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HiSOLO

Mobile Solar Trailer Tower

Operation Manual



This manual provides information and procedures to safely operate and maintain the solar trailer tower. For your own safety and protection from physical injury, carefully read, understand, and observe the safety instructions described in this manual. The information contained in this manual was based on machines in production at the time of publication.

DO NOT MODIFY or use this equipment for any application other than which it was designed for.

Keep a copy of this manual with the unit at all times. Operators manual for solar controller, battery charger were also supplied with the unit at the time of shipment from the factory. The manual provides detailed operation procedures.

Unit Model Number: _____

Unit Serial Number: _____

OPERATING SAFETY

Before using the solar trailer tower, be sure you read and understand all of the instructions! This equipment was designed for specific applications; DO NOT modify or use this equipment for any application other than which it was designed for. Equipment operated improperly or by untrained personnel can be dangerous! Read the operating instructions and familiarize yourself with the location and proper use of all instruments and controls. Inexperienced operators should receive instruction from someone familiar with the equipment before being allowed to operate or set up the solar trailer tower. The following points should be practiced at all times:

- The area immediately surrounding the solar trailer tower should be dry, clean, and free of debris.
- Position and operate the solar trailer tower on a firm, level surface.
- NEVER operate a unit in need of repair.
- Lower tower when not in use, or if high winds or electrical storms are expected in the area.
- Make Sure tower is well grounded and securely fastened to a good earthen ground.
- When the mast is raising, make sure area above tower is open and clear of overhead wires and obstructions.
- Keep area beside trailer clear of people while raising and lowering mast!
- Trailer must be leveled and outriggers extended before raising tower. Outriggers must remain extended while tower is up.
- If for any reason any part of mast hangs up or winch cable develops worn while raising or lowering tower, STOP immediately and replace it.
- NEVER remove safety pin or pull mast locking pin while tower is up!
- NEVER use tower if insulation on electrical cord is cut or worn through.
- If used in dense crowds, please set up guards 5 meters away from the unit.
- NEVER take power directly from the batteries.
- If not being used for a long time, please turn off the breaker for the batteries.
- During mast extending, once the hole for locking pin aligns, stop operating the manual/electric winch.
- During solar charge process, do not unplug each panels and the connectors for solar input on the trailer. It will lead to severe personal injury and equipment damage.
- NEVER put conductive metal objects on the batteries.
- Do not forget to insert the safety locking pin when cranking up the outrigger.

SERVICE SAFETY

This unit includes solar modules and batteries which are with high voltage circuits capable of causing serious injury or death. Only a qualified electrician should troubleshoot or repair electrical problems occurring in this equipment.

- Before servicing solar tower, make sure the breakers for solar modules, batteries and chargers turned OFF. Disconnect the solar panels and batteries.
- NEVER allow water to accumulate around the base of the tower.
- NEVER wash the unit with a power washer or high pressure hose.
- Please wear goggles and insulating gloves, using insulation wrench to replace the batteries.
- NEVER disassemble and repair the mast in uneven place. The mast must be hung and installed with equipment.
- NEVER replace the tyres and outriggers or adjust and fix the brake system in uneven place.
- NEVER replace the manual (electric/hydraulic cylinder) winch when the mast is extending.

- Make sure slings, chains, hooks, jacks, and other types of lifting devices are attached securely and have enough weight-bearing capacity to lift or hold the equipment safely. Always remain aware of the position of other people around you when lifting the equipment.

TOWING SAFETY

Towing a trailer requires care! Both the trailer and vehicle must be in good condition and securely fastened to each other to reduce the possibility of an accident. Also, some countries require that trailers be registered and licensed. Contact your local Department of Transportation office to check on license requirements for your particular unit.

