



GROUND CONTROL[®] 3.0
4 AND 6 POINT
ONECONTROL[™] TOUCH PANEL
OEM INSTALLATION MANUAL
(For systems installed after June 1, 2018)

LIPPERT
COMPONENTS[®]

TABLE OF CONTENTS

System Information	3
Safety Information	3
Resources Required	3
Preparation	4
Criteria For Determining Use of Ground Control 3.0 4 Point or 6 Point System	4
4 Point Application	4
6 Point Application	4
Determining the Mounting Position of The Controller and Rear Sensor	5
Controller	5
Leveling Sensor	5
Measuring Departure and Approach Angle	5
Installation	6
Rear Jacks	6
Leveling Sensor	6
Controller	8
OneControl Touch Panel	9
Auto Leveling Control Touch Pad	10
Touch Pad Diagram - Auto Leveling Control Touch Pad	11
Operation - Auto Leveling Control Touch Pad	11
Unhitching Instructions	11
Auto Level	11
Auto Level Sequence	12
Hitch Recognition	12
Touch Panel Diagram - OneControl Touch Panel	13
Operation - OneControl Touch Panel	14
Standard Mode and Menu	14
Basic Jack Operation	14
Unhitching Instructions	15
Auto Level	15
Auto Level Sequence	15
Hitch Recognition	15
Touch Panel Diagram - OneControl App From MyRV	16
Operation - OneControl App	17
Accessing the OneControl App	17
Standard Mode and Menu	17
Basic Jack Operation	17
Unhitching Instructions	18
Auto Level	18
Auto Level Sequence	18
Hitch Recognition	18
Touch Panel Diagram - Linc Remote Control - Optional	19
Configuring Linc Remote to Sync to The One Control Touch Panel	19
Basic Jack Operation	20
Unhitching Instructions	20
Auto Level	20
Auto Level Sequence	20
Troubleshooting	21
Red/Green LED Indicator on Auto Leveling Control Touch Pad (Rev. A)	21
Red/Green LED Indicator on Auto Leveling Control Touch Pad (Rev. B)	21

OneControl Touch Panel or OneControl App Error Codes (Rev. A).....	22
OneControl Touch Panel or OneControl App Error Codes (Rev. B).....	22
Special Jack Error Codes on OneControl Touch Panel or OneControl App (Rev. A).....	23
Special Jack Error Codes on OneControl Touch Panel or OneControl App (Rev. B).....	23
Clearing Faults From Auto Leveling Control Touch Pad (Rev. B).....	23
Manual Override.....	24
Preventive Maintenance	24
Zero Point Calibration.....	25
To Set the Zero Point.....	25
Wiring Diagram - 4 Point	26
Wiring Diagram - 6 Point	27

System Information

The Ground Control® 3.0 4 Point and 6 Point system is a leveling system for 5th wheel type recreational vehicles utilizing level sensing electronics and a series of heavy duty jacks with individual drive motors.

This manual is for systems installed after June 1, 2018.

NOTE: If the GVWR is 15,500 lbs or greater, consult with LCI Engineering prior to installation.

Safety Information

WARNING

Failure to act in accordance with the following may result in death or serious personal injury. The use of the Ground Control 3.0 leveling system to support the trailer 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 trailer such as changing tires or servicing the leveling system. Any attempts to change tires or perform other service while trailer is supported by the Ground Control 3.0 leveling system could result in damage to the 5th wheel and/or cause death or serious injury.

WARNING

Do NOT exceed GVWR. Severe damage to product or property may occur.

CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

Resources Required

- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Torque Wrench Plus Appropriate Sockets
- Welder
- Air Saw with Cutting Blades
- Hex Key Wrenches
- Tape Measure
- Roll of String
- Zip Ties
- Marker

Preparation

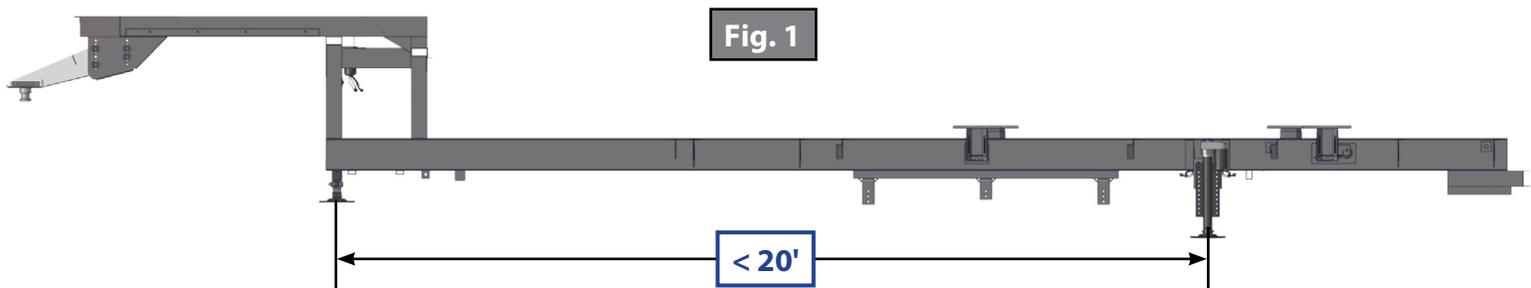
1. Analyze the trailer. Determine where the rear jack brackets, controller, and touch panel will be mounted on the trailer. The rear jack brackets should be mounted approximately 1' behind the rear axle hanger and be aligned with each other. Jack brackets may already be pre-installed by LCI. The controller should be mounted in an under-floor compartment as far forward as possible in the center of the trailer (if possible) and in compliance with RVIA Gas Codes, as the controller connections are not spark-proof. The Auto Leveling Control Touch Pad should be mounted in a compartment on the side of the trailer so the operator will have a view of the hitch pin while using the touch pad. The OneControl Touch Panel must also be protected from the elements.

NOTE: The landing gear will be installed to the frame of the trailer by LCI.

Criteria For Determining Use of Ground Control 3.0 4 Point or 6 Point System

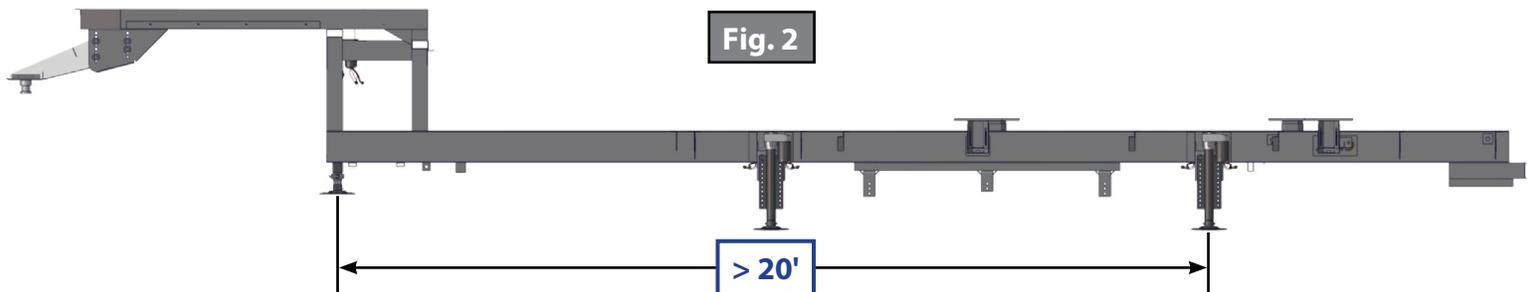
4 Point Application

Use the 4 Point application if the distance between the center of the landing gear footpad and the center of the rear jack footpad will be less than 20' (Fig. 1).



6 Point Application

Use the 6 Point application if the distance between the center of the landing gear footpad and the center of the rear jack footpad will be 20' or greater (Fig. 2).



NOTE: If the GVWR is 15,500 lbs or greater, consult LCI Engineering prior to installation.

Determining the Mounting Position of The Controller and Rear Sensor

Controller

The controller has a limited mounting area for proper performance. At the center of the frame (signified by the blue dotted line in Figure 3) and at the center of the landing gear (signified by the black dotted line) is a center point. From this center point the controller can be mounted 12" out on either side and up to 3' in front of or behind the center point, while still being inside the compartment. This area is signified by the green dotted box labeled Section A in Figure 3.

Leveling Sensor

The rear sensor must be in line with or behind the rear leveling jacks, as signified by Section B in Figure 3. The leveling sensor must also be mounted in line with the center of the frame, as signified by the dotted blue line in Figure 3.

