

Ground Control® TT Leveling OneControl® Touch Panel

Installation and Owner's Manual

(For Aftermarket Applications)

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Introduction

With the push of a button, the Ground Control TT Leveling System levels and stabilizes a trailer quickly and accurately, enhancing the overall camping experience. It can take up to an hour to get a typical trailer leveled with manual leveling jacks, chocks and wedges. The Ground Control TT Leveling System saves the owner time by leveling and stabilizing the trailer in a matter of minutes. It also prevents annoying rocking and swaying of the trailer at the campsite.

Features

- Saves time setting up the trailer at the campsite
- Both fast and accurate automatic electronic leveling
- Includes an automatic hitch recognition function

Additional information about this product can be obtained from lci1.com/support or by using the myLCI app. Replacement kits can be ordered from https://store.lci1.com/ or by using the LippertNOW app.

The myLCI app is available for free on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

App Store® and iPad® are registered trademarks of Apple Inc.
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Safety Information

NOTE: Lippert recommends that the following installation procedures should only be performed by qualified and trained personnel. Please read all Safety Information and instructions prior to starting this procedure. Lippert Components also recommends the use of appropriate Personal Protective Equipment (PPE) while performing any portion of this installation.

⚠ WARNING

FAILURE TO ACT IN ACCORDANCE WITH THE FOLLOWING MAY RESULT IN DEATH, SERIOUS INJURY, TRAILER DAMAGE OR VOIDING OF THE COMPONENT WARRANTY. THE USE OF THE GROUND CONTROL TT LEVELING SYSTEM TO SUPPORT THE TRAILER FOR ANY REASON OTHER THAN WHICH IT IS INTENDED IS PROHIBITED BY LIPPERT'S LIMITED WARRANTY. THE GROUND CONTROL TT LEVELING SYSTEM IS DESIGNED AS A "LEVELING" SYSTEM ONLY AND SHOULD NOT BE USED TO PROVIDE SERVICE FOR ANY REASON UNDER THE TRAILER; SUCH AS CHANGING TIRES OR SERVICING THE LEVELING SYSTEM.

NOTE: This manual is specific to travel trailer applications only.

⚠ CAUTION

MOVING PARTS CAN PINCH, CRUSH OR CUT. KEEP CLEAR AND USE CAUTION.

NOTE: The images in this manual are designed to illustrate the installation procedure only and may not represent the exact trailer being worked on. The appearance of some components may vary from trailer to trailer.

Trailer Weight Rating

Ground Control Travel Trailer Leveling System is a maximum Gross Vehicle Weight Rating (GVWR) of 10,000 lbs.

⚠ WARNING

EXCEEDING THE MAXIMUM GROSS VEHICLE WEIGHT RATING OF 10,000 LBS. COULD CAUSE SERIOUS INJURY OR PROPERTY DAMAGE.

Resources Required

- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- 5⁄16" Drill Bit
- Ratchet
- 9⁄16" Deep Well Socket
- 1⁄2" Socket
- 5⁄8" Socket
- 9⁄16" Open End Wrench
- 1⁄2" Wrench
- 5⁄8" Wrench
- 3⁄4" Wrench (Optional)
- String
- Silver or White Paint or Permanent Marker
- 2 Clamps
- 50 AMP Circuit Breaker
- Hydraulic Floor Jack (Optional)

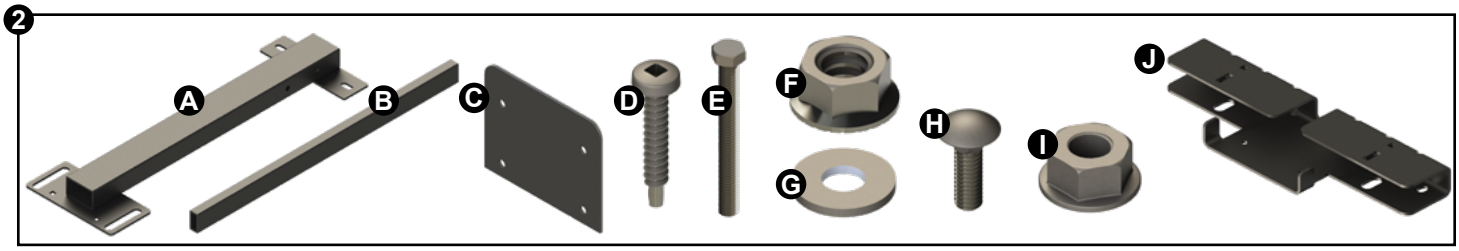
Ground Control® TT Leveling OneControl® Touch Panel

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Parts List





Number	Part #	Description	Qty
1 & 2	672136	TT Leveling Aftermarket Kit	1
1A	421366	Power Tongue Jack	1
1B	404488	C-Jacks	4
1C	285324	Scissor Jack Crank Handle	1
1D	428191	TT Leveling Ground Control Label	1
1E	688837	GC One Touch Self-Level Label	1
1F	425585	4 Pin Pigtail Harness	1
1G	305115	Hall Effect Right Rear Sensor Harness	1
	306298	Hall Effect Left Rear Sensor Harness	1
	307489	Hall Effect Right Front Sensor Harness	1
	307490	Hall Effect Left Front Sensor Harness	1
1H	426526	Power and Ground Supply Harness	1
1I	421372	Tongue Jack Harness	1
1J	331116	Canbus Data Harness	1
1K	243688	Leveling Sensor Harness 35'	1
1L	434431	Leveling Sensor Harness 15'	1
1M	329080	Canbus Power Connector Harness	1
1N	423094	Leveling Sensor	2

Number	Part #	Description	Qty
1O	433633	Green Controller SE	1
1P	425306	Auto Leveling Control Touch Pad	1
1Q	406345	OneControl Touch Panel	1
1R	333041	Canbus Terminating Resistor	2
1S	434376	Flange Nut, 3⁄8"	24
1T	663511	Flange Bolt, 3⁄8" - 16 x 1 1⁄2"	24
1U	360717	Keps Nut S.S., #10 - 32	2
1V	690759	Wood Screws, #8 x 1"	8
2A	671102	Bolt On Spacer Bracket	4
2B	6712941	Center Tube 38" x 2" x 1"	2
2C	6757251	Leveling Sensor Mounting Plate	2
2D	241940	Self-Drilling Square Head Screws, #8	8
2E	206614	Hex Cap Screw Bolt, 3⁄8" - 16 x 3 1⁄2"	8
2F	119072	Serrated Flange Nut, 3⁄8"	8
2G	119075	Flat Washer, 3⁄8"	8
2H	378272	Carriage Bolt, 5⁄16" - 18 x 1"	24
2I	117891	Serrated Flange Nut, 5⁄16"	24
2J	671292	Bolt On I-Beam Mounting Bracket	4

Measuring Departure and Approach Angle

Departure and approach angles are measured by running a string line from the meeting point of the tire and ground up at an angle to the lowest point on the front or rear of the trailer. These string lines are shown as dotted lines **(Fig.1)**.

NOTE: C-Jacks shown for reference only to mark proper locations.

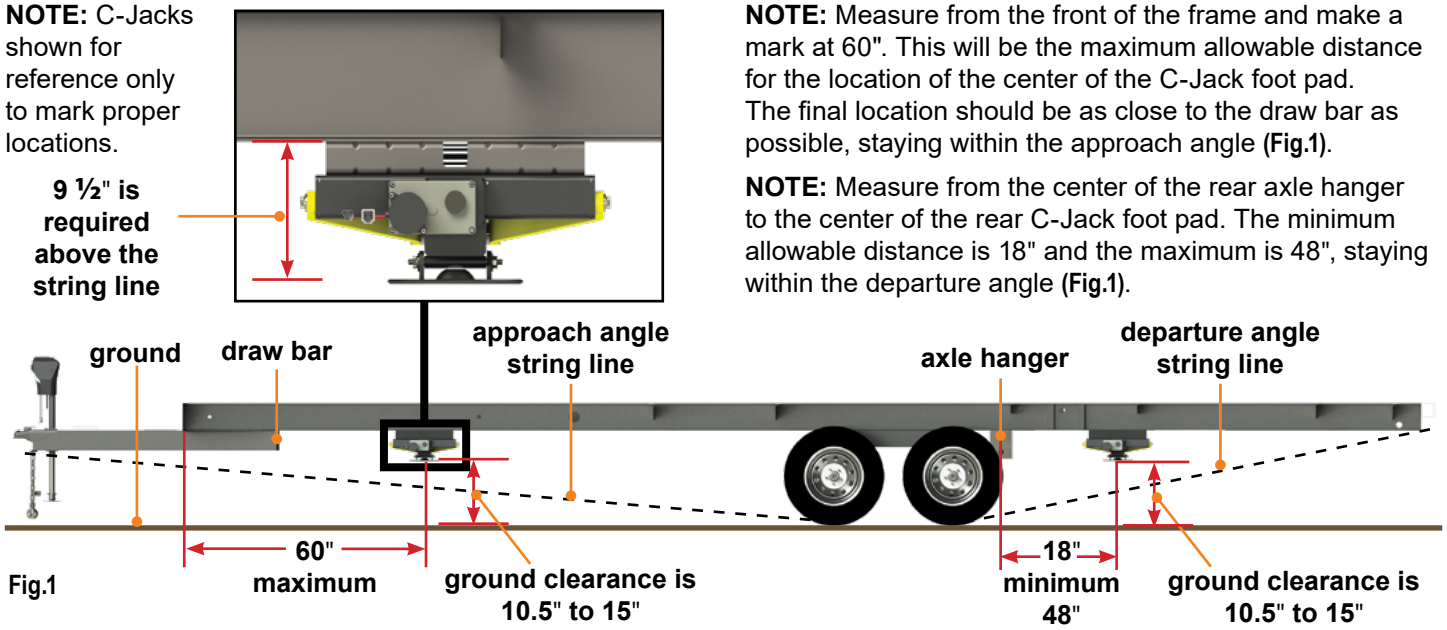


Fig.1

NOTE: Measure from the front of the frame and make a mark at 60". This will be the maximum allowable distance for the location of the center of the C-Jack foot pad. The final location should be as close to the draw bar as possible, staying within the approach angle **(Fig.1)**.

NOTE: Measure from the center of the rear axle hanger to the center of the rear C-Jack foot pad. The minimum allowable distance is 18" and the maximum is 48", staying within the departure angle **(Fig.1)**.

NOTE: Before checking ground clearance make sure the trailer is level front to back.

Installation

⚠ WARNING

THE TRAILER MUST BE SUPPORTED PER MANUFACTURERSPECIFICATIONSBEFOREWORKING UNDERNEATH. FAILURE TO DO SO MAY RESULT IN DEATH OR SERIOUS INJURY.

Bolt on Spacer Kits

Rear Spacer Kit

NOTE: This bracing system is to be mounted across the frame (roadside to curbside) and jacks are to be installed roadside to curbside as well.

NOTE: Make sure that all wires and hoses are clear from the path going from the curbside I-beam mounting bracket to the roadside I-beam mounting bracket before starting the installation.

1. Measure the I-beam mounting bracket and make a mark at the center. This will be the center of the C-Jack foot pad.
2. Measure from the center of the rear axle hanger **(Fig.2A)** and make a mark on the I-beam at 18" **(Fig.2B)** and at 48" (not shown) for the minimum and maximum distance. Align the center of the I-beam mounting bracket between the 18" mark and the 48" mark, staying within the departure angle **(Fig.1)**. Ensure the bracket lip **(Fig.2C)** is flush with the outside lip of the I-beam.

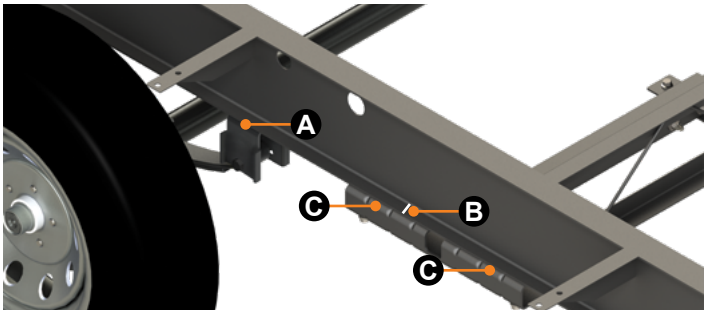


Fig.2

3. Use clamps to hold the I-beam mounting bracket to the frame rail.

4. Mark the 4 holes on the lip of the I-beam frame with the spaces provided on the bracket **(Fig.3A)**. Use the notches on the I-beam mounting bracket to find the center point.

NOTE: The center point is dependent on the width of the frame. The hole **(Fig.3B)** needs to be drilled between the two notches.

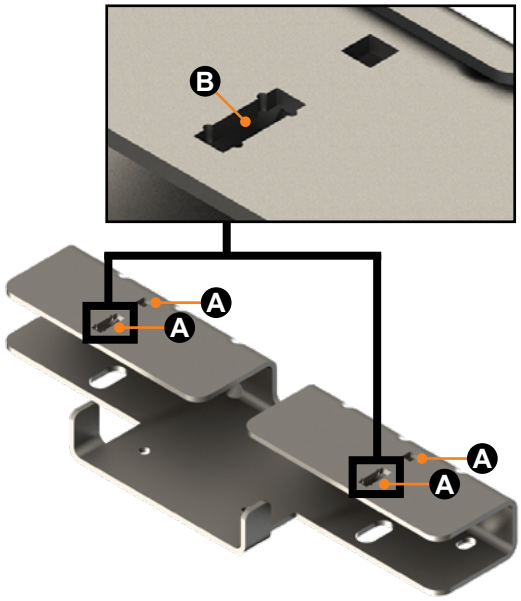


Fig.3

5. Drill a hole into the frame as marked in step 4 for all carriage bolts.

6. Fasten the I-beam mounting bracket **(Fig.4C)** to the I-beam frame **(Fig.4A)** with four 5⁄16" carriage bolts **(Fig.4B)**. Secure the carriage bolts with 5⁄16" flange nuts. Torque to 13 ft-lbs.