- Check that the hitch and coupling on the towing vehicle are rated equal to, or greater than, the trailer's "gross vehicle weight rating" (GVWR).
- Check tires on trailer for tread wear, inflation, and condition.
- Inspect the hitch and coupling for wear or damage. DO NOT tow trailer using defective parts!
- Make sure the trailer hitch and the coupling are compatible. Make sure the coupling is securely fastened to the vehicle.
- Connect safety chains in a crossing pattern under the tongue and if the trailer is with electric brake, attach the breakaway cable TO THE REAR BUMPER OF THE TOWING VEHICLE. Do not attach the cable to the trailer hitch.
- Make sure directional and brake lights on the trailer are connected and working properly.
- Check that all lug nuts holding wheels on are tight and that none are missing.
- Maximum recommended speed for highway towing is 45 m.p.h (72km/h). Recommended off-road towing speed is not to exceed 10 m.p.h. or less depending on terrain. When towing, maintain extra space between vehicles and avoid soft shoulders, curbs, and sudden lane changes. If you have not pulled a trailer before, practice turning, stopping, and backing up in an area away from heavy traffic. A film of grease on the coupler will extend coupler life and eliminate squeaking. Wipe the coupler clean and apply fresh grease each time the trailer is towed.



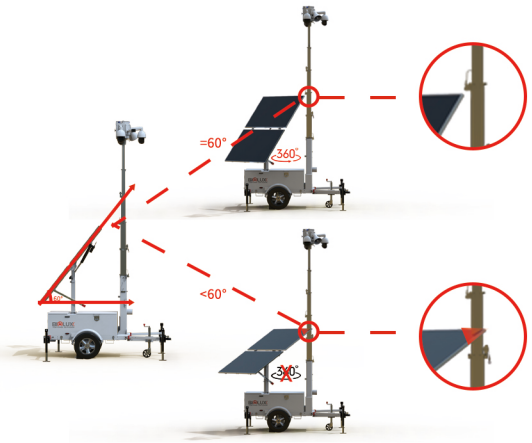
TRANSPORTING SAFETY

CAUTION

- Before lifting, make sure that trailer tower parts are not damaged and screws are not loosened or lost.
- Always make sure crane or lifting device has been properly secured to lifting hook of the equipment.
- NEVER lift the equipment while trailer tower is working.
- Make sure the tower is in the stowed position before lifting.
- Always Make sure all solar panel lock is secure before lifting.
- Use adequate lifting cable (wire or rope) of suffi cient strength.
- Use one point suspension hook and lift straight upwards.
- NEVER allow any person or animal to stand underneath the equipment while lifting.
- If lifting through pockets, make sure forks of forklift are inserted in pockets as far as possible before lifting.
- When loading onto flatbed truck, make sure that front jack stand of trailer tower is retracted and in the horizontal position so that the foot does not make contact with the deck floor.
- DO NOT secure the unit by running a strap or chain over the tongue of the trailer tower. This may cause severe damage to the unit.
- Straps and chains should be routed through the transport tie-down points located beneath each corner of thecabinet to allow even application of forece to the front and rear of the machine.

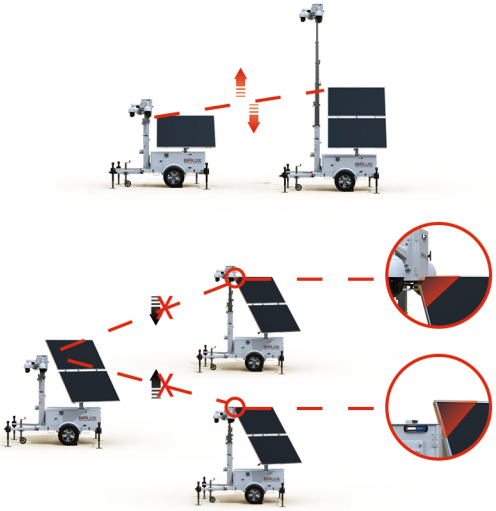
Precautions for rotating solar panels

- When the solar panel is set at a 60-degree angle, it can rotate 350 degrees around its support axis. However, if the angle is less than 60 degrees, the solar panel 2 will collide with the lifting mast, preventing a full 350-degree rotation.

