



# MASTER HIRE

## METROLITE II KUBOTA / MARATHON

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- Section 1. MANUAL
- Section 2. ENGINE MANUAL
- Section 3. ALTERNATOR MANUAL
- Section 4. SPARE PARTS
- Section 5. HAZARDS See Sect. 1; Page 8

Project No: 21519

**METROLITE II**  
*V Series*

PROVEN POWER TO PERFORM



REVISED JUNE 2011

**NIGHT LITE PRO  
V-SERIES  
SE POWER  
OWNER'S MANUAL**

**ALLMAND BROTHERS INC.**

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**NIGHT LITE PRO V SERIES**

**California  
Proposition 65 Warning**

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

**California  
Proposition 65 Warning**

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.  
Wash hands after handling.

**RECORD IMPORTANT INFORMATION**

**Company Equipment No.:** \_\_\_\_\_

**Unit Model No.:** \_\_\_\_\_

**Unit VIN:** \_\_\_\_\_

**Engine Model No.:** \_\_\_\_\_ **Serial No.:** \_\_\_\_\_

**Generator Model No.:** \_\_\_\_\_ **Serial No.:** \_\_\_\_\_

**Accessories:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

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Congratulations on the purchase of your new Allmand **NIGHT LITE PRO V SERIES** light tower and welcome to the Allmand family of equipment owners.

The Allmand **NIGHT LITE PRO V SERIES** light tower offers many advantages to make operation safer, more convenient and more cost-effective. The **NIGHT LITE PRO V SERIES** light towers will provide you with high-quality performance and durability which translates into more productivity on the job site.

## ABOUT THIS MANUAL

Take time to read this manual thoroughly.

This *Operator's Manual* provides information necessary for the safe operation of the Allmand Bros. Inc. **NIGHT LITE PRO V SERIES** light tower.

**NOTICE:** Keep this manual accessible during operation to provide convenient reference. Store this manual in a safe place for future reference.

If you are uncertain about any of the information in the manual, contact Allmand or your Allmand dealer for clarification before operation.

Specific operating instructions and specifications are contained in this publication to familiarize the operator and maintenance personnel with the correct and safe procedures necessary to maintain and operate the equipment.

Engine— specific operating instructions and specifications are contained in the engine owner's manual provided in your owner's kit. Always refer to engine owner's manual for operation and maintenance procedures.

The graphics and text in this manual generally describe the Allmand **NIGHT LITE PRO V SERIES** light tower. Allmand light tower differ by model and optionally installed equipment. Your Allmand light tower may not exactly match the graphics and /or text descriptions in this manual.

**NOTICE:** The information found in this manual was in effect at the time of printing. Allmand Bros. may change contents without notice and without incurring obligation.

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



## 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 the 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! Please 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

There is no substitute for common sense and careful practices. This information 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. This safety section cannot cover every situation that may occur that is incidental to the use of the equipment. Use common sense if you encounter a situation that is not covered to help avoid a hazardous situation.

Refer to the *Engine Operator's Manual* and *Generator Operator's Manual* for additional safety precautions.

### ▲ DANGER

The safety messages that follow have **DANGER** level hazards.

### Electrocution Hazard



- Always check for overhead wires and obstructions before raising or lowering the light tower. Allow 35 feet (10.6 m) of clearance.
- 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**

The safety messages that follow have WARNING level hazards.

### **Unsafe Operation Hazard**



- Never permit anyone to install or operate the equipment without proper training.
- Read and understand this *Operator's Manual*, the *Engine Operator's Manual* and *Generator Operator's Manual* before operating or servicing the light tower to ensure that safe operating practices and maintenance procedures are followed.
- Safety signs and decals are additional reminders for safe operating and maintenance techniques.

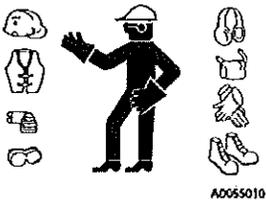
### **Fall Hazard**

Never carry riders on the equipment.

### **Modification Hazard**

Never modify the equipment without written consent of the manufacturer. Any modification can affect the safe operation of the equipment.

### **Exposure Hazard**



A0055010

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

### **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 in the vertical position.

### **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 the 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.

### **Fire and Explosion Hazard**

- Diesel fuel is flammable and explosive under certain conditions.
- Never use a shop rag to catch the 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**

The safety messages that follow have WARNING level hazards.

**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.

**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.

**Alcohol and Drug Hazard**

Never operate the light tower while under the influence of alcohol or drugs, or when ill.

**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.

**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.

**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**

The safety messages that follow have WARNING level hazards.

### **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**

The safety messages that follow have CAUTION level hazards.

### **Tool Hazard**

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

### **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 safety messages that follow have NOTICE level hazards.

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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.

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Always tighten components to the specified torque. Loose parts can cause equipment damage or cause it to operate improperly.

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Only use replacement parts specified. Other replacement parts may affect warranty coverage.



Follow the guidelines of the EPA or other governmental agencies for the proper disposal of hazardous materials such as engine oil, diesel fuel and engine coolant. Consult the local authorities or reclamation facility.

Clean all accumulated dirt and debris away from the body of the equipment and its components before you inspect the equipment or perform preventive maintenance procedures or repairs. Operating equipment with accumulated dirt and debris will cause premature wear of equipment components. Accumulated dirt and debris also hinders effective equipment inspection.

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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 the engine immediately. Determine the cause and repair the problem before continuing to operate the equipment.

**SAFETY LABELS AND LOCATION**

**WARNING! Unsafe Operational Hazard. Always replace any safety and instruction decals that become damaged, painted or otherwise illegible.**

Refer to These representations of the safety warning decals used on the NIGHT LITE PRO V SERIES to insure correct ordering if replacing becomes necessary.

**SETUP TRAILER AND RAISE TOWER**

**WARNING**

1. CHECK OVERHEAD POWER LINES AND CONTACTS BEFORE RAISING TOWER.
1. EJECT BOTH SIDE OUTRIGGERS. LEVEL TRAILER WITH ALL WHEELS.
2. CONNECT BOTH END WIRE OF POWERED TO GROUND LUG AND EJECT AND LOCK INTO EARTH.
3. RELEASE CLEARE PUMP BY PULLING ON HANDLE AND TURNING SO THE PUMP BEARS IN THE RETRACTED POSITION.
4. DIRECT LAMP TOWARD MOVED BY ROTATING LIGHTS AND POSITIONING LAMP FIXTURES.
5. OPERATE TOWER SWITCH UP TO RAISE TOWER TO DESIRED HEIGHT.

**LOWER TOWER AND PREPARE FOR TOWING**

1. OPERATE TOWER SWITCH DOWN TO LOWER TOWER.
2. STAND CLEAR OF TOWER WHILE RAISING AND LOWERING.
3. ROTATE LIGHTS AND PUMP POSITION ON LINE WITH TRAILER.
4. ENGAGE PARK BRAKE AND PUMP ON THE NIGHT LITE. THE PUMP BEAR RELEASES AND THE PUMP BEARS THE HOSE IN THE LIGHT BAR.
5. RETRACT LAMP FIXTURES FOR TRANSPORT BY FOLDING THEM DOWN INTO THE LOWEST POSITION TO FACE TOWARD THE CENTER OF THE TRAILER.
6. REMOVE GROUND ROD AND DISCONNECT WIRE TRAILER.
7. RAISE AND LOCK DOWN INTO TRAWLED POSITION.
8. RETRACT OUTRIGGERS AND SECURE.

**Allmond**  
For parts and service contact your authorized dealer or visit Allmond on the web at [www.allmond.com](http://www.allmond.com) or call 1-800-662-1873

102563

PART NO: 100663

**CALIFORNIA Proposition 65 Warning**

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproduction harm.

090179

PART NO: 090179

**! WARNING**

Do not stand under lamp fixtures or near the mast when raising or lowering.

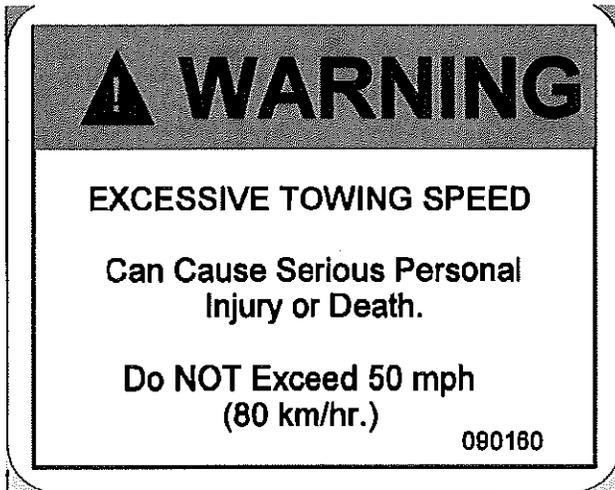
101404

PART NO: 101404

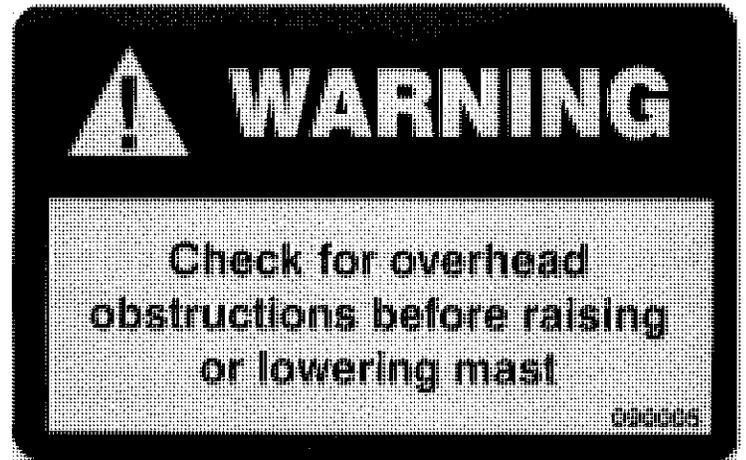
**! DANGER**

**HIGH VOLTAGE**

PART NO: 090002



**PART NO: 090160**



**PART NO: 090005**



**PART NO: 090159**



**PART NO: 090159**

**▲ WARNING**



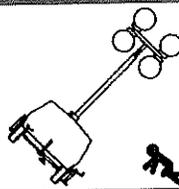
**To Prevent Serious Injury or Death:**

- Avoid unsafe operation or maintenance.
- Do not operate or work on this machine without reading and understanding the operator's manual.
- If manual is lost, contact your nearest dealer for a new manual.