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. 4).

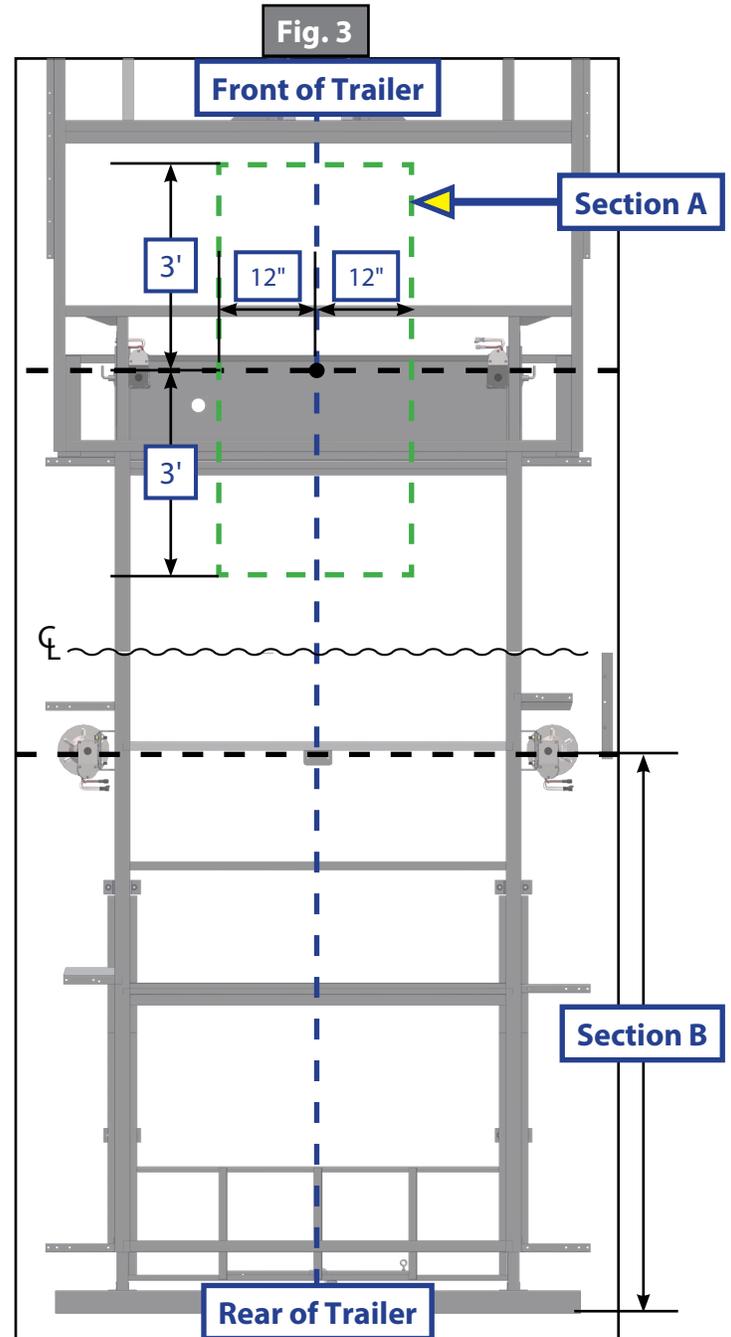
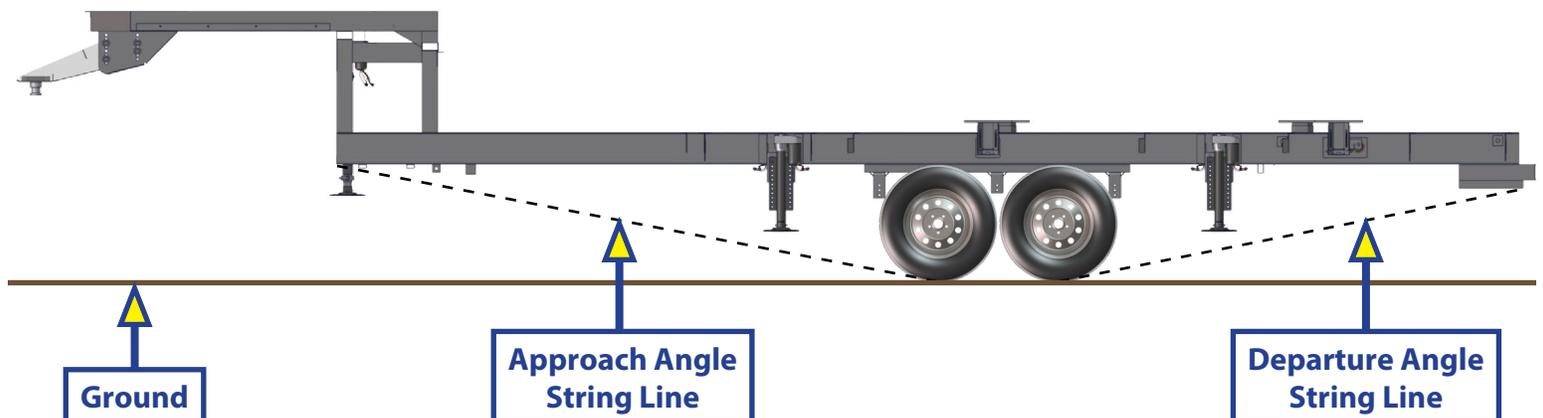


Fig. 4



Installation

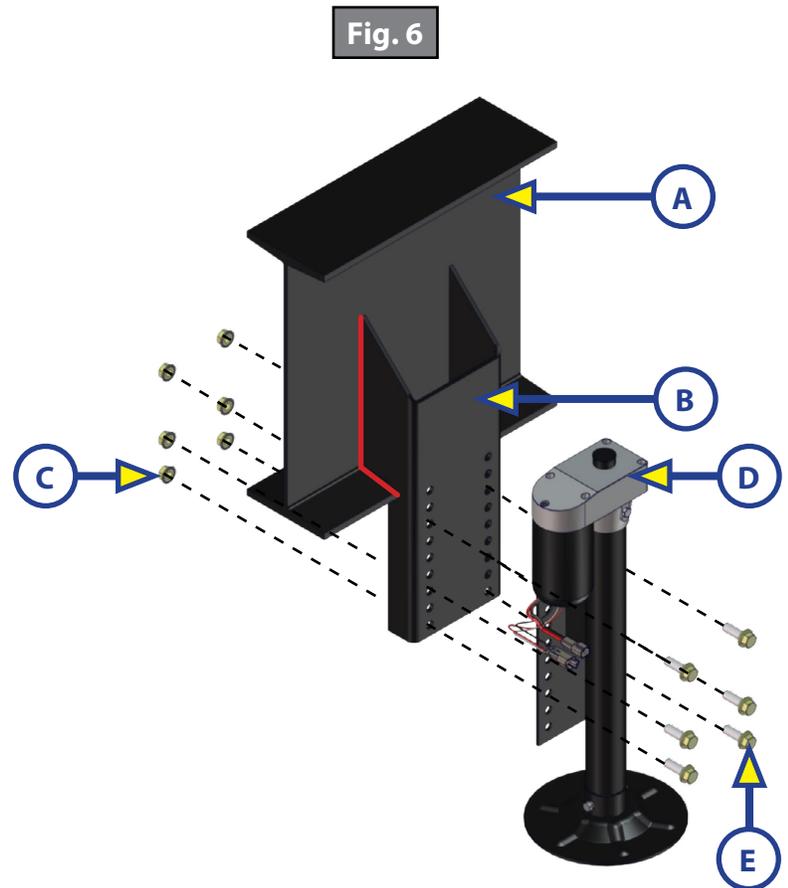
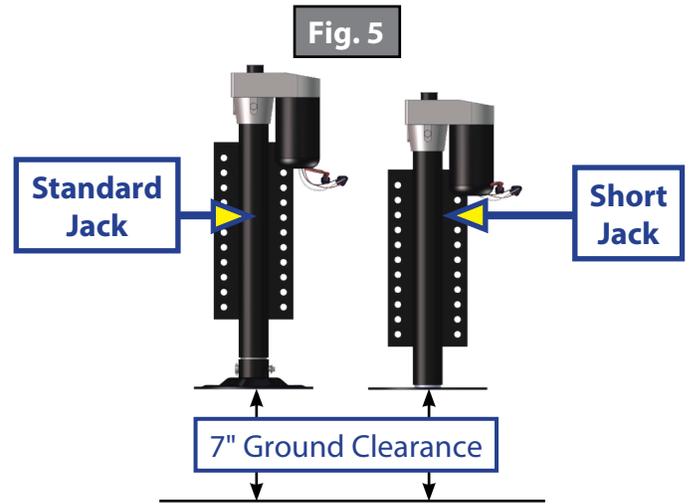
Rear Jacks

1. Determine position and ground clearance requirements for the rear jacks (Fig. 6D). The rear jack brackets (Fig. 6B) should be mounted approximately 1' behind the rear axle hanger and be aligned with each other.

