



LIPPERT COMPONENTS, INC.

GROUND CONTROL - 4-POINT OPERATION AND SERVICE MANUAL

WARNING!
FAILURE TO ACT IN ACCORDANCE WITH THE FOLLOWING MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

THE USE OF THE *GROUND CONTROL - GEN II* TO SUPPORT THE UNIT FOR ANY REASON OTHER THAN WHICH IT IS INTENDED IS PROHIBITED BY LIPPERT'S LIMITED WARRANTY. THE LIPPERT LEVELING SYSTEM IS DESIGNED AS A "LEVELING" SYSTEM ONLY AND SHOULD NOT BE USED TO PROVIDE SERVICE FOR ANY REASON UNDER THE COACH SUCH AS CHANGING TIRES OR SERVICING THE LEVELING SYSTEM.

LIPPERT COMPONENTS, INC. RECOMMENDS THAT A TRAINED PROFESSIONAL BE EMPLOYED TO CHANGE THE TIRE ON THE UNIT. ANY ATTEMPTS TO CHANGE TIRES OR PERFORM OTHER SERVICE WHILE UNIT IS SUPPORTED BY THE *GROUND CONTROL - GEN II* COULD RESULT IN DAMAGE TO THE 5TH WHEEL AND/OR CAUSE SERIOUS INJURY OR DEATH.

WARNINGS!

- > BE SURE TO PARK THE UNIT ON SOLID, LEVEL GROUND.
- > CLEAR ALL JACK LANDING LOCATIONS OF DEBRIS AND OBSTRUCTIONS. LOCATIONS SHOULD ALSO BE FREE OF DEPRESSIONS.
- > WHEN PARKING THE UNIT ON EXTREMELY SOFT SURFACES, UTILIZE LOAD DISTRIBUTION PADS UNDER EACH JACK.
- > PEOPLE AND PETS SHOULD BE CLEAR OF UNIT WHILE OPERATING LEVELING SYSTEM.
- > NEVER LIFT THE UNIT COMPLETELY OFF THE GROUND. LIFTING THE UNIT SO THE WHEELS ARE NOT TOUCHING GROUND WILL CREATE AN UNSTABLE AND UNSAFE CONDITION.

BASIC JACK OPERATION

1. Front Landing gear jacks.
2. Rear leveling jacks.
3. Middle stabilizer jacks

Landing gear jacks can be operated any time the system is "ON" but NOT in the "AUTO MODE." By pushing the "FRONT" button, both front or landing gear jacks can be extended. By pushing either the "LEFT" or "RIGHT" button, the individual front jacks can be extended. If the touch panel is put in the "RETRACT" mode, indicated by the orange illuminated LED next to the "RETRACT" button, the front jacks can be retracted together by pushing the "FRONT" button or individually by pressing either the "LEFT" or "RIGHT" button.

The rear jacks can only be operated when the touch panel is in the "MANUAL MODE." Once system is in "MANUAL MODE," pressing the "REAR" button will extend both rear jacks at the same time. To operate individual rear jacks, press the "LEFT" or "RIGHT" button first, depending on what is needed at the time, then press the "REAR" button and hold both at the same time.

PRIOR TO OPERATION

The leveling system shall only be operated under the following conditions:

1. The unit is parked on a reasonably level surface.
2. Be sure all persons, pets and property are clear of the coach while Lippert Hydra-Electric 5th Wheel Leveling System is in operation.
3. Make sure battery(ies) are fully charged and load test at 12+VDC.
4. **Drop ALL JACKS inner. Drop tubes to their lowest position and engage spring pin.**

DROPPING OFF UNIT

1. **CAUTION! Loosen J.T. Strong Arm Stabilizer "T" handles. (If applicable.)**
2. Disconnect fifth wheel latch.
3. Turn battery power "ON."



FIG. 1A Off

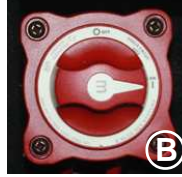


FIG. 1B ON

4. Release all (4) inner jack legs by pulling on the quick release pins.
5. Push touch panel "ON/OFF," Fig. 2A to turn system on. LCD Screen lights up, Fig.2B.



FIG. 2 - Touch Panel

6. Push the DOWN ARROW to scroll to "DROP FRONT JACKS" option on LCD screen.
- NOTE:** Orange arrow lights, Fig. 2C may come on, indication the current disposition of the unit, in this case the FRONT and RIGHT sides of the unit are low.
7. Push "ENTER." Both front landing gear jacks will go to ground and stop.
 8. Push "FRONT" button to extend front landing gear jacks manually and lift front of vehicle to clear the 5th wheel hitch plate.
 9. Pull tow vehicle away and park at a safe distance.
 10. Push "AUTO LEVEL." The unit will commence to auto level by setting the landing gear jacks close to level. Rear-most jacks will extend to ground, followed by a second ground verification leveling jacks.
 11. When auto level is complete, LCD indicates LEVEL SUCCESSFUL.
- Jacks: Down** and the green light in the middle of the jack buttons will light Fig. 2A.
12. Tighten the J.T Strong Arm stabilizer "T" handles if applicable.