090158

**PART NO: 090158**

**▲ WARNING**



**OVERHEAD HAZARD**  
To Prevent Serious Injury or Death:

- Do not raise, lower or use light tower unless all outriggers and jacks are positioned on firm ground.
- Level trailer before use.

090166

**PART NO: 090166**

**▲ DANGER**



**HAZARDOUS VOLTAGE**  
To prevent serious injury or death from electrocution:

- Do not enter electrical compartment while engine is running.
- Close cover before operating.
- Keep components in good repair.

080162

**PART NO: 090162**

**▲ DANGER**



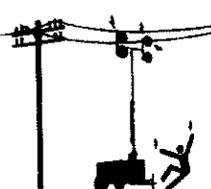
**ELECTRIC SHOCK HAZARD**  
Failure to use ground rod could cause severe injury or death.

- Drive ground rod into earth and attach ground wire to grounding lug on front of trailer.

090163

**PART NO: 090163**

**▲ DANGER**

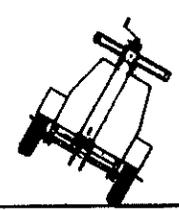


**ELECTRIC SHOCK HAZARD**  
Will Cause Severe Injury or Death.  
Do not position light tower under electric power lines.

090165

**PART NO: 090165**

**▲ WARNING**



**ROLL OVER HAZARD**  
To Prevent Injury or Equipment Damage:

- Avoid high speeds and sharp turns when towing.

090226

**PART NO: 090226**

**WARNING**  
**FAILURE TO TURN OFF LIGHTS BEFORE STOPPING ENGINE MAY RESULT IN GENERATOR DAMAGE AND VOID WARRANTY.**

090084

**PART NO: 090179**

**▲ WARNING**



**MOVING PART HAZARD**  
To prevent serious injury from moving parts:

- Close and secure guards and shields before starting.
- Keep hand, feet, hair and clothing away from moving parts.
- Disconnect battery before adjusting or servicing.

090161

**PART NO: 090161**



## PREPARING THE NIGHT LITE PRO V SERIES FOR DELIVERY OR RENTAL

The **NIGHT LITE PRO V SERIES** light tower requires service as well as proper operation in order to provide the performance and safety it has been designed for. Never deliver or put machine into service with known defects or missing instructions or decals. Always instruct the customer in proper operation and safety procedures as described in this *Operator's Manual*. Always provide the manual with the equipment for proper and safe operation.

### CHECK LIST

- Visually inspect the equipment to ensure that all instructions and decals are in place and legible.
- Inspect the light tower locking bar latch assembly which locks the light tower in the vertical position for proper operation.
- Check the hitch assembly and safety chains.
- Check the outriggers and jacks to make sure they operate properly.
- Inspect the light assemblies for damage and test for proper operation.
- Inspect the electrical wiring for signs of damage. **Danger! Electrocution Hazard.**

***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 re place damaged wiring before starting the engine.***

- Check ground rod cable and the ground lug. Make sure they are clean, undamaged and functional.
- Inspect tires to insure good condition and proper inflation.
- Check engine oil, fuel, engine coolant levels and hydraulic fluid levels, if equipped.
- Check to make sure the *Light Tower Operator's Manual and Generator Operator's Manual* are with the equipment.
- Check to make sure the quick reference operation card is with the equipment and properly tethered.
- Inspect the machine physically for damage and repair if necessary.

***NOTICE:*** See appropriate section of the *Engine Operator's Manual and Generator Operator's Manual* for additional pre-operation checks.

## **TRAILERING, TRANSPORTING AND LIFTING** 6/9/2011

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After completing the pre-operation check list, operate the tower through a complete operation cycle, following the operating instructions in the NIGHT LITE PRO V SERIES Operator's Manual.

**Warning!** *Unsafe operation Hazard. Never permit anyone to install or operate the equipment without proper training.*

**ALWAYS READ AND UNDERSTAND THE INSTRUCTIONS FIRST.**

Before trailering, transporting or lifting, read *Safety* on page 8.

The complete engine and generator set is housed in a lockable enclosure with the frame fabricated from heavy gauge steel mounted on a two-wheel, leaf spring axle.

## BEFORE TRAILERING OR TRANSPORTING

Perform the following before trailering / transporting:

- Lower the light tower and shut down the tower lights and the engine; See *Shutdown - prepare for trailering* on page 20.
- Visually inspect the trailer and equipment for damage. Repair or replace any components as needed before trailering.
- Check the trailer lights for proper operation
- Inspect the tires to insure good condition and proper inflation.
- Inspect trailer springs and undercarriage for damage or loose parts.
- Check the hitch assembly and safety chains.
- Ensure the outriggers and jacks are properly stowed.
- Ensure the ground rod and cable are disconnected and properly stowed.
- Clean any spills from inside the trailer bilge area around the outside of the trailer; they may have occurred during operation.
- Ensure all compartment doors are closed and securely locked.

## Shutdown - Prepare for Trailering

1. With the tower lights off, lower the light tower to the full DOWN position; See *Raising and Lowering the light tower* on page 43.
2. Turn the engine off. Refer to your *Engine Operator's Manual* for stopping procedure.

*Notice:* See appropriate section of the *Engine Operators Manual and Generator Operator's Manual* for additional post - operation and shutdown procedures.

3. Adjust the light bar and light fixtures for trailering; see *Tower lights - Stowage for trailering* on Page 21.

*Notice:* Visually inspect the light mounting brackets and hardware for loose fasteners or damaged brackets. Repair any problems before trailering.

4. Secure the light cords into the hook on the rear mast support
5. Disconnect the ground rod cable from the ground lug. Remove the ground rod from the earth and clean and secure the ground rod and cable in the trailer.
6. Close, secure and lock all compartment doors.
7. Raise each rear stabilizer jack and rotate into trailering position ( horizontal with outrigger bar).
8. Retract each outrigger bar and secure in the stowed position with latch pin.

*Notice:* Be sure each outrigger jack is securely latched in transporting position by installing the outrigger lock pins before transporting.

## Tower Lights - Stowage for Trailering

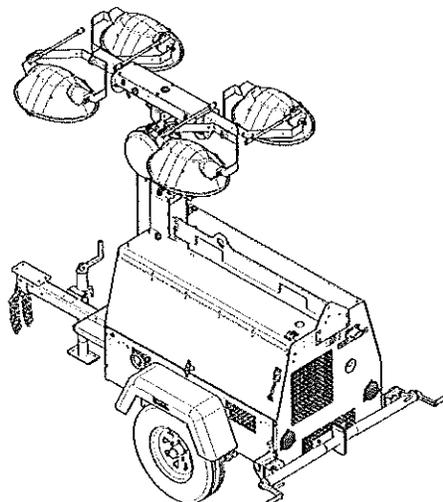
The light bar and fixtures must be stowed before trailering or transporting.

**WARNING! Burn Hazard.** The light fixtures become extremely hot during use.

**Always use caution and heat - resistant gloves when handling the Lights or allow to the lights to sufficiently cool down before handling.**

1. Ensure lights are off and tower is lowered to the full DOWN position; see *Raising and lowering the light Tower* on page 43.
2. Release the light bar park pin by pulling the ring and turning it 90 degrees so that the pin remains in the retracted position.
3. Rotate the light bar into the trailering / transport park position (in line with trailer) and engage the park pin by twisting the park pin ring until the plunger is released and the pin engages and locks into the hole in the light bar.
4. Reposition the light fixtures for trailering / transport by pulling them down into the lowest position and face the fixtures toward the center of the trailer. (**see below**)

NOTE: If lights are to be removed for trailering / transporting, see *Tower Lights - Removal for trailering / transporting (Optional)* on page 22.



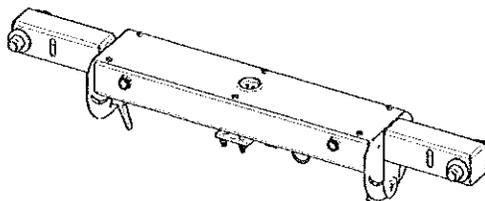
## Tower Lights - Removal for Trailering (Optional)

Your light tower may be equipped with lights that can be removed for trailering / transport or for theft prevention.