NOTE: When fully retracted, the rear jacks should be mounted to achieve a ground clearance equal to the departure angle or a minimum of 7" to enable maximum level correction (Fig. 5). Any additional ground clearance added to the jack location will decrease the amount of level correction available to the system.

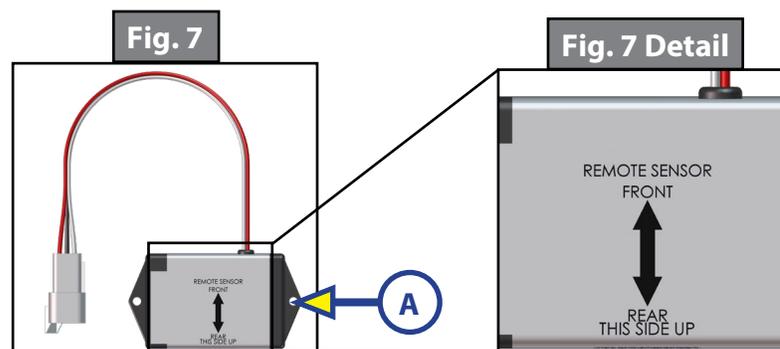
2. Mark jack mounting bracket (Fig. 6B) locations on the main frame rail.
3. Clamp the bracket to the main frame rail (Fig. 6A) in the marked position.
4. Weld the bracket to the main frame rail (Fig. 6A). Jack brackets may already be pre-installed by LCI.
5. Bolt the rear jacks (Fig. 6D) to the mounting brackets (Fig. 6B) using 6 bolts (Fig. 6E) and nuts (Fig. 6C) per jack. Tighten the bolts to 90 ft-lbs of torque.
6. Connect the wire harnesses to the rear jack motor wires and run the harnesses to the compartment where the controller will be mounted.

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



Leveling Sensor

The sensor (Fig. 7A) **MUST** be installed on a crossmember in line with or behind the rear jacks, centered curbside to roadside on the trailer with the arrows on the top of the sensor pointing the correct direction (Fig. 7 Detail).



NOTE: Leveling sensor mounting plate may already be pre-installed by LCI.

1. Dry fit the mounting plate (Fig. 8C) and the leveling sensor (Fig. 8B) to the crossmember (Fig. 8A). The pre-drilled holes in the plate are for mounting the sensor to the plate. Mark on the plate where the sensor will set.

NOTE: Space between the sensor and crossmember must be left so the wire harness will not be pinched.

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

2. Attach the sensor (Fig. 9A) to the mounting plate (Fig. 9B) using two #12 x 1" hex head self-tapping screws (Fig. 9C).
3. If not already installed, attach the mounting plate and sensor assembly (Fig. 10B) to the crossmember (Fig. 10A) using two #12 x 1" hex head self-tapping screws (Fig. 10C). Ensure the plate is centered side to side on the frame and the sensor is oriented properly. See Fig. 3 Sections A and B for location clarification.
4. Connect the sensor harness to the connector on the sensor (Fig. 11A) and run the harness through the frame and up to the compartment where the controller will be mounted.

Fig. 8

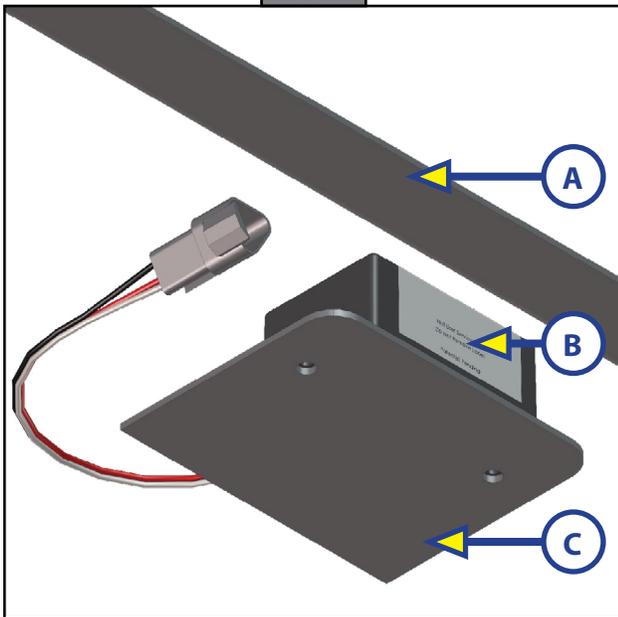


Fig. 9

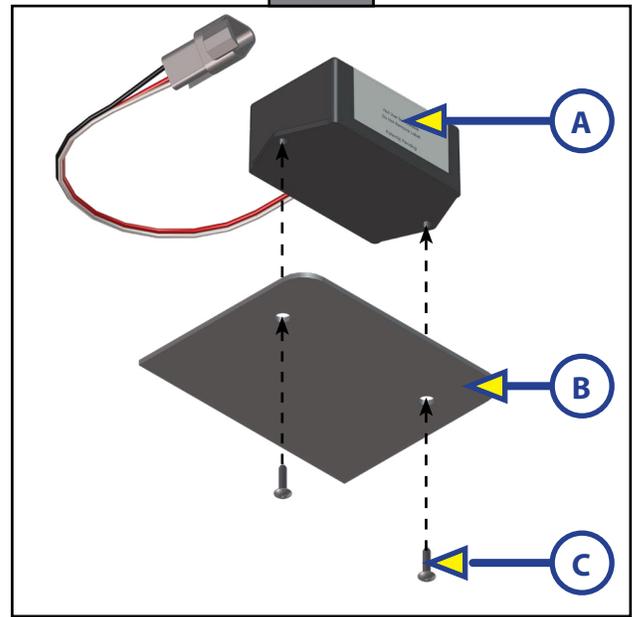


Fig. 10

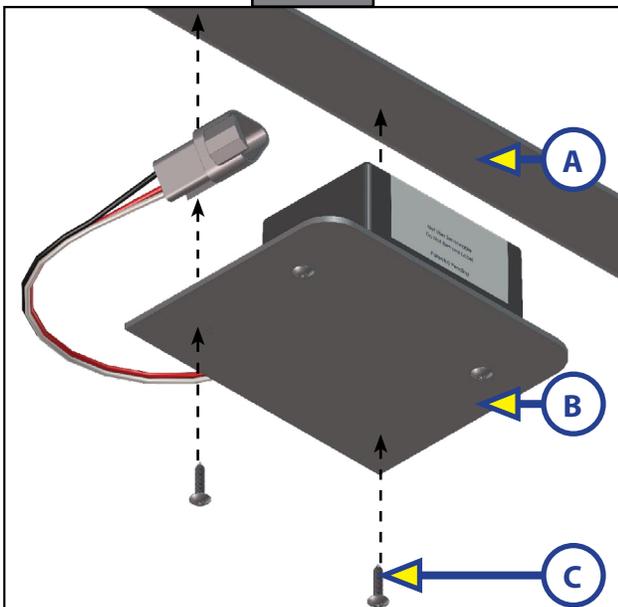
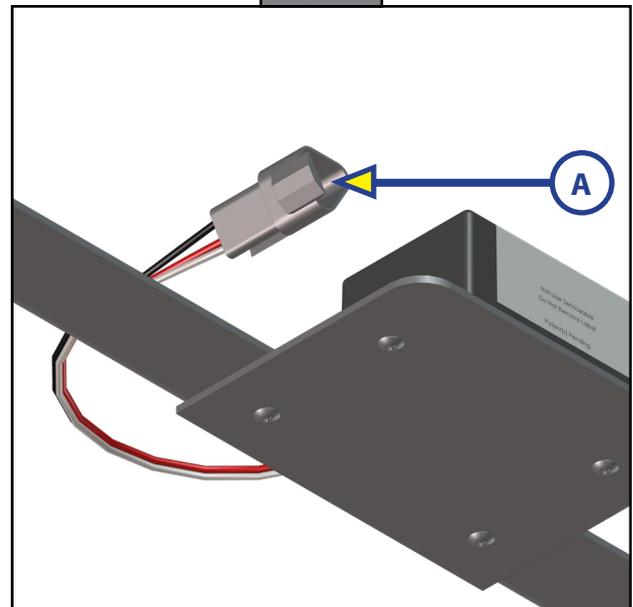


Fig. 11



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.