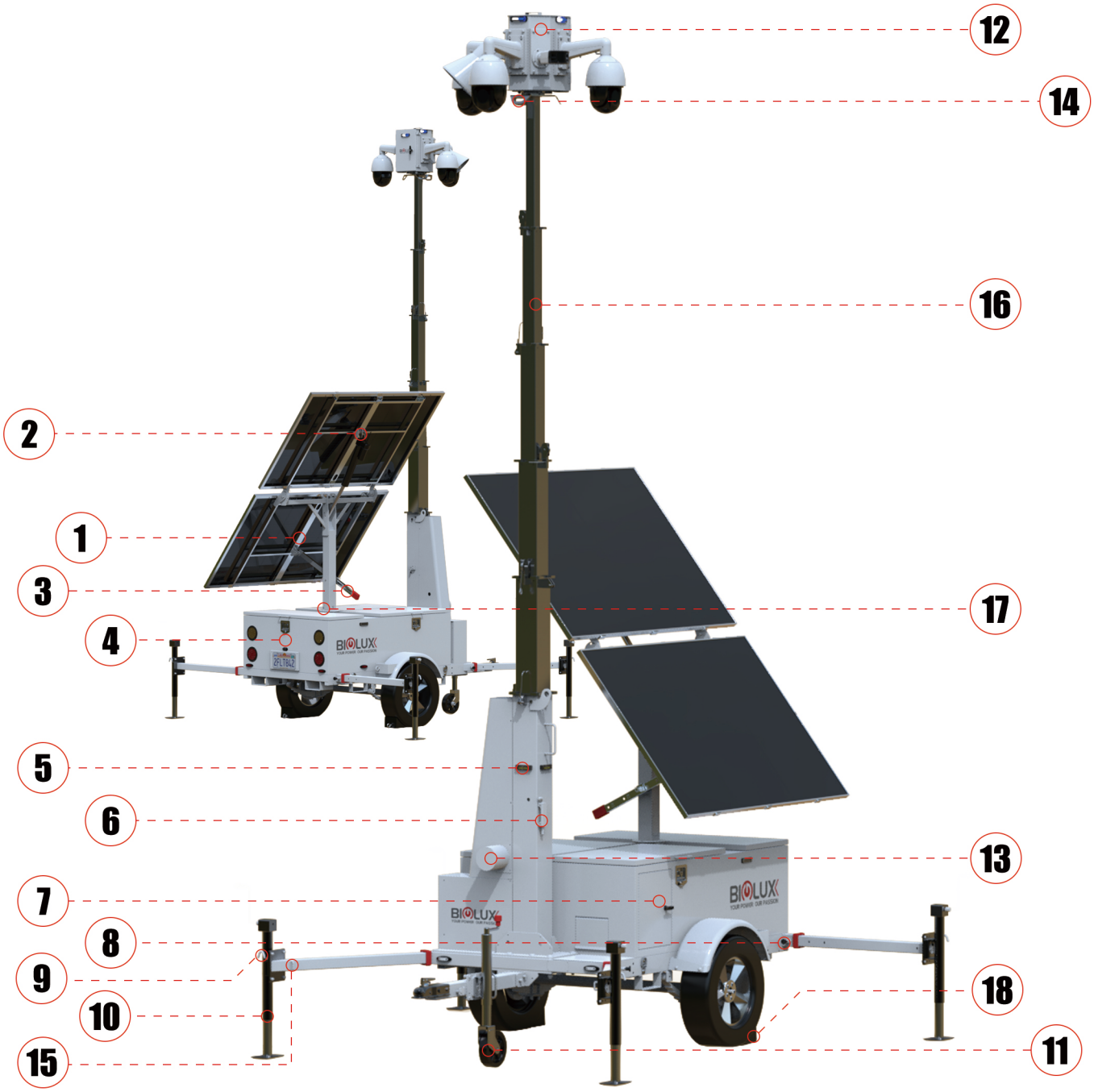


Precautions for mast lifting and lowering

- Before lifting or lowering the telescopic mast, rotate the solar panels to align with the trailer body to avoid conflicts.



HiSOLO | PRODUCT DETAILS



1. Solar panel 1
2. Solar Panel 2
3. Solar Panel angle adjusting handle
4. Rear compartment
5. Spirit level
6. Telescopic mast stop pin
7. Control panel door
8. Trailer jacks pin
9. Trailer jacks rotation handle
10. Trailer jacks
11. Jockey wheel
12. CCTV mounting box
13. Lifting winch
14. Guy wire fixation (top)
15. Guy wire fixation (bottom)
16. Telescopic mast
17. Solar panel rotation stop pin
18. Wheel chocker

Note: This picture is for reference only. Please refer to the actual received goods for accuracy

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— Deployment Operation Steps

01/Secure Trailer

- Lower the Jacks.
- Place two wheel chocks behind the wheels to prevent movement.









