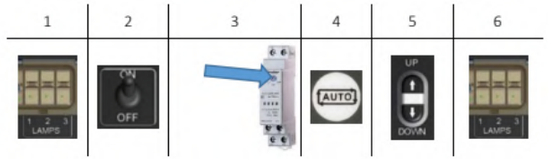
Lighting Sensor Mode

1. Ensure that all the lamp switches are in OFF position.
2. Put the ON/OFF selector in ON position.
3. If needed, set the light sensor sensitivity through the trimmer on the light sensor.
4. Press the AUTO button.
5. Adjust the mast height using the UP/DOWN buttons.
6. Switch on the floodlights.



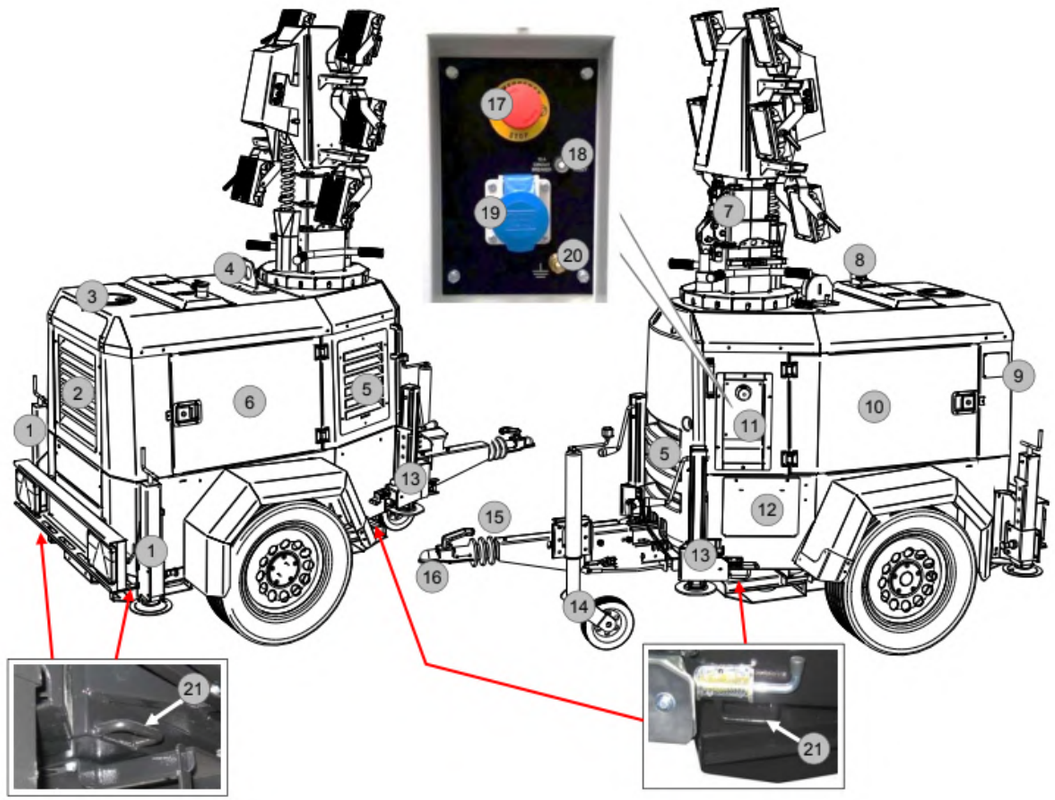
The machine is now ready to start based on the lights sensor signal.
On the light sensor there is a red LED light:

- if it flashes slowly, there is power, but the sensor is off
- if it flashes quickly, the timing procedure is ongoing
- permanent light means that the power is on, the sensor is on, the machine starts and, after the engine has reached the operational temperature, the lamps will be turned on.

When the ambient light is strong enough, the machine will automatically turn off and put itself in stand-by.