NOTE: There are 4 different options for the controller, depending on whether a 4 point or 6 point system is being used and whether a Rev. A or Rev. B controller is being installed. PN 433943 is the 4 point controller and PN 433940 is used for the 6 point controller. Rev. A controllers have an A on the serial number sticker and black Lippert part numbers, while Rev. B controllers have a B on the serial number sticker and blue Lippert part numbers. The serial number stickers are located in the top left corner on the back of the controller.

1. Using four #8 x 1" wood screws (Fig. 12B or Fig. 13B), attach the controller (Fig. 12A or 13A) to the compartment wall or ceiling.
2. Attach the power and ground harnesses to the corresponding posts on the controller and then connect them to the correct posts on the house battery.
3. Connect all jack harnesses to the appropriate connectors on the controller.

Fig. 12 - 4 Point Controller

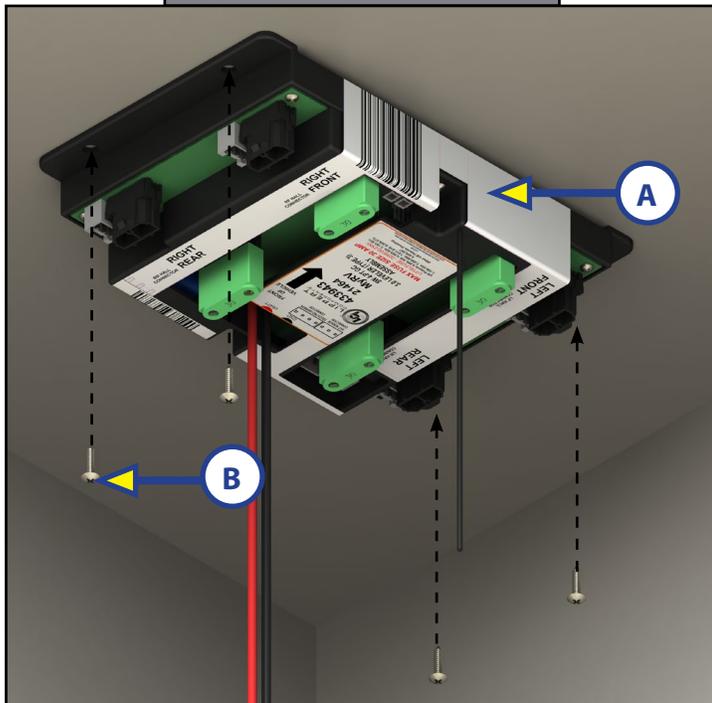
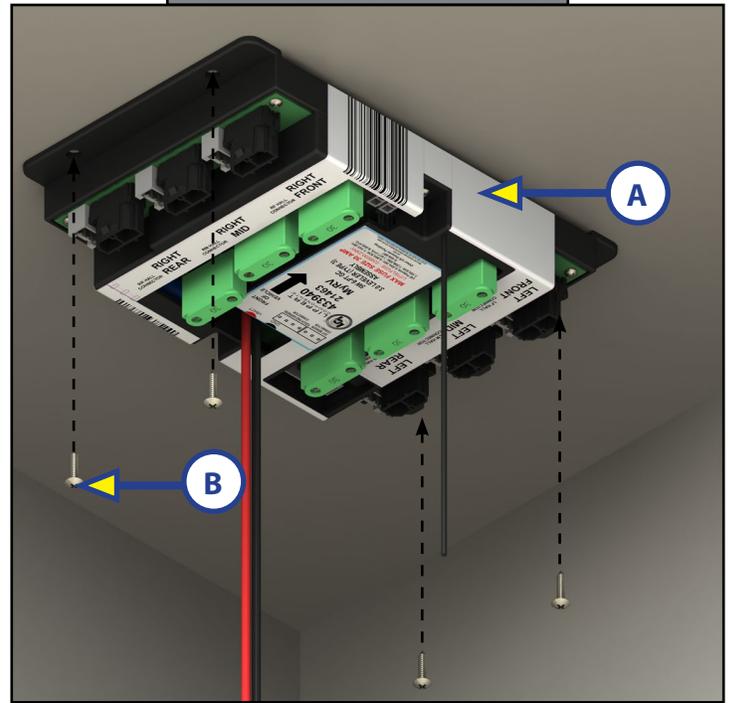


Fig. 13 - 6 Point Controller



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 cutout should be located. The top and bottom horizontal cuts should be parallel to the floor of the compartment.
4. Secure the mounting bracket with the 4 provided $\frac{1}{4}$ " pan head phillips sheet metal screws (Fig. 14).
5. Feed the touch panel harness through the bracket and into the compartment where the controller is mounted. Plug the wire harness into the appropriate connector on the controller (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. 15A) on the mounting bracket. Gently push the OneControl Touch Panel in, then slide down.
7. The mounting bracket has 2 screw mounting tabs on the bottom (Fig. 15B). Secure the OneControl Touch Panel to the mounting tabs using the 2 provided pan head phillips sheet metal screws.

Fig. 14

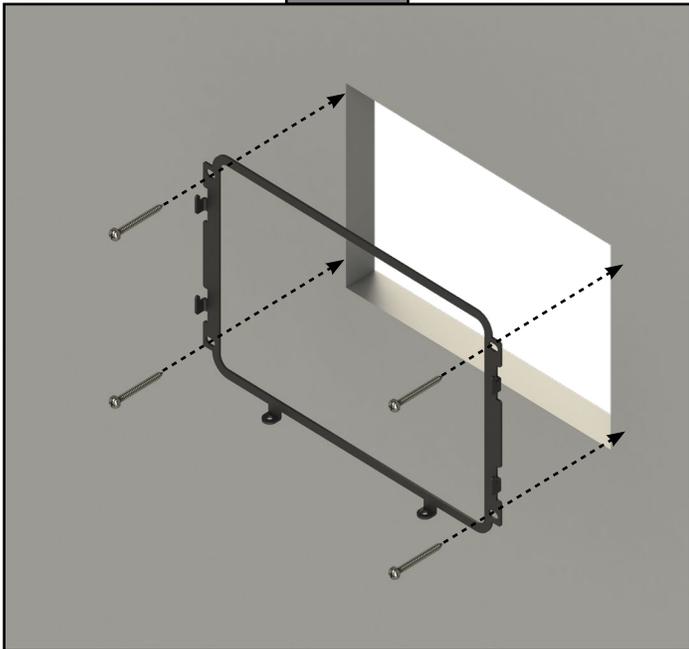
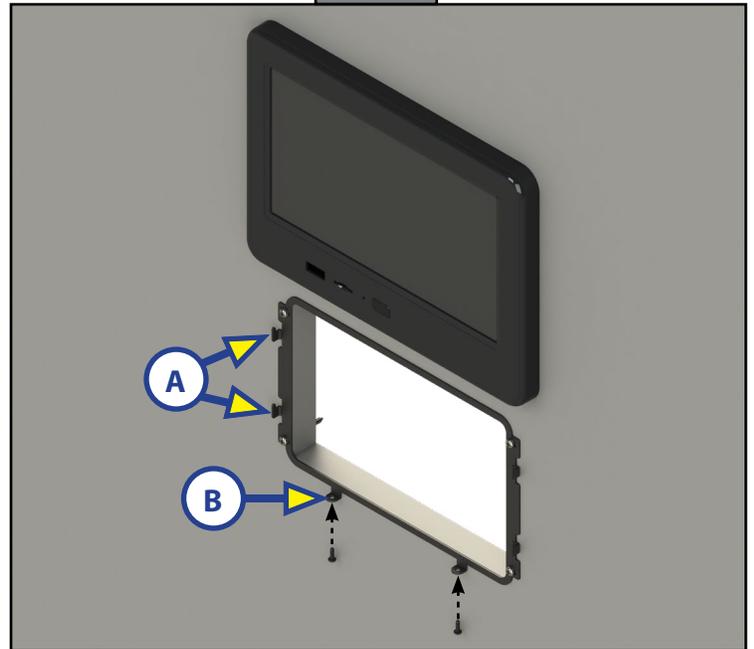
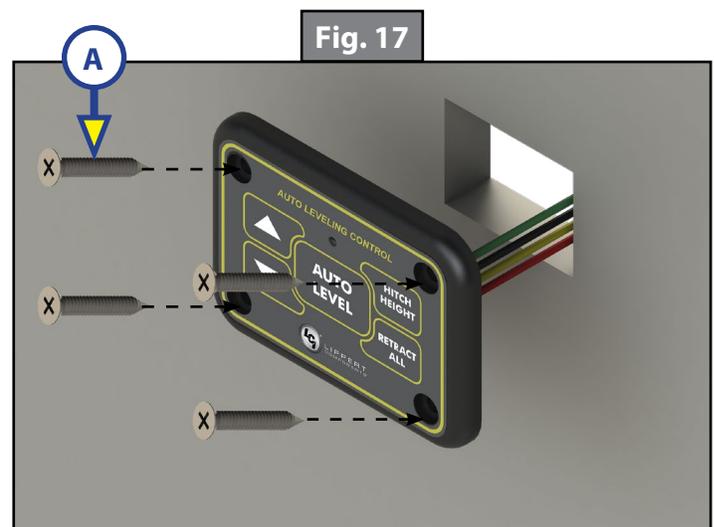
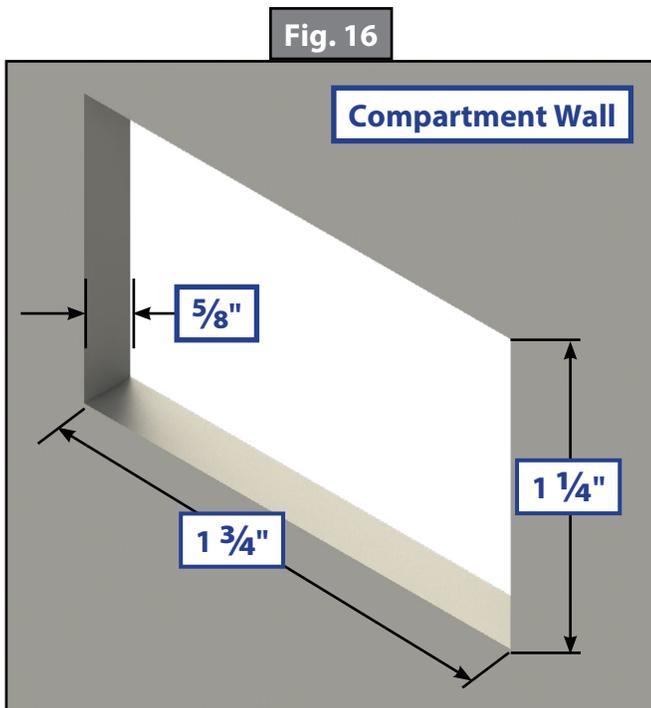


