



GROUND CONTROL® 2.0

OWNER'S MANUAL

LIPPERT
COMPONENTS®

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System and Safety Information



Failure to act in accordance with the following may result in death or serious injury.

The use of the Ground Control® 2.0 to support the unit for any reason other than that which it is intended is prohibited by Lippert's limited warranty. The Lippert Ground Control® 2.0 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® 2.0 could result in death, serious injury or damage to the 5th Wheel.

NOTES:

- A.** Be sure to park the unit on solid, level ground.
- B.** Clear all jack landing locations of debris and obstructions. Locations should also be free of depressions.
- C.** When parking the unit on extremely soft surfaces, utilize load distribution pads under each jack.
- D.** People and pets should be clear of unit while operating leveling system.
- E.** Never lift the unit completely off the ground. Lifting the unit so the wheels are not touching the ground will create an unstable and unsafe condition.

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 Ground Control® 2.0 is in operation.
- 3.** Make sure battery(ies) are fully charged and load test at 12+V DC.
- 4.** Drop inner leg of both landing gear jacks to within 4-5 inches of the ground.

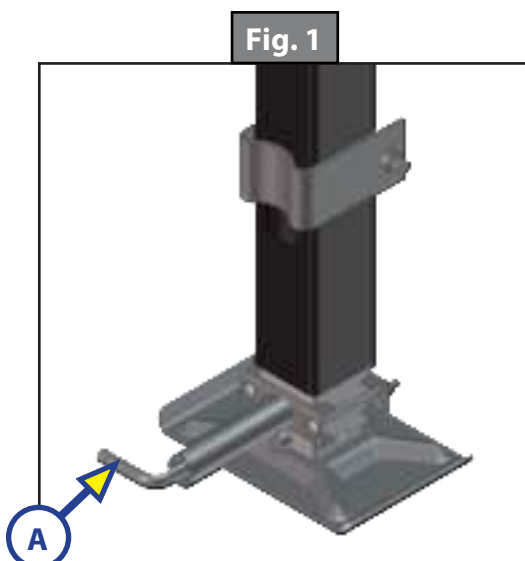
Basic Jack Operation

1. Front Landing gear jacks.
2. Rear leveling 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.

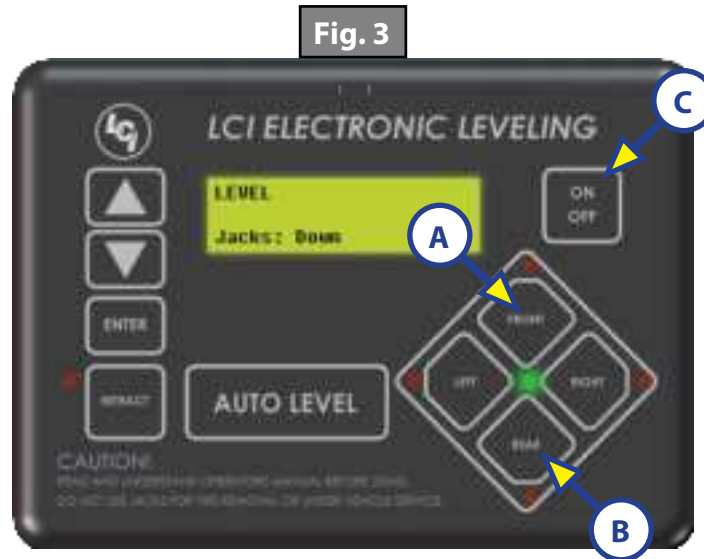
Dropping Off Unit

1. Park coach on level ground.
2. Chock all tires.
3. Make sure battery power is on.
4. Release front jack legs to within 4-5 inches from the ground by pulling out the quick release pin (Fig. 1A).
5. Release inner legs on rear leveling jacks — 2 (4-point) or 4 (6-point) — by pulling the quick release pins.
6. At this point, you may use automatic controls on your Linc™ remote if supplied. If no Linc remote is supplied, continue to step 7. IMPORTANT: For Linc™ automatic leveling and retraction instructions, refer to your owner's packet.
7. Press "ON/OFF" button to turn panel on (Fig. 2E).
8. Push "UP ARROW" button (Fig. 2A) and scroll to "DROP FRONT JACKS" option on LCD screen.
9. Push "ENTER" button (Fig. 2B). Front legs will lower to ground and stop.
10. Disconnect 5th wheel latch.
11. Push "FRONT" button (Fig. 2D) to extend front landing gear jacks manually and lift front of vehicle to clear 5th wheel plate.
12. Pull tow vehicle away and park at a safe distance.
13. Push "AUTO LEVEL" button (Fig. 2C). The unit will commence auto-level feature by setting front landing gear jacks to level, then dropping rear jacks followed by a leveling sequence check. On the 6 point system, the middle jacks will now lower to the ground to stabilize the unit. When auto-level sequence is complete, LCD screen will indicate, "AUTO LEVEL SUCCESS." "Level Jacks: Down" will then appear, along with a green light in the middle of the jack buttons.