Machine Components

1. Fixed stabilizers
2. Air output
3. Radiator cap cover
4. Lifting eye
5. Air inlet
6. Inspection door
7. Telescopic mast
8. Exhaust mast
9. Data plate
10. Inspection door
11. External control panel
12. Power supplies cover
13. Extended stabilizers
14. Rudder stabilizer with wheel
15. Handbrake lever
16. Tow hook
17. Emergency stop button
18. 12A circuit breaker
19. 230V 16A power outlet
20. Grounding terminal
21. Tie down points



EQUIPMENT CARE

Regularly check the fuel level and top up as necessary with clean fresh diesel.
Note: This unit is fully bunded and should be checked daily and drained if necessary.
Regularly check the oil level - when the engine is cold and on level ground. Withdraw the dipstick, wipe it clean, then replace it, remove it a second time and verify that the oil level is between the min and max lines, top up as necessary.
Check hydraulic oil by unscrewing the oil cap which is located on the main panel (this must be done when the **mast is down**), check the dipstick as with the engine oil. If the engine stops, **check to see if the oil pressure lamp on the main panel is not illuminated,** top up as necessary. When not in use, store the equipment somewhere clean, dry and safe from thieves.

FINISHING OFF

Stop the lighting tower by turning the key to the 'OFF' position and wait until the engine stops.
If you have finished with the equipment completely, you should **now clean up the unit.**
If the unit has been used to power auxiliary power, **disconnect all cables before lowering the mast.**
When ready **lower the mast by reversing the instructions to raise it in 'GETTING STARTED'**
Check all lock pins, clamps, stabilisers and legs are correctly stowed and secure ready for return to your local HSS Hire.

... have you been trained

The law requires that personnel using this type of equipment in the workplace must be competent and qualified to do so.
Training is available at HSS Training
0845 766 7799

www.hss.com

3014/01

Operating & Safety Guide 3014

HSS Hire

LED LIGHTING TOWER

A towable lighting tower with six 160W LED lighting heads

Code 57236

GENERAL SAFETY

For advice on the safety and suitability of this equipment **contact your local HSS Hire.**

There is a serious risk of personal injury if you do not follow all instructions laid down in this guide.

The hirer has a responsibility to **ensure that all necessary risk assessments have been completed** prior to the use of this equipment.

This equipment should only be used by an operator who has been deemed competent to do so by his/her employer.

This equipment should be used by an able bodied, competent adult who has read and understood these instructions. Anyone with either a temporary or permanent disability should seek expert advice before using it.

Keep children, animals and bystanders away from the work area. Cordon off a NO GO area using either cones, barriers or tape, available for hire from your local HSS Hire.

Never use this equipment if you are ill, feeling tired, or under the influence of alcohol or drugs.

This equipment generates potentially harmful noise s. To comply with health and safety at work regulations, **ear defenders must be worn by everyone in the vicinity.**

Skin must be covered – wear practical, protective clothing, gloves and footwear.

Exhaust Danger

NEVER operate diesel engines indoor or in a confined space. The exhaust contains gases that can kill.

Fuel Safety

NEVER refuel while the engine is hot or running. Never smoke or allow naked lights into the area while refuelling.
Never inhale fuel vapour.
ALWAYS mop up any spillage as quickly as possible, and change your clothes if you get fuel on yourself.
ALWAYS store fuel in a purpose-made sealed container, in a cool, safe place well away from the work area.

Keep all vents clear of all obstructions. Lights get HOT. Always leave them to cool for a minimum of 15 minutes before touching them.

Towing Safety

Before towing always make sure: The lighting tower is correctly fitted to the vehicle tow bar and the breakaway cable is fitted. The jockey wheel is raised and locked. All lights and brakes work and a number plate is displayed. Ensure the tyres are in a roadworthy condition and inflated to 60psi (4.2 bar). When towing this equipment, DO NOT EXCEED A SPEED OF 60MPH.

Never use the lighting tower near overhead power lines or similar hazards.

Never use the lighting tower in wind speeds greater than 68mph/110kmh.