Fig. 15



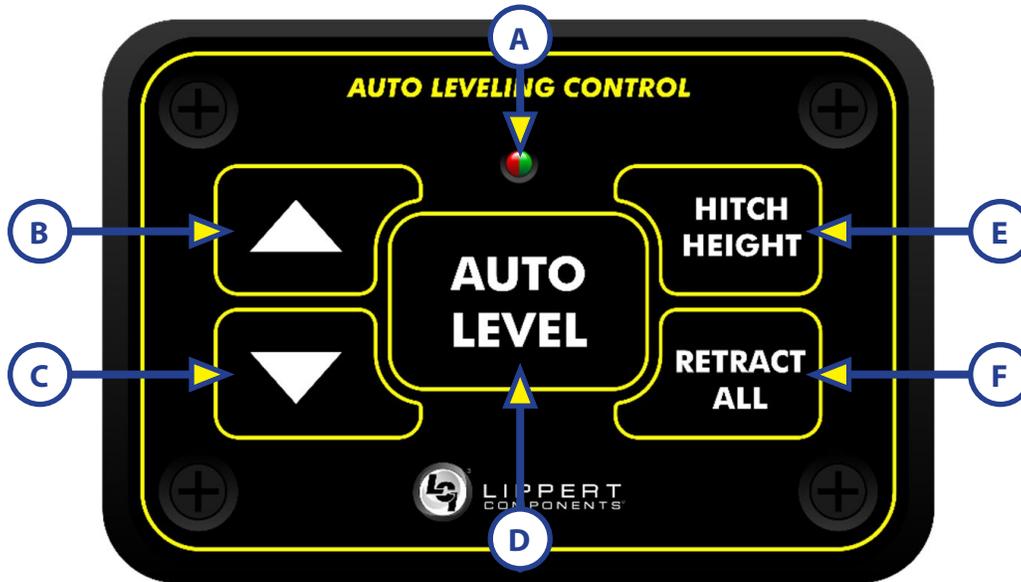
Auto Leveling Control Touch Pad

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 while using the touch pad.
2. Cut a hole in the desired location 1 3/4" wide by 1 1/4" high and have a depth of 5/8" (Fig. 16) so the top and bottom horizontal cuts are parallel to the unit.
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. 17). Plug the harness into the appropriate connector on the controller.
5. Attach the touch pad with four #8 x 1" wood screws (Fig. 17A).



Touch Pad Diagram - Auto Leveling Control Touch Pad

Fig. 18



Callout	Description	
A	Red/Green LED - Indicates the status of the system.	
B	Up Arrow - Extends front jacks (landing gear).	To turn on the touch pad, press the Up and Down arrow buttons at the same time.
C	Down Arrow - Retracts front jacks (landing gear).	
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.	

Operation - Auto Leveling Control Touch Pad

Unhitching Instructions

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

1. Extend the inner legs of both front jacks (landing gear) to within 4-5" of the ground by pulling on the quick-release pins.
2. To turn on the touch pad, press both "UP" and "DOWN" arrows (Fig. 18B and Fig. 18C) at the same time. The green indicator LED (Fig. 18A) will turn on.

NOTE: The touch pad will remain on as long as the user is pressing buttons. It will time out after approximately 7 minutes without use.

3. Press the "UP" arrow (Fig. 18B) to extend the front jacks and lift the front of the trailer to take the weight of the trailer off of the hitch.
4. Uncouple the trailer connection on the tow vehicle.
5. Pull the tow vehicle away and park at a safe distance.

Auto Level

1. After unhitching from the tow vehicle and parking the vehicle at a safe distance away from the trailer. Press both "UP" and "DOWN" arrows (Fig. 18B and Fig. 18C) at the same time if the green indicator LED is not on. Press "AUTO LEVEL" (Fig. 18D).

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.

Auto Level Sequence

1. When Auto Level Sequence begins, the front of the trailer will seek a position near a level state.
2. Rear jacks will be grounded.
3. A side-to-side leveling sequence will occur.

NOTE: At this point on the 6 point system, the 2 middle jacks will be grounded to stabilize the trailer. These 2 jacks do not level the trailer.

4. Each jack will perform a final grounding touch.

NOTE: If the AUTO LEVEL sequence does not perform as described above, locate the OneControl Touch Panel inside the trailer 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 touch pad, press both "UP" and "DOWN" arrows (Fig. 18B and Fig. 18C) at the same time. The green indicator LED (Fig. 18A) will turn on.
2. Press "HITCH HEIGHT" (Fig. 18E). The rear jacks will retract.
3. The front of the trailer will raise to the height where the auto level sequence was started.

