

Operation and Safety Manual

Lighting Tower Models

JLG LT³

1001281353

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Section One.....Operation and Safety

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SECTION ONE

OPERATION AND SAFETY MANUAL

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1.0 INTRODUCTION

This manual provides the information necessary to safely operate, service and maintain the JLG LT³ lighting tower. The manual is divided into four sections.

- Section 1 Operation and Safety
- Section 2 Maintenance and Service
- Section 3 Illustrated Parts
- Section 4 Recommended Spare Parts

Specific operating details are contained in this publication to familiarise the operating personnel with the correct and safe procedures necessary to operate this equipment.

The user/operator of the lighting tower shall not accept operating responsibility until this manual has been read and understood and the user has operated the lighting tower whilst supervised by a competent person. If there is a question on application and/or operation, JLG Industries (Australia) Technical Services should be contacted on 131JLG.

All instructions in this manual require the lighting tower to be operated in the conditions for which it was designed. In reading this manual, pay attention and adhere to all Safety related Cautions and Warnings.

A WARNING

MODIFICATION OF THE JLG LT³ LIGHTING TOWER WITHOUT THE PRIOR WRITTEN APPROVAL OF JLG INDUSTRIES (AUSTRALIA) IS PROHIBITED.

1.1 SAFETY ALERT SYMBOLS AND SAFETY WORDS



This is the Safety Alert Symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



INDICATES AN IMMINENTLY HAZARDOUS SITUATION. IF NOT AVOIDED, <u>WILL</u> RESULT IN SERIOUS INJURY OR DEATH.



INDICATES A POTENTIALLY HAZARDOUS SITUATION. IF NOT AVOIDED, <u>COULD</u> RESULT IN SERIOUS INJURY OR DEATH.



INDICATES A POTENTIALLY HAZARDOUS SITUATION. IF NOT AVOIDED, <u>MAY</u> RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO ALERT AGAINST UNSAFE PRACTICES.



INDICATES INFORMATION OR A COMPANY POLICY THAT RELATES DIRECTLY OR INDIRECTLY TO THE SAFETY TO THE SAFETY AND PROTECTION OF PERSONNEL AND PROPERTY.



INDICATES PROCEDURES ESSENTIAL FOR SAFE OPERATION.

1.2 SAFETY PRECAUTIONS

This section outlines the safety precautions applicable to the general use of this lighting tower.



Throughout the Operation and Safety section of this manual, cautions and warnings are shown in **BOLD TYPE**.

These outline where special care is required when undertaking the various procedures outlined.

Safety precautions applicable to machine service and maintenance are in the SAFETY PRECAUTIONS section of the Service and Maintenance Manual.

The user of this machine should read and study this manual thoroughly to ensure that all operating procedures are clearly understood prior to accepting responsibility.

- 1. Modifications or alterations to the lighting tower are not permitted without the prior written permission of the manufacturer.
- 2. Failure to comply with the safety precautions listed here and elsewhere in the manual may result in injury or death.
- 3. When moving the lighting tower by forklift use the forklift tyne pockets running through the LT³'s base. Ensure that the forklift is rated to handle the lighting tower prior to attempting the lift.
- 4. When lifting the lighting tower by craning use the rated lifting point provided on the lighting tower mast. Ensure that the crane is rated to lift the lighting tower prior to attempting the lift.

Refer to the diagrams and illustrations shown elsewhere in this manual for correct handling procedures using a crane and forklift.



DO NOT POSITION THE LIGHTING TOWER INSIDE THE PROHIBITED (M.A.D.) ZONE. ASSUME ALL ELECTRICAL PARTS AND WIRING ARE ENERGISED UNLESS KNOWN OTHEREWISE.

5. Maintain distance from electrical lines, apparatus, or any energized (exposed or insulated) parts according to the Minimum Approach Distance (MAD) as shown in Table 1-1.

Voltage Range (phase-to-phase)	Minimum Approach Distance	
	metres (feet)	
0 to 50 kV	3 (10)	
over 50 kV to 200 kV	5 (15)	
over 200 kV to 350 kV	6 (20)	
over 350 kV to 500 kV	8 (25)	
over 500 kV to 750 kV	11 (35)	
over 750 kV to 1000 kV	14 (45)	
Note: This requirement shall apply except where		

Table 1-1. Minimum Approach Distances (M.A.D.)

more stringent.

