Record Important Information
Recording the equipment information will help when placing an order for replacement parts and/or decals.

Company Equipment No: ______________________________
Unit model No: ____________________________________
Unit Vin: _______________________________________
Engine Model No: ____________Serial No: _______________
Generator Model No:__________Serial No: _______________
Accessories:_____________________________________
_________________________________________________________________

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Introduction
About This Manual
TAKE TIME TO READ THIS MANUAL THOROUGHLY
This instruction manual provides necessary instructions for the Airstar® Balloon Light.

The information found in this manual is in effect at the time of printing. Allmand Bros Inc. may change contents without notice and without incurring obligation.

Any reference in this manual to left or right shall be determined by looking at the trailer from the rear.

If you are uncertain about any of the information in the manual, contact Allmand service department at 1-800-562-1373, or contact us through the Allmand website, www.allmand.com.

Save these original instructions for future reference.

Products Covered by This Manual
The following products are covered by this manual:
AIRSTAR® Balloon Light

Safety
Safety Definitions
Safety statements are one of the primary ways to call your attention to potential hazards. Follow the precautions listed throughout the manual before operation, during operation and during periodic maintenance procedures for your safety, the safety of others and to protect the performance of equipment. Keep the decals from becoming dirty or torn and replace them if they are lost or damaged. Also, if a part needs to be replaced that has a decal attached to it, make sure to order the new part and decal at the same time.

This safety alert symbol appears with most safety statements. It means attention, become alert, your safety is involved! Read and abide by the message that follows the safety alert symbol.

⚠️ DANGER
Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠️ WARNING
Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠️ CAUTION
Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
**NOTICE**
Indicates a situation which can cause damage to the equipment, personal property and/or the environment, or cause the equipment to operate improperly.

**NOTE:**
Provides key information to make procedures easier or clearer.

**Safety Precautions**
The following section contains general safety precautions and guidelines that must be followed to reduce risk to personal safety. Special safety precautions are listed in specific procedures. Read and understand all of the safety precautions before operating or performing repairs or maintenance.

**DANGER**

**Electrocution Hazard**
- Always check overhead wires and obstructions before raising or lowering the light tower.
- Always follow the rules or instructions for your work site and state, province and national electric code for maintaining a safe distance from overhead wires.
- High voltage is present when engine is running. Never attempt to service electrical components while engine is running.
- Do not operate the light tower if the insulation on the electrical cord or other electrical wiring is cut or worn or if bare wires are exposed. Repair or replace damaged wiring before starting the engine.

**WARNING**

**Fall Hazard**
- Never carry riders on the equipment.

**WARNING**

**Modification Hazard**
- Never modify the equipment without written consent of the manufacturer. Any modification can effect the safe operation of the equipment.

**WARNING**

**Exposure Hazard**
- Always wear personal protective equipment, including appropriate clothing, gloves, work shoes, and eye and hearing protection, as required by the task at hand.

**WARNING**

**Rollover Hazard**
- Do not raise, lower or use light tower unless all outriggers and jacks are positioned on firm ground.
- Never move or reposition the light tower while the light tower is extended in the vertical position.

**WARNING**

**Explosion Hazard**
- While the engine is running or the battery is charging, hydrogen gas is being produced and can be easily ignited. Keep the area around the battery well ventilated and keep sparks, open flame and any other form of ignition out of the area.
- Always disconnect the negative (-) battery cable before servicing equipment.
- Only use the starting procedure as described in the Engine Operator's Manual to start the engine.
- Never charge a frozen battery. Always slowly warm the battery to room temperature before charging.

**WARNING**

**Fire And Explosion Hazard**
- Diesel fuel is flammable and explosive under certain conditions.
- Never use a shop rag to catch fuel.
- Wipe up all spills immediately.
- Never refuel with the engine running.
- Store any containers containing fuel in a well ventilated area, away from any combustibles or sources of ignition.