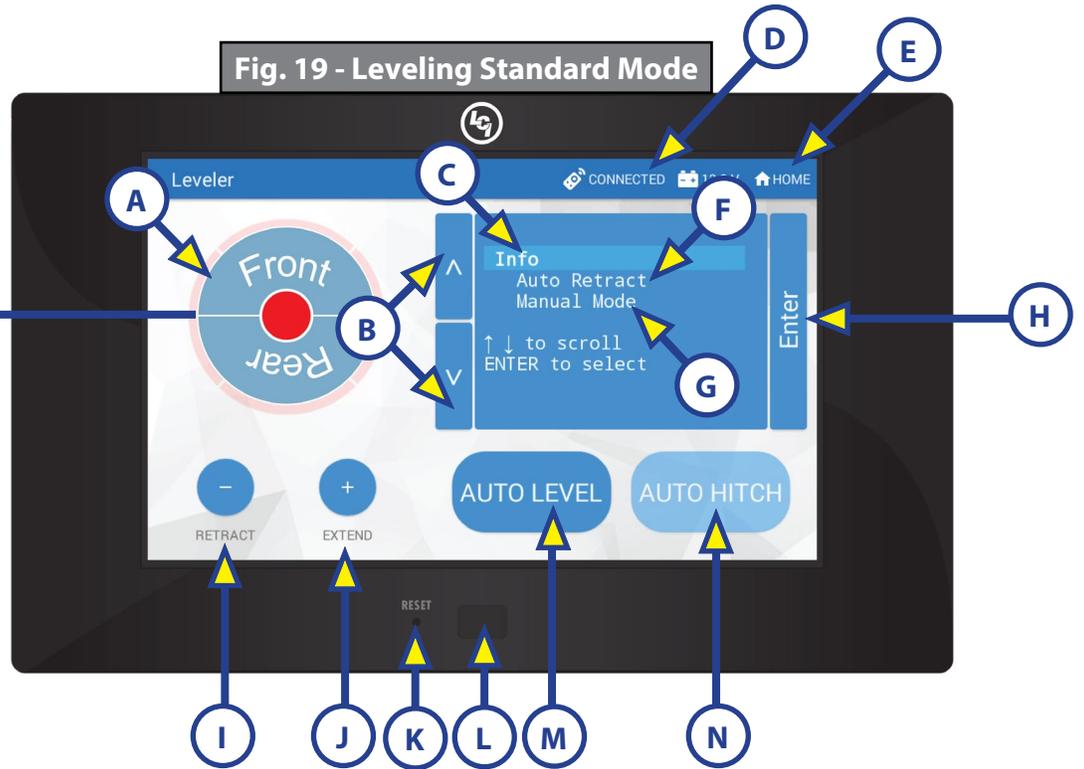
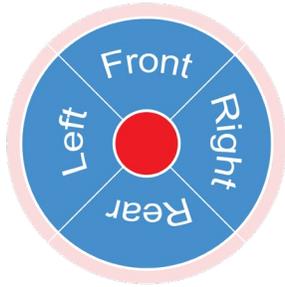
NOTE: If the front of the trailer was below level when the Auto Level process was initiated, the hitch recognition feature will retract the rear jacks but will not retract the front jacks to lower the trailer to the initial hitch height. This feature helps prevent injury and/or damage to anything underneath the trailer.

4. Connect tow vehicle and make sure trailer and hitch are connected and locked.
5. Press "RETRACT ALL." (Fig. 18F). System will immediately retract all jacks.
6. Use the quick release pins on the landing gear to manually return the inner jack leg to fully retracted position.

Touch Panel Diagram - OneControl Touch Panel

Fig. 19 - Leveling Standard Mode

Jack Buttons
in Manual Mode
See Fig. 20



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. The front jacks can be extended/retracted in Standard Mode. Rear jacks can only be retracted from this mode. In Manual Mode (Fig. 3), all jacks are available to be operated.
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. Choose to retract "All Jacks" or "Rear Jacks."
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

NOTE: On older versions of the OneControl Touch Panel, the screen will not open to "OneControl" with access to various functions. The screen will open to "MyRV." Press "MyRV Control Panel" on the main screen. Then press the "Leveler" icon for the leveling function.

Standard Mode and Menu

To reach Standard Mode (Fig. 19) for leveling:

1. Power on the OneControl Touch Panel (Fig. 19L).
2. Press the "Leveling" icon on the main screen.
3. The screen will show the system menu (Fig. 19) for Standard Mode. The front jacks can be extended/retracted in Standard Mode. Rear jacks can only be retracted from this mode.

Basic Jack Operation

While in Standard Mode:

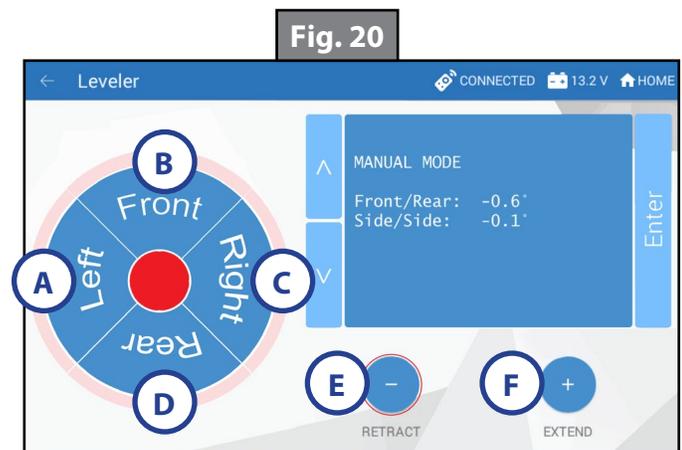
1. Press "RETRACT" (Fig. 19I) or "EXTEND" (Fig. 19J) and "FRONT" (Fig. 19A) to retract or extend front jacks.
2. Press "RETRACT" and "REAR" to retract rear jacks.
3. Press the "AUTO LEVEL" (Fig. 19M) button to start the auto leveling sequence.
4. Press the "AUTO HITCH" (Fig. 19N) button to start the hitch recognition sequence when reconnecting to the tow vehicle.
5. Use the "UP" or "DOWN" arrow (Fig. 19B) buttons to cycle through the menu screen options:
 - A. Info: Scroll to "Info" (Fig. 19C) and press "enter" (Fig. 19H) button to display system information, e.g., angle, jack stroke or software version.
 - B. Auto Retract: Scroll to "Auto Retract" (Fig. 19F) and press the "Enter" button. Choose either "ALL JACKS" or "REAR JACKS." Press the "ENTER" button again to start the "Auto Retract" sequence.
 - C. Manual Mode: Scroll to "MANUAL MODE" (Fig. 19G) and press "Enter" button to start Manual Level operation.

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.

- I. Press "EXTEND" (Fig. 20F) or "RETRACT" (Fig. 20E) and "Front" (Fig. 20B) to operate front jacks.
- II. Press "Extend" or "Retract" and "Rear" (Fig. 20D) to operate rear jacks.
- III. Press "Extend" or "Retract" and "Right" (Fig. 20C) to operate right jacks.
- IV. Press "Extend" or "Retract" and "Left" (Fig. 20A) to operate left jacks.

NOTE: To operate jacks individually, press "EXTEND" or "RETRACT" then press the "LEFT" (Fig. 20A) or "RIGHT" (Fig. 20C) button while simultaneously pressing the "FRONT" (Fig. 20B) or "REAR" button (Fig. 20D), depending on which jack needs to be operated.

NOTE: If the rear jacks will not operate individually using the method described above, but they operate properly when Auto Level is performed, the Twist Prevention Protection system has locked out the operation to prevent damage to the frame of the trailer.



Unhitching Instructions

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

1. Extend the inner legs of both front jacks (landing gear) to within 4-5" of the ground by pulling on the quick-release pins.
2. Push touch panel "ON/OFF" (Fig. 19L) to turn system on.
3. Press the "Leveling" icon.
4. The screen will show the system menu (Fig. 19) for Standard Mode. Push "EXTEND" (Fig. 19J) and "FRONT" button (Fig. 19A) to extend front jacks and lift front of the trailer to take the weight of the trailer off of the hitch.
5. Uncouple the trailer connection on the tow vehicle.
6. Pull the tow vehicle away and park at a safe distance.

Auto Level

1. After unhitching from the tow vehicle and parking the vehicle a safe distance away from the trailer, press the "ON/OFF" button (Fig. 19L) if the OneControl Touch Panel is not on and then press "AUTO LEVEL" (Fig. 19M).

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.

Auto Level Sequence

1. When Auto Level Sequence begins, the front of the trailer will seek a position near a level state.
2. Rear jacks will be grounded.
3. A side-to-side leveling sequence will occur.

NOTE: At this point on the 6 point system, the 2 middle jacks will be grounded to stabilize the trailer. These 2 jacks do not level the trailer.