- Maintain a clearance of at least 3 m (10.0 ft) between any part of the lighting tower from any electrical line or apparatus carrying up to 50 000 volts. An additional clearance of 0.3 m (1.0 ft) is required for each additional 30 000 volts or less of line voltage.
- 7. The minimum approach distance may be reduced if insulating barriers are installed to prevent contact, and the barriers are rated for the voltage line being guarded. These barriers shall not be part of (or attached to) the machine. The minimum approach distance shall be reduced to a distance within the designed working dimensions of the insulating barrier.
- 8. A reduced minimum approach distance shall be determined by a qualified person in accordance with the employer, local, or government requirements for safe work practices near energised equipment.

The JLG LT³ lighting tower is designed for outdoor worksites and features a permanent-magnet generator powering four low-voltage D.C. LED floodlights.



DO NOT OPERATE THIS LIGHTING TOWER WITH ANY SAFETY COVER REMOVED. ALL WIRING AND ELECTRICAL DEVICES ARE TO REMAIN COVERED.

DO NOT MODIFY OR IN ANY WAY ALTER THE MACHINE'S ELECTRICAL SYSTEM COMPONENTS OR WIRING.

- JLG LT³ lighting towers are designed specifically to use the LED floodlights supplied. Alternative lights should not be fitted unless authorised by JLG.
- 2. Do not operate the lights within easy reach of people's hands. Even after the lights have been switched-off, the lamp fixtures can remain hot for some time.
- 3. The tower mast is NOT a lifting device. Do NOT attempt to lift any object by using or modifying or altering the mast and/or the lighting tower hydraulic system.
- 4. There are moving parts in and around the engine and alternator area (genset) of the lighting tower. Prior to carrying out any maintenance or accessing the engine bay area, ensure the lighting tower mast is fully retracted and stowed, the genset shutdown and the electrical system made safe.
- 5. An operator must understand all lighting tower controls and operating envelope before using the lighting tower. Always set-up and operate the JLG LT³ lighting tower outdoors. Never operate this machine in confined spaces or where ventilation is poor.
- The LT³ lighthead tilts and rotates, atop a multi-section telescopic mast. The mast is raised and lowered by an

interconnected wire-rope pulley system, driven by a hydraulic lift cylinder.



THE LIGHTING TOWER TELESCOPIC MAST AND LIGHTHEAD ASSEMBLIES HAVE HAZARDOUS CRUSHING AND PINCH POINTS. DO NOT PLACE ARMS, HANDS ETC. ANYWHERE NEAR THE MAST WHEN IT'S RAISED OR LOWERED OR NEAR THE LIGHTHEAD WHEN IT'S TILTED OR ROTATED.

7. Before raising the mast, ensure that the ground is suitable to support and level the lighting tower.

If need be, place suitable packing material such as hardwood timber offcuts under each jack pad to distribute the lighting tower's weight over soft ground surfaces.



FAILURE OF THE OUTRIGGERS TO SUPPORT THE LIGHTING TOWER ON SOFT SURFACES COULD CAUSE THE LIGHTING TOWER TO TIP OVER.

NEVER RAISE THE MAST WITHOUT FIRST SETTING ALL OUTRIGGERS AND JACK LEGS AND ENSURING THE LIGHTING TOWER IS LEVEL. A BUBBLE LEVEL IS MOUNTED ON THE LT³ ROOF PANEL



DO NOT SET-UP OR OPERATE THE LIGHTING TOWER IN CONDITIONS WHERE WIND SPEED IS LIKELY TO EXCEED 80 km/hr. TIPPING OR OVERTURNING OF THE LIGHTING TOWER IS POSSIBLE.

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INSPECTION & PREPARTION



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1.3.1 DELIVERY & PERIODIC (DAILY) INSPECTION

IMPORTANT

REGULAR PERIODIC INSPECTIONS ARE NECESSARY FOR MACHINE SERVICING AND MAINTENANCE.

- 1. This machine requires daily inspection and periodic safety and maintenance inspections by competent personnel.
- 2. Particular attention is required during daily checks to ensure the machine is free of structural discrepancies and the lighting tower functions as designed.