14. Press the "ON/OFF" button (Fig. 2E) to turn system off.



Taking Up Strut Pin Slop (If JT Strong Arm Stabilizers Are Installed ONLY)

1. Ensure the leveling process has completed. LCD screen should read "Level Jacks: Down" (Fig. 3).
2. Push "FRONT" button (Fig. 3A) momentarily until front stabilizer pins are tight.
3. Enter manual mode, then push "REAR" button (Fig. 3B) momentarily until rear stabilizer pins are tight.
4. Push "ON/OFF" button (Fig. 3C) to turn system off.

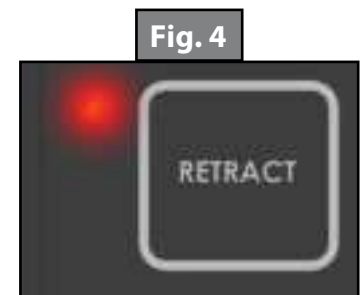


Reconnecting the Unit to A Tow Vehicle

1. Be sure main power switch is "ON."
2. Loosen J.T. Strong Arm Stabilizer "T" handles (if applicable).
3. Push Touch Pad "ON/OFF" button to turn system on.
4. Push "UP ARROW" to scroll to AUTO RETRACT REAR JACKS and push "ENTER." Rear jacks will fully 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 the scroll arrow to display "AUTO RETRACT ALL."
8. Push "ENTER." Landing Gear jacks will automatically retract and then stop.
9. Raise inner drop legs on all jacks and secure with quick release pull pin.
10. Turn "ON/OFF" button off.

Truck Hauler Operation (Manual ONLY)

1. 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 (Fig. 4).
 - 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. Push "ON/OFF" button to turn system off. Green light will go out.
 - D. Double check 5th wheel latch is secure and that all jacks are retracted.
 - E. Ready to tow.

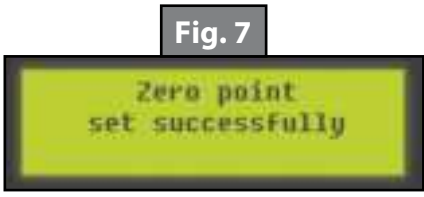
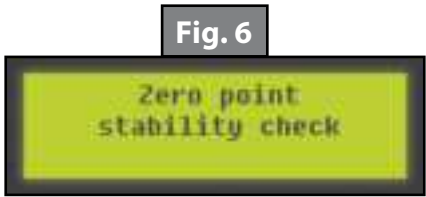


Zero Point Calibration

The “Zero Point” is the programmed point that the unit will return to each time the Auto Level feature is used. The “Zero Point” must be programmed prior to using the Auto Level feature to ensure the proper operation of the system.

NOTE: Prior to starting this procedure, double check all connections on the controller, jacks and touch pad.

- 1. Manually run the jacks to level the unit. This is best achieved by placing a level in the center of the unit and leveling it both front to back and then side to side. (See “Basic Jack Operation” for instructions on how to manually operate the system).
- 2. Once the unit is level, turn off the touch pad.
- 3. With the touch pad off, press and release the “FRONT” button 10 times and then press and release the “REAR” button 10 times.
- 4. The touch pad will flash and beep and the display will read “ZERO POINT CALIBRATION ENTER to set, Power to Exit” (Fig. 5).
- 5. To set the current position as the zero point, press the “ENTER” button.
- 6. LCD display will read “Zero point stability check” (Fig. 6).
- 7. LCD display will read “Zero point set successfully” once process is complete (Fig. 7).
- 8. The system will set this point as its level state and the touch pad will turn off.