4. Each jack will perform a final grounding touch.

NOTE: If the AUTO LEVEL sequence does not perform as described above, locate the OneControl Touch Panel inside the trailer 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

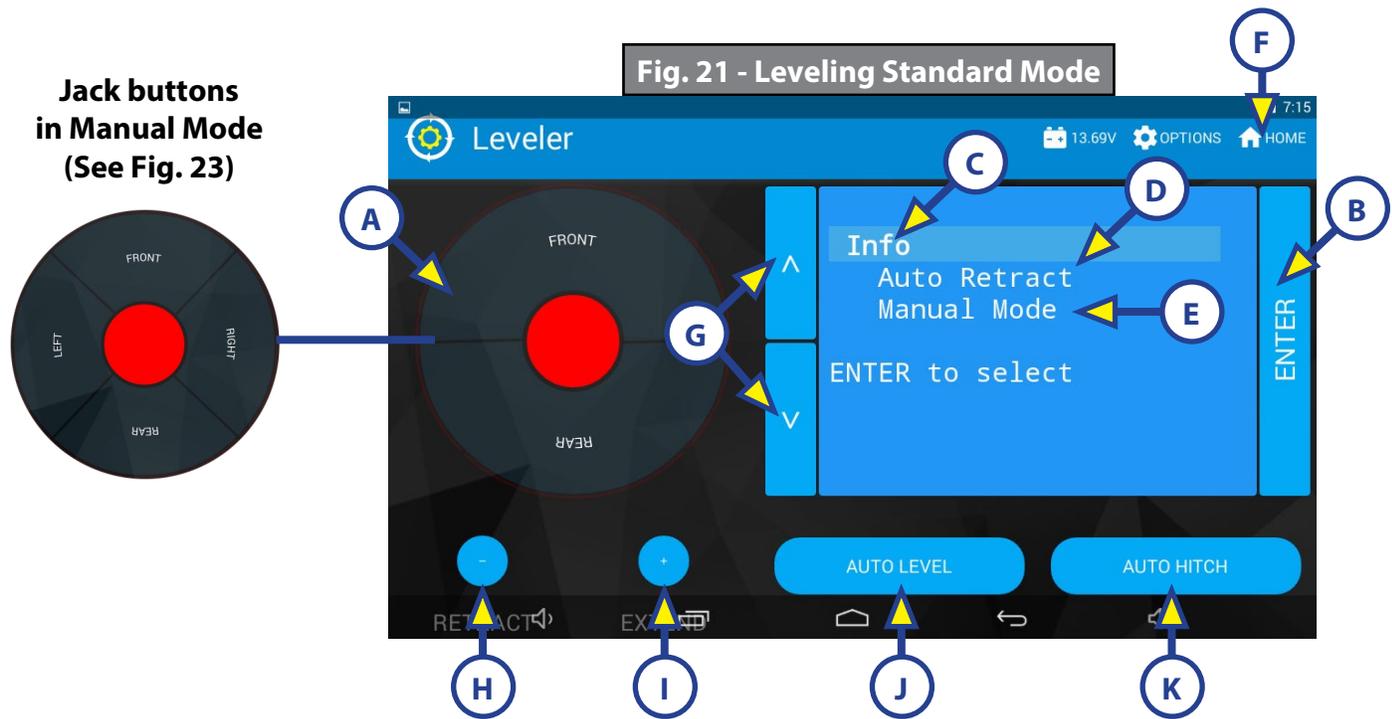
1. Push touch panel "ON/OFF" (Fig. 19L) to turn system on.
2. Press the "Leveling" icon.
3. The screen will show the system menu (Fig. 19) for Standard Mode.
4. Press "AUTO HITCH" (Fig. 19N). Rear jacks will retract.
5. The front of the trailer will raise to the height where the auto level sequence was started.

NOTE: If the front of the trailer was below level when the Auto Level process was initiated, the hitch recognition feature will retract the rear jacks but will not retract the front jacks to lower the trailer to the initial hitch height. This feature helps prevent injury and/or damage to anything underneath the trailer.

6. Connect tow vehicle and make sure trailer and hitch are connected and locked.
7. On the Standard Mode screen (Fig. 19) use the "UP" and "DOWN" arrows (Fig. 19B) to scroll to "AUTO RETRACT" (Fig. 19F). Press "ENTER."
8. Choose "ALL JACKS." Press "ENTER." System will immediately retract all jacks.
9. Use the quick release pins on the landing gear to manually return the inner jack leg to the fully retracted position.

Touch Panel Diagram - OneControl App From MyRV

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



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. The front jacks can be extended/retracted in Standard Mode. Rear jacks can only be retracted from this mode. In Manual Mode (Fig. 6), all jacks are available to be operated.
B	Enter - Push to activate various modes.
C	Info - Displays system information, e.g., angle, jack stroke, software version.
D	Auto Retract - Enters Auto Retract mode. Choose to retract "All Jacks" or "Rear Jacks."
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

Accessing the OneControl App

1. Ensure there is power to the trailer's wireless network.
2. 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. 22).

3. Open the OneControl application on the compatible device.

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.

4. The application will request the user "Agree" to an end user license agreement, create a PIN and "Re-enter PIN to confirm."
5. The OneControl app will now display all functions. Choose "Leveler."



Standard Mode and Menu

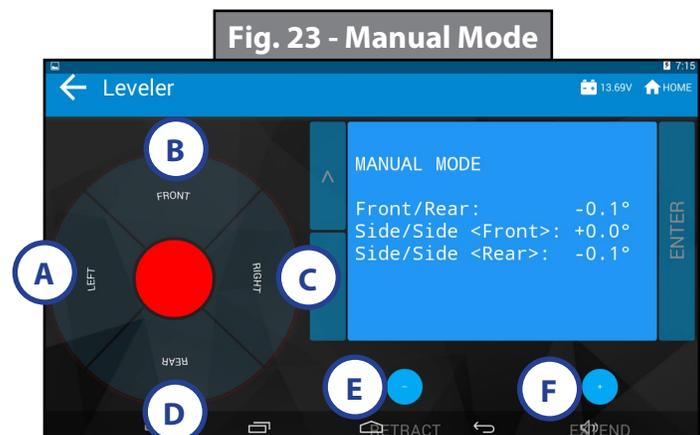
Standard Mode is the mode launched when the OneControl app "Leveler" function is powered up. The screen will show the system menu (Fig. 21). The front jacks can be extended/retracted in Standard Mode. Rear jacks can only be retracted from this mode.

Basic Jack Operation

While in Standard Mode:

1. Press "RETRACT" (Fig. 21H) or "EXTEND" (Fig. 21I) and "FRONT" (Fig. 21A) to extend or retract front jacks.
2. Press "RETRACT" and "REAR" (Fig. 21) to retract rear jacks.
3. Press the "AUTO LEVEL" (Fig. 21J) button to start the leveling sequence.
4. Press the "AUTO HITCH" (Fig. 21K) button to start the hitch recognition sequence when reconnecting to the tow vehicle.
5. Use the "UP" or "DOWN" arrow buttons (Fig. 21G) to cycle through the menu options:
 - A. Info:** Scroll to "INFO" (Fig. 21C) and press "ENTER" button to display system information, e.g., angle, jack stroke or software version.
 - B. Auto Retract:** Scroll to "AUTO RETRACT" (Fig. 21D) and press the "ENTER" button. Choose either "ALL JACKS" or "REAR JACKS." Press the "ENTER" button again to start the "Auto Retract" sequence.
 - C. Manual Mode:** Scroll to "MANUAL MODE" (Fig. 21E) and press "ENTER" button to start Manual Level operation.
 - I. Press "EXTEND" (Fig. 23F) or "RETRACT" (Fig. 23E) and "FRONT" (Fig. 23B) to operate front jacks.
 - II. Press "EXTEND" or "RETRACT" and "REAR" to operate rear jacks.
 - III. Press "EXTEND" or "RETRACT" and "RIGHT" to operate right jacks.
 - IV. Press "EXTEND" or "RETRACT" and "LEFT" to operate left jacks.

NOTE: To operate jacks individually, press "EXTEND" or "RETRACT" then press the "LEFT" (Fig. 23A) or "RIGHT" (Fig. 23C) button while simultaneously pressing the "FRONT" or "REAR" button (Fig. 23B and 23D), depending on which jack needs to be operated.



NOTE: If the rear jacks will not operate individually using the method described above, but they operate properly when Auto Level is performed, the Twist Prevention Protection system has locked out the operation to prevent damage to the frame of the trailer.

Unhitching Instructions

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

1. Extend the inner legs of both front jacks (landing gear) to within 4-5" of the ground by pulling on the quick-release pins.
1. Open the OneControl App.
2. Press the "Leveler" icon.
3. The screen will show the system menu (Fig. 21) for Standard Mode.
4. Push "Extend" (Fig. 21I) and "FRONT" buttons (Fig. 21) to extend front jacks and lift front of trailer to take the weight of the trailer off of the hitch.
5. Uncouple the trailer connection on the tow vehicle.
6. Pull tow vehicle away and park at a safe distance.