Weld Crack

Fig 1.3.4 Structural Discrepancies

- 3. There should be no abnormal noise or vibration during the machine's operation.
- 4. Should an operator become aware of any abnormal operation or condition while using the machine, then it should be shut down immediately, stowed safely and the problem reported to an authorised person.
- 5. All machines require both preventive and corrective maintenance throughout their useful service life to maintain the machine in a safe and reliable condition.
- Reference should be made to Section 2 of this manual (LT³ Service and Maintenance) for procedures relating to regular and periodic machine inspections

1.3.2 MACHINE PREPARATION

- 1. Some locations may require approval by a regulatory authority before setting up and using this lighting tower. For example, near airports or railway lines.
- 2. Ensure the machine set up location is clear of any dangers such as roads with moving traffic, moving machinery etc. Prior to use, ensure the lighting tower is positioned on firm ground. Barriers, fences, and warning signs maybe required to cordon-off the machine from the public.
- 3. Carefully inspect the machine for evidence of structural damage resulting from shipment. Ensure that all warning decals have been read and understood prior to operating machine.
- 4. Prior to starting the JLG LT³ engine check whether there is sufficient,
 - a) engine radiator coolant....
 - b) engine oil.....
 - c) engine fuel.....
 - d) hydraulic system fluid......
- 5. Preparation for use of the machine requires a complete function check together with a visual inspection to ensure a properly working unit. The following need to function correctly.
 - All outrigger arms slide in and out freely and that the spring-operated plunger pins engage and lock the arms when fully extended and fully retracted. Confirm all jacking legs can be wound up and down freely and jack feet are not bent.
 - The telescopic mast and lighthead moves smoothly when raised and lowered. Check wear pads for signs of adverse wear.
 - Light-head LED fixture pivots and swivel connections are done-up tight.
- 6. Check and drain bunding if necessary.

MACHINE CONTROLS JLG LT³

1.4.1 CONTROL PANEL



Fig 1.4.1 LT³ Control Module

Legend Key

O - Enable Button.

This yellow button must remain pressed to allow control of tower mast raise/lower and lighthead rotate/ tilt movements.

Mast Raise/Lower Switch

This switch raises/lowers/locks the mast Toggle switch *up* to 'raise' the mast. Toggle switch *down* to 'lower' the mast. Release switch to lock mast rotation angle.

2 Lighthead Tilt Switch

Operating this switch will tilt the lighthead. Toggle switch *down* to tilt lighthead 'down'. Toggle switch *up* to tilt lighthead 'up'. Release switch to lock lighthead position.

3 Lighthead Rotation Switch

Operating this switch rotates the lighthead. Toggle switch up to rotate head right-left Toggle down to rotate head left-right. Release switch to lock lighthead rotation.

1.4.2 LIGHTHEAD ROTATION



Fig 1.4.2 LT³ with Option 2 Lighthead

The LT³ has two lighthead rotation options.

Option 1 Manual rotation through ±180°

With this option the mast must be fully retracted and all four LED lights switched 'OFF'

The spring-loaded plunger pin must be pulled out and held before rotating the lighthead. The mast can be indexed and locked at 45° increments.

A DANGER

DO NOT MANUALLY ROTATE THE LIGHTHEAD OR ADJUST THE LED GENSET LIGHT FIXTURES WITH RUNNING AND LED LIGHTS 'ON'. LT³ ALWAYS THE ENSURE IS ELECTRICALLY SAFE WITH THE **EMERGENCY STOP ACTIVATED.**

ALLOW SUFFICIENT TIME FOR THE LED LIGHTS TO COOL BEFORE MAKING ADJUSTMENTS.

Option 2 Electro-Mechanical Slew-Drive combined with Slip-Ring.

This slew-drive allows the lighthead to rotate $\pm 360^{\circ}$. The slew-drive is operated by control-panel toggle-switch and enable button.

MACHINE CONTROLS JLG LT³

1.4.3 ANCILIARIES



Fig 1.4.3

LT³ Control Panel



Machine Manuals Storage Box



Fig 1.4.4 Bubble-Level Location

1.4.4 EMERGENCY STOP



THE EMERGENCY STOP (circled) OVERRIDES THE LT³ CONTROL MODULE TO SHUT DOWN THE ENGINE.