**WARNING**

**Exhaust Hazard**
- All internal combustion engines create carbon monoxide gas during operation and special precautions are required to avoid carbon monoxide poisoning.
- Never block windows, vents or other means of ventilation if the equipment is operating in an enclosed area.
- Always ensure that all connections are tightened to specifications after repair is made to the exhaust system.
**WARNING**

**Alcohol And Drug Hazard**
- Never operate the light tower while under the influence of alcohol or drugs, or when ill.

**WARNING**

**Entanglement / Sever Hazard**
- Always stop the engine before beginning service.
- If the engine must be serviced while it is operating, remove all jewelry, tie back long hair and keep hands, other body parts and clothing away from moving/rotating parts.
- Verify that all guards and covers are attached properly to the equipment before starting the engine. Do not start the engine if any guards or covers are not properly installed on the equipment.
- Attach a “Do Not Operate” tag near the key switch while performing maintenance on the equipment.

**WARNING**

**Piercing Hazard**
- Avoid skin contact with high pressure hydraulic fluid or diesel fuel spray caused by a hydraulic or fuel system leak such as a broken hydraulic hose or fuel injection line. High pressure hydraulic fluid or fuel can penetrate your skin and result in serious injury. If you are exposed to high pressure hydraulic fluid or fuel spray, obtain prompt medical treatment.
- Never check for a hydraulic fluid or fuel leak with your hands. Always use a piece of wood or cardboard.

**WARNING**

**Flying Object Hazard**
- Always wear eye protection when cleaning the equipment with compressed air or high pressure water. Dust, flying debris, compressed air, pressurized water or steam may injure your eyes.

**WARNING**

**Coolant Hazard**
- Wear eye protection and rubber gloves when handling engine coolant. If contact with the eyes or skin should occur, flush eyes and wash immediately with clean water.

**WARNING**

**Burn Hazard**
- Light fixtures and some of the engine surfaces become very hot during operation and shortly after shutdown.
- Keep hands and other body parts away from hot engine surfaces.
- Handle hot components, such as light fixtures, with heat resistant gloves.

**CAUTION**

**Tool Hazard**
- Always use tools appropriate for the task at hand and use the correct size tool for loosening or tightening equipment parts.

**CAUTION**

**Slip Hazard**
- Immediately clean up any spilled liquid on the shop floor.
- Clean up accumulated dirt and debris on the shop floor at the end of each shift.

**NOTICE**

The statements that follow have NOTICE level issues. Damage to equipment or property can result if not followed.
- Any part which is found defective as a result of inspection or any part whose measured value does not satisfy the standard or limit MUST be replaced.
- Always tighten components to the specified torque. Loose parts can cause equipment damage or cause it to operate improperly.
- Follow the guidelines of the Environmental Protection Agency (EPA), Environment Canada (EC) or other governmental agencies for the proper disposal of hazardous materials such as engine oil, diesel fuel and engine coolant.
- Only use replacement parts specified. Other replacement parts may affect warranty coverage.
- Clean all accumulated dirt and debris away from the body of the equipment and its components before you inspect the equipment or perform preventative maintenance procedures or repairs. Operating equipment with accumulated dirt and debris will cause premature wear of equipment components.
- Never dispose of hazardous materials by dumping them into a sewer, on the ground, or into groundwater or waterways.
• Retrieve any tools or parts that may have dropped inside of the equipment to avoid improper equipment operation.
• If any alert indicator illuminates during equipment operation, stop operation immediately. Determine the cause and repair the problem before continuing to operate the equipment.

Kit Contents
Locate and identify the kit contents. Compare Figure 1 with the table below.

