Electric Leveling System

User Manual
### TABLE OF CONTENTS

- **WARNING** ................................................................................................................. 2
- **STANDARD PROCEDURES & AUTOMATED FUNCTIONS** .......................... 3
  - UNIT DETACHMENT AND AUTO LEVEL .................................................. 3
  - UNIT ATTACHMENT .................................................................................. 4
- **MANUAL MODE FUNCTIONS** ............................................................................ 6
  - MANUAL STABILIZER JACK MODE ............................................................ 6
  - MANUAL JACK MODE ............................................................................... 6
- **CARE & MAINTENANCE** ................................................................................... 7
  - ROUTINE SYSTEM CHECK ...................................................................... 7
- **MANUAL JACK OVERRIDE** .............................................................................. 8
  - PROCEDURE ............................................................................................. 8
- **DIAGNOSTICS** .................................................................................................... 9
- **ERROR DISPLAY** ............................................................................................. 9
WARNING

- NEVER USE THE LEVELING SYSTEM AS A LIFT FOR CHANGING TIRES OR WORKING UNDER THE UNIT.

- KEEP PEOPLE AND PETS CLEAR OF THE UNIT BEFORE TURNING THE LEVELING SYSTEM ON AND WHILE OPERATING THE SYSTEM.

- ALWAYS CHOCK THE TIRES BEFORE DISCONNECTING THE UNIT FROM THE TOW VEHICLE AND/OR OPERATING THE LEVELING SYSTEM.

- PARK UNIT ON REASONABLY SOLID SURFACE SO THAT JACKS WILL NOT SINK INTO THE GROUND. ON EXTREMELY SOFT SURFACES USE LOAD DISTRIBUTION PADS UNDER EACH JACK.

- PARK UNIT ON REASONABLY LEVEL SURFACE MAKING SURE THAT THE JACK CONTACT LOCATIONS ARE CLEAR OF OBSTRUCTIONS AND DEPRESSIONS BEFORE OPERATING THE SYSTEM.

- ALWAYS MAKE SURE THAT THE TOW VEHICLE IS DISCONNECTED AND MOVED COMPLETELY CLEAR OF THE FRONT OF THE UNIT BEFORE THE LEVELING PROCESS IS STARTED.

- NEVER LIFT THE WHEELS OF THE UNIT COMPLETELY OFF THE GROUND TO LEVEL THE UNIT.

- ALWAYS CHECK TO INSURE THAT THE UNIT IS PROPERLY CONNECTED TO THE TOW VEHICLE BEFORE EXECUTING THE "TONGUE JACK RETRACT" FUNCTION.

- VISUALLY CHECK ALL JACKS TO INSURE THAT THEY ARE FULLY RETRACTED BEFORE TOWING THE UNIT.

- FAILURE TO HEED ANY OF THESE WARNINGS MAY RESULT IN DAMAGE TO THE UNIT, TOW VEHICLE AND/OR CAUSE SERIOUS INJURY OR DEATH.
STANDARD PROCEDURES & AUTOMATED FUNCTIONS

NOTE: At any time during an Auto function you may press STOP to abort the Auto function.
When buttons are outlined in white the function maybe selected.
When buttons are outlined in yellow the function is active.

UNIT DETACHMENT AND AUTO LEVEL

Lower the tongue jack adjustable foot, and chock wheels.

Press ON/OFF to activate display. Press TONGUE JACK MODE. Press and hold EXTEND until the necessary detachment height is reached. Disconnect, and pull the tow vehicle completely clear of the unit. Lower the rear leveling jack adjustable feet and position them so that they are close to the same distance from the ground. Press AUTO MODE.

Press AUTO LEVEL. WARNING: Vehicle, people, pets and obstructions must be completely clear of unit before executing the “AUTO LEVEL” function. Press OK to begin “AUTO LEVEL” or STOP to make another selection.
The system will go through a series of moving the jacks and checking the unit for level. The display will read “AUTO LEVEL IN PROGRESS”. When the system has successfully leveled the unit, the display will read “AUTO LEVEL SUCCESSFUL” and a beep will sound.

Press **ON/OFF** to deactivate the display.

Close and latch the cover of the touch screen display.

**NOTE:** If system fails to Successfully Auto Level, check the unevenness of the area under the unit. All lifting jacks must be able to make full contact for the system to function properly.

## UNIT ATTACHMENT

Press **ON/OFF** to activate display, and press **AUTO MODE**. Press **AUTO RECONNECT**. **WARNING:** Vehicle, people, pets and obstructions must be completely clear of unit before executing the “AUTO RECONNECT” function. Press **OK** to begin “AUTO RECONNECT” or **STOP** to make another selection.

The system will retract all stabilizer jacks and the rear leveling jacks, then extend or retract the tongue jack until the proper connection height is achieved. The display will read “AUTO RECONNECT IN PROGRESS ”. When the system has completed the “AUTO RECONNECT” function the display will read “AUTO RECONNECT SUCCESSFUL” and a beep will sound.
Press **HOME SCREEN**. Press and hold **RETRACT** until the unit can be connected to the tow vehicle. Connect the unit to the tow vehicle. Press **AUTO MODE**. Press **TONGUE JACK RETRACT**. **WARNING**: Always check to ensure that the unit is properly connected to the tow vehicle before retracting the tongue jack.