Do not transport the lighting tower with the mast raised.

Never use the lighting tower unless the adjustable legs and jack legs are fully extended and the feet correctly set on firm, level ground.

Make sure you know how to switch this equipment OFF before you switch it ON in case you get into difficulty. **Check the condition of the equipment before use.** If it shows signs of damage or excessive wear, return it to your local HSS Hire.

COSHH information sheets are available from your local HSS Hire.

ELECTRICAL SAFETY

We do not recommend this equipment to be used to generate auxiliary power, generators can be hired from your local HSS Hire.

If the auxiliary socket is to be used, the maximum power available is 3.5kVA at 230V power. **If lighting is required when generating auxiliary power the lamps must be switched on and illuminated before the socket is used. Keep power supply cables out of harms way. Extension leads should be fully unwound and loosely coiled, away from the equipment.** Never run them through water, over sharp edges or where they could trip someone.

To reduce the risk of electrical shock, all lamp units and the auxiliary socket are protected via an RCD (Residual Current-Operated Device).

Always **turn OFF all electrical switches before connecting or disconnecting** equipment powered by the auxiliary socket.

GETTING STARTED

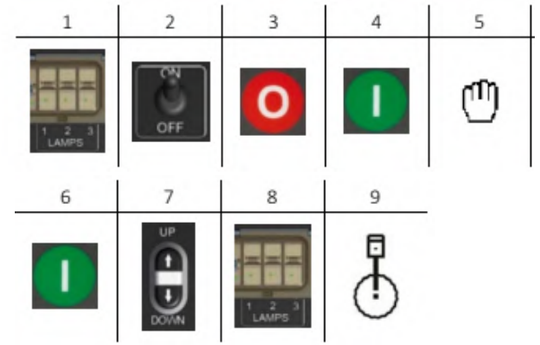
Before starting and operating the unit, we suggest making the following routine checks for improved safety, better efficiency, longer product life and in order to avoid work disruptions.

- Check that the machine is leveled correctly and stabilized firmly.
- Check that all the lamp lenses are clean and undamaged.
- After adjusting the lights, prepare to raise the tower by:
- Inspecting the cable and replacing it, if damaged.
- Checking mounting hardware for proper tightness and re-torquing if necessary.
- Check fuel, engine oil and coolant level. Top them if necessary.
- Ensure that the fuel lines are undamaged and correctly connected.
- Ensure that all the electrical cables are undamaged and correctly connected.
- Check that the main switch and the circuit breakers are in the OFF position.
- Ensure that all the light switches are turned off in order not to start the engine under load.
- Drive the earth picket into the ground (earth) following any risk assessment. (*)
- Check that the grounding cable is securely attached to the unit.
- Check that the emergency stop button is not pressed. If necessary, rotate the button clockwise to release it.
- Open the frontal door to access the control panel.

For operators' safety, the grounding of the machine always needs to be done paying attention on the section of the cable to be used (never to be less than 10 mm2). For the connection of the grounding cable, please always use the clip located on the control panel, on the right side of the machine. Always perform grounding operations in compliance with local/ international regulations.

Manual Mode

1. Ensure that all the lamp switches are in OFF position.
2. Put the ON/OFF selector in ON position.
3. Manual mode allows the operator to start and stop the set manually, and if required change the state of the load switching devices. Module mode is active when the STOP button is pressed.
4. To begin the starting sequence, press the START button. If 'protected start' is disabled, the start sequence begins immediately.
5. If the display shows the manual mode icon and the corresponding LED flashes, It means that "protected start" is enabled.
6. The START button must be pressed once more to begin the start sequence.
7. Adjust the mast height using the UP/DOWN buttons.
8. Switch on the floodlights.
9. **Note: the mast can be raised and the lights can be turned on only if the running icon appears on the display.**



NOTE: There is no start delay in this mode of operation.

The fuel relay is energized and the engine is cranked.

NOTE: If the unit has been configured for CAN, compatible ECU's will receive the start command via CAN.