**NOTE:** Kit contents are not to scale.

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Balloon Shade</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>Hoop Rib</td>
<td>12</td>
</tr>
<tr>
<td>C</td>
<td>Light Cage</td>
<td>1</td>
</tr>
<tr>
<td>D</td>
<td>1250W Bulb</td>
<td>4</td>
</tr>
<tr>
<td>E</td>
<td>Mounting Bracket</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>5/16-18 x 1 Bolt</td>
<td>4</td>
</tr>
<tr>
<td>G</td>
<td>5/16-18 KEPS Nut</td>
<td>4</td>
</tr>
<tr>
<td>H</td>
<td>Cushion Clamp</td>
<td>1</td>
</tr>
<tr>
<td>I</td>
<td>Ring Terminal 10-12 AWG</td>
<td>4</td>
</tr>
<tr>
<td>J</td>
<td>Ring Terminal 14-16 AWG</td>
<td>2</td>
</tr>
<tr>
<td>K</td>
<td>Cord Grip</td>
<td>2</td>
</tr>
<tr>
<td>L</td>
<td>Connector Hood (male)</td>
<td>1</td>
</tr>
<tr>
<td>M</td>
<td>Connector (male)</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>Connector Hood (female)</td>
<td>1</td>
</tr>
<tr>
<td>O</td>
<td>Connector (female)</td>
<td>1</td>
</tr>
<tr>
<td>P</td>
<td>Extension Rod</td>
<td>1</td>
</tr>
<tr>
<td>Q</td>
<td>Wing Nut</td>
<td>1</td>
</tr>
</tbody>
</table>

**Not Shown**
- Storage Case (for light cage and related components) | 1
- Storage Bag (for balloon shade) | 1
- Gloves (pair) | 1
- Balloon Shade Repair Kit | 1

Wiring Retro-Fit and Bulb Installation
1. Lower the light tower to its transport position. Refer to the light tower operator’s manual.
2. Shut down the light tower. Disconnect the battery, black negative (-) cable first. If the lights have been in operation, allow ample time for the fixtures to cool. Refer to the light tower operator’s manual.

**DANGER**

**Electrocution Hazard**
- Attempting to install the balloon light onto the light tower without first shutting down the unit will result in death or serious injury. Always shut down the light tower, stop the engine, and disconnect the battery before installing the balloon light.

**WARNING**

**Burn Hazard**
- Light fixtures and some of the engine surfaces become very hot during operation and shortly after shutdown.
- Keep hands and other body parts away from hot engine surfaces.
- Handle hot components, such as light fixtures, with heat resistant gloves.
3. Cut the power cord approximately 8" (20 cm) from the light bar. See Figure 2 and the table following.

4. Cut the power cord sheathing back approximately 3" (7.6 cm) on both cut ends of the power cord. See Figures 2 and 2a and the table following.

5. Strip the ends of the individual wires on both cut ends of the power cord approximately 1/8” (3mm).

6. Install the male connector assembly to the light bar side of the power cord. See Figure 2 and the table following.

7. Install the female connector assembly to the light tower side of the power cord. See Figure 2a and the table following.

---

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Ring terminal 10-12 AWG (ground) - install to wires f, j</td>
</tr>
<tr>
<td>J</td>
<td>Ring terminal 14-16 AWG (ground) - install to wire g</td>
</tr>
<tr>
<td>K</td>
<td>Cord grip</td>
</tr>
<tr>
<td>L</td>
<td>Connector hood (male)</td>
</tr>
<tr>
<td>M</td>
<td>Male connector</td>
</tr>
<tr>
<td>N</td>
<td>Connector hood (female)</td>
</tr>
<tr>
<td>O</td>
<td>Female connector</td>
</tr>
<tr>
<td>R</td>
<td>Cut cord 8&quot; (20cm) from light bar</td>
</tr>
<tr>
<td>S</td>
<td>Cut sheathing 3&quot; (7.6cm) from cord end</td>
</tr>
<tr>
<td>T</td>
<td>Wiring diagram for 7-wire cord (viewed from back of connector) NOTE: Numbers denote connector pin numbers</td>
</tr>
<tr>
<td>U</td>
<td>Wiring diagram for 8-wire cord (viewed from back of connector) NOTE: Numbers denote connector pin numbers</td>
</tr>
<tr>
<td>a</td>
<td>Black wire</td>
</tr>
<tr>
<td>b</td>
<td>Red wire with black stripe</td>
</tr>
<tr>
<td>c</td>
<td>Red wire</td>
</tr>
<tr>
<td>d</td>
<td>Blue wire</td>
</tr>
<tr>
<td>e</td>
<td>Yellow wire</td>
</tr>
<tr>
<td>f</td>
<td>Orange wire</td>
</tr>
<tr>
<td>g</td>
<td>Brown wire</td>
</tr>
<tr>
<td>h</td>
<td>White wire</td>
</tr>
<tr>
<td>i</td>
<td>White wire with black stripe</td>
</tr>
<tr>
<td>j</td>
<td>Green wire</td>
</tr>
</tbody>
</table>
8. Slide the bulb holder toward the top of the light cage to provide clearance for installing the bulbs. See Figure 3.