Troubleshooting

Special Jack Error Codes

To clear one of these errors:

- 1. Correct or otherwise repair the issue (see the table below).
- 2. Extend all of the jacks at least 6 inches, then press and hold the “RETRACT” button on the touch pad until the jacks begin retracting.
- 3. All of the jacks will retract fully to clear the error.

NOTE: Landing gear will also retract at this time. Ensure the 5th wheel hitch pin is supported by either the tow vehicle or a tripod stand.

LCD Message	What's Happening?	What Should Be Done?
ERROR LF Jack RF Jack LM Jack RM Jack LR Jack RR Jack	Error at a specific jack (left front, right front, left rear, right rear).	Check harness connections at controller and at jack. Check jack for damage. Check harness for damage. Repair or replace as necessary.
	Unexpected high amp current stall.	

Touch Pad Error Codes

NOTE: To clear an error from the touch pad, repair or otherwise correct the issue, then press "ENTER." If the error is still present, the message will be displayed again.

LCD Message	What's Happening?	What Should Be Done?
****ERROR**** Excess Angle	Controller not properly secured.	Check and secure controller placement.
	Excessive angle reached during auto operation.	Relocate the coach.
****ERROR**** Bad Calibration	Sensor calibration values are out of range.	Reset zero point.
****ERROR**** Feature Disabled	Front of coach below level when starting Auto Level process (only when trying to initiate Hitch Recognition).	Raise front of coach above level and restart Auto Level process.
	Touch pad power not cycled between consecutive leveling operations.	Turn touch pad off and then back on to reset the system.
	Zero point not set.	Set zero point.
****ERROR**** Low Voltage	Battery voltage dropped below 10.8V.	Check wiring for loose connection.
		Test battery voltage under load - charge or replace.
****ERROR**** Out Of Stroke	Jack has reached maximum stroke length and is unable to lift.	Check disposition of jacks. Relocate the coach.
****ERROR**** External Sensor	Bad connection or wiring from the controller to the rear sensor.	Replace or repair connection to rear remote sensor.
****ERROR**** Jack Time Out	Time limit exceeded for the requested auto operation.	Check disposition of jacks.
****ERROR**** Auto Level Fail	Unable to auto level due to uneven ground.	Check disposition of jacks. Relocate the coach.
	Unable to auto level due to zero point being set incorrectly.	Reset zero point.
PANIC STOP Function Aborted	The user pressed a button on the touch pad during an automatic operation.	Restart automatic operation and then refrain from pressing any buttons on the touch pad.

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.

