver board. The added warning modules will flash per the Warning Module Diagram.
- TEST WARNING MODULES' OPERATION
 - Test per the LED MODULE INSTALLATION instruction above.
- REPLACE THE LENSES
 - Replace the lenses per the LED MODULE INSTALLATION instruction above.



15' EXTENSION CORD

- Remove the pigtail(or controller) and the adapter from the end of the control cable.
- Attach the extension cable to the control cable as shown. Ensure that the end with the adapter connects to the lightbar. Also check that the wire colors line up.
- Connect the pigtail(or controller) and adapter into the end of the extension cord.



Replacement Parts/Accessories:

Description	Part No.
Lenses	
REPLACEMENT END LENS	ER0003
REPLACEMENT MID LENS	ER0004
LEDs	
ACCESSORY WORK / ALLEY / TAKEDOWN LEDS, PAIR	EZ0003
ACCESSORY STOP / TAIL / TURN LEDS, KIT	EZ0005
ACCESSORY LED WARNING MODULE, AMBER	EZ0007A
ACCESSORY LED WARNING MODULE, BLUE	EZ0007B
ACCESSORY LED WARNING MODULE, WHITE	EZ0007C
ACCESSORY LED WARNING MODULE, GREEN	EZ0007G
ACCESSORY LED WARNING MODULE, RED	EZ0007R
ACCESSORY,CABLE,CONTROL,15'	EZ0008
ACCESSORY, 4 LED, WARNING MODULE, AMBER	EZ1290A
ACCESSORY, 4 LED, WARNING MODULE, BLUE	EZ1290B
ACCESSORY, 4 LED, WARNING MODULE, CLEAR	EZ1290C
ACCESSORY, 4 LED, WARNING MODULE, GREEN	EZ1290G
ACCESSORY, 4 LED, WARNING MODULE, RED	EZ1290R
Controller	
ACCESSORY IN-CAB CONTROLLER	EZ0006
Auxiliary Driver	
ACC,AUXILIARY,DRIVER	EZ0009
MOUNTING:	
REPLACEMENT,FOOT,PAIR	ER0002