NOTE: The 5⁄16" carriage bolts will need to be fed upward through the C-channel of the I-beam mounting bracket.



Fig.4

7. Repeat steps 1-6 on the opposite side of the frame.

8. Align the tabs provided on the I-beam mounting bracket **(Fig.5A)** with the slotted holes on the spacer bracket **(Fig.5B)**. Fasten the I-beam mounting bracket to the spacer bracket with 5⁄16" carriage bolts **(Fig.5C)**. Secure the carriage bolts with 5⁄16" flange nuts. Torque to 13 ft-lbs.

NOTE: The 5⁄16" carriage bolts **(Fig.5C)** will need to be fed downward through the square opening.

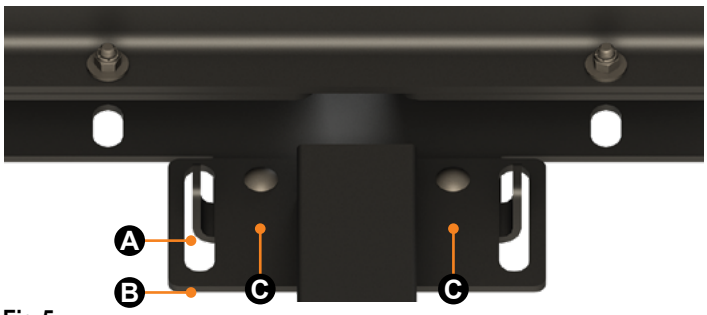


Fig.5

9. Repeat step 8 on the opposite side of the frame.

10. Insert the center tube **(Fig.6A)** into one of the spacer brackets and slide until clear to insert into the spacer bracket on the opposite side. Ensure that the center hole or mark is facing downward on the center tube. Use the hole to center the tube between both ends of the I-beam mounting brackets.

NOTE: If there is no mark or hole for the center location on the center tube, measure and mark the location.

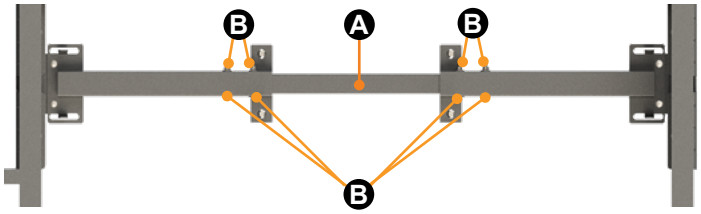


Fig.6

11. Use the 8 pre-drilled holes **(Fig.6B)** on the spacer brackets to mark holes on the center tube.

12. Drill the 8 marked holes on the center tube with a 3⁄8" drill bit.

NOTE: Remove the center tube from the spacer brackets before drilling, if desired.

13. Insert four ⅜" hex cap screw bolts **(Fig.7A)** with ⅜" flat washer through the spacer bracket and center tube. Secure with ⅜" flange nut. Torque to 23 ft-lbs.

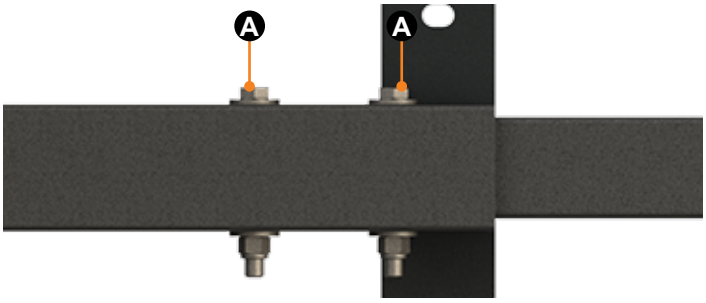


Fig.7

Front Spacer Kit

1. Measure the I-beam mounting bracket and make a mark at the center. This will be the center of the C-Jack foot pad.

2. Measure from the front of the frame and make a mark at 60". This will be the maximum allowable distance for the location of the center of the C-Jack foot pad. The final location should be as close to the draw bar as possible, staying within the approach angle **(Fig.1)**. Ensure the bracket lip (similar to **Fig.2C**) is flush with the outside lip of the I-beam.

3. Repeat steps 3 -13 for "Bolt on Spacer Kit." (Substitute steps 1 and 2 above at step 7.)

C-Jack Installation

1. For all 4 C-Jack locations, align the C-Jack mounting holes with the holes on the I-beam mounting bracket across the frame roadside to curbside **(Fig.8)**.

NOTE: Use the optional aid of a hydraulic floor jack to assist in holding the C-Jack in place or manually open the C-Jack so that the foot pad is touching the ground. See the "Troubleshooting" section "Manual Override" to fully extend the C-Jack.

2. Insert six ⅜" flange bolts **(Fig.8A)** through each set of aligned I-beam mounting brackets, 4 at the I-beam end and 2 on the opposite end.
3. Secure the bolts with a ⅜" flange nut **(Fig.8B)**. Torque to 23 ft-lbs.
4. Connect the 3-pin Deutsch Connector to the C-Jack motor wires **(Fig.8C)** and run the harnesses to the compartment where the controller will be mounted. (See "Installing the Controller" section.)

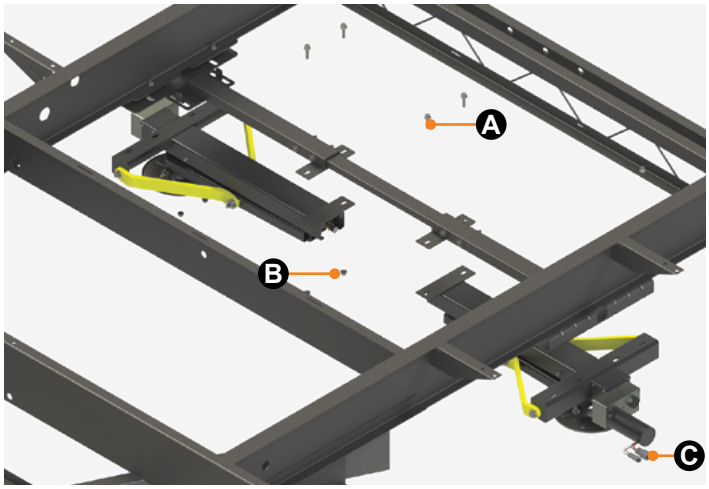


Fig.9

NOTE: LCI recommends zip tying the harnesses tight against the front jack motors to prevent damage to the harnesses.

⚠ WARNING

THE TRAILER MUST BE SUPPORTED PER MANUFACTURERSPECIFICATIONSBEFOREWORKING UNDERNEATH. FAILURE TO DO SO MAY RESULT IN DEATH OR SERIOUS INJURY.

Power Tongue jack

1. Remove the foot pad from the Power Tongue Jack (if necessary).

A. Remove the hairpin cotter pin **(Fig.9D)** and clevis pin **(Fig.9B)** holding the foot pad **(Fig.9C)** to the jack leg **(Fig.9A)**. Set the pins and the foot pad aside.

2. With trailer supported, remove the existing tongue jack.

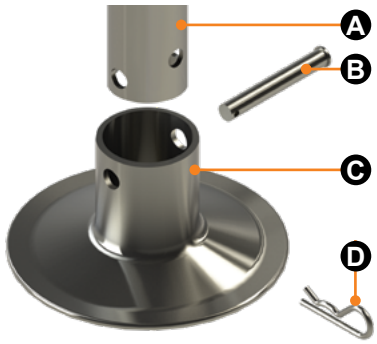


Fig.8

3. Ensure that the Power Tongue Jack is facing the front of the trailer **(Fig.10A)**. Carefully slide the jack leg **(Fig.10B)** through the hole in the coupler **(Fig.10C)** on the trailer A-frame **(Fig.10D)**.

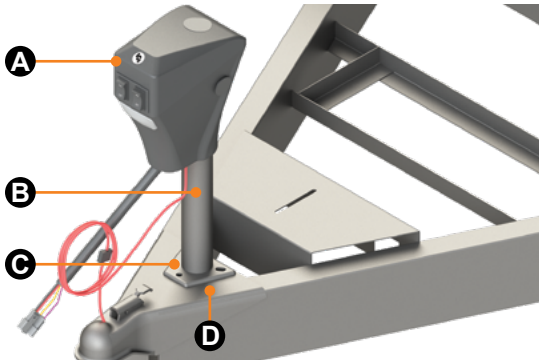


Fig.10

4. Align the 3 holes in the Power Tongue Jack mounting plate **(Fig.11A)** with the 3 holes in the coupler **(Fig.11B)**.

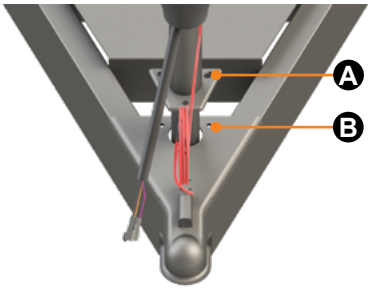


Fig.11

5. Secure the Power Tongue Jack to the coupler plate with the 3 previously used bolts **(Fig.12A)**.

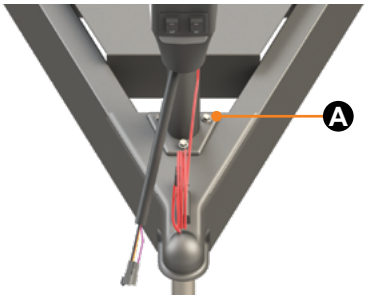


Fig.12

6. Connect the 2-pin Deutsch Connector to the Power Tongue Jack wires and run the harness to the compartment where the controller will be mounted. (See "Installing the Controller" section).

7. Connect the power wire from the Power Tongue Jack to a grounded 12V power supply on the trailer.

8. The Power Tongue Jack must be wired through a 30 amp fused circuit (supplied on jack).

9. Reattach the foot pad to the jack leg by sliding the foot pad back over the bottom of the jack leg. Secure with the clevis pin and hairpin cotter pin, which were previously removed **(Fig.9)**.

Optional Drop Leg Foot Pad

Part Number: 405217

The Power Tongue Jack has an option to replace the foot pad with a Drop Leg foot pad.

1. If using the Drop Leg foot pad, attach the foot pad **(Fig.13C)** to the jack leg **(Fig.13A)**.
2. Secure it with the snapper pin **(Fig.13B)**.
NOTE: If tongue jack is not in use, pin the drop foot in the lowest hole **(Fig.13D)**.

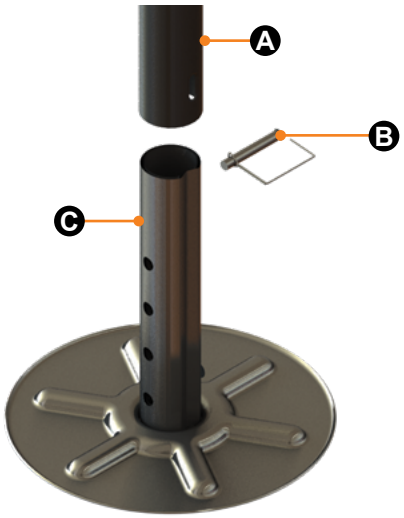


Fig.13

Ground Control® TT Leveling OneControl® Touch Panel

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(For Aftermarket Applications)

Mounting Position and Leveling Sensor Installation

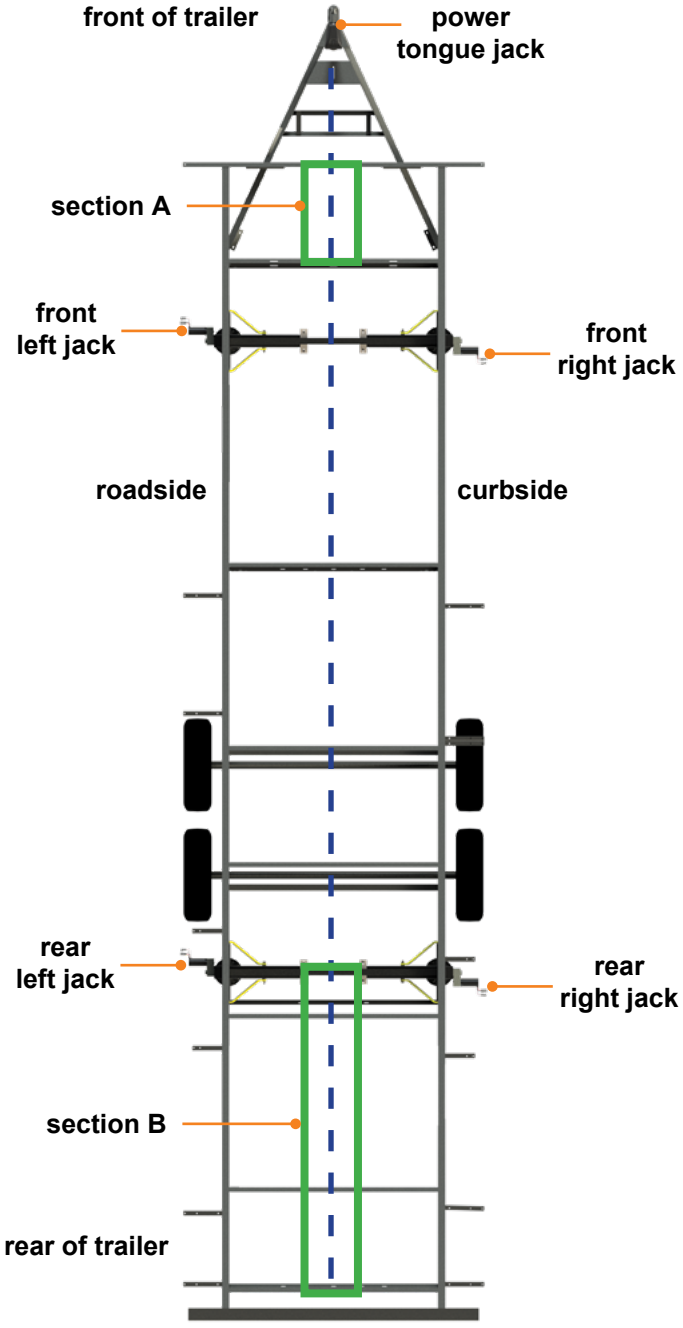


Fig.14

Installing Leveling Sensors

The leveling sensors have a limited mounting area for proper performance. The front sensor must be within 36" from the front of the frame as signified by section A in **(Fig.14)**. Ensure that the front sensor is mounted in line or in front of the front leveling jacks. The rear sensor must be in line with or behind the rear leveling jacks, as signified by section B in **(Fig.14)**. Both the front sensor and the rear sensor must also be mounted in line with the center of the frame, as signified by the dotted blue line in **(Fig.14)**.