Fig 1.4.5 Emergency Stop Location



Fig 1.4.6

Component Locations

Battery Isolator

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1.5 MACHINE SET-UP

The following setup instructions are applicable when the lighting tower is positioned on firm ground in a safe operating location.

The LT³ is transported by truck and then fork-lifted or craned into position. Ensure the lighting tower is placed on firm ground and that all four outrigger arms are locked at maximum extension and the machine levelled using the jacks. Failure to do so may affect the stability of the machine under some operating conditions.

1.5.1 LT³ SET-UP OUTRIGGERS & LEVELLING JACKS

- 1. Select a flat level area to position the lighting tower.
- Pull-out and hold the outrigger locking pin, before extending an outrigger arm. Release the spring locking pin. Continue extending until the outrigger arm inner hole locates the locking pin.
- 3. Release and hold the jack locking pin. Rotate the jack from the stowed position through 180° until the foot is just above the ground. Turn the jack handle so the jack foot makes ground contact.
- 4. Repeat steps 2 and 3 to extend and set the other outriggers and jacks legs.
- 5. Adjust each outrigger jack until the machine is level and the foot plate of each outrigger support jack makes firm ground contact. Approximately one turn after contact. Do not attempt to raise the machine by over-extending the jack legs..

It is not necessary to raise the lighting tower's base above the ground when setting the outrigger jacks.

When set up correctly the base may still make firm contact.

A bubble-level, fixed to the LT³'s roof panel, is used to assist the operator with levelling the lighting tower on uneven surfaces.

- 6. Ensure the LED floodlights are adjusted and locked in position before raising and rotating the lighthead.
- 7. If fitted, ensure all wire-cable lanyards connect and secure all four LED light fixtures to the lighthead frame.



Fig 1.5.1



Fig 1.5.2

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MACHINE OPERATION

JLG LT³

1.5.2 LED FLOODLIGHT ADJUSTMENT

All four LED floodlights are trunnion mounted. Each LED floodlight can be independently rotated and swivelled.

Fully retract the mast with lighthead horizontal before adjusting the LED floodlight orientation.

To rotate the LED floodlight in its trunnion

- 1. Loosen the LED light fixture lever
- 2. Pull-out and hold the indexing pin.
- 3. Rotate the LED floodlight into position
- 4. Release the spring indexing pin
- 5. Tighten the LED light fixture lever



Fig 1.5.3 LED Light Tilt Adjustment



Fig 1.5.4 LED Light Tilt Adjustment

To swivel the LED floodlight trunnion

1. Loosen the M16 nyloc nut on the M16 bolt pivot using two 24 mm ring spanners.



Fig 1.5.5 LED Light Trunnion Rotation

2. Rotate the trunnion to the required angle



Fig 1.5.6 LED Light Trunnion Rotation

3. Hold the light trunnion in position when retightening the M16 nyloc nut.

1.5.3 MAST SET-UP INSTRUCTIONS



MAINTAIN SAFE MINIMUM APPROACH DISTANCES FROM POWER LINES. READ THE SAFETY PRECAUTIONS



BEFORE RAISING THE MAST, CHECK THAT NO OBSTRUCTIONS ARE LOCATED ABOVE THE MAST TO A HEIGHT OF 10 METRES.



Fig 1.5.7

- 1. Ensure all four outrigger arms are extended and the jack leg feet are in firm contact with the ground. Adjust height of each jack leg to level the lighting tower using the bubble-level.
- 2. Open the control panel access door Start the engine /generator and allow it to complete its run-up sequence.
- 3. To raise mast to the required height, *press* the enable button and at same time, *toggle* the mast raise/lower switch '*up*'.

- 4. To rotate a lighthead with electromechanical drive, *press* the enable button and *toggle* the rotate switch.
- 5. Finally, to adjust the lighthead tilt angle, *press* the enable button and *toggle* the tilt control switch.



TO AVOID CRUSHING INJURIES, KEEP HANDS AND LIMBS WELL CLEAR OF MOVING MAST AND LIGHTHEAD CRUSHING HAZARDS.