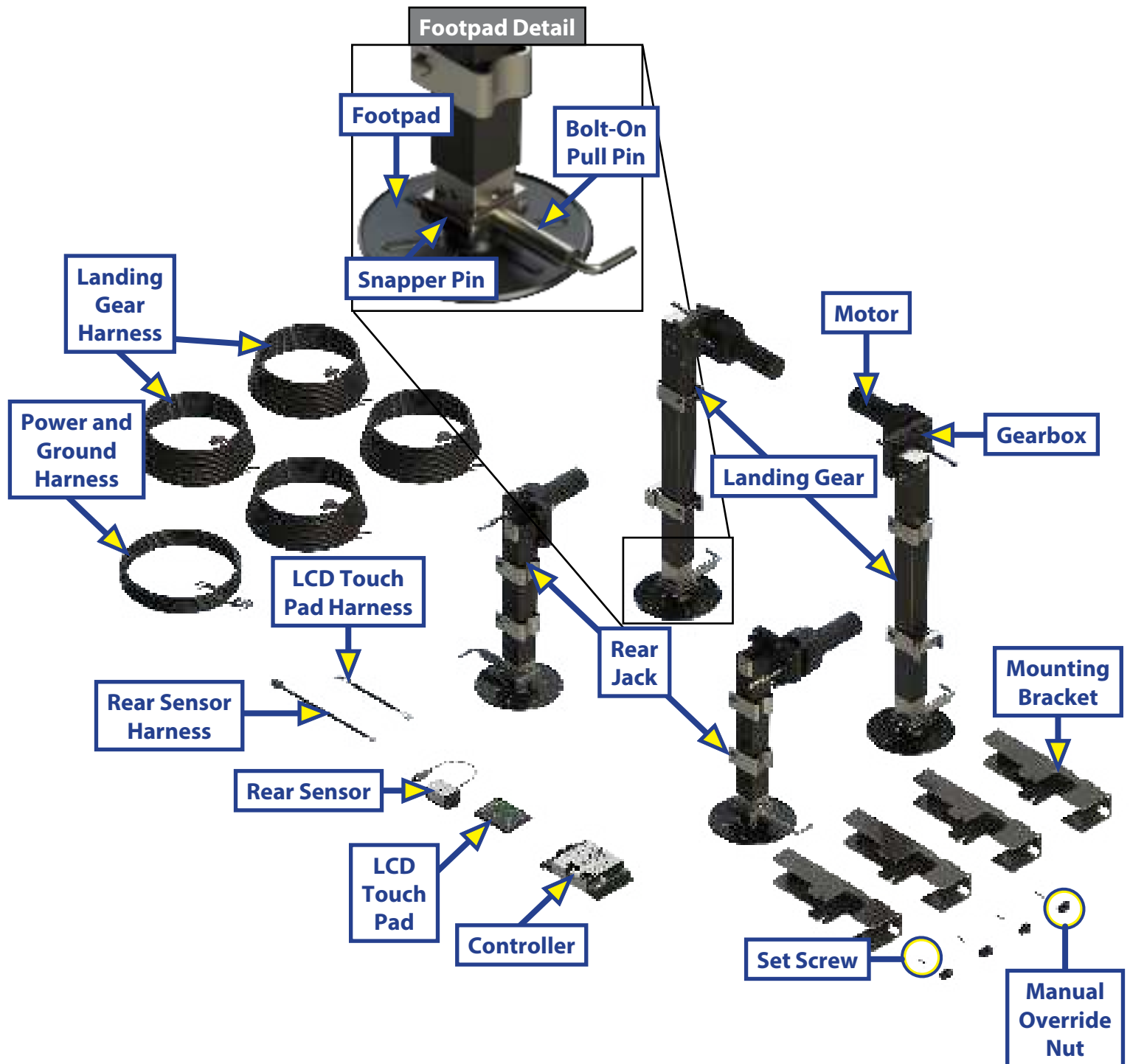


Ensure the unit is supported at both the front and rear with jack stands before performing any troubleshooting or service to the unit. Failure to do so may result in death or personal injury.