The Leveling Sensors **(Fig.15)** must be oriented on the crossmembers with the arrows on the top of the sensor pointing in the correct direction **(Fig.16)**. See **(Fig.14)**, sections A and B, for location clarification.



Fig.15

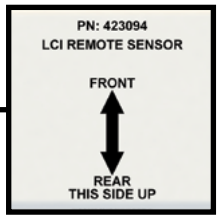


Fig.16

NOTE: The following process will be repeated for both sensor installations.

NOTE: If the frame is Ground Control Travel Trailer ready, it may be possible that the Leveling Sensor Mounting Plate may have already been pre-installed onto the frame.

1. Dry fit the mounting plate **(Fig.17C)** and the leveling sensor **(Fig.17B)** to the crossmember **(Fig.17A)**. The pre-drilled holes closest to the rounded edges are for mounting the sensor to the plate. Mark on the plate where the sensor will set.

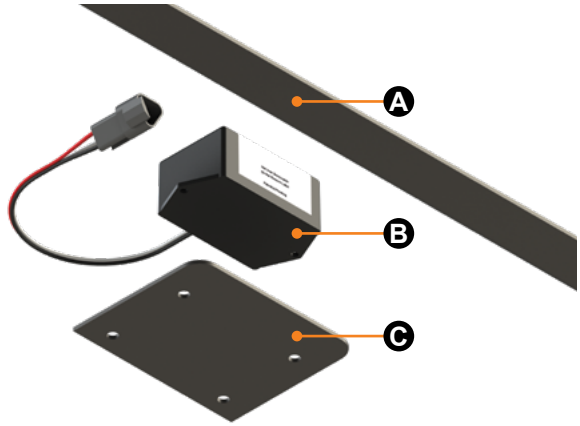


Fig.17

NOTE: Ensure there is a space between the sensor and crossmember so the wire harness is not pinched.

NOTE: The wire harness must be pointed toward the front of the trailer. Orientation is imperative for the correct operation of the leveling system.

2. Attach the sensor **(Fig.18A)** to the mounting plate **(Fig.18B)** using two #12 x 1" screws **(Fig.18C)**.

NOTE: To avoid cracking the mounting sensor housing, do not over-tighten the screws.

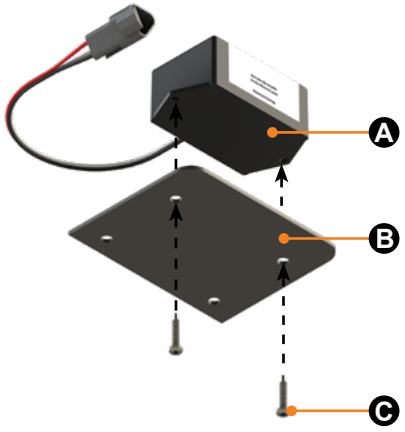


Fig.18

3. Attach the mounting plate and sensor assembly **(Fig.19B)** to the crossmember **(Fig.19A)** using two #12 x 1" screws **(Fig.19C)**. Ensure that the plate is centered side to side on the frame and that the sensor is oriented properly. See **(Fig.14)** sections A and B for location clarification.

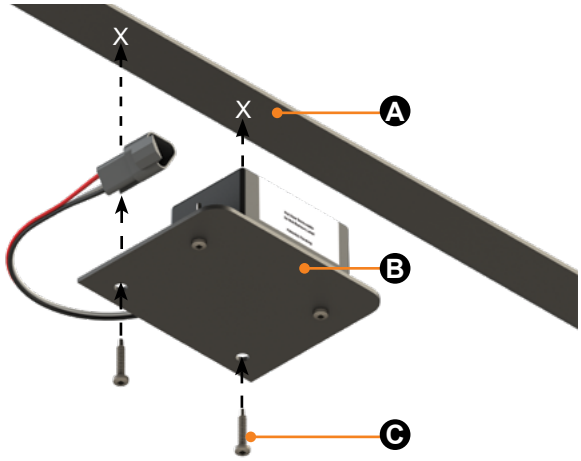


Fig.19

4. Connect the sensor harness to the 3-pin Deutsch Connector on the sensor **(Fig.20A)** and run the harness through the frame and up to the compartment where the controller will be mounted.

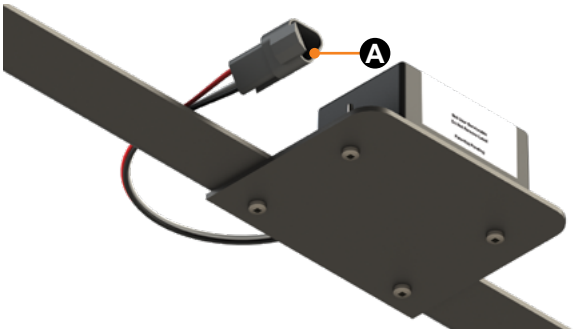


Fig.20

Ground Control® TT Leveling OneControl® Touch Panel

Installation and Owner's Manual

(For Aftermarket Applications)

Installing the Controller

NOTE: Prior to starting this portion of the installation, double check that all of the harnesses are properly and securely connected to the leveling jacks, Power Tongue Jack, and leveling sensors.

NOTE: The compartment where the controller will be installed must be protected from the elements and the controller must be installed in compliance with RVIA Gas Codes, as the controller connections are not spark-proof.

1. Using four #8 x 1" wood screws **(Fig.21B)**, attach the controller **(Fig.21A)** to the compartment wall or ceiling.

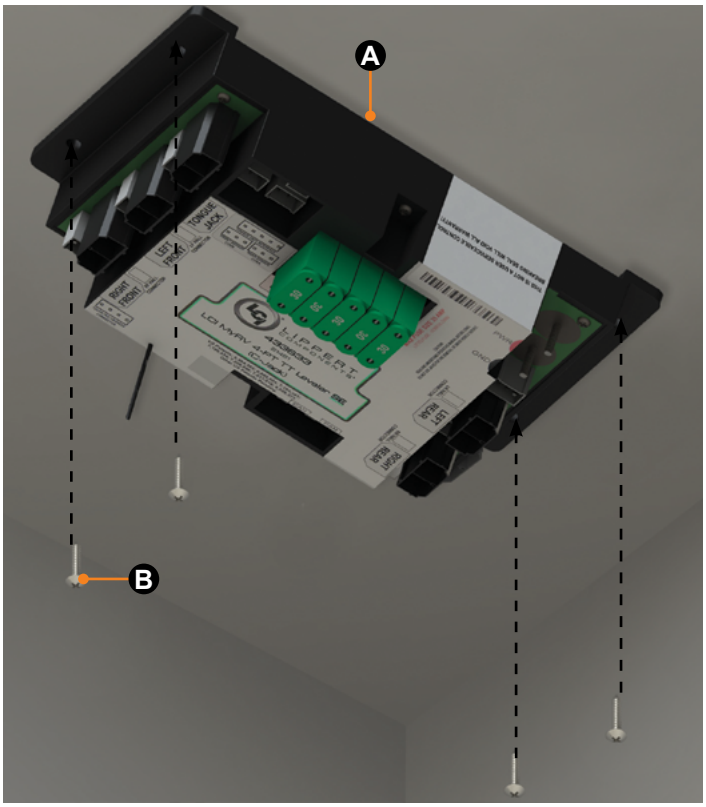


Fig.21

2. Attach the power and ground harnesses to the corresponding posts on the controller with the provided keps nuts and then connect the harnesses to the correct posts on the trailer battery.

3. Connect all jack harnesses to the appropriate connectors on the controller. Insert one terminating resistor into the open CAN port on the controller. See the Wiring Diagram section.

Installing the Touch Panel/Pad

OneControl Touch Panel

1. Determine where to mount the OneControl Touch Panel. The touch panel can be mounted anywhere inside the trailer or trailer compartment. The mounting location must be watertight. The typical location for the touch panel is near the entry door.

2. Dry fit the mounting bracket where the controller will be located.

3. Cut a hole in the wall of the compartment using the inside opening of the bracket as a guide. Use the bracket to trace where the cut-out should be located. The top and bottom horizontal cuts should be parallel to the floor of the trailer or trailer compartment.

4. Secure the mounting bracket with the 4 provided ¼" pan head Phillips sheet metal screws **(Fig.22)**.

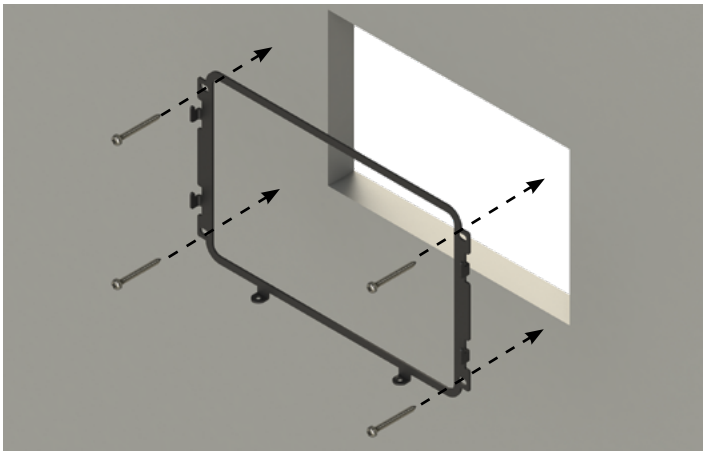


Fig.22

5. Feed the CANbus data harness and CANbus power harness through the bracket. Route the CANbus data harness to the compartment where the controller is mounted and plug the end of the harness into one of the 2-pin CAN receptacles on the controller. Plug the other end of the CANbus data harness into one of the 2-pin CAN receptacles on the touch panel. Connect the red wire of the CANbus power harness to 12V power and the black wire to 12V ground. Plug the CANbus power harness into the back of the touch panel. Insert a terminating resistor into the other 2-pin CAN receptacle at the controller and one terminating resistor into the 2-pin CAN receptacle at the touch panel. The canbus power connector **MUST** be powered from a fused power source. Failure to provide circuit protection could cause damage to the system. See see the Wiring Diagram section.

6. Insert the touch panel into the mounting bracket. Align the 4 slots on the back of the OneControl Touch Panel with the 4 tabs **(Fig.23A)** on the mounting bracket. Gently push the OneControl in and then slide down. The mounting bracket has 2 screw mounting tabs on the bottom **(Fig.23B)**. Secure the touch panel into the screw mounting tabs using the 2 provided pan head phillips sheet metal screws.

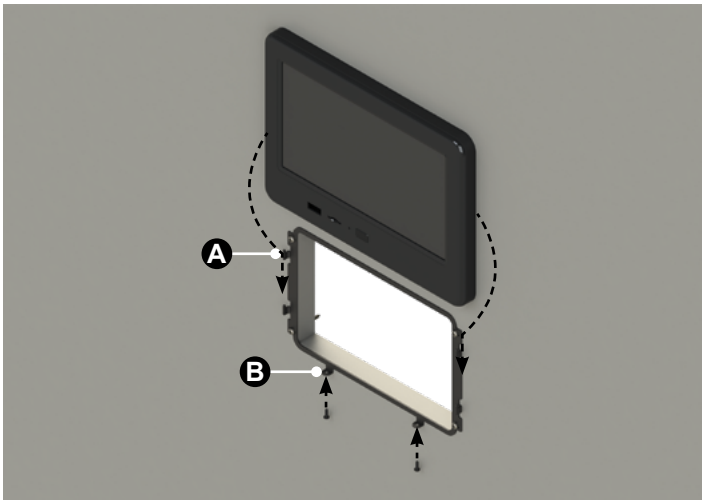


Fig.23

Auto Leveling Control Touch Pad

1. Determine where to mount the Auto Leveling Control Touch Pad. The touch pad should be mounted on the exterior of the trailer so the operator will have a view of the coupler during operation.