Fig 1.5.8

1.5.4 TURNING LIGHTS ON

The lighting tower's control module is factory pre-set with two machine stop/start modes.

- 1) Manual Start/Stop
- 2) Auto Start/Stop

A summary of each control mode follows.

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MACHINE OPERATION

JLG LT³

1.5.5 LT³ CONTROLLER CONTROL PANEL



Fig 1.5.9

Control Panel Push Buttons



Stop lighting tower operation Reset alarm when failure occurs Lamp test in stop mode (press for at least three seconds)

🖤 Manual Start Mode

Press this key to enter Manual Mode

Auto Mode

Press this key to enter auto start mode select interface; use up/down arrow keys to select mode and press "AUTO" to confirm selection.



If alarm occurs, pressing the button can remove alarm siren, and the indicator will light up; press the button again to reset the alarm and the indicator will turn off. If the alarm re-triggers in mute status, the controller will remove the mute status.



Strobe Light / Beacon (if fitted)

Switches the beacon light on or off. (Only when the engine is running)



Otart

Start lighting tower set in Manual Mode.



When running in the normal manual mode, press this button once to turn-off one light.



When running in the normal manual mode, press this button once to turn-on one light.



Menu / Confirm

Press this key to enter menu interface. In parameter setting interface press this key to right shift cursor and confirm the setting.



- Down/Config "- "
- 1) Screen Scroll
- 2) Down cursor and decrease value of menu setting



"+"

- 1) Screen Scroll
- 2) Up cursor and increase value of menu setting.

MACHINE OPERATION

JLG LT³

1.5.6 LIGHTS & ENGINE CONTROL



Fig 1.5.10

1) Manual Start/Stop Mode -Summary

Manual Start/Stop is initiated by the following pushbutton sequence.

Start



Fig 1:	AUTO MODE SELECT 01 AUTO TIMER MODE 02 AUTO SMS MODE 03 SUNRISE/SUNSET MODE
Fig 2:	AUTO TIMER MODE 01 TIMER START 02 TIMER STOP
Fig 3:	AUTO TIMER MODE START TIME 16:28:00 CURRENT TIME 12:05:18 GENERATOR AT REST

 B) 10 seconds before engine start-up time, an audible alarm sounds At pre-set start time, the engine cranks

Fig 4:		07:25:00
Fig 4.	START TIME	17:26:00
	CURRENT TIME	17:26:02
	CRANKING	5s

C) wait for the generator to reach the "on-load" requirements.

Fig 5:	STOP DELAY 10:07:42 START TIME 16:28:00 CURRENT TIME 16:32:18 2# LIGHT ON 09s
Fig 6:	STOP DELAY 09:06:02 START TIME 16:28:00 CURRENT TIME 16:33:58 GENERATOR NORMAL RUNNING

D) When the "stop delay" time is reached all lights will turn off in sequence. When all lights are off, the engine runs through a cool-down cycle before stopping.

Fig 7:	STOP DELAY START TIME CURRENT TIME 7# LIGHT OFF	00:00:00 16:28:00 23:32:18 09s
Fig 8:	AUTO TIMER MO START TIME CURRENT TIME COOLING TIME	DE 16:28:00 23:33:58 29s

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Setting Controller Parameters

After the controller powers up,

Press , then select

1 Set Parameters, then

Press **U**again to advanced parameter pin-number confirmation interface.

Press the \bigcirc and \bigtriangledown to increase or decrease values to enter the correct pinnumber password $0\sim9$;

Press the **U** to move right, entering the password number for all 4 positions.

Press the key to save pin-number. (Factory default password is **1234** and users can modify it via PC connection.)

Press the **O** key and **O** key to scroll screen; select parameter you want to

configure and Press the **U** key (the parameter will highlight with black),

Press the **O** key or **V** key to change parameter value,

Parameter Setting01 Timer StartStart TimeDuration18:5008:30

Press the key to confirm setting and the set value will be saved into internal FLASH

Date and Time Setting:

After controller powers up, Press then select **3** *Time Calibration,*



Press Dagain to the Date and Time Setting interface. The first line is current date and time, and the second line is the time information of user's modification.

Press the \bigcirc key or \bigcirc key to increase or decrease the value.