GROUND CONTROL® 2.0 - 4 POINT ASSEMBLY

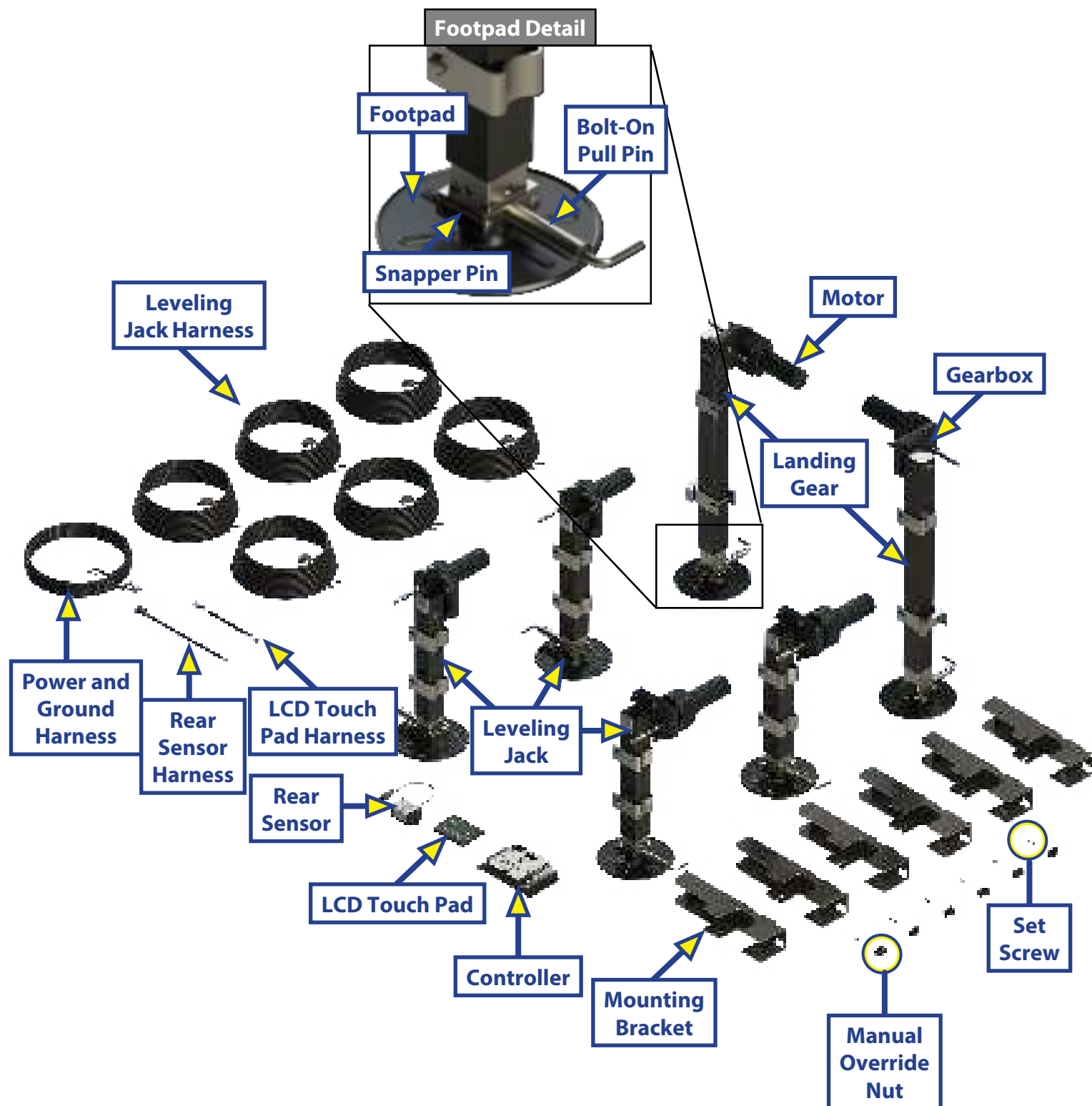
LEVELING AND STABILIZATION





GROUND CONTROL® 2.0 - 6 POINT ASSEMBLY

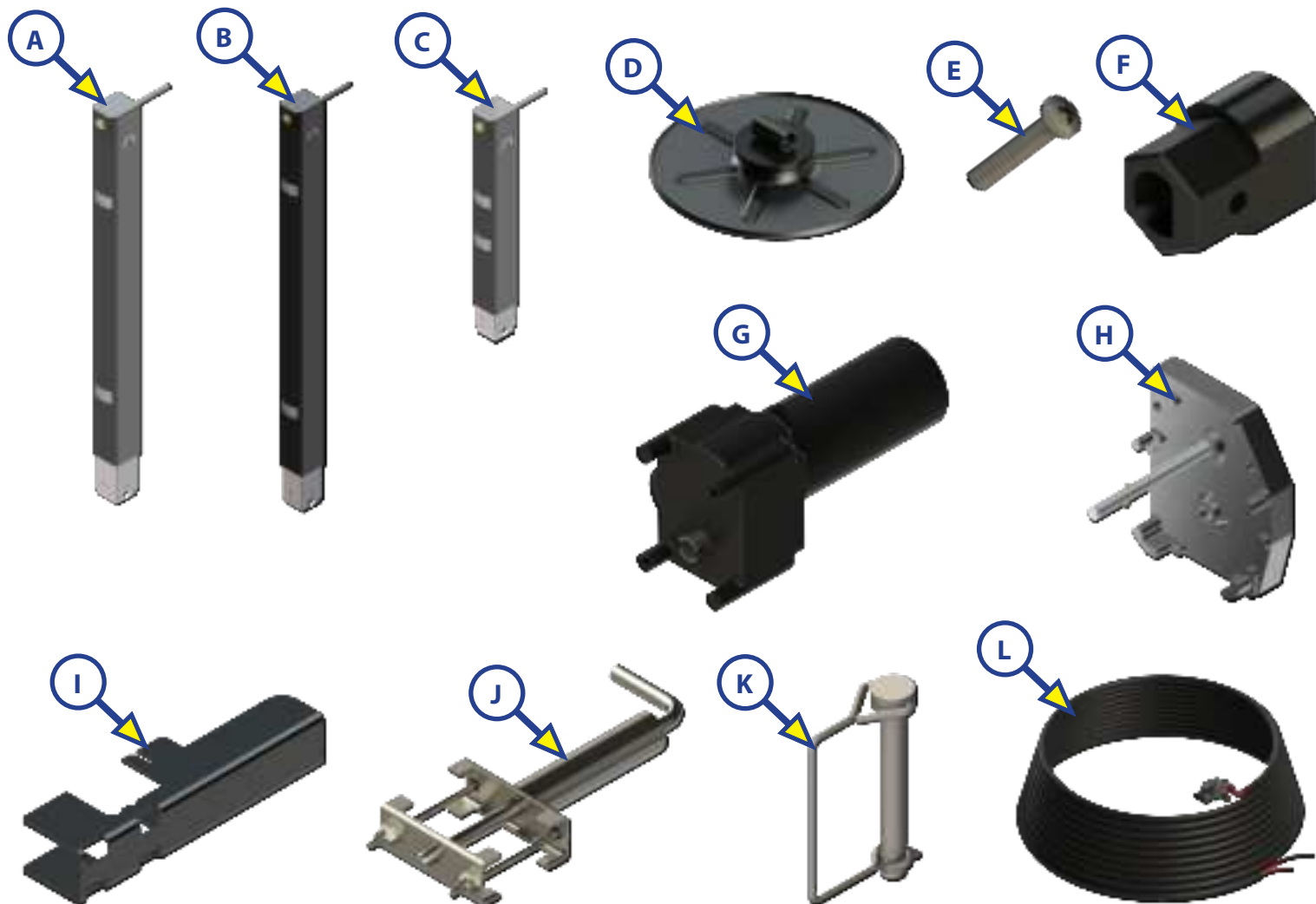
LEVELING AND STABILIZATION





GROUND CONTROL® 2.0 COMPONENTS

LEVELING AND STABILIZATION



Callout	Part #	Description
A	241846	Standard Landing Gear
B	241845	Extended Landing Gear
C	241844	Leveling Jack
D	297788	Footpad
E	280296	Set Screw
F	228031	Manual Override Nut
G	241795	Tuson Motor
H	179015	Gear Box
I	275403	Mounting Bracket
J	119113	Bolt-On Pull Pin
K	225598	Snapper Pin
L	245794	Rear Leveling Jack Harness