9. Install the bulbs (D, Figure 3) using the supplied gloves. **NOTICE**

Be careful not to touch bulbs with bare hands, as oil from hands may shorten bulb life.

10. With all four bulbs installed, carefully position the bulb holder over the top of the bulbs, using the springs (not shown) to secure the holder in place. See Figure 4. **NOTICE**

Use extreme care when positioning the bulb holder, as the springs may cause the bulb holder to snap against the bulbs, causing damage or breakage.

---

**Balloon Light Installation**

1. Lower the light tower to its transport position. Refer to the light tower operator's manual.

2. Shut down the light tower. Disconnect the battery, black negative (-) cable first. If the lights have been in operation, allow ample time for the fixtures to cool. Refer to the light tower operator's manual.

---

**DANGER**

**Electrocution Hazard**

- Attempting to install the balloon light onto the light tower without first shutting down the unit will result in death or serious injury. Always shut down the light tower, stop the engine, and disconnect the battery before installing the balloon light.

---

**WARNING**

**Burn Hazard**

- Light fixtures and some of the engine surfaces become very hot during operation and shortly after shutdown.
- Keep hands and other body parts away from hot engine surfaces.
- Handle hot components, such as light fixtures, with heat resistant gloves.

3. Support the light bar, then remove the hardware (V, Figure 5) securing the light bar to the light tower mast. Remove the light bar.

4. a. Install the supplied balloon light mounting bracket (E, Figure 6) to the top of the light tower mast, securing with the four supplied 5/16-18 x 1” hex bolts (F) and keeps nuts (G).

b. Install the supplied cushion clamp (H, Figure 6) to one of the bolt threads before installing the nut. Slip the light tower end of the power cord through the cushion clamp.
5. Install the base of the light cage (C, Figure 7) over the shaft at the top of the mounting bracket (E) installed in Step 4. Tighten the two securing bolts (C(1)) in the base, then tighten the jam nuts (C(2)) to lock the bolts in place.

**NOTE:** Securing bolts and jam nuts may already be installed.

6. Install the tapped end of the extension rod (P, Figure 8) through the hole in the top of the light cage (C) and onto the threaded bolt inside the upper portion of the light cage. Tighten securely.

7. Remove the balloon shade (see A, Figure 1) from the storage bag (not shown).

8. Slide the pin end of one of the hoop ribs (B, Figure 9) through the zippered pocket on top of the balloon shade (A). Attach three more hoop ribs to form a circle. (See Figure 9a - shown outside balloon shade for clarity.) Close the zipper to secure the assembled hoop inside the top of the balloon shade.

9. Repeat the previous step for the center and bottom pockets of the balloon shade.
10. Position the balloon shade over the extension rod on top of the light cage, with the cuffed opening of the shade facing toward the light cage. See Figure 10a. Secure the top of the balloon shade to the extension rod with the supplied wing nut (Q, Figure 10). Tighten securely.

11. Slide the balloon shade down over the light cage until the cuff extends beyond the cage bottom. See Figures 10a and 10b.

12. Pull the loop handles of the securing cable against the locking clamp to tighten the cuff against the underside of the light cage bottom. See Figure 10b.

13. Connect the light tower cord to the balloon light cord.

**Operation**

Each lamp is controlled separately by the light tower control panel. Unlike the light fixtures that come standard with the light tower, the balloon light is fixed and cannot be positioned. Refer to the Operation section of the light tower Operator's Manual for instructions regarding lamp operation.