Date and Time Current Time: 13-01-04 (5) 08:27:55 13-01-04 (5) 08:27:23

Press the weight will right move automatically. Number "5" in the parenthesis is the week information. It is set by the microprocessor based on current date, so the user does not need to modify it.

1.5.7 LIGHTING TOWER PACK-UP

To pack-up the machine for storage or transport, complete the set-up steps in reverse order. Take special care when lowering the mast to ensure the mast section six V-cleat locates in the mast section one V-plate.



Ensure the lighthead and the LED lights are locked in the horizontal position when stowed for transport or storage.



Fig 1.5.11 Lighthead Home Position



Before transporting, ensure that V-arm attached to the top of mast section 6 seats in the V-plate bolted to mast section 1



Fig 1.5.12

Ensure the four outrigger arms are fully retracted and locked by spring latch bolts.

The levelling jack legs are inverted in stowed position. Jack leg winding handles are vertical.



Fig 1.5.13 LT³ Stowed.

1.6.1 MOVING THE LIGHTING TOWER BY FORKLIFT / TELEHANDLER



Figure 1.6.1

Forklifting Procedure



WHEN USING A FORKLIFT TO MOVE THE LIGHTING TOWER USE ONLY THE FORKLIFT TYNE POCKETS THAT FORM THE LIGHTING TOWER'S BASE.

Prior to using a forklift/telehandler to move a lighting tower, ensure that the mast is lowered to the stowed position, the lighthead and LED lights are horizontal when stowed, and the genset is shut down.

The JLG LT ³'s maximum mass: 1000 kg

Each side of the lighting tower base has two fork pockets. Use a forklift of adequate capacity to lift and move the lighting tower. Before lifting and moving the lighting tower, ensure both forklift tynes protrude at least 800 mm into the fork pockets.

Fork pocket opening: 90 mm x 190 mm Fork pocket centres: 680 mm



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1.6.2 CRANING THE LIGHTING TOWER

Craning Procedure



USE THE LIFTING POINT PROVIDED ON THE MAST TO LIFT THE LIGHTING TOWER WITH A CRANE. DO NOT LIFT FROM ANY TIE-DOWN LUG. DOING SO WILL DAMAGE THE LIGHTING TOWER AND POSSIBLY INJURE PERSONNEL.

The mast and lights should be in the stowed position and the engine generator shut down prior to lifting the machine Ensure all outrigger legs are fully retracted and locked in the stowed position.

Using suitable lifting equipment attached to the mast section one (MS1) lifting lug proceed to lift the machine as per the lifting crane's instructions



1.6.3 TRANSPORTING THE MACHINE

A WARNING

USE ONLY THE LIGHTING TOWER'S TIE-DOWN LUGS WHEN CHAINING OR STRAPPING AN LT³ TO A VEHICLE'S TRANSPORT BED. ENSURE NO PART OF AN LT³ OVERHANGS A VEHICLE'S TRANSPORT BED.

Make sure the transporting vehicle's load restraint anchor points have sufficient rating and are structurally sound.

Ensure the load restraint chains and straps are in good condition and have sufficient lashing capacity to secure the LT^3 to the transport vehicle's bed.

When placing the LT^3 by forklift or crane onto a transport bed, ensure no part of the LT^3 overhangs the transport bed. Certain restraint methods require the LT^3 be placed on wood blocks or anti-slip mats.

Multiple LT³ lighting towers can be positioned and secured two-abreast (side-by-side) across the vehicle transport bed.

Attach straps/chains to the transport bed load restraint anchor points. Run the strap or chain through the tie-down lugs bolted to the LT³ frame corner posts.

Remove any slack in the strap or /chain with the approved chain or strap tensioner. Where multiple chains/straps are used, apply equal tension to each chain/strap. Do not over tension the chain or strap.

Check the load restraint system regularly when travelling long distances, especially over rough sealed and unsealed roads.



Figure 1.6.3 LT³ Single Unit Direct Restraint



Figure 1.6.4 LT³ Two-Abreast Tie-Down Restraint

1.7 STORING THE JLG LT³

If the lighting tower is stored and not operated for more than three months.