**WARNING! Burn Hazard.** The light fixtures become extremely hot during use.

**Always use caution and heat - resistant gloves when handling the Lights or allow to the lights to sufficiently cool down before handling.**

1. Ensure lights are off and tower is lowered to the full DOWN position; see *Raising and lowering the light Tower* on page 43.
2. Disconnect the electrical cord from each light fixture.
3. While supporting the light fixture, remove the nut and washer assembly fastening the main fixture Bracket and remove each light fixture and bracket (**Figure 23**).
4. Store each light fixture to avoid any damage during transport.



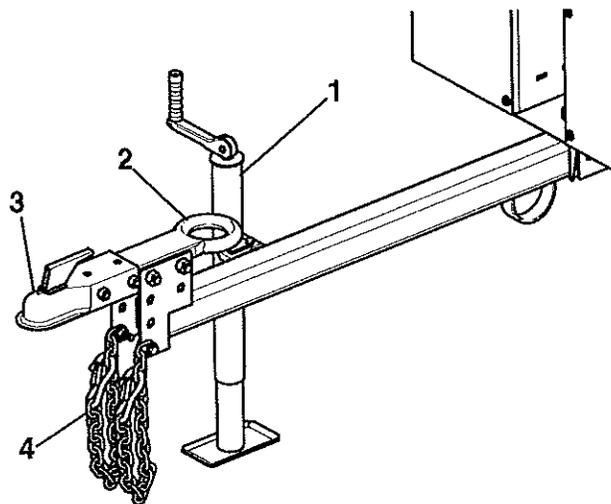
**FIGURE 23**

## TRAILERING / TOWING

Before trailering / towing the light tower trailer, read *Before Trailering / Transporting* on page 19 and read *Safety* on page 8.

**NOTICE:** Maximum highway speed is 50 mph (80 km/h) and maximum off highway speed is 10 mph (16 km/h). Do not exceed these limits or damage to light tower may occur.

### Trailer Component Identification



ALB\_O\_0009

**Figure 24**

- 1 –Tongue Jack - Used to raise, lower and level trailer tongue
- 2 –Pintle Ring Hitch Coupler (3 in.)
- 3 –Ball Hitch Coupler (2 in.)
- 4 –Safety Chains - Safety connection to tow vehicle in case coupler disconnects

## Towing Vehicle and Hitch Considerations

The towing vehicle must be able to safely pull the full trailer load. Never pull a trailer load that exceeds the vehicle's towing capacity; you risk losing control of the trailer and/or vehicle. Before trailering, always check your vehicle owner's manual for maximum towing/trailering load specifications and maximum gross vehicle weight specifications that include the fully loaded trailer.

The vehicle must have a towing hitch that is capable of safely handling the trailering load and tongue weight of the trailer.

**WARNING! Control Hazard. A vehicle hitch that is underrated or improperly installed can lead to loss of control of the trailer and/or vehicle. Never use a hitch size or rating that does not match the trailer coupler specifications.**

## Connecting the Trailer Hitch Coupler and Lights

The trailer is equipped with a combination trailer coupler for a 2-inch ball hitch and a 3-inch lunette ring for a pintle hitch.

The trailer coupler must be reversed to use either the ball or lunette hitch coupler. To reverse the coupler, remove the two bolts and reposition the coupler as needed.

**WARNING! Control Hazard. Ensure the coupler bolts are tightened before trailering.**

## Typical Lunette Ring Pintle Type Hitch and Coupler

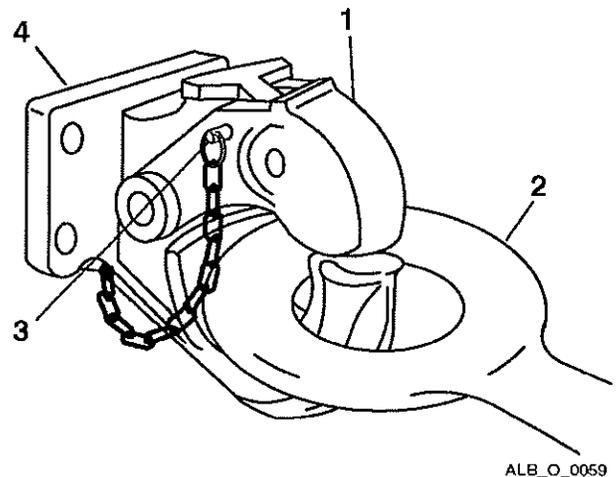


Figure 25

- 1 –Latch and Release Lever
- 2 –Trailer Coupler Lunette Ring
- 3 –Latch Lever Safety Pin
- 4 –Vehicle Hitch

## Typical Ball Type Hitch and Coupler

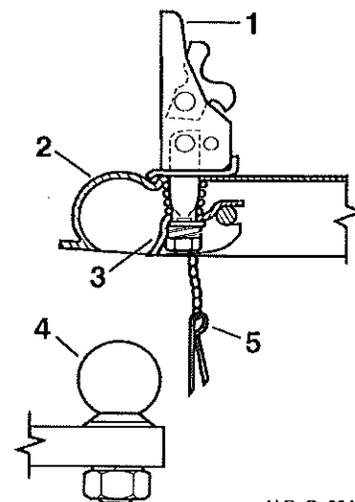


Figure 26

- 1 –Latch and Release Lever
- 2 –Trailer Coupler Socket
- 3 –Coupler Clamp
- 4 –Vehicle Hitch and Ball
- 5 –Latch Lever Safety Pin

The trailer's safety chains prevent the trailer from completely detaching from the towing vehicle when underway.

*NOTICE: Safety chains must be rated at the same or greater weight capacity as the trailer's GVWR.*

Before trailering, read *Before Trailering / Transporting* on page 19.

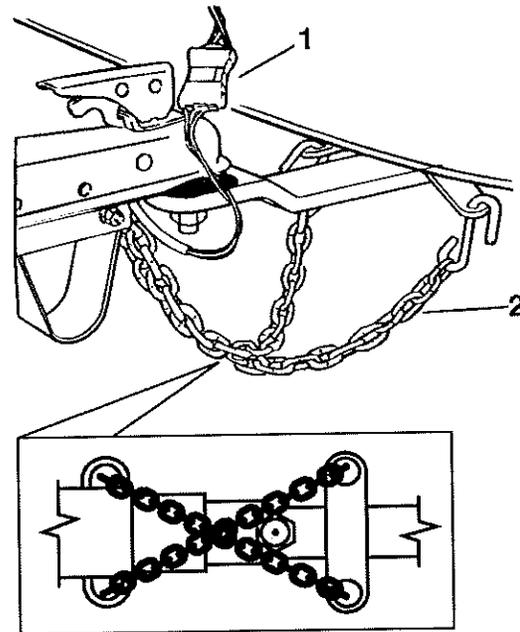
1. Connect the tow vehicle hitch to the trailer coupler. Make sure the coupler is securely attached to the tow vehicle's hitch.
2. Connect the safety chains (**Figure 27, 2**) to the vehicle's hitch frame and crisscross the chains under the trailer tongue to prevent the tongue from dropping to the road if the trailer separates from the hitch ball. Rig the chains as tight as possible with enough slack to permit free turning.

**WARNING! Control Hazard. Attach the safety chains properly and securely between the towing vehicle and trailer before trailering. Never allow the chains to drag on the ground when trailering.**

3. Connect the 4-pin light connector (**Figure 27, 1**) from the vehicle harness to the trailer harness.
4. Ensure there is adequate slack in the harness to prevent binding or disconnection when turning.

*NOTICE: Do not allow excessive harness slack or the harness can be damaged from scraping the ground.*

5. Before trailering, check all lights for proper operation.



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**Figure 27**

- 1 – 4-pin Trailer Light Harness Connector
- 2 – Trailer Safety Chains

## LIFTING THE LIGHT TOWER

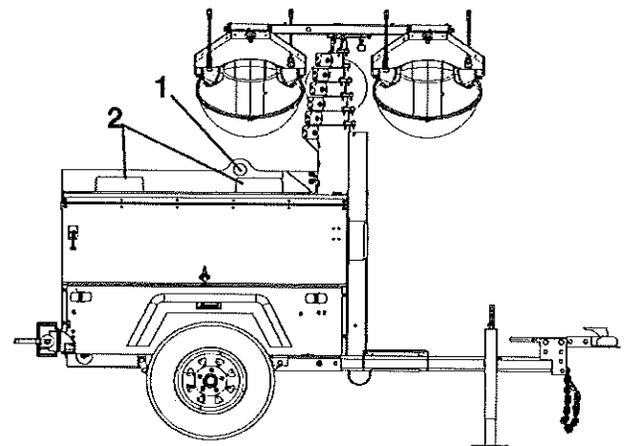
The approximate fully loaded weight of the light tower and trailer is 1807 lb (820 kg).

The **NIGHT-LITE PRO V-Series** light tower is equipped with top forklift pockets and a lifting eye for lifting or hoisting.

**The safety messages that follow have WARNING level hazards.**

- **Rollover Hazard.** Before lifting, lower the light tower and shut down the tower lights and the engine; see *Shutdown - Prepare for Trailing* on page 20.
- **Crush Hazard.** Always make sure the lifting device you are using is in good condition and is rated for the maximum capacity of the task to safely lift the light tower trailer.
- **Crush Hazard.** Always acquire assistance when using a forklift, crane or hoist and when loading and unloading.
- **Crush Hazard.** Only use the lifting eye on the lifting bar to lift or hoist the unit with a hoist or crane.
- **Crush Hazard.** Always use shackles or a locking-type hook when lifting.
- **Crush Hazard.** Do not stand or walk under the unit when lifted and keep others away.