2. Cut a hole in the desired location 1 ¾" wide by 1 ¼" high and have a depth of ⅝" **(Fig.24)** so the top and bottom horizontal cuts are parallel to floor of the compartment or floor of the unit.

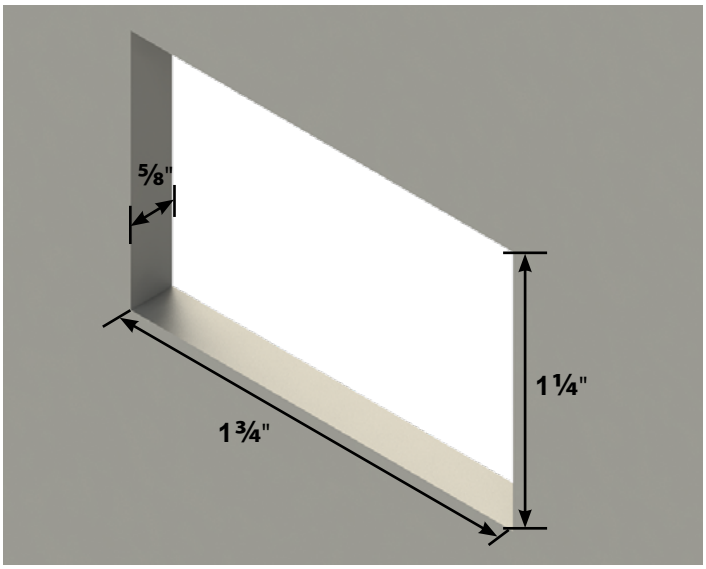


Fig.24

3. Plug the touch pad harness into the connector on the back of the touch pad to ensure that the product is functional before mounting.

4. Feed the touch pad harness through this hole and run it to the compartment where the controller is mounted **(Fig.25)**. Plug the harness into the appropriate connector on the controller.

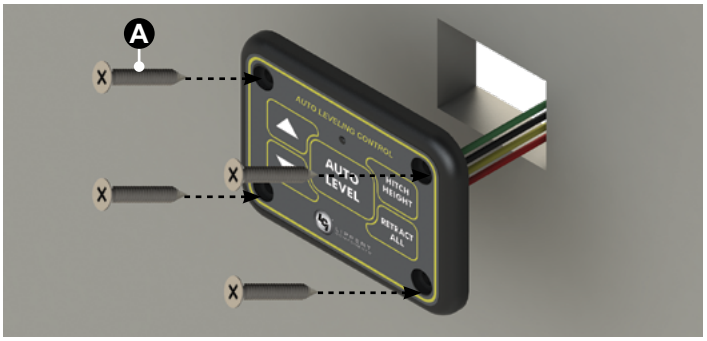


Fig.25

5. Attach the touch pad with four #8 x 1" wood screws **(Fig.25A)**.

Operation - Power Tongue Jack

NOTE: The "On" and "Off" switch **(Fig.27A)** controls the Power Tongue Jack's light only. If left on for an extended period of time, the light will drain the trailer's battery.

NOTE: The Power Tongue Jack is designed for vertical movement of the trailer only.

Unhitching from Tow Vehicle

NOTE: Prior to unhitching from the tow vehicle, ensure the trailer is parked on a level surface and chock the tires of the trailer.

NOTE: Ensure the foot pad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin **(Fig.26A)**.

1. Disconnect any wires, chains, or sway control that may be equipped between the tow vehicle and the trailer.

2. Push "EXT" **(Fig.27C)** 2 times holding on the 3rd time approximately 5 seconds, then release the switch and the Power Tongue jack will automatically extend to the ground.

3. Push "EXT" until the coupler clears the hitch ball.

4. Disconnect the trailer wire connection at the tow vehicle, if not previously completed.

5. Move the tow vehicle away from the trailer.

6. Push "RET" **(Fig.27B)** as needed to return the front of the trailer to level or use the Auto Level function to level the trailer per the instructions in this manual.

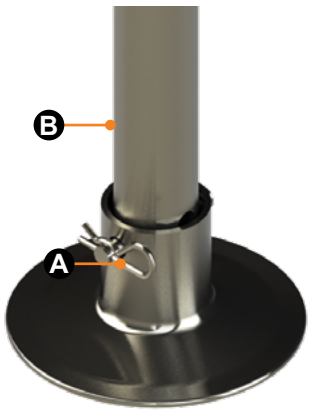


Fig.26

Reconnecting to Tow Vehicle

1. Chock the tires of the trailer.

2. Press "EXT" **(Fig.27C)** if needed to allow the coupler to clear the hitch ball.

3. Push "RET" **(Fig.27B)** to retract the Power Tongue Jack until the coupler properly mounts the hitch ball.

4. Latch the tow vehicle hitch and connect any wires, chains or sway control that may be equipped between the tow vehicle and trailer.

5. Press "RET" 2 times and hold on the 3rd time approximately 5 seconds until the Power Tongue Jack stops. Let go of the switch and the Power Tongue Jack will automatically retract.

NOTE: Be sure the leg of the Power Tongue Jack **(Fig.26B)** is fully retracted prior to moving the tow vehicle.

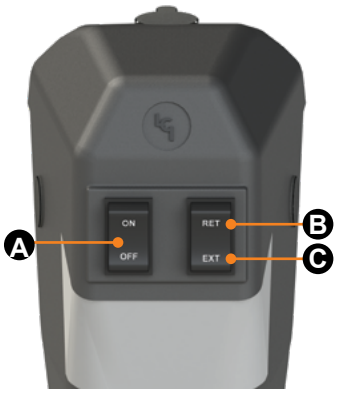


Fig.27

Ground Control® TT Leveling OneControl® Touch Panel

Installation and Owner's Manual

(For Aftermarket Applications)

Auto Leveling Control Touch Pad Diagram

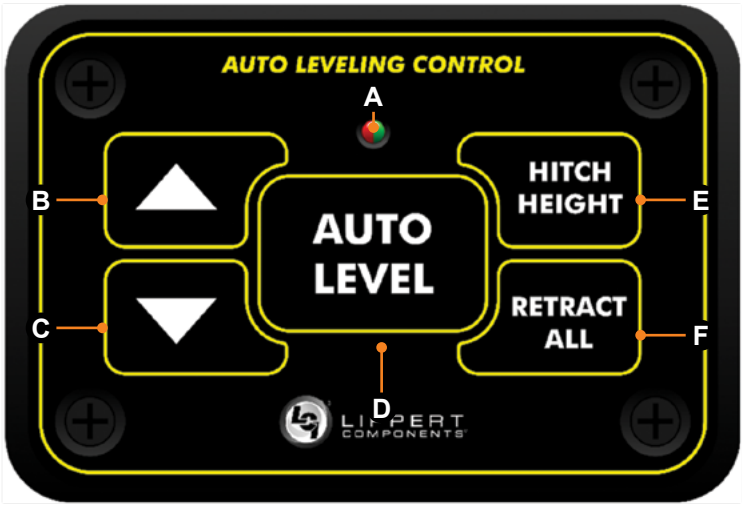


Fig.28

Callout	Description	
A	Red/Green LED - Indicates the status of the system.	
B	Up Arrow - Extends the Power Tongue Jack.	To turn on the touch pad, press the Up and Down arrow buttons at the same time.
C	Down Arrow - Retracts Power Tongue Jack.	
D	Auto Level Button - Places leveling system into auto level mode.	
E	Hitch Height Button - Initiates the Hitch Recognition feature.	
F	Retract All Button - Places leveling system into full retract mode. Power Tongue Jack does not retract.	

Operation - Auto Leveling Control Touch Pad

Basic Tongue Jack Operation

1. To turn on the touch pad, press both "UP" and "DOWN" arrows **(Fig. 28B and Fig. 28C)** at the same time. The green indicator LED **(Fig. 28A)** will turn on.
2. Press the "UP" arrow **(Fig. 28B)** to extend the Power Tongue Jack.
3. Press the "DOWN" arrow **(Fig. 28C)** to retract the Power Tongue Jack.

Unhitching From Tow Vehicle

NOTE: Prior to unhitching from the tow vehicle, ensure the trailer is parked on a level surface and chock the tires of the trailer.

NOTE: Ensure the foot pad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin.

1. Disconnect any wires, chains, or sway control that may be equipped between the tow vehicle and the trailer. Unlatch the trailer coupler.
2. To turn on the Auto Leveling Control Touch Pad, press both "UP" and "DOWN" arrows **(Fig.28B and Fig.28C)** at the same time. The green indicator LED **(Fig.28A)** will turn on.
NOTE: The touch pad will remain on as long as the user is pressing buttons. It will time out after approximately 5 minutes without use.

3. Press the "UP" arrow **(Fig.28B)** on the Auto Leveling Control Touch Pad to extend the Power Tongue Jack and lift the front of trailer to take the weight of the trailer off of the hitch.

4. Disconnect the trailer wire connection at the tow vehicle, if not previously completed.
5. Pull tow vehicle away and park at a safe distance.
NOTE: To utilize the Power Tongue Jack for the unhitching process see "Operation - Power Tongue Jack."

Auto Level

1. Prior to auto leveling, ensure the trailer is unhitched from the tow vehicle and the tow vehicle is parked a safe distance away from the trailer.
2. Press both "UP" and "DOWN" arrows **(Fig.28B and Fig.28C)** at the same time if the green indicator LED is not on.
3. Press "AUTO LEVEL" **(Fig.28D)**.
NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

NOTE: Pressing any button during an Auto Level sequence will abort the auto leveling cycle.

NOTE: Sequence may vary slightly based on the height of the trailer coupler prior to leveling.

4. When the Auto Level Sequence begins:
A. The system checks that the rear jacks are retracted.
B. The Power Tongue Jack may adjust depending on the orientation of the trailer.
C. Front jacks will extend until movement of the trailer is sensed.
D. The Power Tongue Jack will then retract.
E. The front jacks will extend/retract near level.
F. Rear jacks will extend and ground.Trailer will level front-to-back and then side-to-side.
G. The Auto level Sequence will ground all jacks to ensure all foot pads are on the ground.
H. The Auto Leveling sequence is complete when the indicator light turns solid green.

NOTE: If the "AUTO LEVEL" sequence does not perform as described above, locate the OneControl Touch Panel or use the OneControl App to place the system in Manual Mode. Test that the jacks operate correctly by pushing their corresponding buttons on the OneControl Touch Panel or App; e.g., "FRONT" button operates only the front jacks, etc. (See "Operation - OneControl Touch Panel" or "Operation - OneControl App" in this manual).

Hitch Recognition

1. To turn on the Auto Leveling Control Touch Pad, press both "UP" and "DOWN" arrows **(Fig.28B and Fig.28C)** at the same time. The green indicator LED **(Fig.28A)** will turn on.
2. Press "HITCH HEIGHT" **(Fig.28E)**.
A. Rear jacks will retract.
B. The Power Tongue Jack will extend to the ground.
C. The front leveling jacks will retract.
D. The tongue jack will then adjust the height of the front of the trailer coupler to the point at which the "AUTO LEVEL" button was most recently pressed.
3. Back the tow vehicle into position to align the tow vehicle hitch and trailer coupler with each other.
4. Press and hold the "DOWN" arrow to retract the tongue jack until the coupler sets into position on top of the tow vehicle hitch.
5. Latch the tow vehicle hitch and connect any wires, chains or sway control that may be equipped between the tow vehicle and trailer.
6. Press and hold the "DOWN" arrow until the Power Tongue Jack is fully retracted.
NOTE: To utilize the Power Tongue Jack for the hitching process see "Operation - Power Tongue Jack."