Press **OK** to begin “TONGUE JACK RETRACT” or **STOP** to make another selection. The display will read “TONGUE JACK RETRACT IN PROGRESS”. When the jack has been fully retracted the display will read “TONGUE JACK RETRACT SUCCESSFUL” and a beep will sound.

Raise all adjustable feet to the hole that provides the most ground clearance before towing the unit. Press **ON/OFF** to deactivate the display. **WARNING**: Visually check all jacks to ensure that they are fully retracted before towing the unit. Close and latch the cover of the touch screen display.
MANUAL MODE FUNCTIONS

NOTE: When buttons are outlined in white the function maybe selected.
When buttons are outlined in yellow the function is active.

MANUAL STABILIZER JACK MODE

Press **ON/OFF** to activate display. Press **MANUAL MODE**. Press and hold **EXTEND/RETRACT** to operate the stabilizer jacks. Press **MANUAL MODE** or **HOME SCREEN** to continue.

**WARNING:** Always make sure that the stabilizer jacks fully retracted before operating the tongue jack or rear leveling jacks.

MANUAL LEVELING JACK MODE

Press **MANUAL MODE**. Use the bubble level on the display to guide you. When the bubble is in the center of the circle the unit is level.

Press and hold **FRONT**, **REAR**, **LEFT**, or **RIGHT** and the jacks will move as follows:

- **FRONT**: Tongue jack on the front of the unit.
- **REAR**: Both leveling jacks on the rear of the unit (closest to the axles).
  - **NOTE**: Run the rear leveling jacks all the way to the ground before lifting side to side.
- **LEFT**: The left rear leveling jack (road side).
- **RIGHT**: The right rear leveling jack (curb side).

To retract the jacks. Press **RETRACT** and then press and hold **FRONT**, **REAR**, **LEFT** or **RIGHT**.

The jacks will move in the same grouping as listed above.

Press **ON/OFF** to deactivate the display. Close and latch the cover over the touch screen display.
CARE & MAINTENANCE

ROUTINE SYSTEM CHECK
The leveling system should be inspected a minimum of twice per year. (Once before starting the camping season and once before storing the unit). Inspect:

- Jacks for dirt and debris. (Clean and lubricate as needed)
  - A high pressure washer is **not** to be used to clean any of the leveling system components.
  - Grease all jacks as shown:
    - **Tongue Jack** – With the jack extended half way remove the plastic plug and apply a small amount of grease on the screw. Reinstall the plastic plug.
    - **Rear Leveling Jacks** – With the jack extended half way remove the plastic plug and apply a small amount of grease on the screw. Reinstall the plastic plug.
    - **Stabilizer Jacks** – With the jacks extended so that they are about an inch from the ground apply some grease on the screw between the motor coupler and the trunnion nut.

- All jack mounting bolts and nuts for tightness. (Tighten as needed)
  - **Tongue Jack** – 30 ft. lbs.
  - **Rear Leveling Jacks** – 80 ft. lbs.
  - **Stabilizer Jacks** – 30 ft. lbs.
MANUAL JACK OVERRIDE

PROCEDURE
Locate the jack motor that is to be overridden.

At the bottom of the jack leg motor in the center there is a round rubber plug. Remove the rubber plug to expose the 5/16” override hex. Using a drill with a 5/16” drive socket rotate the motor to operate the lifting jacks or tongue jack. The tongue jack may also be overridden by removing the plug to the right of the touch screen and inserting a 3/8” square drive to rotate the jack.

To override the stabilizer jacks. Locate the 3/4” nut on the out facing end of the stabilizer jack. Use a 3/4 “socket or wrench to raise or lower the jacks.
DIAGNOSTICS

ERROR DISPLAY

AUTO LEVEL FAILED
- **Problem**: Rear raised too high during auto level process. (Without being able to lift side to side) This may be a sign of unstable ground.
- **Solution**: Move the unit into an area with stable soil or place load distribution pads under each jack. Minimize movement within unit.

LOW VOLTAGE
- **Problem**: The leveling system must maintain 10.2 Volts at the control to operate for both functionality and system protection.
- **Solution**: Plug unit charging system in or replace battery.

HIGH VOLTAGE
- **Problem**: The leveling system must be less than 16 Volts at the control to operate for both functionality and system protection.
- **Solution**: Verify charging system is working properly.

EXCESS ANGLE DETECTED
- **Problem**: The angle of the unit is too great to perform operation.
- **Solution**: Move the unit into an area with lesser grade or unevenness.

MANUAL ADJUST ANGLE LIMIT
- **Problem**: Manual adjust angle limit.
- **Solution**: Use extend and retract options to keep unit reasonably level during manual operations. Try using Auto level or move the unit into an area with lesser grade.

OUT OF STROKE
- **Problem**: The jack leg is fully extended.
- **Solution**: Move the unit into an area with lesser grade, unevenness or place load distribution pads underneath the jacks.

FEATURE DISABLED
- **Problem**: Zero point not set.
- **Solution**: Contact an Authorized Dealer to have the system Zero point set.
- **Problem**: Auto Reconnect position not set.
- **Solution**: Use Tongue Jack Mode to obtain disconnect position then Auto level before using Auto Reconnect.

JACK TIMEOUT
- **Problem**: The control is not seeing movement from the jacks.
- **Solution**: Check that landing area is firm and within reach of the jack travel. Check all wire harnesses to make sure they are not damaged and that they are plugged in properly.

**NOTE**: After the problem has been resolved press **CLEAR ERROR** to proceed.