## Lifting Attachment Points



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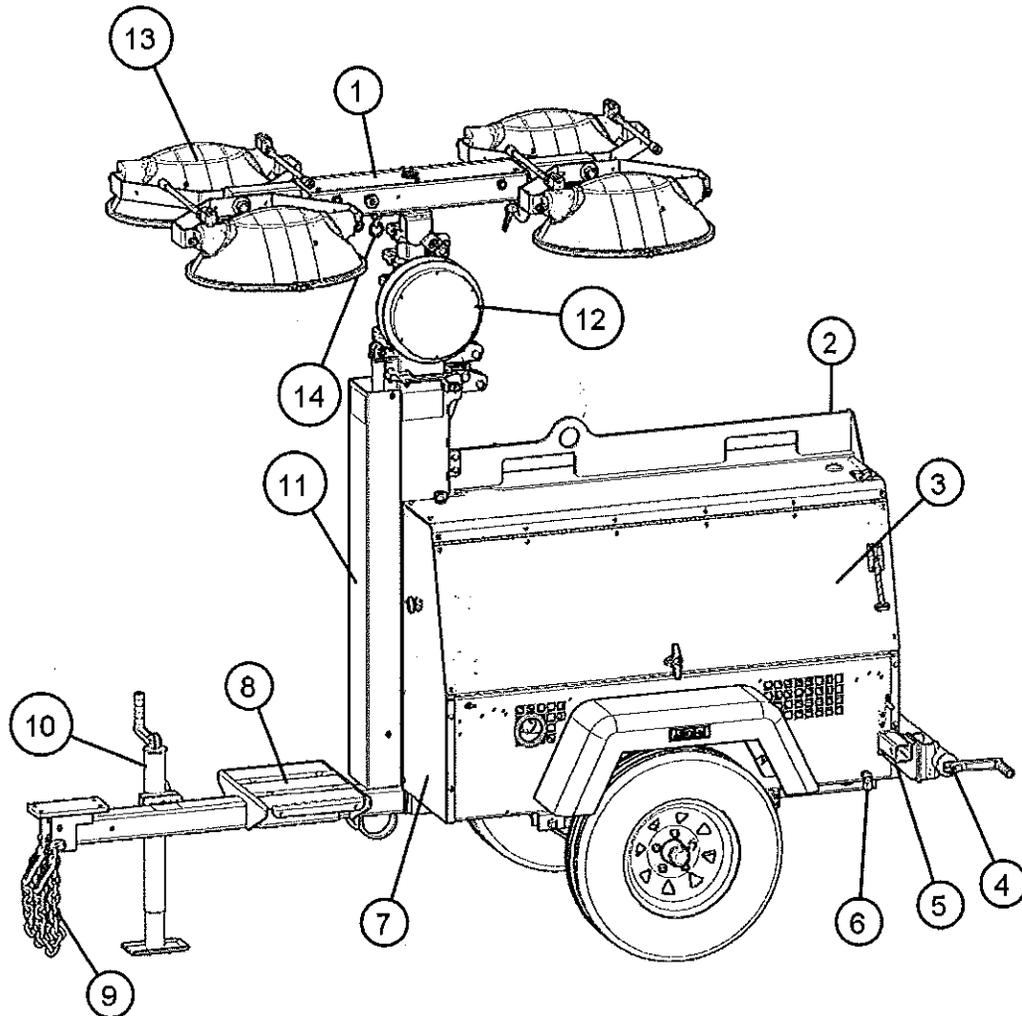
**Figure 28**

- 1 –Lifting Eye
- 2 –Forklift Lift Pockets

## TRANSPORTING ON A TRAILER

When transporting on a truck or trailer, always secure the unit using properly rated tie-down chains or straps connecting the light tower trailer frame to the towing trailer. The operator of the towing vehicle is responsible for securing the load properly.

## EQUIPMENT IDENTIFICATION



NO	DESCRIPTION
1	LIGHT BAR
2	LIFTING BAR (LIFTING EYE AND FORKLIFT SLOTS)
3	LEFT ENGINE AND CONTROL ACCESS DOOR
4	REAR STABILIZER JACK
5	REAR OUTRIGGER
6	REMOTE OIL DRAIN FITTING
7	BALLAST ACCESS COVER PANEL W/ E-STOP
8	STEP PLATE
9	SAFETY CHAIN
10	TONGUE JACK
11	HYDRAULIC LIGHT TOWER
12	CORD REEL
13	LAMP ASSEMBLY
14	LIGHT BAR ADJUSTMENT PARK PIN

## MODEL AND SERIAL NUMBERS

Model and serial number information is required for product support and repair parts. The following descriptions show model and serial number locations of the primary components.

### Trailer

All **NIGHT LITE PRO V SERIES** trailers have a serial number plate (**Figure 3,1**) attached to the rear panel.

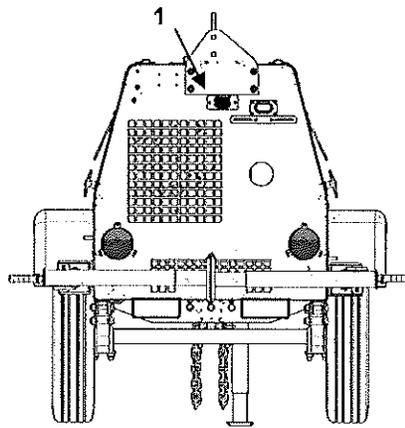


FIGURE 3

### Generator

The generator has a serial number plate (**Figure 4, 1**) attached to the side of the housing.

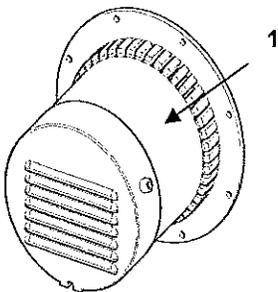
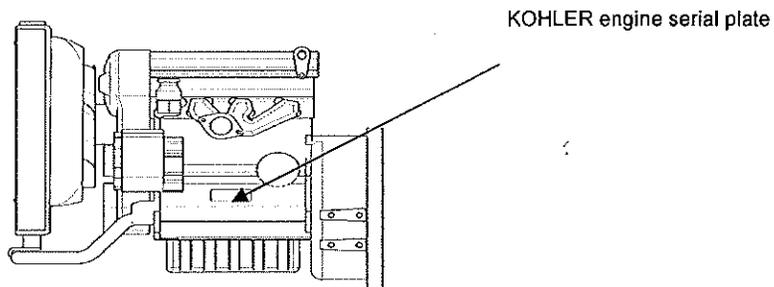


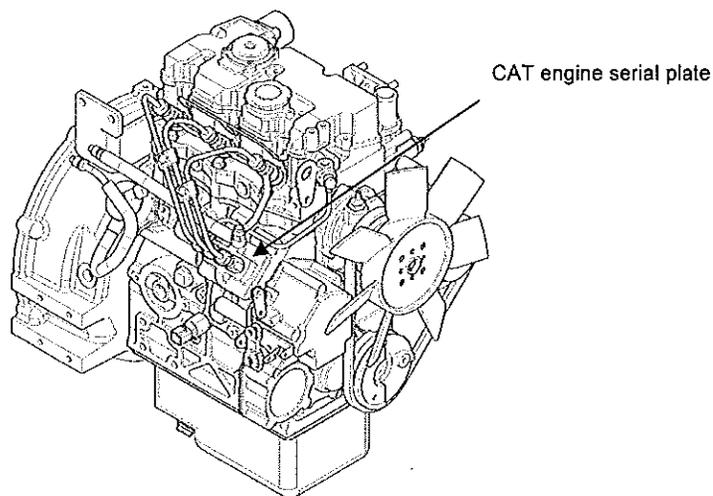
FIGURE 4

## Engine

The KOHLER Engine has the serial number plate (**Figure 5**) attached to left side of the engine block by the oil filter

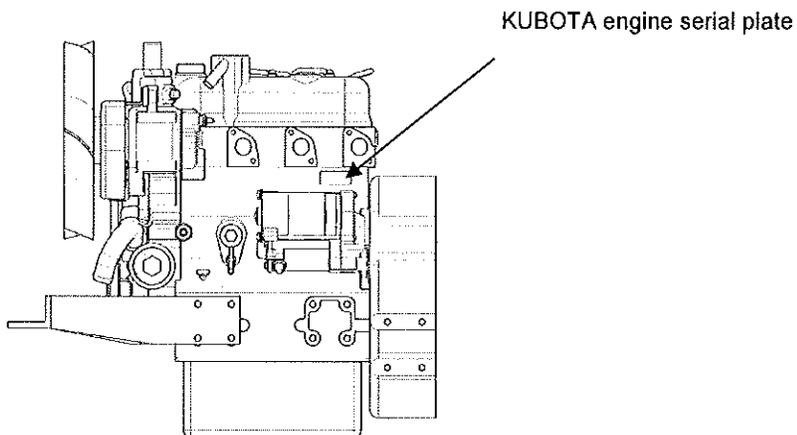


The CATERPILLAR® engine has a serial number plate (**Figure 6**) attached on the upper right side of the engine block above the fuel injection pump.



## Engine

The KUBOTA engine has the serial number stamped (**Figure 7**) on the engine block just below the exhaust manifold.