- 1. Ensure the lighting tower mast is fully retracted in the stowed position.
- 2. Place the lighting tower undercover on firm level ground in a reasonably dry and well-ventilated area. Ensure the four stabilising arms are fully retracted and locked. Levelling jacks may be left down or swung up.
- 3. Press the emergency stop button "in".
- 4. Disconnect the machine's battery and fit plastic terminal caps.
- 5. Consult the engine manufacturer's maintenance and service manual to complete the necessary engine storage instructions.
- 6. Empty the fuel tank. Plug all vent holes to prevent ingress of moisture, insects and to the reduce likelihood of condensation and corrosion.
- 7. Clean all exterior surfaces and remove any collected or accumulated plant or leaf matter.



Figure 1.7.1 LT³ Stored Configuration

1.8.1 DIMENSIONS

Envelope:	Stowed		
Length Width Height mast retracted	1.180 m 1.180 m 2.420 m		
Stability Envelope: Li	ghting Tower		
Height mast raised Base Length Base Width	8.000 m 1.465 m 1.465 m		
Lighthead Rotation			
Electro-mechanical drive Manual rotation [45° s	ve ± 360° steps] ± 180°		
Lighthead Tilt Angle Ra	ange 0 - 40°		
1.8.2 MACHINE MAS	s		
JLG LT ³ maximum (fu minimum (fu	el) 995 kg el) 850 kg		
1.8.3 MACHINE PERF	ORMANCE		
JLG LT ³ 4 x 300 W LE	D Lights		
Power Input (electrical Fuel Consumption Rat) 1200 W e 0.75 L/hr		
Load Specific Fuel Consumption	0.521 kg/(kW hr)		
Luminous Output 132 000 lm/ 180 000 lm Efficacy (nominal) 110 lm/W /150 lm/W			
Sound Pressure Level	@ 7 m < 60 dB _A		
Wind Speed Rating (maximum)	80 km/hr		
Lighthead Movement Times			
From Stowed Position to Maximum Height	25 s		
From Maximum Height to Stowed Position	15 s		
Lighthead Tilt (Lighthead Rotation ((electro-mechanical)) - 40° 15 s) - 360° 30 s		





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1.8.4 STORED FLUID VOLUMES

Hydraulic System Oil	8.75 L
Fuel Tank (diesel)	170 L
Genset	Z482E + PM5G
Radiator Coolant	2.0 L
Engine Oil Sump	5.1 L
Fluid Bund Capacity	110%

1.8.5 COMPONENT SPECIFICATIONS

Genset Z482E + PM5G

Engine: Kubota Z482-E4B

Normally Aspirated, Water Cooled 2-Cylinder **Compression Ignition Engine Electronically Governed**

Total Displaced Volume 479 cm³

Power Output (SAE Continuous Rating) 2.8 kW @ 1800 rpm

Generator: Meccalte PM5G SAE 6.5

Brushless Fixed S 3-Phase Wound 20-Pole Permaner	peed nt Magnet	5 kW Stator Rotor
PMG windings		1500 rpm
Voltage Output Current rating	48 - 56 105	V DC A

LT³ Floodlight JR309 300 W

Light Emitting Diode (LED)	48-52 V DC
Fixed Beam Width Angle	90°/110°
Colour White	3000 - 6000 K
Electrical Input (rating)	300 W

Luminous Flux per Lamp 33000/45000 lm **Enclosure Protection Rating** IP 66

Electrical System Protection

System Accessories Circuit	1 x 15 A
Lighting Circuit Breakers	4 x 10 A

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Battery

Model Voltage C.C.A. Reserve Current Capacity	27H-680 12 V I 680 A 160 A 90 A I	DC nr (20 hr)	
Electric over Hydraulic System			
Pump motor (standard duty)		12 V E	C
Pump Displacement		0.78 cm ³ / re	ev
Pump Relief Valve Setting		125 bar	

(1800 psi)

Lighthead Rotation & Tilt

Rotator : Electro-mechanical 5 A / 48 V Worm Reduction 62:1 Planetary Reduction 32:1 Single Axis Worm Wheel Drive Output Torque 230 Nm Speed 1.4 rpm

Tilt Actuator: Electro-mechanical linear TA2P 12 V DC Load rating 150 kgf



Figure 1.8.2 JLG LT³ shown "stowed'.

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LIGHTHEAD ISOLUX PLOTS

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