	277984	Middle Leveling Jack Harness
	245795	Landing Gear Harness



GROUND CONTROL® 2.0 COMPONENTS

LEVELING AND STABILIZATION

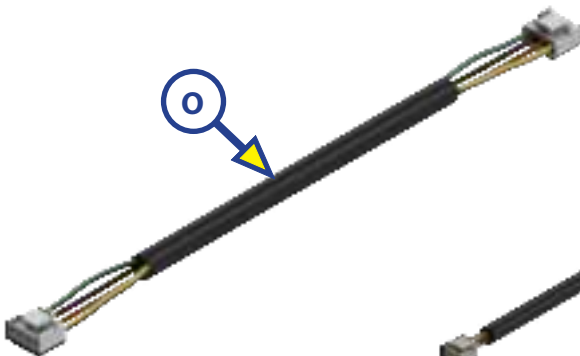
M



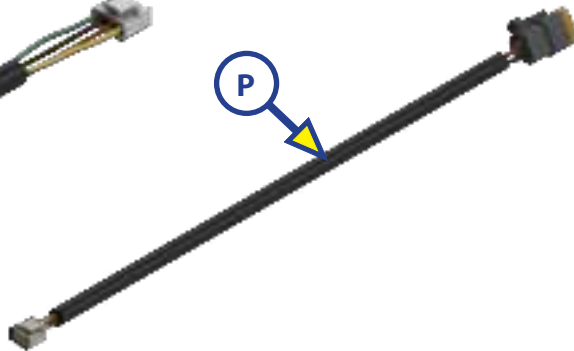
N



O



P



Q



R



S



Callout	Part #	Description
M	234802	LCD Touch Pad
N	232201	Rear Sensor
O	232937	LCD Touch Pad Harness
P	243688	Rear Sensor Harness
Q	245796	Power and Ground Harness
R	242623	Ground Countrol 2.0 4 Point Controller
S	276452	Ground Countrol 2.0 6 Point Controller

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LIPPERT COMPONENTS®

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