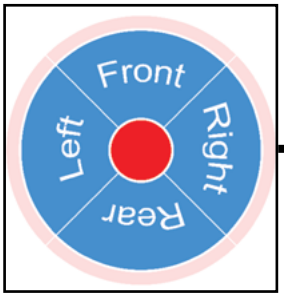
Ground Control® TT Leveling OneControl® Touch Panel

Installation and Owner's Manual

(For Aftermarket Applications)

OneControl Touch Panel Diagram

jack buttons in manual mode See Fig.32



leveling in standard mode

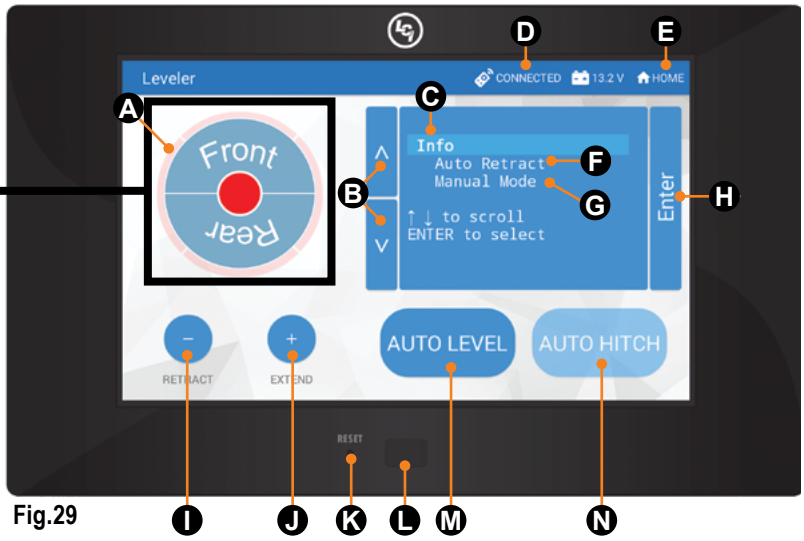


Fig.29

Callout	Description
A	Jack Buttons - Select Front, Rear, Right and Left jacks to be operated depending on mode. Jacks available to be operated will be highlighted in blue. Only the Power Tongue Jack can be operated in Standard Mode (Fig.29). In Manual Mode (Fig.32), all leveling jacks are available to be operated (no Power Tongue Jack operation available).
B	Up and Down Arrows - Scrolls through options on screen.
C	Info - Displays system information, e.g. angle, jack stroke or software version.
D	Connected Icon - Press 6 times to program zero point/ wireless configurations.
E	Home Icon - Returns screen to home page.
F	Auto Retract - Enters Auto Retract mode to retract all jacks. Power Tongue Jack does not retract.
G	Manual Mode - Enters Manual Mode to manually operate jacks.
H	Enter - Push to select various modes.
I	Retract - Retracts jacks in several modes. Jacks available will be highlighted in blue.
J	Extend - Extends jacks in several modes. Jacks available will be highlighted in blue.
K	Reset - Resets to factory default.
L	Power Button - Turns touch panel on and off.
M	Auto Level - Starts the Auto Level sequence.
N	Auto Hitch - Returns trailer to previous hitch height for reconnecting to tow vehicle.

Operation - OneControl Touch Panel

⚠ WARNING

BE SURE TO PARK THE TRAILER ON SOLID AND LEVEL GROUND. PRIOR TO OPERATION, CLEAR ALL JACK LANDING LOCATIONS OF DEBRIS AND OBSTRUCTIONS. THE LOCATIONS SHOULD ALSO BE FREE OF SURFACE DEPRESSIONS AND MOISTURE. WHEN PARKING THE TRAILER ON EXTREMELY SOFT SURFACES, UTILIZE LOAD DISTRIBUTION PADS UNDER EACH JACK.

⚠ CAUTION

PEOPLE AND PETS SHOULD BE CLEAR OF THE TRAILER WHILE THE LEVELING SYSTEM IS OPERATED. NEVER LIFT THE TRAILER COMPLETELY OFF THE GROUND. LIFTING THE TRAILER SO THE WHEELS ARE NOT TOUCHING THE GROUND WILL CREATE AN UNSTABLE AND UNSAFE CONDITION.

Basic Jack Operation in Standard Mode

To reach Standard Mode **(Fig.29)** for leveling:

1. Power on the OneControl Touch Panel **(Fig. 29L)**.
2. Press "MyRV Control Panel" on the main screen **(Fig.30A)**.



Fig.30

NOTE: On newer versions of the OneControl Touch Panel, the screen will not open to "MyRV Control Panel." The screen will open to "OneControl" with access to various functions, including "Leveling." Choose "Leveling."

3. Press the "Leveler" icon **(Fig.31A)**.
4. The screen will show the system menu **(Fig.29)** for Standard Mode. The Power Tongue Jack can be extended/retracted in Standard Mode. Front and rear jacks cannot be operated in standard mode.



Fig.31

Basic Jack Operation in Manual Mode

To reach Manual Mode **(Fig.32)** for leveling:

1. While in Standard Mode **(Fig.29)**, use the arrows **(Fig.29B)** to scroll to Manual Mode **(Fig.29G)**. Hit "ENTER" **(Fig.29H)**.
2. Front and rear jacks can be operated in Manual Mode. The Power Tongue Jack cannot be operated in Manual Mode.

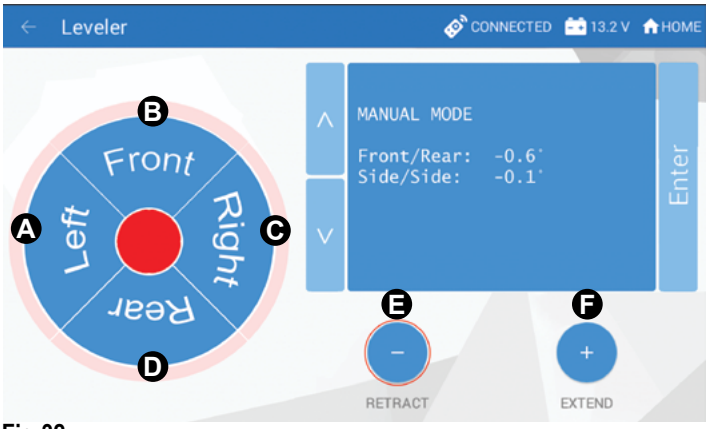


Fig.32

OneControl Touch Panel in Standard and Manual Modes

Standard Mode Features

A. Press "EXTEND" **(Fig.29J)** or "RETRACT" **(Fig.29I)** and "FRONT" **(Fig.29A)** to extend or retract the Power Tongue Jack.

B. Press the "AUTO LEVEL" **(Fig.29M)** button to start the auto leveling sequence.

C. Press the "AUTO HITCH" **(Fig.29N)** button to start the hitch recognition sequence when reconnecting to the tow vehicle.

D. Use the "UP" or "DOWN" arrow **(Fig.29B)** buttons to cycle through the menu screen options:

I. Info: Scroll to "Info" **(Fig.29C)** and press "enter" **(Fig.29H)** button to display system information, e.g., angle, jack stroke or software version.
II. Auto Retract: Scroll to "Auto Retract" **(Fig.29F)** and press "Enter" button to start the "Auto Retract" sequence, which will retract all jacks. The Power Tongue jack does not retract.
III. Manual Mode: Scroll to "Manual Mode" **(Fig.29G)** and press "ENTER" button to start Manual Level operation.

Manual Mode Features

NOTE: Upon entering Manual Mode, a tutorial on operating the jacks will appear on the screen. Press "OK" to clear the tutorial. To delete the tutorial, click the "Don't show this again" box in the bottom right of the screen.

E. Press "EXTEND" **(Fig.32F)** or "RETRACT" **(Fig.32E)** and "Front" **(Fig.32B)** to operate front jacks.
F. Press "Extend" or "Retract" and "Rear" **(Fig.32D)** to operate rear jacks.
G. Press "Extend" or "Retract" and "Right" **(Fig.32C)** to operate right jacks.
H. Press "Extend" or "Retract" and "Left" **(Fig.32A)** to operate left jacks.

NOTE: To operate jacks individually, press "EXTEND" or "RETRACT" then press the "LEFT" **(Fig.32A)** or "RIGHT" **(Fig.32C)** button while simultaneously pressing the "FRONT" **(Fig.32B)** or "REAR" button **(Fig.32D)**, depending on which jack needs to be operated.

NOTE: The jacks operate in pairs. While in manual mode, the jacks operate individually, the Twist Protection Prevention System has been activated to prevent frame twist. The OneControl Touch Panel or OneControl App will display "Relieving frame twist." The jacks will resume operating in pairs when potential frame twist has been relieved.

Unhitching from Tow Vehicle

NOTE: Prior to unhitching from the tow vehicle, ensure trailer is parked on a level surface and chock the tires of the trailer.

NOTE: Ensure the foot pad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin.

1. Disconnect any wires, chains, or sway control that may be equipped between the tow vehicle and the trailer. Unlatch the trailer coupler.
2. Press "EXTEND" **(Fig.29J)** and "FRONT" button **(Fig.29A)** on the OneControl Touch Panel in Standard Mode to extend the Power Tongue Jack until the foot pad touches the ground and the coupler clears the hitch ball.
NOTE: If using the OneControl Touch Panel and the hitch is not visible, a second person will be needed to monitor the operation of the unhitching process.

3. Disconnect the trailer wire connection at the tow vehicle, if not previously completed.
4. Pull tow vehicle away and park at a safe distance.
NOTE: To utilize the Power Tongue Jack for the unhitching process see "Operation - Power Tongue Jack."

Auto Leveling

1. Prior to auto leveling, ensure the trailer is unhitched from the tow vehicle and the tow vehicle is parked a safe distance away from the trailer.
2. Press the "ON/OFF" button **(Fig.29L)** if the OneControl Touch Panel is not on.
3. Press "MyRV Control Panel" on the main screen **(Fig.30A)**.
NOTE: On newer versions of the OneControl Touch Panel, the screen will not open to "MyRV Control Panel." The screen will open to "OneControl" with access to various functions, including "Leveling." Choose "Leveling."

4. Press the "Leveler" icon **(Fig.31A)**.
5. Press "AUTO LEVEL" **(Fig.29M)**.
NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the leveling process is complete. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

NOTE: Sequence may vary slightly based on the height of the trailer coupler prior to leveling.

6. When the Auto Level Sequence begins:
A. The system checks that the rear jacks are retracted.
B. The Power Tongue Jack may adjust depending on the orientation of the trailer.
C. Front jacks will extend until trailer movement trailer is sensed.
D. The Power Tongue Jack will then retract.
E. The front jacks will extend/retract near level.
F. Rear jacks will extend and ground.
G. Trailer will level front-to-back and then side-to-side.
H. The Auto Level Sequence will ground all jacks to ensure all foot pads are on the ground.
I. The Auto Leveling sequence is complete when the OneControl Touch Panel indicates, "Auto Level Success."
NOTE: If the AUTO LEVEL sequence does not perform as described above, locate the OneControl Touch Panel or use the OneControl App to place the system in Manual Mode. Test that the jacks operate correctly by pushing their corresponding buttons on the OneControl Touch Panel or App; e.g., "FRONT" button operates only the front jacks, etc. ("See Operation - OneControl Touch Panel" or "Operation - OneControl App" in this manual).

Hitch Recognition

1. Press the "ON/OFF" button to turn the OneControl Touch Panel on **(Fig.29L)**.
2. Press "MyRV Control Panel" on the main screen **(Fig.30A)**.
NOTE: On newer versions of the OneControl Touch Panel, the screen will not open to "MyRV Control Panel." The screen will open to "OneControl" with access to various functions, including "Leveling." Choose "Leveling."

3. Press the "Leveler" icon **(Fig.31A)**.
4. Press "AUTO HITCH" **(Fig.29N)**.
A. Rear jacks will retract.
B. The Power Tongue Jack will extend to the ground.
C. Front leveling jacks will retract.
D. The tongue jack will then adjust the height of the front of the trailer coupler to the point at which the "AUTO LEVEL" button was most recently pressed.
5. Back the tow vehicle into position to align the tow vehicle hitch and trailer coupler with each other.
NOTE: If using the OneControl Touch Panel and the hitch is not visible, a second person will be needed to monitor the operation of the hitching process.

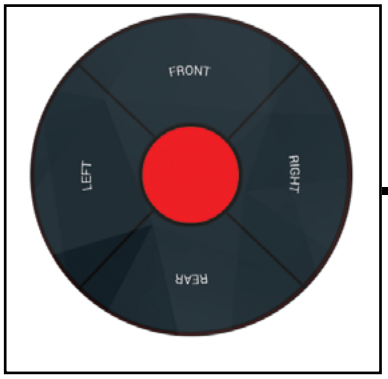
6. Press "RETRACT" button, then press the "FRONT" button to retract the tongue jack until the coupler sets into position on top of the tow vehicle hitch.
7. Latch the tow vehicle hitch and connect any wires, chains or sway control that may be equipped between the tow vehicle and trailer.
NOTE: Press the "RETRACT" button and then press and hold the "FRONT" button until the Power Tongue Jack fully retracts.

NOTE: To utilize the Power Tongue Jack for the hitching process see "Operation - Power Tongue Jack."

Touch Panel Diagram - OneControl App

NOTE: The OneControl Leveling App is available on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users.

jack buttons in manual mode (See Fig.37)



leveling in standard mode

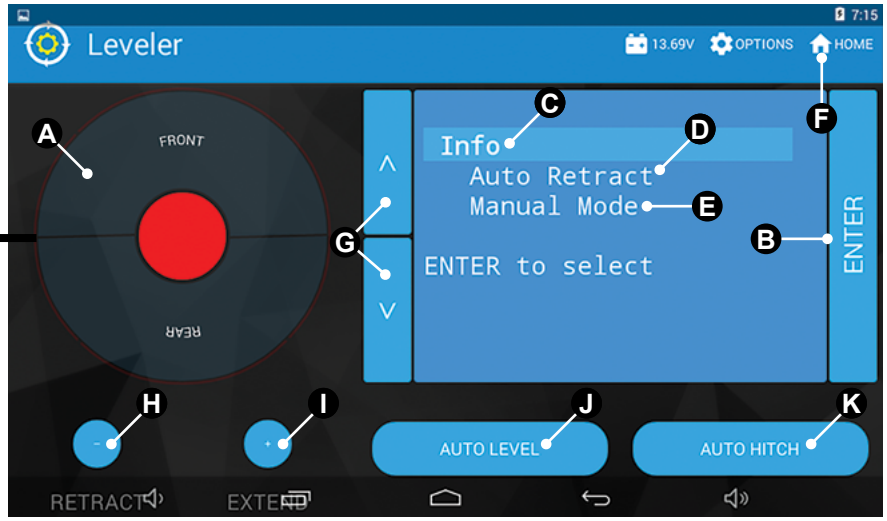


Fig.33

Callout	Description
A	Jack Buttons - Select Front, Rear, Right and Left jacks to be operated depending on mode. Jacks available to be operated will be highlighted in blue. Only the Power Tongue Jack can be operated in Standard Mode (Fig.33). In Manual Mode (Fig.37), all jacks are available to be operated (no Power Tongue Jack operation available).
B	Enter - Push to select various modes.
C	Info - Displays system information, e.g. angle, jack stroke or software version.
D	Auto Retract - Enters Auto Retract mode to retract all jacks. Power Tongue Jack does not retract.
E	Manual Mode - Enters Manual Mode to manually operate jacks.
F	Home Icon - Returns screen to home page.
G	Up and Down Arrows - Scroll through options on screen.
H	Retract - Retracts jacks in several modes. Jacks available will be highlighted in blue.
I	Extend - Extends jacks in several modes. Jacks available will be highlighted in blue.
J	Auto Level - Starts the Auto Level sequence.
K	Auto Hitch - Returns trailer to previous hitch height for reconnecting to tow vehicle.