## SPECIFICATIONS (STANDARD AND OPTIOANAL FEATURES)

*NOTICE: Refer to the Engine or Generator operator's Manual for specific engine or generator specifications.*

### Trailer

Hitch Coupler	SUPPLIED BY CUSTOMER
Max. Road Speed (paved road)	50 mph (80 km/h)
Max. Off - road Speed	10 mph (16.1 km/h)
Number of Axles	1
Axle Rating	2000 lbs (907.1 kg)
Tire Size & Rating	13 in. B
Max Tire Pressure	See Tire Manufacture Specification
Door Locks	Standard
Trailer Lights: Stop, Turn and Running	D.O.T. Approved
Trailer Light Connector	4 - Pin Plug
Lifting Eye	Standard
Tie - Down Rings	Standard
Rear Forklift Pockets	Standard
Side Forklift Pockets	Standard
Top Forklift Pockets	Standard
Number of Stablizers	3
Number of Outrigger	
Stabilizers	2
Tongue Jack	Standard
Ground Rod	Standard

# GENERAL SERVICE INFORMATION

6/9/2011

## Light Tower

Sections	7
Hydraulic Cylinder	Standard
Vertical	Standard
Max Wind Load 53 mph (85.3 km/h)	Standard
Light Bar Rotation	360°
Tower Cord Reel	Standard

## Overall Dimensions

Height Light Tower Lowered	7 Ft 1 in. (2.2 m)
Height Light Tower Raised	25 ft (7.9 m)
Width (outriggers retracted)	4 ft 3 in. (1.3 m)
Width (outriggers extended)	7 ft 9 in. (2.24 m)
Length w/o Fixtures	9 ft 5 in. (2.9 m)
Length with Fixtures	9 ft 5 in. (2.9 m)
Dry Weight	1540 lbs (699 kg)
Operating Weight	1807 lbs (820 kg)

## Generator

6 kW	Standard
8 kW	N/A
120VAC Convenience Outlet	N/A
125/250VAC Twist - Lock	N/A
50A Service Outlet	N/A
220VAC 1-Phase Twist - Lock Outlet	N/A
220VAC 3-Phase Convenience Outlet	N/A
2 ea. 220V 1-Phase Convenience Outlet	Standard
Main Disconnect Breaker	Standard

# GENERAL SERVICE INFORMATION

6/9/2011

## Tower Lights

SHO - HD 1250W Metal Halide (lumen rating: 150,000)	N/A
SHO - HD 1000W Metal Halide (lumen rating: 110,000)	STANDARD
SHO - HD 1000W and 1250W Metal Halide	Warm - up time: 2-4 minutes
SHO - HD 1000W and 1205W Metal Halide	Re - start time: 10 to 15 minutes
Four Fixtures	Standard (sealed for all weather use)
Light Fixture Weight	15 lbs (6.75 kg)
<b>Individual Light Switches</b>	
1000W Light Switch (2 per 4 lights)	Standard
1000W Light Switch (4 per 4 lights)	N/A
1250W Light Switch (2 per light)	N/A
Individual Ballast (1 ballast per light)	Standard

# GENERAL SERVICE INFORMATION

6/9/2011

## Engine

Model	Kubota D1105BG (Optional)	Lombardini LDW 1003 (Standard)	Cat C1.1 (Optional)
Type	Water-cooled 4-cycle diesel		
Bore	2.99 in. (76 mm)	2.96 in. (75 mm)	3.03 in. (77 mm)
Stroke	2.90 in. (73.6 mm)	3.05 in. (77.6 mm)	3.19 in. (81 mm)
Displacement	61.1 cu. in. (1002 cc)	62.6 cu. in. (1028 cc)	69 cu. in. (1100 cc)
Power@1800 rpm	13.6 hp (11.4 kW)	13.4 hp (11.2 kW)	14.3 hp (11.9 kW)
Power Output Derating	3% per 1000 ft above 360 ft 1% per 10° above 77° F		
Note: Horsepower ratings are established in accordance with Society of Automotive Engineers Small Engine Test Code - J1349 GROSS.			
Fuel System	Indirect injected diesel		Cassette type fuel injected diesel
Starting System	12VDC Negative Ground		
Electrical System	12VDC Negative Ground		
Battery Type	Group 24		
Battery Rating	550 CCA		
Number of Batteries	1		
Compression Ratio	22:1	22.8:1	22:1
Weight	205 lb (93 kg)	191 lb (87 kg)	191 lb (87 kg)
Oil Capacity	5.4 qt (5.1 L)	2.5 qt (2.4 L)	3.9 qt (3.7 L)
Lubrication	Forced lubrication by pump		
Oil Filtration	Cartridge type		
Cooling System	Pressurized radiator forced circulation with water pump		
Low oil pressure engine shutdown	Standard (All Engines)		
High engine temperature shutdown			
Glow plug cold start assist			
Fuel	Use a clean No. 2 Diesel fuel oil (SAE J313 JUN87) according to ASTM D975. Do not use alternative fuel, because its quality is unknown or it may be inferior in quality, and kerosene, which is very low in cetane rating, adversely affects the engine. Refer to the <i>Engine Operator's Manual</i> for more detailed fuel requirements.		
Engine Oil	Use a high-quality engine oil of API (American Petroleum Institute) service class CC/CD/CE. Refer to the <i>Engine Operator's Manual</i> for more detailed engine oil requirements.		
Fuel Tank	30 gal (114 L)		
Cooling System	See <i>Engine Operator's Manual</i>		
Engine Oil	See <i>Engine Operator's Manual</i>		

## OPTIONAL ACCESSORY EQUIPMENT

- Saf - t - Visor
- LSC100 Light Sequence Commander
- Heavy Duty Battery (675 CCA)
- Battery Heating Pad
- Engine Block Heater
- Sound Attenuation package
- 7 - Blade RV Taillight Connector
- Bulldog Hitch (ball/pintle)
- VIN Package (for licensing)
- Quick - Disconnect Lamp Fixtures
- Chalwyn - Emergency Air Shutoff (Caterpillar or Kubota engines only)

Before performing any operation procedures, read *Safety* on page 8.

## PRE-OPERATION SETUP

### Work Site Safety Considerations

#### Height

**DANGER! Electrocutation Hazard. Always check for overhead wires and obstructions before raising or lowering the light tower. Allow 35 feet (10.6 m) of clearance.**

#### Ground Surface

**WARNING! Rollover Hazard. Do not set up on an incline of more than 5° front-to-back and side-to-side.**

**WARNING! Rollover Hazard. Do not position or set up on unlevel or instable ground. Only set up on smooth, flat and solid ground surfaces.**

#### Wind

**WARNING! Rollover Hazard. Do not operate with the light tower extended in winds exceeding 53 mph (85.3 km/h).**

When the light tower is in the operating position it is located in the middle of a three-point outrigger system for optimum balance and stability. This system was engineered to allow the light tower to remain operational in sustained winds of 53 mph (85.3 km/h) with the light tower extended to full height and the outriggers in position.

### Pre-Operation Check List

Always perform the following checks before traveling to the work site and before operation. Repair or replace any components as required before operation.

**NOTICE:** See appropriate section of the *Engine Operator's Manual* and *Generator Operator's Manual* for additional pre-operation checks.

**After completing the pre-operation check list, operate the light tower through a complete operation cycle.**

- Visually inspect the equipment to ensure that all instructions and decals are in place and legible.
- Inspect the light tower locking bar latch assembly, which locks the light tower in the vertical position, for proper operation.
- Check the hitch assembly and safety chains.
- Check the outriggers and jacks to make sure they operate properly.
- Inspect the light assemblies for damage and test for proper operation.
- Inspect the electrical wiring for signs of damage.

**WARNING! Electrocutation Hazard. 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.**

- Check the ground rod cable and the ground lug. Make sure they are clean, undamaged and functional.
- Inspect the tires to ensure good condition and proper inflation.
- Check engine oil, fuel, engine coolant levels and hydraulic fluid levels, if equipped.
- Check to make sure the *Light Tower Operator's Manual*, *Engine Operator's Manual* and *Generator Operator's Manual* are with the equipment.
- Check to make sure the quick reference operation card is with the equipment and properly tethered.

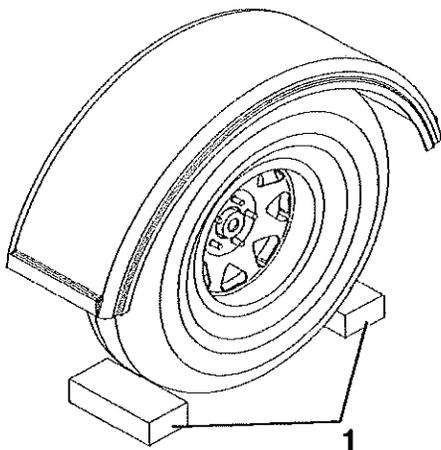
- Physically inspect the machine for damage and repair if necessary.

## Leveling and Stabilizing the Trailer

**WARNING! Rollover Hazard. Do not set up on unlevel or instable ground. Only set up on smooth, flat and solid ground surfaces. Always level the light tower trailer before raising the light tower.**

The **NIGHT-LITE PRO V-Series** must be leveled to 5° or less, front-to-back and side-to-side.

1. Position **NIGHT-LITE PRO V-Series** on an adequate site; see *Work Site Safety Considerations* on page 36.
2. Block each wheel on each side with a suitable wheel chock (Figure 8, 1).