**WARNING**

**Rollover Hazard**

- Using the Airstar® balloon light reduces maximum continuous wind load by 10 mph (16 km/h). Refer to the light tower operator's manual.

**Transporting**

The balloon shade and light cage must be removed from the light tower prior to transport.

1. Shut down the light tower, turn off the engine, and allow ample time for the bulbs to cool.

**WARNING**

**Burn Hazard**

- Light fixtures and some of the engine surfaces become very hot during operation and shortly after shutdown.
- Keep hands and other body parts away from hot engine surfaces.
- Handle hot components, such as light fixtures, with heat resistant gloves.
2. Using pliers, hold open the locking clamp at the bottom of the balloon shade, and loosen the cable that keeps the cuff tightened against the underside of the light cage bottom. See Figure 11.

![Figure 11](image1)

3. Slide the bottom of the balloon shade up until it meets the top of the shade.

4. Remove the wing nut securing the top of the balloon shade to the light cage extension rod, and remove the shade.

5. Replace the wing nut onto the top of the light cage extension rod. Tighten securely.

6. Remove the hoop ribs from the zippered pockets on the top, center, and bottom of the balloon shade.

7. Carefully fold the balloon shade and place in the storage bag.

8. Remove the extension rod from the top of the light cage.

9. Unplug the balloon light connector from the light tower connector.

10. Loosen the jam nuts and securing bolts at the bottom of the light cage, and carefully remove the light cage from the light tower mounting bracket.

11. Carefully store the light cage, extension rod and hoop ribs in the storage case. See Figure 12.

![Figure 12](image2)

**NOTICE**
Be careful to store extension rod and hoop ribs away from bulbs, as breakage may occur.

11. Refer to the Transporting section of the light tower operator’s manual for the remainder of transporting instructions.

## Maintenance

Before performing any maintenance procedures, see “Safety”.

### Replacing Bulbs

**WARNING**

**Burn Hazard**

- The light fixtures become extremely hot during use.
- Always use caution and heat–resistant gloves when handling the lights or allow the lights to sufficiently cool down before handling.

1. Remove the balloon shade to gain access to the light cage.

2. Slide the bulb holder toward the top of the light cage to provide clearance for removing and installing the bulb(s). See Figure 13.

3. Remove the burned out bulb(s), and replace with new, using the supplied gloves.

**NOTICE**
Be careful not to touch bulbs with bare hands, as oil from hands may shorten bulb life.
4. Carefully position the bulb holder over the top of the bulbs, using the springs (not shown) to secure the holder in place. See Figure 14.

**NOTICE**
Use extreme care when positioning the bulb holder, as the springs may cause the bulb holder to snap against the bulbs, causing damage or breakage.

---

### Troubleshooting

Before performing any troubleshooting procedures, see “Safety.”

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamp(s) not functioning</td>
<td>Power cords not connected</td>
<td>Connect power cords</td>
</tr>
<tr>
<td></td>
<td>Power cord connector(s) wired incorrectly</td>
<td>Check wiring schematic and rewire if needed</td>
</tr>
<tr>
<td>Bulb(s) burned out</td>
<td>Replace bulb(s)</td>
<td></td>
</tr>
</tbody>
</table>

For all other issues, contact your authorized dealer.

---

### Specifications

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (assembled)</td>
<td>56 in (142 cm)</td>
</tr>
<tr>
<td>Diameter (light cage)</td>
<td>14 in (36 cm)</td>
</tr>
<tr>
<td>Diameter (with balloon shade)</td>
<td>56 in (142 cm)</td>
</tr>
<tr>
<td>Lamps</td>
<td>1250W (4)</td>
</tr>
<tr>
<td>Weight</td>
<td>32 lbs (15 kg)</td>
</tr>
</tbody>
</table>

---

### Balloon Shade Repair

1. Cut a patch out of the self-adhesive fabric sheet of the repair kit big enough to entirely cover the damaged area of the shade.
2. Remove the protective film from the self-adhesive side of the patch.
3. Stick the patch onto the damaged area of the shade.