Operation - OneControl App

NOTE: The OneControl App will only function if the trailer is equipped with the myRV wifi hub **(Fig.34)**. To wire the OneControl and the controller into the existing circuit:

1. Disconnect an existing canbus cable from any myRV component.
2. Connect the canbus cable to either the OneControl Touch Panel or controller.
3. Connect the provided canbus cable to the remaining component (OneControl or controller).
4. Run a canbus cable back to the existing component from which the circuit was originally disconnected.
NOTE: If the use of the OneControl App is desired and the trailer is not equipped with myRV, call Lippert Components to order additional parts and instructions.

Accessing the OneControl App

5. Ensure there is power to the trailer's wireless network.
6. Navigate to the device's (smart phone, tablet, etc.) wifi settings. Turn wireless feature on and connect to the myRV wireless network.
NOTE: If this is the first time connecting to the myRV wireless network, a password will be required. The password is located on the trailer's wifi hub **(Fig.34)**.

7. Open the OneControl application on the compatible device.



Fig.34

NOTE: If the device states "Unresolved Network Connection," retry connecting to the myRV wireless network and/or wait for the connection to resolve and display "Connected" under the myRV wireless connection.

8. The application will request the user "Agree" to an end user license agreement, create a PIN and "Re-enter PIN to confirm."
9. On "Initial Setup" choose "myRV" **(Fig.35A)**.
10. The OneControl app will now display all functions.

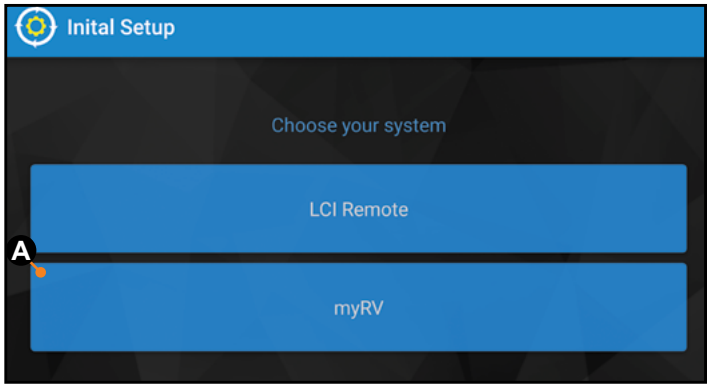


Fig.35

⚠ WARNING

BE SURE TO PARK THE TRAILER ON SOLID AND LEVEL GROUND. PRIOR TO OPERATION, CLEAR ALL JACK LANDING LOCATIONS OF DEBRIS AND OBSTRUCTIONS. THE LOCATIONS SHOULD ALSO BE FREE OF SURFACE DEPRESSIONS AND MOISTURE. WHEN PARKING THE TRAILER ON EXTREMELY SOFT SURFACES, UTILIZE LOAD DISTRIBUTION PADS UNDER EACH JACK.

⚠ CAUTION

PEOPLE AND PETS SHOULD BE CLEAR OF THE TRAILER WHILE THE LEVELING SYSTEM IS OPERATED. NEVER LIFT THE TRAILER COMPLETELY OFF THE GROUND. LIFTING THE TRAILER SO THE WHEELS ARE NOT TOUCHING THE GROUND WILL CREATE AN UNSTABLE AND UNSAFE CONDITION.

Basic Jack Operation in Standard Mode

To reach Standard Mode **(Fig.33)** for leveling:

1. Power on the OneControl Touch Panel App.
2. Press the "Leveler" icon **(Fig.36A)**.
3. The screen will show the system menu **(Fig.33)** for Standard Mode. The Power Tongue Jack can be extended/retracted in Standard Mode. Front and rear jacks cannot be operated in Standard Mode.



Fig.36

Basic Jack Operation in Manual Mode

To reach Manual Mode **(Fig.37)** for leveling:

1. While in Standard Mode **(Fig.33)**, use the arrows **(Fig.33G)** to scroll to Manual Mode **(Fig.33E)**. Hit "ENTER" **(Fig.33B)**.
2. Front and rear jacks can be operated in Manual Mode. Power Tongue Jack cannot be operated in Manual Mode.

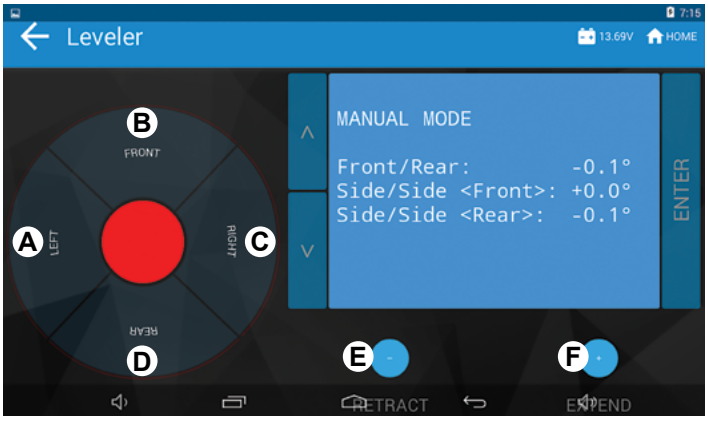


Fig.37

OneControl Touch Panel App in Standard and Manual Modes

Standard Mode Features

A. Press "EXTEND" **(Fig.33I)** or "RETRACT" **(Fig.33H)** and "FRONT" **(Fig.33A)** to extend or retract the Power Tongue Jack.
B. Press the "AUTO LEVEL" **(Fig.33J)** button to start the auto leveling sequence.
C. Press the "AUTO HITCH" **(Fig.33K)** button to start the hitch recognition sequence when reconnecting to the tow vehicle.
D. Use the "UP" or "DOWN" arrow **(Fig.33G)** buttons to cycle through the menu screen options:
- **I.** Info: Scroll to "Info" **(Fig.33C)** and press "enter" **(Fig.33B)** button to display system information, e.g., angle, jack stroke or software version.
- **II.** Auto Retract: Scroll to "Auto Retract" **(Fig.33D)** and press "Enter" button to start the "Auto Retract" sequence, which will retract all jacks. The Power Tongue jack does not retract.
- **III.** Manual Mode: Scroll to "Manual Mode" **(Fig.33E)** and press "Enter" button to start Manual Level operation.

Manual Mode Features

NOTE: Upon entering Manual Mode, a tutorial on operating the jacks will appear on the screen. Press "OK" to clear the tutorial. To delete the tutorial, click the "Don't show this again" box in the bottom right of the screen.

E. Press "EXTEND" **(Fig.37F)** or "RETRACT" **(Fig.37E)** and "Front" **(Fig.37B)** to operate front jacks.
F. Press "Extend" or "Retract" and "Rear" **(Fig.37D)** to operate rear jacks.
G. Press "Extend" or "Retract" and "Right" **(Fig.37C)** to operate right jacks.
H. Press "Extend" or "Retract" and "Left" **(Fig.37A)** to operate left jacks.
NOTE: To operate jacks individually, press "EXTEND" or "RETRACT" then press the "LEFT" **(Fig.37A)** or "RIGHT" **(Fig.37C)** button while simultaneously pressing the "FRONT" **(Fig.37B)** or "REAR" button **(Fig.37D)**, depending on which jack needs to be operated.

NOTE: The jacks operate in pairs. While in manual mode the jacks operate individually, the Twist Protection Prevention System has been activated to prevent frame twist. The OneControl Touch Panel or OneControl App will display "Relieving frame twist." The jacks will resume operation in pairs when potential frame twist has been relieved.

Unhitching from Tow Vehicle

NOTE: Prior to unhitching from the tow vehicle, ensure trailer is parked on a level surface and chock the tires of the trailer.

NOTE: Ensure the foot pad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin.

1. Disconnect any wires, chains, or sway control that may be equipped between the tow vehicle and the trailer. Unlatch the trailer coupler.
2. Press the "EXTEND" **(Fig.33I)** and "FRONT" button **(Fig.33A)** on the OneControl Touch Panel App in Standard Mode to extend the Power Tongue Jack until the foot touches the ground and the coupler clears the hitch ball.
3. Disconnect the trailer wire connection at the tow vehicle, if not previously completed.
4. Pull tow vehicle away and park at a safe distance.
NOTE: To utilize the Power Tongue Jack for the unhitching process see "Operation - Power Tongue Jack."

Auto Leveling

1. Prior to auto leveling, ensure the trailer is unhitched from the tow vehicle and the tow vehicle is parked a safe distance away from the trailer.
2. Power on the OneControl Touch Panel App.
3. Press the "Leveler" icon **(Fig.36A)**.
4. Press "AUTO LEVEL" **(Fig.33J)**.
NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the leveling process is complete. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

NOTE: Sequence may vary slightly based on the height of the trailer coupler prior to leveling.

5. When the Auto Level Sequence begins:
A. The system checks that the rear jacks are retracted.
B. The Power Tongue Jack may adjust depending on the orientation of the trailer.
C. Front jacks will extend until movement of the trailer is sensed.
D. The Power Tongue Jack will then retract.
E. The front jacks will extend/retract near level.
F. Rear jacks will extend and ground.
G. Trailer will level front-to-back and then side-to-side.
H. The Auto level Sequence will ground all jacks to ensure all foot pads are on the ground.
I. The Auto Leveling sequence is complete when the OneControl App indicates, "Auto Level Success."
NOTE: If the AUTO LEVEL sequence does not perform as described above, locate the OneControl Touch Panel or use the OneControl App to place the system in Manual Mode. Test that the jacks operate correctly by pushing their corresponding buttons on the OneControl Touch Panel or App; e.g., "FRONT" button operates only the front jacks, etc. (See "Operation - OneControl Touch Panel" or "Operation - OneControl App" in this manual).

Hitch Recognition

1. Power on the OneControl Touch Panel App.
2. Press the "Leveler" icon **(Fig.36A)**.
3. Press "AUTO HITCH" **(Fig.33K)**.
A. Rear jacks will retract.
B. The Power Tongue Jack will extend to the ground.
C. Front leveling jacks will retract.
D. The tongue jack will then adjust the height of the front of the trailer coupler to the point at which the "AUTO LEVEL" button was most recently pressed.
4. Back the tow vehicle into position to align the tow vehicle hitch and trailer coupler with each other.
5. Press "RETRACT" button, then press the "FRONT" button to retract the tongue jack until the coupler sets into position on top of the tow vehicle hitch.
6. Latch the tow vehicle hitch and connect any wires, chains or sway control that may be equipped between the tow vehicle and trailer.
7. Press the "RETRACT" button and then press and hold the "FRONT" button until the Power Tongue Jack fully retracts.
NOTE: To utilize the Power Tongue Jack for the hitching process see "Operation - Power Tongue Jack."

Linc™ Remote Diagram - Optional

Part Numbers: 329164 - Remote & 267401 - Charger



Fig.38

Callout	Description
A	Retract - Retracts Power Tongue Jack.
B	Front Arrow - Operates Power Tongue Jack (See Note below)
C	Left Arrow - (See Note below)
D	Help - Provides contact information for LCI.
E	Extend - Extends Power Tongue Jack. (See Note below)
F	Right Arrow - (See Note below)
G	Rear Arrow - (See Note below)
H	Auto Level - Initiates Auto Level sequence.
I	Power Button - Turns Linc Remote on and off.

NOTE: When the OneControl Touch Panel is placed in Manual Mode, the Linc Remote will operate the jacks in a similar fashion as the OneControl, with the exception of operating individual jacks. Jacks will only operate in pairs. (See "Operation - OneControl Touch Panel.")

Configuring Linc Remote to Sync to OneControl Touch Panel or OneControl App

1. Turn on the Linc Remote **(Fig.38I)** and enter a PIN.
2. Choose "Leveler" from the menu screen.
3. Turn on the OneControl Touch Panel **(Fig.29L)**.
4. On the OneControl Touch Panel, press the "CONNECTED" icon at the top of the screen **(Fig.39A)** quickly 6 times. Wait a few seconds until the gear icon with "OPTIONS" appears **(Fig.40A)**.
NOTE: If configuring to the OneControl App, press the "OPTIONS" button.