02/Adjust Solar Panel 1

- Manually adjust the tilt angle of Solar Panel 1 to less than 60 degrees.

03/Power On and Adjust Solar Panel 2

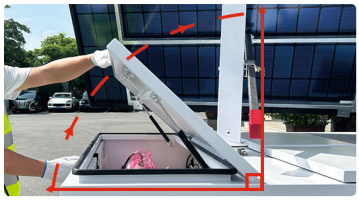
- Open the control panel door.
- Turn on the battery power and the MPPT controller.
- Wait for 20 seconds for MPPT working.
- Turn the solar panel knob switch to raise Solar Panel 2 to create space for opening the rear compartment.











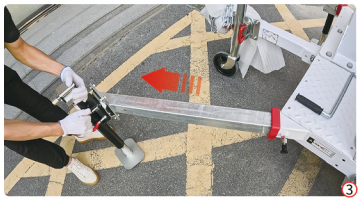


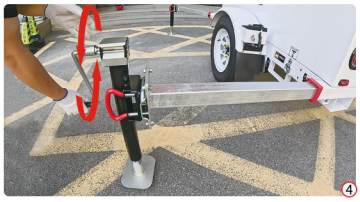
04/Open Rear Compartment

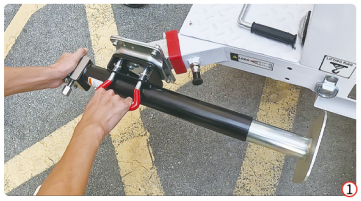
- Open the rear compartment, then take out the hand cranks, guy wires, CCTV mounting box, cameras and related equipment.

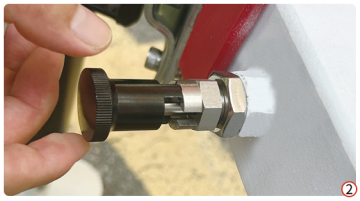
05/Set Up Trailer Jacks

- Extend the four trailer jacks and adjust them to ensure the bubble in the spirit level is in the middle, making sure the telescopic mast and trailer remain level and stable.

















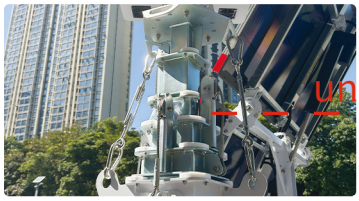
06/Install CCTV Mounting Box and Equipment

- Stand on the footrest and install the CCTV mounting box on the top of the telescopic mast with screws; Rotate the box to install and wire the required cameras and other equipment.
- Rotate the mounting box to your required angle according to the equipment application.

07/Power On Equipment

• Turn on the power for the cameras and equipment installed on the mounting box, ensuring they are working properly.








08/Secure Guy Wires

• Release the transport lock at the top of the telescopic mast.
• Secure the guy wire to the top of the mast, ensuring the first end with the snap hook is properly attached. (the end with rope clip screws and turnbuckles is the tail end).

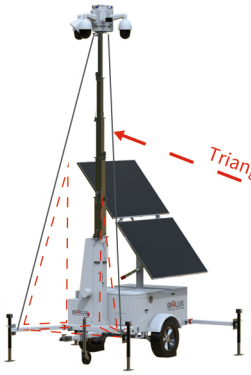
09/Lift the Mast

• Manually lift the telescopic mast by hand crank, or electrically lifting by control panel switch, checking the spirit level to ensure the bulb remains centered. If not centered, adjust the trailer jacks.
• Watch for the red marks on the mast when you lift it, once the hole on inner section pole aligns the limit hole on the first section of the mast, insert the safety pin.











10/Adjust Guy Wires

• Adjust the length of two guy wires by the rope clip screws and turnbuckles at the tail end, lock the ends to the front outrigger holes on both sides of the trailer.

11/Return Tools

• Return the hand cranks and other tools to the rear compartment, then lock the door.