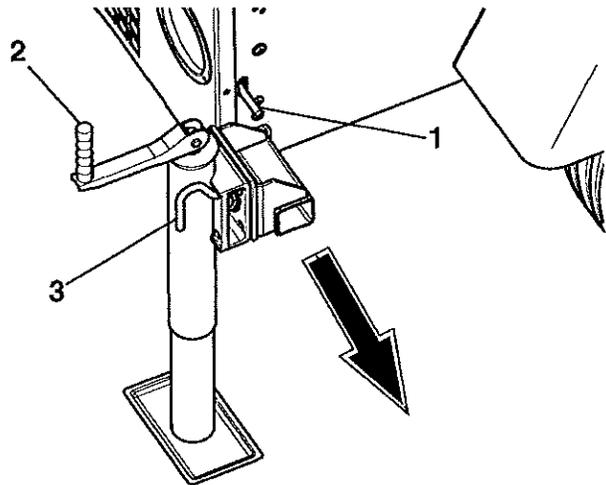


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**Figure 8**

3. Extend the rear outrigger stabilizers out and lock in place (Figure 9).
4. Rotate each rear stabilizer jack perpendicular with the ground and lock in place.
5. Adjust each rear stabilizer jack and the tongue jack to achieve proper leveling. Turning the handles clockwise will raise the jacks, and counterclockwise will lower the jacks.

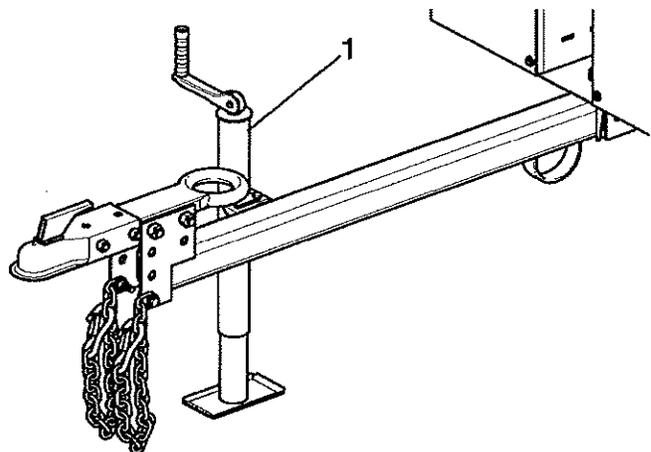
**WARNING! Rollover Hazard. All stabilizer jacks must be supported by a flat, level solid ground surface.**



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**Figure 9**

- 1 –Outrigger Lock Pin - Locks outrigger in position
- 2 –Jack Handle (rear)- Used to raise or lower outrigger jack
- 3 –Jack Pin - Locks jack in position to prevent jack from rotating



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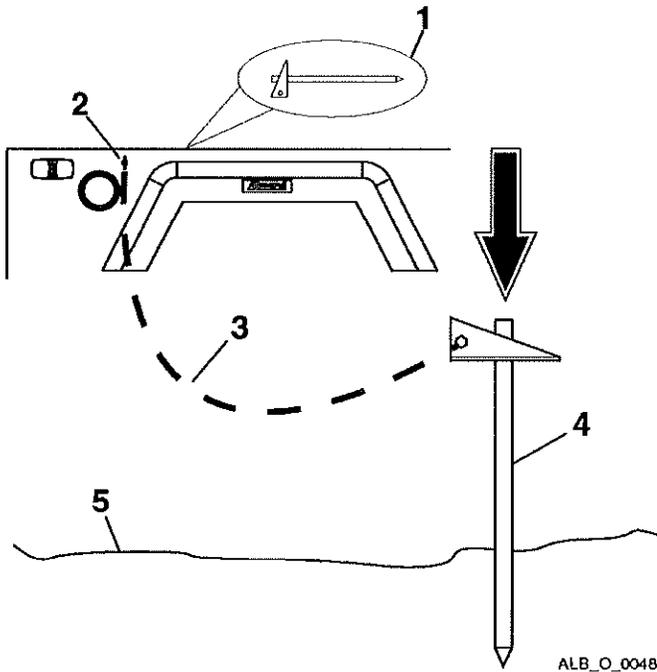
**Figure 10**

- 1 –Jack Handle (front) - Used to raise or tongue jack

**Installing the Ground Rod**

The ground rod is a safety device that may reduce the chance of personal injury from stray electrical current. Therefore, Allmand recommends using the ground rod. However, it is the user's responsibility to determine the requirements and/or applicability of local, state or national electrical code which governs the use of the ground rod.

Drive the ground rod fully into the ground using a hammer. Attach the supplied cable to the rod and then attach the cable to the ground lug on the unit. Make sure the cable connections are tightened.



**Figure 11**

- 1 –Ground Rod Storage Location (inside left panel)
- 2 –Ground Rod Connection Stud and Wingnut
- 3 –Ground Rod Wire
- 4 –Ground Rod
- 5 –Earth / Ground

**ENGINE OPERATION**

Before starting the engine or operating the light tower, review *Safety on page 8*.

The Allmand **NIGHT-LITE PRO V-Series** hydraulic light tower is powered by a diesel engine and generator unit.

**Pre-Start Checks**

1. Check the engine oil and add oil if required. Fill the engine with the proper grade of lubricating oil; refer to *Engine Operator's Manual* for oil specifications.
2. Check and add diesel fuel as required.
3. Ensure that the air cleaner is firmly attached and air cleaner seals and hose clamps are properly sealed. Air cleaner element should be checked and replaced if necessary.

## Engine Control Panels

The engine control panel consist of the engine start/stop key or button, hour meter, glow plug indicator and engine warning indicators.

### CAT Control Panel

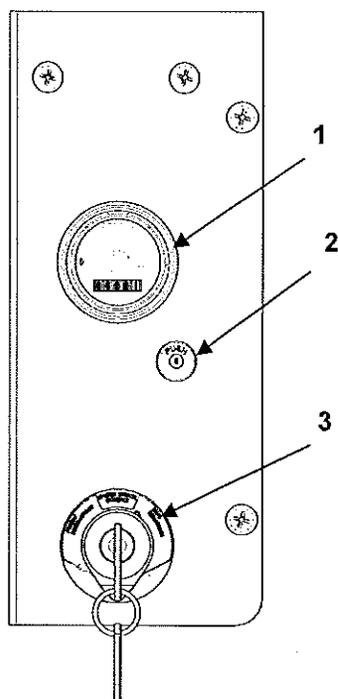


Figure 12

1. Hour Meter - Shows the Total elapsed hours of engine operation.
2. Start Button (Keyless start models only).
3. Glow Plug Indicator.
4. Key Switch (Key start models only).

### KOHLER Control Panel

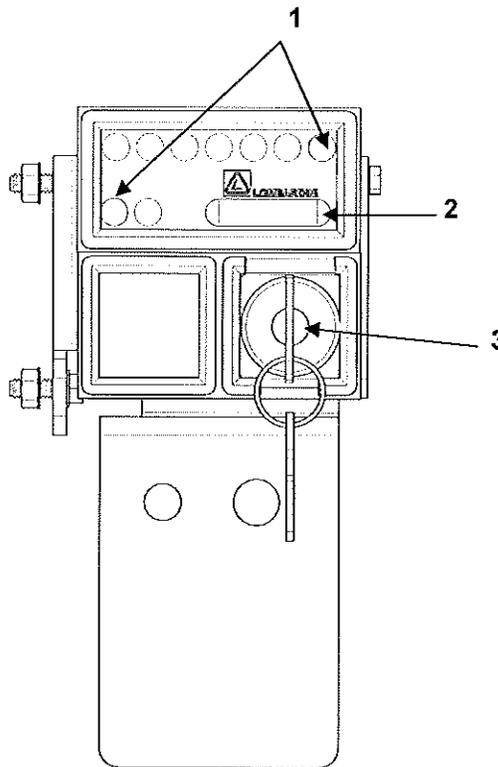
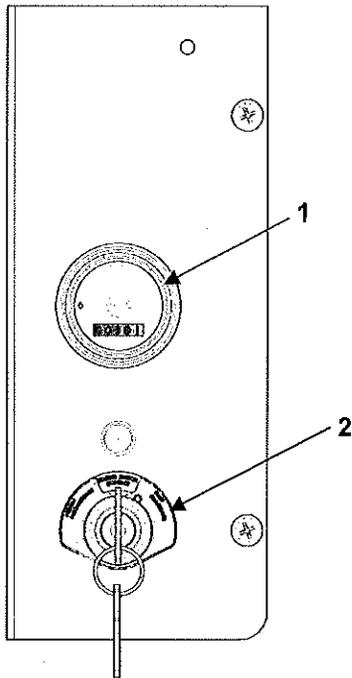


Figure 13

1. Engine Warning Indicator Lights.
2. Hour Meter - Shows the total elapsed hours of engine operation.
3. Key Switch.

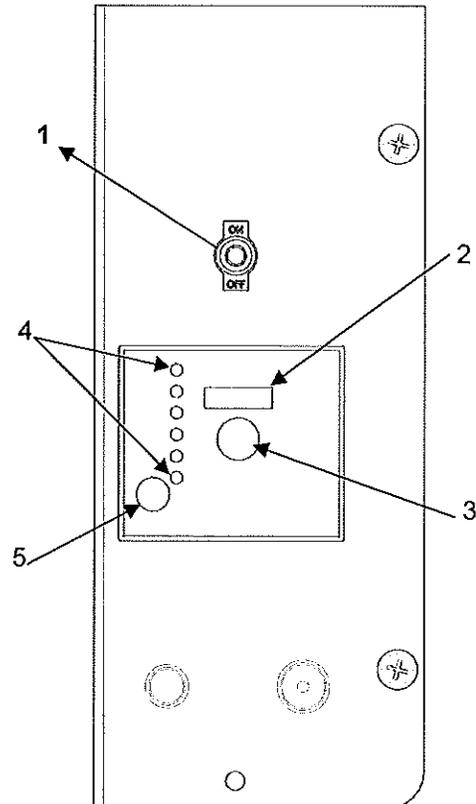
**KUBOTA Control Panel**



**Figure 13**

1. Hour Meter - Shows the total elapsed hours of engine operation.
2. Key Switch.

**KUBOTA Deep Sea Control Panel (OPTION)**



**Figure 14**

1. Main Panel ON/OFF Switch.
2. Hour Meter - Shows the total elapsed hours of engine operation.
3. Start Button.
4. Engine Warning Indicator Lights.
5. Glow Plug Indicator.