TAKING UP STRUT PIN SLOP (If J.T Strong Arm Stabilizers are installed ONLY!)

1. After leveling is complete, LCD screen will read "LEVEL SUCCESSFUL/CHECK STABILIZERS."
2. Push "FRONT" button **momentarily** until front stabilizer pins are tight.
3. Push "REAR" button **momentarily** until rear stabilizer pins are tight.
4. Push "ON/OFF" button to turn system off.



FIG. 3 Touch Panel - Unit Level

RECONNECTING THE UNIT TO A TOW VEHICLE

1. Be sure main power switch "ON."
2. **CAUTION! Loosen J.T. Strong Arm Stabilizer "T" handles. (If applicable.)**
3. Push Touch Pad "ON/OFF" button to turn system on.
4. Push "DOWN ARROW" to scroll to AUTO RETRACT REAR JACKS and push "ENTER."
Rear jacks will full retract and stop.
5. Push "LEFT" & "RIGHT" button together. Front will raise to previous drop off height. Push "FRONT" button if more height is needed.
6. Back tow vehicle to align 5th wheel hitch.
7. Push "RETRACT" button. Orange LED will illuminate, Fig. 4
8. Push the scroll arrow to display "AUTO RETRACT ALL."
9. Push "ENTER." Landing Gear jacks will automatically retract and then stop.
10. Raise inner drop legs on all jacks (4) and secure with quick release pull pin..
11. Turn "ON/OFF" button off.

TRUCK HAULER OPERATION (MANUAL ONLY)

1. **CAUTION! Loosen J.T. Strong Arm Stabilizer "T" handles. (If applicable.)**
2. Turn the Touch Panel "ON." LED lights up green.
3. Push "FRONT" button to extend FRONT jacks to gain height.
4. To retract jacks:
 - a. Push "RETRACT" button; Orange LED lights up.
 - b. Push the "FRONT" button to retract jacks and hook up vehicle. Once 5th wheel is coupled, push "FRONT" button and hold until jacks are fully retracted.
 - c. Let off "FRONT" button and push "ON/OFF" button to turn system off. Green light goes out.
 - d. Double check 5th wheel latch is secure and that all jacks are retracted.
 - e. Ready to tow.



FIG. 4



FIG. 5

ZERO SETTING THE CONTROL

NOTE: Middle stabilizers are not used in this process.

1. Turn "ON/OFF" button "OFF"
2. Push "FRONT" button 10 times,
3. Push "REAR" button 10 times
4. Control will flash and beep, LCD says "ZERO POINT CALIBRATE"
5. Manually operate the jacks to attain unit level condition (use carpenter's level).
6. To memorize this level condition, press "ENTER"
7. LCD says "ZERO POINT STABILITY SUCCESSFULLY SET"
8. The control will then turn off.
9. Turn "ON/OFF" on to commence operation.

ERROR DISPLAY IN LCD

1. If an error occurs before or during operation, the error will be displayed in the LCD and a "buzzer " will sound
2. The errors that will be displayed are.
 - a. "EXCESS ANGLE" > relocate the unit.
 - b. "BAD CALIBRATION" > bad zero point.
 - c. "FEATURE DISABLE" > Cycle Main Power or system not Zero Calibrated.
 - d. "LOW VOLTAGE"
 - e. "OUT OF STROKE" > relocate the unit.
 - f. "EXTERNAL SENSOR" > bad connection to rear remote sensor.
 - g. "JACK TIME OUT".
 - h. "AUTO LEVEL FAILURE" > retry.
 - i. "STABILIZER TIME"> rear stabilizers ran too long ... bad motor or connections.
 - j. "NOT CONFIGURED" > unit was not zeroed properly.
 - k. To clear error, push "ENTER" > if error remains, it will appear again.
3. Special JACK codes
 - LF JACK
 - RF JACK
 - LR JACK
 - RR JACK
 - a. If an of these error codes appear, the system does have manual control over the jacks to prevent being stuck.
 - b. It is important that once the error code has been resolved, the user of the unit must manually retract all jacks completely before exiting the error code. If this step is not completed, the LCD will prompt the user to complete this step as follows:
 - SAMPLE ERROR CODES
 - "ERROR"
 - "LR JACK"
 - "MANUALLY RETRACT"
 - "ALL JACKS"
 - "PRESS ENTER"

PREVENTATIVE MAINTENANCE PROCEDURES

1. Remove dirt and road debris from jacks (and stabilizer struts if equipped) as needed.
2. If jacks are down for extended periods, it is recommended to spray exposed leveling jack tubes with a spray lubricant every 3 months for protection. If your coach is located in a salty environment, it is recommended to spray the rods every month.

WARNING!

Your coach should be supported at both front and rear axles with jack stands before working underneath. Failure to do so may result in personal injury or death.

**IF YOU HAVE ANY PROBLEMS OR QUESTIONS CONSULT YOUR LOCAL AUTHORIZED
DEALER OR CALL LIPPERT AT:
(866) 524-7821.**