If the engine fails to fire during this cranking attempt then the starter motor is disengaged for the crank rest duration after which the next start attempt is made. Should this sequence continue beyond the set number of attempts, the start sequence will be terminated and the display shows. *Fail to Start.*

When the engine fires, the starter motor is disengaged. Speed detection is factory configured to be derived from the main alternator output frequency but can additionally be measured from a Magnetic Pickup mounted on the flywheel. Additionally, rising oil pressure can be used disconnect the starter motor (but cannot detect underspeed or overspeed).

NOTE: If the unit has been configured for CAN, speed sensing is via CAN.

After the starter motor has disengaged, the Safety On timer activates, allowing Oil Pressure, High Engine Temperature, Under-speed, Charge Fail and any delayed Auxiliary fault inputs to stabilize without triggering the fault.

Know Your Symbols

HSS have created clear Icons to inform the hirer of their responsibilities towards the safe use of hire equipment.

These are designed to reduce the amount of different safety information labels required for each product for hire.

General use PPE / Warning

Clearly marked minimum PPE will be visible on all equipment,

Correct PPE must be worn

HAV Hand Arm Vibration

Danger Rotating blade

Danger Hot exhaust

Danger Electric shock

Caution Abrasive Wheel

Caution Finger trap

Fuel and Supply Types

Pe
Petrol

Di
Diesel

2t
2 - Stroke Petrol

El
Electric

Safe Procedures

All hirers must understand and respect the safe procedures of all equipment.

It is the responsibility of the hirer to maintain and return the equipment in a clean condition and good working order.

Ro
Read OPS Guide

Ou
Outdoor Use only

Hl
Heavy Lifting

Cd
Check Oil daily

Cf
Check Fuel daily

Cw
Check Water daily

Bc
Battery Care

Sh
Safe Height Working

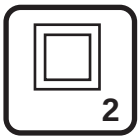
Swl
Refer to Data Plate

V
Check Power Voltage Data Plate

Electrical Safety

Safe wiring procedures.

Ea
Must be Earthed Class 1



Doi
Double Insulated Class 2

Enl
Earth Live Neutral Wire Coding

Return Responsibility

Charges apply to equipment returned dirty and damaged.

Cc
Cleaning Charge

Rc
Repair Charge

ADVISORY

Title:
Operation of vertical mast systems during very cold weather.

Relevant To:
All Vertical Mast Tower Lights
From:

Model Type information applies to: Vertical Tower Lights
Issue identified: Possibility of Extreme weather conditions causing vertical mast systems to freeze in the extended position.
Modification required: None
Procedure: In normal circumstances the operation of the vertical mast is quite simple, to raise the mast, the UP button is pressed, and the Hydraulic Ram raises one section of the mast, the remaining sections are raised by stainless steel ropes. Once the mast is at the required height the UP button is released, and the mast stops and remains at that height. To lower the mast the DOWN button is pressed and the Hydraulic pressure in the Ram is released, the weight of the mast then pushes the Hydraulic ram back into the Hydraulic cylinder and the mast lowers. It is very important that the unit is level when it is set up as this allows the vertical mast sections to slide up and down smoothly. In very extreme cold weather, it is possible for freezing rain or snow to coat the mast, ropes and rollers preventing them sliding easily within each other, possibly causing the mast to stick or remain up. If you are operating a mast to come down and you are pressing the mast down button but the mast itself does not drop, especially during extreme weather conditions, we do not recommend releasing all the pressure within the Hydraulic system, leaving the mast in the air. What we do recommend is that the mast is checked to ensure it is vertical, the UP button should then be pressed to raise the mast and increase the Hydraulic pressure, and then the DOWN button should be pressed while a second operator is shaking the mast from side to side using the mast rotation handles, this should start the mast lowering as normal. At no time would we suggest that anyone should climb onto the lighting tower canopy itself and we would NEVER recommend touching the raised mast sections or the stainless steel ropes. For further advice please contact HSS directly.