## Starting the Engine

The Starting procedure is different Depending on the engine model used. Refer to your *Engine Operator's Manual* for the starting procedure.

### Cold - Weather Starting

The cold - weather Starting procedure is different Depending on the engine model used. Refer to your *Engine Operator's Manual* for the cold - starting procedure.

### If Engine has Run Out of Fuel

1. Refill the fuel tank.
2. Refer to your *Engine Operator's Manual* for the starting procedure.

**Notice:** Do not operate starter for more than 10 seconds without allowing 30 seconds to pass between starting attempts. Possible starter damage could result from excessive heat caused by cranking too long.

**Notice:** If the engine develops sufficient speed to disengage the starter but does not keep running (a false start), the engine rotation must be allowed to come to a complete stop before attempting to restart the engine.

If starter is engaged while the flywheels rotating, the starter pinion and flywheel ring gear may clash, resulting in damage to the starter or flywheel ring gear.

## Stopping the Engine

The engine stopping procedure may differ depending on the engine model. Refer to your *Engine Operator's Manual* for engine stopping procedures.

## Automatic Engine shutdown System

The engine is equipped with an automatic engine shutdown system to prevent excessive engine damage in the event of a low oil or overheat condition. For additional information, refer to your *Engine Operator's Manual*.

### Low Oil Pressure Shutoff

Should a low oil pressure condition occur, the oil pressure sending unit breaks the circuit between the circuit between the battery and the fuel solenoid, allowing the spring load to immediately move the fuel control to the shutoff position.

### High Coolant Temperature Shutoff

Should a high coolant temperature condition occur, the temperature sending unit breaks the circuit between the battery and the fuel solenoid, allowing the spring load to immediately move the fuel control to the shutoff position.

## TOWER LIGHT OPERATION

Before operating the tower light, review *Safety on page 8*.

The light tower is raised and lowered by a hydraulic pump actuating a 7-section telescoping mast.

**WARNING! Rollover Hazard. Before raising, lowering or operating the tower lights, the trailer must be set up, properly leveled and stabilized, and ground rod installed; see Pre-Operation Setup section on page 36.**

**WARNING! Crush Hazard. Allow adequate clearance around and above trailer when raising or lowering the light tower. Ensure that there are no obstructions or persons near the light tower when raising or lowering the light tower.**

## Light Bar and Light Fixture Adjustment

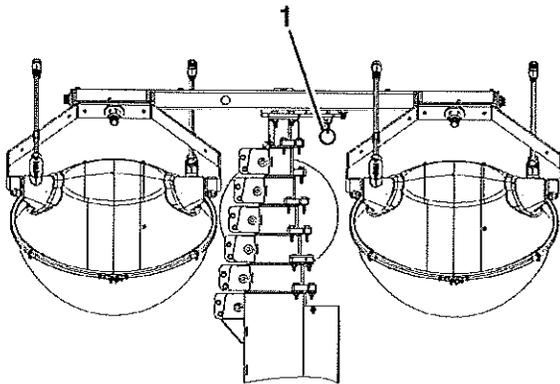
### Lights - Work Site Adjustment

The light bar and light fixtures must be adjusted to the desired work angle before raising the light tower.

With the light tower fully lowered and the lights off, the light bar assembly and light fixtures can be manually rotated into the desired working position.

To adjust the light bar, release the light bar park pin (**Figure 16, 1**) by pulling the ring and turning it 90 degrees so that the pin remains in the retracted position.

With the light bar park pin released, the light bar is designed to be manually rotated with enough resistance so that the bar will stay in the desired position once the operator has directed the lights on the work zone.



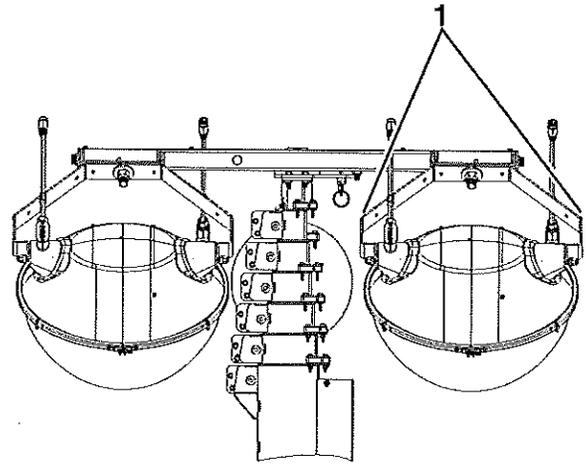
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**Figure 16**

**1 –Park Pin**

If the light bar rotates too easily or does not stay in position, remove the cap plug from the center of the light bar cover and tighten the nut to achieve the desired resistance and replace the cap plug.

To adjust each light fixture, manually swivel each light fixture at its base into the desired working position (**Figure 17**).



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**Figure 17**

**1 –Grasp light fixture here to adjust.**

### Lights - Trailing Storage

The light bar and light fixtures must be stowed properly for trailering or transporting. See *Tower Lights - Stowage for Trailering* on page 21.

## Raising and Lowering the Light Tower

### Light Tower

Note: The Hydraulic actuated light tower uses 12VDC battery power to operate. The light tower may be raised and lowered as needed without the engine running.

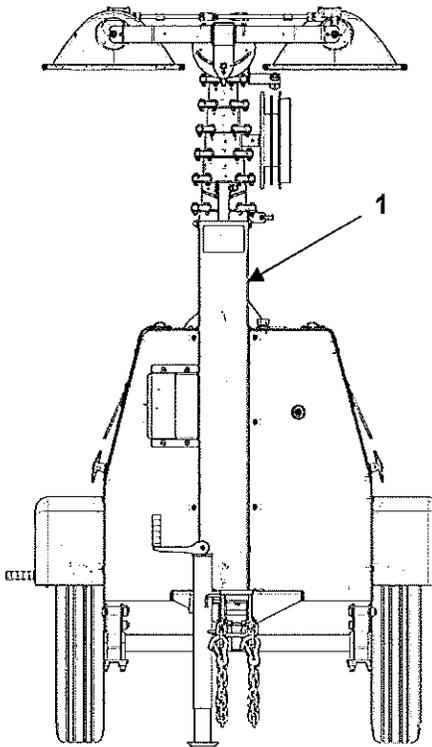


Figure 18

### 1. Seven Section Light Tower

#### Raising

**NOTICE:** Before raising light tower, visually inspect equipment for damage or wear and repair or replace components as required. Never operate the light tower with damaged or malfunctioning components.

1. Before raising the light tower, adjust the tower lights to the desired work position; see *Light Bar and Light Fixture Adjustment* on page 42.
2. If required, start engine. Refer to your *Engine Operator's Manual* for starting procedure.
3. Turn the lights off; see *Light Control Panel* on page 44.
4. Press the light tower hydraulic lift switch up to raise the light tower to the desired height.

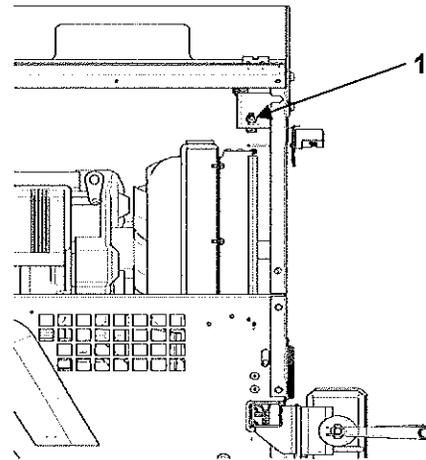


Figure 19

1. Light Tower Hydraulic Lift Switch.

#### Lowering

1. If required, start engine. Refer to your *Engine Operator's Manual* for starting procedure.
2. Turn the lights off; see *Light Control Panel* on page 44.
3. Press the tower light hydraulic lift Switch down to lower the light tower to the desired height or to the full DOWN position.
4. When tower reaches the bottom, run switch for 3 additional seconds to ensure that the tower is at its lowest possible position.
5. Stop engine.

**Light Control Panel**

The tower light control panel consists of the breaker switches.

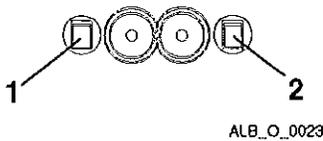
The four light fixtures are controlled by two breaker switches. The lights are paired (1-2) and (3-4), each pair is controlled and protected by a breaker switch located on the control panel.