5. Press the gear icon with "options" **(Fig.40A)**.
6. Use the "UP" and "DOWN" arrows **(Fig.40B)** to scroll to "WIRELESS CONFIG" **(Fig.41)**.
7. Press "ENTER" **(Fig.41A)**. The screen will display "Wireless Configuration Press any Linc button to Sync" **(Fig.42)**.
8. Press any button in "Leveler" mode on the Linc Remote **(Fig.38)**.
9. Pressing "ABORT" on the OneControl Touch Panel **(Fig.42A)** will cancel configuration sequence.

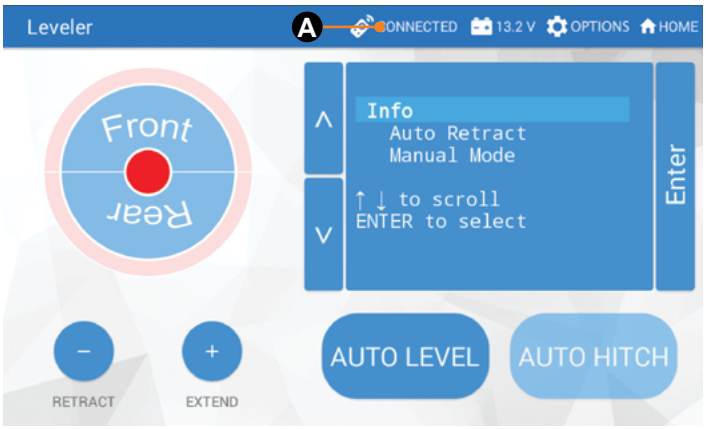


Fig.39

Ground Control® TT Leveling OneControl® Touch Panel

Installation and Owner's Manual

(For Aftermarket Applications)

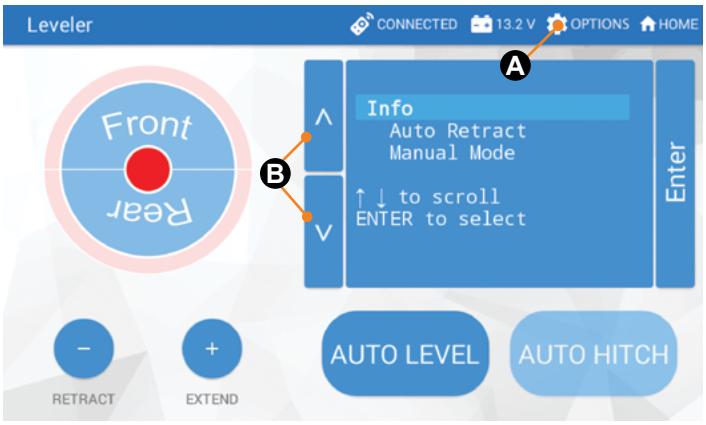


Fig.40



Fig.41

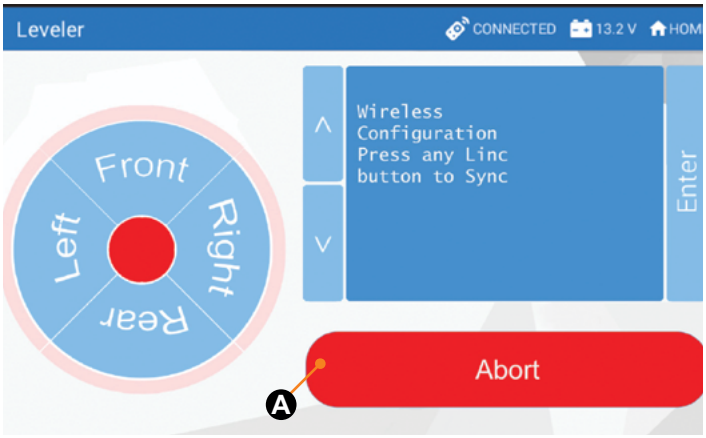


Fig.42

Basic Jack Operation

A. Press "EXTEND" **(Fig.38E)** or "RETRACT" **(Fig.38A)**. Press "Front" arrow **(Fig.38B)** to operate Power Tongue Jack.
B. Press "AUTO LEVEL" **(Fig.38H)** to start auto level sequence.
C. If the OneControl Touch Panel is in Manual Mode, to operate jacks, press "EXTEND" **(Fig.38E)** or "RETRACT" **(Fig.38A)** button, then press the "LEFT" **(Fig.38C)**, "RIGHT" **(Fig.38F)**, "FRONT" **(Fig.38B)** or "REAR" **(Fig.38G)** button depending on which pair of jacks need to be operated.

Unhitching from Tow Vehicle

NOTE: Prior to unhitching from the tow vehicle, ensure the trailer is parked on a level surface and chock the tires of the trailer.

NOTE: Ensure the foot pad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin.

1. Disconnect any wires, chains, or sway control that may be equipped between the tow vehicle and the trailer. Unlatch the trailer coupler.
2. Turn the Linc remote on **(Fig.38I)** and enter a PIN code to turn system on.
3. Press the "LEVELER" button.
4. Press "EXTEND" **(Fig.38E)** and "FRONT" arrow **(Fig.38B)** to extend the Power Tongue Jack and lift the front of trailer to take the weight of the trailer off of the hitch.
5. Disconnect the trailer wire connection at the tow vehicle, if not previously completed.
6. Pull tow vehicle away and park at a safe distance.
NOTE: To utilize the Power Tongue Jack for the unhitching process see "Operation - Power Tongue Jack."

Auto Level

1. Prior to auto leveling, ensure the trailer is unhitched from the tow vehicle and the tow vehicle is parked a safe distance away from the trailer.
2. Press the "ON/OFF" button **(Fig.38I)** on the Linc Remote if the Linc Remote is not on.
3. Enter a PIN.
4. Choose the "LEVELER" option.
5. Press "AUTO LEVEL" **(Fig.38H)**.
NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

6. When the Auto Level Sequence begins:
A. The system checks that the rear jacks are retracted.
B. The Power Tongue Jack may adjust depending on the orientation of the trailer.
C. Front jacks will extend until movement of the trailer is sensed.
D. The Power Tongue Jack will then retract.
E. The front jacks will extend/retract near level.
F. Rear jacks will extend and ground.
G. Trailer will level front-to-back and then side-to-side.
H. The Auto Level Sequence will ground all jacks to ensure all foot pads are on the ground and the Auto Leveling sequence is complete.

NOTE: If the AUTO LEVEL Sequence does not perform as described above, locate the OneControl Touch Panel or use the OneControl App to place the system in Manual Mode. Test that the jacks operate correctly by pushing their corresponding buttons on the OneControl Touch Panel or App; e.g., "FRONT" button operates only the front jacks, etc. (See "Operation - OneControl Touch Panel" or "Operation - OneControl App" in this manual).

NOTE: There is no Hitch Recognition sequence programmed for the Linc remote.

Troubleshooting

Red/Green LED Indicator on Auto Leveling Control Touch Pad

What is Happening?	Why?
Off	Touch panel is locked.
Solid Green	Touch panel is active.
Blinking Green	Jacks are moving.
Solid Red	Low battery.
Blinking Red	Error - Refer to OneControl Touch Panel screen or the Leveling App for the specific error, then consult the Troubleshooting section of this manual to clear the error.

Error Display in OneControl Touch Panel or OneControl App

NOTE: Errors can only be cleared via the OneControl Touch Panel or OneControl Leveling App. The only exception is when the Auto Leveling Control Touch Pad **(Fig.28)** was used to abort an auto-sequence. In this case the error can be cleared by pressing any Auto Leveling Control button. To clear an error, correct the issue, then press "OK." If the error is still present, the message will be displayed again.

Touch Panel Message	What's Happening	What Should I Do?
"EXCESS ANGLE"	Unsecured sensor. Uneven or sloped site.	Check and secure sensor placement. Relocate the trailer.
"EXCESSIVE ANGLE"	Excessive angle reached during manual operation.	Stop manual operation and reset jacks to a more level state. The code will self-clear. There is no need to hit "OK."
"BAD CALIBRATION"	Trailer zero point was not set correctly.	Reset zero point.
"FEATURE DISABLED"	Hitch recognition requested but no hitch height set.	Perform "AUTO LEVEL" sequence to establish hitch height.
	Zero point not set.	Set zero point.
"LOW VOLTAGE"	Bad connection or wiring. Discharged or bad battery.	Check wiring - repair or replace. Test battery voltage under load - charge or replace.
"OUT OF STROKE"	Unsecured sensor. Uneven or sloped site.	Check and secure sensor placement. Relocate the trailer.
"EXTERNAL SENSOR"	Bad connection or wiring.	Replace or repair connection to rear remote sensor.
"JACK TIME OUT"	System could not level in expected time.	Check disposition of jacks.
"AUTO LEVEL FAILURE"	Unsecured sensor. Voltage drop.	Check and secure sensor placement. Test battery voltage under load - charge or replace.
"FUNCTION ABORTED"	User has aborted an automatic leveling sequence.	Restart the sequence.
"HALL POWER SHORT"	Short circuit detected on one or more of the jack hall effect power lines.	Check harness and replace or repair.
"CAN'T COMPLETE LEVEL IN THIS LOCATION. PLEASE RELOCATE RV TO FLATTER TERRAIN"	The trailer is parked on a steep incline during auto level. The front cannot be leveled and the front jacks are already fully retracted.	Relocate the trailer.

Special Jack Error Codes on OneControl Touch Panel or OneControl App

To clear the error codes listed below:

1. Correct or otherwise repair the issue (see the table below).

NOTE: In order to clear the special jack error code the jacks need to be "homed." In order to "home" jacks, each jack must be able to retract a minimum of 6".

NOTE: The Power Tongue Jack does not need to be "homed." The Power Tongue Jack cannot be operated from the OneControl Touch Panel or OneControl App while clearing the special jack error codes. The Power Tongue Jack can be operated using the "RET/EXT" switch on the tongue jack during this procedure.

2. Extend all jacks to reach the 6" of minimum retract needed.

A. Press "EXTEND" and "FRONT" to extend the front jacks (if required).Refer to "Operation - OneControl Touch Panel" and "Operation - OneControl App."

B. Press "EXTEND" and "REAR" to extend the rear jacks (if required). Refer to "Operation - OneControl Touch Panel" and "Operation - OneControl App."

3. Press "ENTER" to AUTO RETRACT. The jacks will retract until they reach the hard current limit. The Power Tongue Jack will perform an automatic grounding during the AUTO RETRACT sequence.

4. The jacks are now "homed" and the special jack error code will be cleared.

NOTE: If the jacks do not retract, an error should display on the touch panel screen. This is typically caused by wiring interruption.

Touch Panel Message	What's Happening	What Should I Do?
ERROR Left-Front Jack Fault Right-Front Jack Fault Left-Rear Jack Fault Right-Rear Jack Fault Tongue Jack Fault	Error at a specific jack (left front, right front, left rear, right rear, tongue). Hall signal issue (open, short, malfunction or loss of communication); open or short circuit between controller and motor.	• Check voltage at the battery under load. • Check harness connections at controller and at jack. • Check harness for damage. • Check fuses at controller. • Repair or replace as necessary.

Manual Override

Power Tongue Jack Manual Override

1. Chock the tires of the trailer.
2. Be sure the footpad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin **(Fig. 43A)**.
3. Remove the rubber plug **(Fig. 44A)** on top of the Power Tongue Jack's gearbox to expose the manual drive shaft.
4. Insert the manual crank handle **(Fig. 45)**.
5. Turn the crank handle counterclockwise to retract the tongue jack or clockwise to extend the tongue jack.
6. Remove the crank handle **(Fig. 45)**.
7. Replace the rubber plug **(Fig. 44A)**.
NOTE: Be sure the leg **(Fig. 43B)** of the Power Tongue Jack is fully retracted prior to moving the tow vehicle.

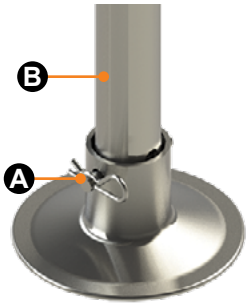


Fig.44



Fig.45



Fig.46

C-Jacks Manual Override

NOTE: For ease of manual override it is recommended to unplug the power harness to the motor prior to performing the manual override procedure.

NOTE: Use of a 12-18 volt cordless screw gun or pneumatic screw gun is acceptable to manually override the jacks. Do not use an impact screw gun to perform any of the override procedures, as this may damage the motor. If manual override is necessary there are two options.

Jack Motor Override:

Tools needed: ⅜" drive ratchet and extension (no socket)

1. Find the port on the jack gearbox **(Fig.46A)**.
2. Remove the rubber plug **(Fig.47A)**.
3. Insert the ⅜" drive into the port.
Turn the override until the jack extends or retracts to desired position.

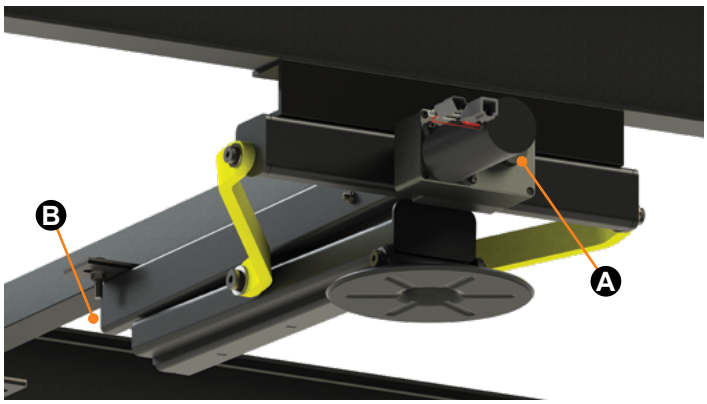


Fig.43



Fig.47

Jack Manual Override Nut:

Tools needed: ¾" socket wrench

1. Locate the manual override nut **(Fig.46B)**.
2. Place ¾" socket wrench over the manual override nut **(Fig.48A)** and turn the override nut until the jack extends or retracts to desired position.