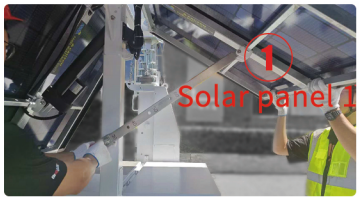



12/Adjust Solar Panels

• Adjust the tilt angles of both solar panels to avoid conflicting with the telescopic mast, then rotate them to face the south or north.









13/Final Solar Panel Adjustment

• Manually adjust Solar Panel 1 to the appropriate angle based on local latitude and season (30°, 40°, 50°, or 60° optional), and adjust Solar Panel 2 to the same angle.

14/Final Check

• Ensure all four doors are locked before leaving.





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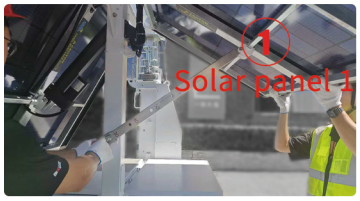


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Shutdown Operation Steps

01/ Adjust Solar Panels

- Manually adjust the tilt angle of the solar panels and rotate them to leave space for opening the rear compartment.
- Take out the hand cranks and related tools from the compartment.













02/ Detach Guy Wires

- Unhook the guy wires from trailer jacks.
- Remove the safety pin from the mast hole and set it aside.
- Prepare the hand crank (for manual lifting telescopic mast) or open the control panel door (for electric lifting telescopic mast) to lower the mast.

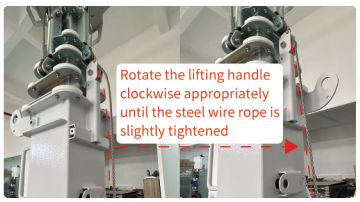
03/ Lower The Mast

- Manually or electrically lower the mast, adjusting the solar panel angles if necessary to prevent the CCTV box, cameras and other equipment from hitting the panels.

Warning:

1. Lower the telescopic mast, rotate the crank handle counterclockwise, observe the mast's descent state, wait until the mast is close to the initial state, and observe that the wire rope is slightly bent and bulged, which means the mast has reached the bottom. Do not keep rotating the crank handle counterclockwise at this time, otherwise it will cause the wire rope to knot and cause the mast's failure; if this happens, please open the wire rope protective cover and straighten the winch wire rope to make it in a normal state without knots;
2. When the mast is rotated counterclockwise to the bottom, the wire rope is slightly bent and bulged. It is necessary to rotate the crank handle clockwise appropriately to make the wire rope straight in the initial.





04/ Secure The Mast

- After the telescopic mast is fully lowered, stand on the footrest to unhook the guy wires from the top of the mast and secure the transport lock.
- Depending on the situation, to choose whether to remove the CCTV box, cameras and other equipment for protection; If long-distance transportation, we suggest you do so.





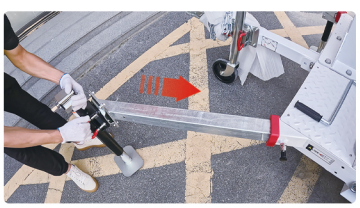




05/ Retract The Trailer Jacks

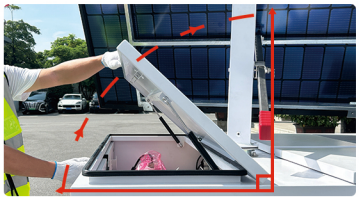
- Manually retract the four trailer jacks with hand crank.





06/Adjust Solar Panels

• Rotate the solar panels to a position that allows open the rear compartment door easily.




07/Return Tools

• Place hand cranks, guy wires and related tools back into the rear compartment.

08/Align Solar Panels

• Rotate the solar panels to align them with the trailer body.











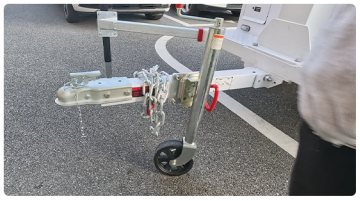
09/Adjust Solar Panels

• Manually adjust Solar Panel 1 to its maximum angle and electrically retract Solar Panel 2.

10/ Power Off

• Turn off the control panel switches, lock all four doors, return the wheel chocks to their original position, and raise the jockey wheel.






11/Ready To Go



IF YOU NEED ASSISTANCE,
PLEASE CONSULT OUR PROFESSIONAL CUSTOMER SERVICE.

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