**STARTING ENGINE**

1. Turn the on - off switch to the "Off" position.
2. Press the yellow **PREHEAT** button. For Ambient Temperature: Above 10 Deg C (50 F) - NO NEED. 10 to -5 Deg C (50 to 33 F) 5 Sec. Below -5 Deg C (23 Deg F) 10 Sec. Max! Preheat to 30 seconds MAX.
3. Press the green **START** button to crank engine until the engine starts.
4. If engine fails to start, it may be necessary to recycle the **PREHEAT** and start steps # 2 and # 3 above.

**LIGHTS**

1-2                      3-4      100444



**Figure 20**

- 1 –Lights 1 and 2 - Breaker ON/OFF Switch**
- 2 –Lights 3 and 4 - Breaker ON/OFF Switch**

**Lights On**

Before turning the lights on, the engine must be running and should be allowed to reach normal operating temperature.

Turn one or both light breaker switches to the ON position.

**Lights Off**

Turn both light breaker switches to the OFF position.

**SHUTDOWN PROCEDURE**

**Shutdown - Short Period**

When shutting down the light tower for a short period, perform the following procedures.

1. With the lights off, lower the light tower to the full DOWN position; see *Raising and Lowering the light tower* on page 43.
2. Turn the engine off. Refer to *your Engine Operator's Manual* for stopping procedure.

**Shutdown - Long - Term or Prepare for Trailing**

When shutting down the light tower for long periods of time or when preparing to trailer, see *Long - Term Storage* section on page 51 or *Shutdown - Prepare for Trailing* section on page 20.

**AUXILLARY AC OUTLET OPERATION**

Depending on model options, the convenience panel is equipped with two 220VAC outlets for powering accessories from the generator. Power is supplied to the outlets when the engine/generator is running.

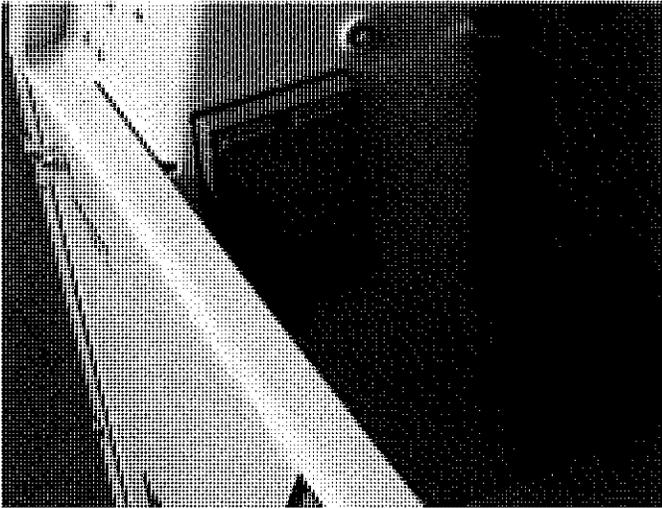
The 220VAC outlet is protected by a 10 - amp circuit breaker.

If the outlet circuit breakers trip, switch off the lights, remove the load to the outlets and wait 10 minutes for the bulbs to cool before turning them back on.

1. Disconnect the load from the outlet.
2. Turn off the tower lights (if used).

3. Correct the excessive load problem and wait 10 minutes, to allow the generator to cool down before reconnecting the load.

## Convenience Panel



*Figure 21*

- 1 –Grounding Lug - Connection to attach the ground rod lead
- 2 –15-amp Pop-up Circuit Breaker
- 3 –120-volt Outlet Receptacle with Cover

## **Manual Start Instructions**

1. Turn power switch ON
2. Turn light circuit breakers ON
3. Turn Auto/Manual switch to MANUAL

### **NOTE:**

- \*Glow plugs are automatic as required
- \*Engine will start or make 5 attempts
- \*Lights will come on when engine water temperature reaches 120° F.

## **Shut Down**

1. Turn Auto/Manual switch OFF
2. Turn power switch OFF

## **Automatic Start Instructions**

1. Turn power switch ON
2. Turn light circuit breakers ON
3. Turn Auto/Manual switch to AUTO (Start sequence will begin when photocell senses preset light value)

### **NOTE:**

- \*Glow plugs are automatic as required
- \*Engine will start or make 5 attempts
- \*Lights will come on when engine water temperature reaches 120° F.

## **Shut Down**

1. Turn Auto/Manual switch OFF
2. Turn power switch OFF

## Description of Operation and Instructions

### LSC100 Light Sequence Commander

The Allmand LSC100 Light Sequence Commander includes an engine auto start controller and a light circuit controller in one package. The LSC100 features 5 LEDs on the face of the control panel indicating the following from left to right.

1. Flashing red (alarm)
2. Red (glow plug)
3. Yellow (crank)
4. Green (fuel)
5. Red (power)

**TO START THE UNIT MANUALLY**, turn the power switch to the up ON position and place the Auto/Manual switch to MANUAL.

The controller will check the fuel level. If insufficient fuel is present, the control will not start and indicate an alarm by flashing the red LED. Fuel must be added before the unit will start. If sufficient fuel is present, a glow plug relay is closed for a period of time and the red LED is illuminated. Glow plug on time is specific to the engine model and determined by the engine water temperature. Kubota installations have a maximum of 10 seconds, Isuzu installations have a maximum of 5 seconds, and the Cat 3003/Perkins 103-10 have a maximum glow plug on time of 60 seconds. The glow plug on time must be set specifically for the engine requirements during installation. After the glow plug cycle, the fuel and crank relays close.

Once the controller detects frequency, the crank relay opens and the fuel relay remains closed. If the engine does not start after five crank cycles with a 10 second rest, an overcrank fault occurs and the red LED flashes. Once the water temperature reaches 120°F, the light relays begin to close sequentially, with a three-second delay in between. (NOTE: Light circuit breakers must be in the ON position or the lights will not come on.) If the fuel level in the tank falls below 1/10 full, the shut down sequence will begin. The low fuel fault will be indicated by a flashing red LED. It will remain flashing until the fuel is replenished above 20 percent.

If oil pressure falls below minimum levels while running an oil pressure fault will occur, All light circuits and engine relays will then open and the engine will shut down. The fault will be indicated by the flashing red LED. To clear the fault, position the Auto/Manual switch in the center OFF position. Temperature is also monitored through the sender. If a temperature above 234° F. is detected, a high temperature fault will occur. The fault will be indicated by the flashing red LED that will clear after the Auto/Manual switch is placed in the center OFF position.

**TO START THE UNIT AUTOMATICALLY**, turn the power switch to the up ON position and place the Auto/Manual switch to Auto. This allows the unit to be remotely started by the standard photocell. Optional remote devices can include a day timer or a wireless communication unit.

Placing the ON/OFF switch or the Auto/Manual switch to the OFF position starts the shutdown sequence that lasts approximately 30 seconds.

If the light tower is equipped with the photocell and a timer, the control panel will include an additional switch that will select the source of control, either timer or photocell.

## PROGRAMMING INSTRUCTIONS FOR OPTIONAL ALLMAND LSC100 TIMER

The Allmand **LSC100 Light Sequence Commander** can be equipped with an optional 7 Day, 8 Event, programmable timer.

### OVERVIEW

The LSC Timer allows full ON/OFF control of the LSC equipped light tower. The lights can be turned ON and OFF at specific times of the day and as many as 8 times a day. The timer can also be programmed for a specific day of the week or any combination of days.

### SETTING TIME

To set the clock to your local time and the day of the week:

1. Press the **CLOCK** button and hold throughout the following steps.
2. Set the Day of the Week by pressing the **DAY** key until the correct day appears.
3. Set the **HOUR** by pressing the **HOUR** key until the desired **Hour** appears.
4. Set **MINUTE** by pressing the **MIN** key until the desired minute appears.
5. When the time and day is set, release the **CLOCK** key.

### PROGRAMMING

1. Pressing the **TIMER** key will enter the Program mode. Pressing the **TIMER** key will scroll through the events. Stop on the event you want to set. There are 8 events and an ON and OFF time for each event.
2. Press **DAY** key to select the day or group of days. Press the **HOUR** key to set the hour and the **MIN** key to set the minute.

**NOTE:** You may never need to use more than 1 event ON and OFF per day. However the timer is capable of 8 event pairs per day. Always set an **OFF** time for each **ON** time.

**NOTE:** To clear the event, press the **TIMER** key until you get to the event you want to clear and hold, then press the **DAY** key until the setting clears.

Always set an **OFF** time for each **ON** time. It is possible to have one **OFF** event for several **ON** events. For example, if you want to have the lights come on at different times each day but go off at the same time every day, one **OFF** event is all that is needed as long as it covers all of the **ON** days.

When the programming is complete, press the **CLOCK** key.

The **MANUAL** key on the timer will select **ON**, **AUTO**, and **OFF**. Position the black bar in the display window over the desired function. **For Automatic operation of the timer it must be set to AUTO.**

With the LSC set with Power Switch **ON** and the AUTO/MANUAL switch to **AUTO**, the **MANUAL TIMER** key can be used to initiate the start sequence by pressing the **MANUAL** key until it indicates **ON**. The shutdown sequence can also be initiated by pressing the **MANUAL** key to indicate the **OFF** position.

All programming and time can be reset to new settings by pushing the **RESET** button with a pencil or pen.

**NOTE:** All programming will be lost when button is pushed