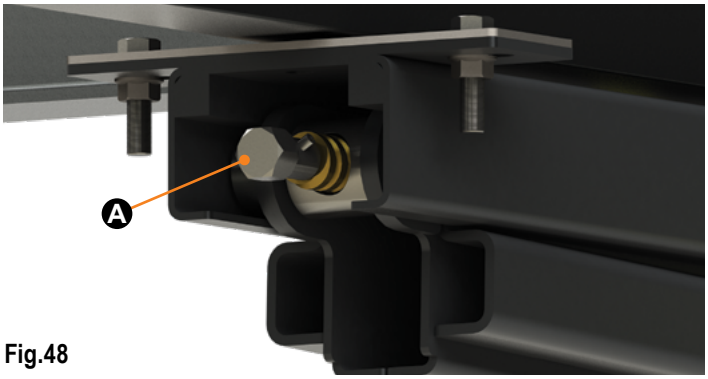


Fig.48

Zero Point Calibration

The "Zero Point" is the programmed point that the trailer 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. The "Zero Point" feature is available on the OneControl Touch Panel or the OneControl App with this system.

NOTE: Images depicted are from the OneControl Touch Panel.

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

NOTE: When calibrating Zero Point, the user has full manual control over the jacks. See "Basic Jack Operation - Manual Mode" to adjust to the desired level position. Press the enter button to set.

To set the zero point

The following procedure works from Standard Mode only. (See "Operation OneControl Touch Panel")

1. Press the "CONNECTED" icon **(Fig. 49A)** at the top of the leveling screen quickly 6 times. Wait a few seconds until the gear icon with "OPTIONS" appears **(Fig.50A)**.
NOTE: If using the OneControl App press the "OPTIONS" button.

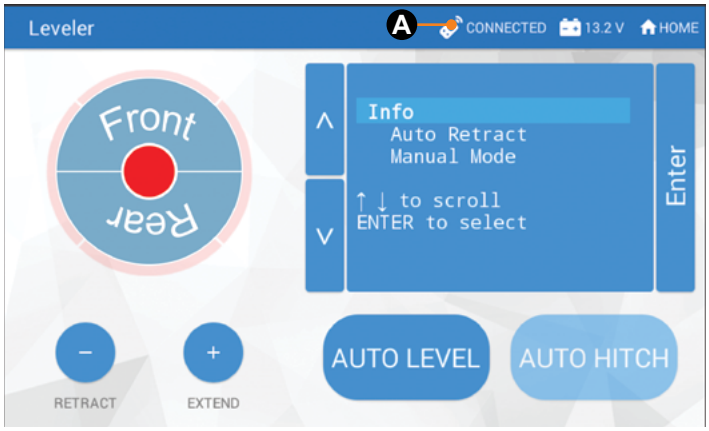


Fig.49

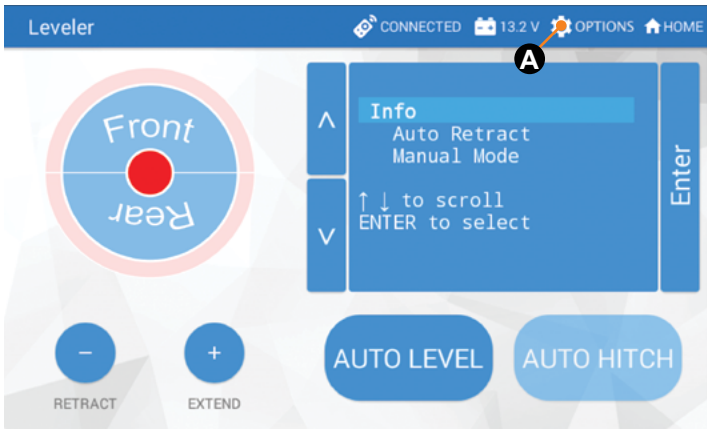


Fig.50

2. Press the gear icon with "options" **(Fig.50A)**.
3. The screen will show "SET UP: Zero Mode Press Enter" **(Fig.51)**.

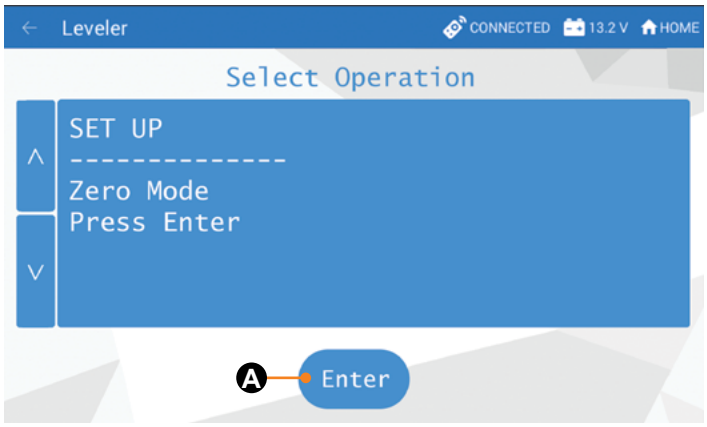


Fig.51

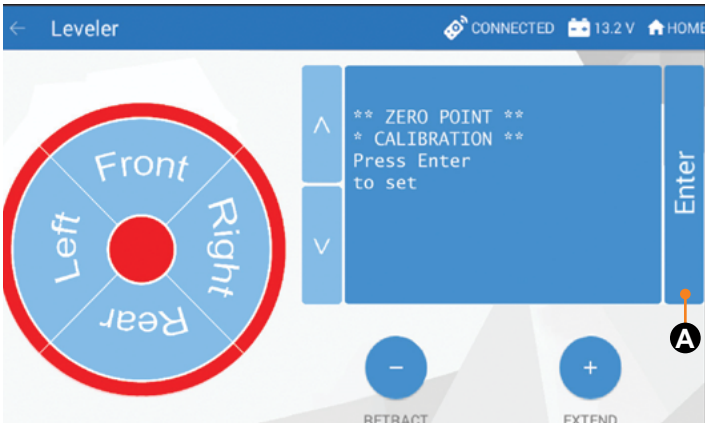


Fig.52

4. Press the "Enter button" **(Fig.52A)**.
5. The touch panel will present options for further leveling of the trailer if needed. The screen will also state "ZERO POINT CALIBRATION - Press Enter to Set" **(Fig.52)**.
6. Press "ENTER" **(Fig.52A)**.
7. Screen will show "Zero Point Stability Check ... Please Wait" **(Fig.53)**, followed by "Zero Point Set" **(Fig.54)**.

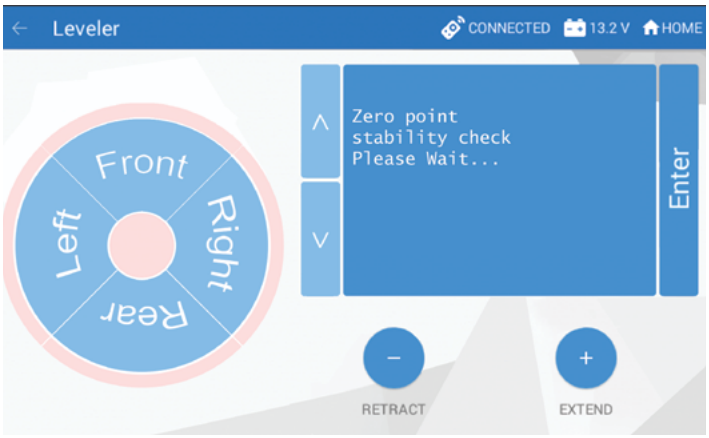


Fig.53

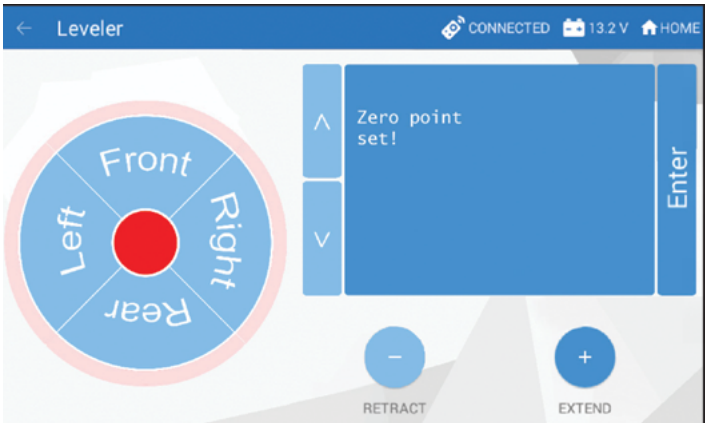


Fig.54

Preventive Maintenance

1. For optimum performance, the system requires full battery current and voltage. The battery must be maintained at full capacity.
2. Check the terminals and other connections at the battery, the controller, and the jacks for corrosion, and loose or damaged connections.
3. Remove dirt, road debris and grease from jacks as needed. Then lightly lubricate the jack screw and wipe off any excess lubrication, leaving only a thin coating.

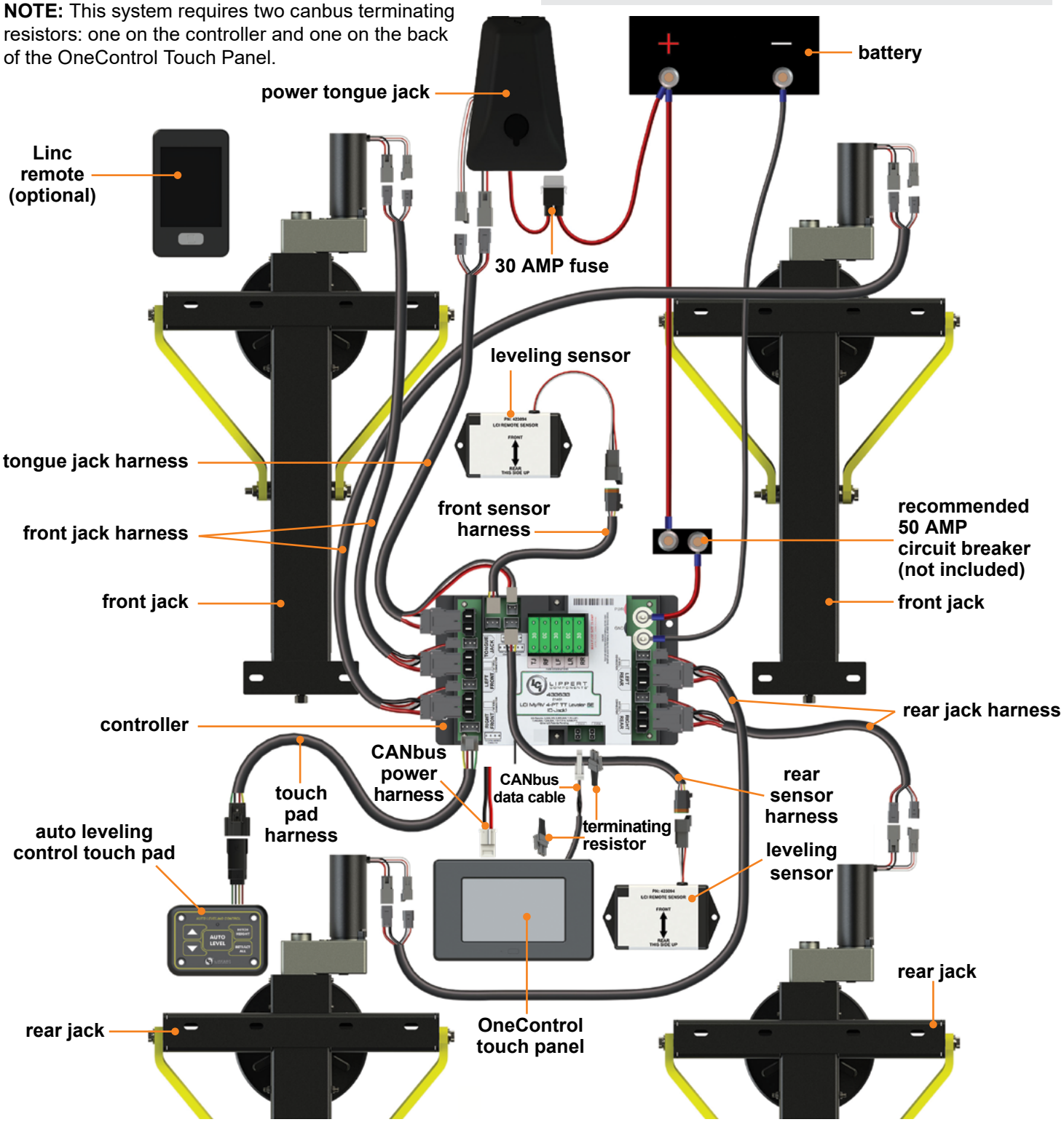
Ground Control® TT Leveling OneControl® Touch Panel

Installation and Owner's Manual

(For Aftermarket Applications)

Wiring Diagram

NOTE: This system requires two canbus terminating resistors: one on the controller and one on the back of the OneControl Touch Panel.



Notes

Notes



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