Auto Level

1. After unhitching from the tow vehicle and parking the vehicle at a safe distance away from the trailer, open the OneControl App and then press "AUTO LEVEL" (Fig. 21J).

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.

Auto Level Sequence

1. When Auto Level Sequence begins, the front of the trailer will seek a position near a level state.
2. Rear jacks will be grounded.
3. A side-to-side leveling sequence will occur.

NOTE: At this point on the 6 point system, the 2 middle jacks will be grounded to stabilize the trailer. These 2 jacks do not level the trailer.

4. Each jack will perform a final grounding touch.

NOTE: If the AUTO LEVEL sequence does not perform as described above, locate the OneControl Touch Panel inside the trailer 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. Open the OneControl App.
2. Press the "Leveler" icon.
3. The screen will show the system menu (Fig. 21) for Standard Mode.
4. Press "AUTO HITCH" (Fig. 21K). Rear jacks will retract.
5. The front of the trailer will raise to the height where the auto level sequence was started.

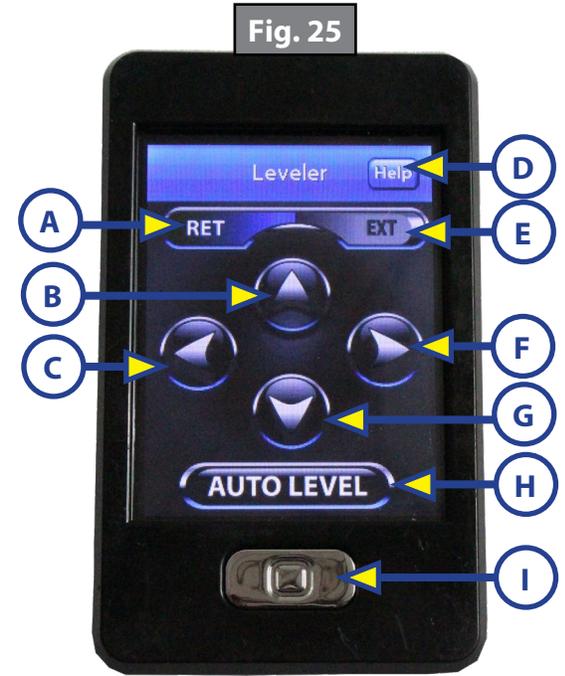
NOTE: If the front of the trailer was below level when the Auto Level process was initiated, the hitch recognition feature will retract the rear jacks but will not retract the front jacks to lower the trailer to the initial hitch height. This feature helps prevent injury and/or damage to anything underneath the trailer.

6. Connect tow vehicle and make sure trailer and hitch are connected and locked.
7. On the Standard Mode screen (Fig. 21) use the "UP" and "DOWN" arrows (Fig. 21G) to scroll to "AUTO RETRACT" (Fig. 21D). Press "ENTER."
8. Choose "ALL JACKS." Press "ENTER." System will immediately retract all jacks.
9. Use the quick release pins on the landing gear to manually return the inner jack leg to the fully retracted position.

Touch Panel Diagram - Linc Remote Control - Optional

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

NOTE: When the OneControl Touch Panel inside the trailer 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. (See "Operation - OneControl Touch Panel.")

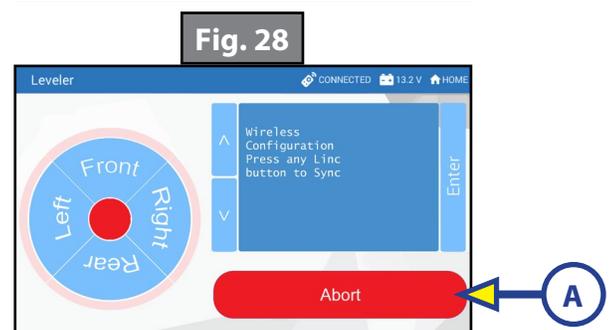
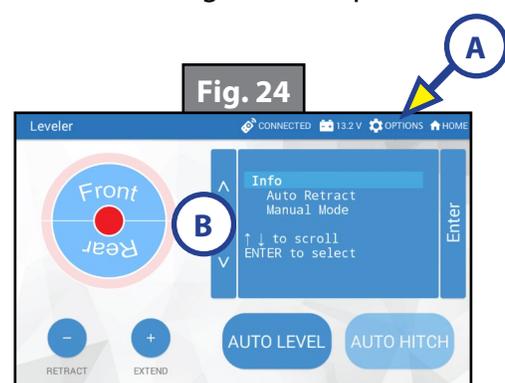
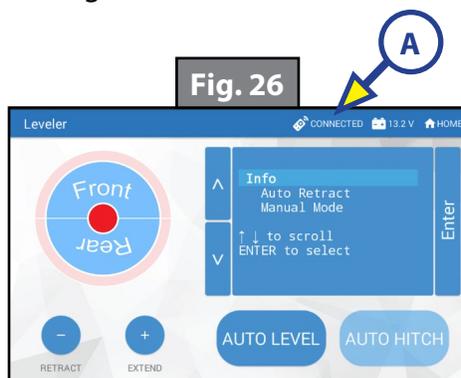


Configuring Linc Remote to Sync to OneControl Touch Panel Or OneControl App

1. Turn on the Linc™ remote control (Fig. 25I) and enter a PIN.
2. Choose "Leveler" from the menu screen.
3. Turn on the OneControl Touch Panel (Fig. 19L).
4. On the OneControl Touch Panel, press the "CONNECTED" icon at the top of the screen (Fig. 26A) quickly 6 times. Wait a few seconds until the gear icon with "OPTIONS" appears (Fig. 24A).

NOTE: If configuring to the OneControl App, press the "OPTIONS" button.

5. Press the gear icon with "OPTIONS" (Fig. 24A).
6. Use the "UP" and "DOWN" arrows (Fig. 24B) to scroll to "WIRELESS CONFIG" (Fig. 27).
7. Press "ENTER" (Fig. 27A). The screen will display "Wireless Configuration Press any Linc button to Sync" (Fig. 28).
8. Press any button in "Leveler" mode on the Linc Remote Control (Fig 25).
9. Pressing "ABORT" on the OneControl Touch Panel (Fig. 28A) will cancel configuration sequence.



Basic Jack Operation

- Press "EXTEND" (Fig. 25E) or "RETRACT" (Fig. 25A). Press "FRONT" arrow (Fig. 25B) to operate front jacks.
- Press "RETRACT". Press "REAR" arrow (Fig. 25G) to operate rear jacks.
- Press "AUTO LEVEL" (Fig. 25H) to start auto level sequence.
- If the OneControl Touch Panel is in manual mode press, "EXTEND" (Fig. 25E) or "RETRACT" (Fig. 25A). Press "LEFT" (Fig. 25C), "RIGHT" (Fig. 25F) or "REAR" (Fig. 25G) arrow to operate left, right or rear jacks.

Unhitching Instructions

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

1. Extend the inner legs of both front jacks (landing gear) to within 4-5" of the ground by pulling on the quick-release pins.
2. Turn the Linc remote on (Fig. 25I) and enter a PIN code to turn system on.
3. Press the "LEVELER" button.
4. Press "EXTEND" (Fig. 25E) and "FRONT" arrow (Fig. 25B) to extend front jacks and lift the front of trailer to take the weight of the trailer off of the hitch.
5. Uncouple the trailer connection on the tow vehicle.
6. Pull tow vehicle away and park at a safe distance.

Auto Level

1. After unhitching from the tow vehicle and parking the vehicle a safe distance away from the trailer, press the "ON/OFF" button (Fig. 25I) on the Linc remote if the Linc is not on.
2. Enter a PIN.
3. Choose the "LEVELER" option.
4. Press "AUTO LEVEL" (Fig. 25H).

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.

Auto Level Sequence

1. When Auto Level Sequence begins, the front of the trailer will seek a position near a level state.
2. Rear jacks will be grounded.
3. A side-to-side leveling sequence will occur.

NOTE: At this point on the 6 point system, the 2 middle jacks will be grounded to stabilize the trailer. These 2 jacks do not level the trailer.

4. Each jack will perform a final grounding touch.

NOTE: If the AUTO LEVEL sequence does not perform as described above, locate the OneControl Touch Panel inside the trailer 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 **(Rev. A)**

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

Red/Green LED Indicator on Auto Leveling Control Touch Pad **(Rev. B)**

What Is Happening?	Why?
Off	Touch pad is locked.
Solid Green	Touch pad is active.
Blinking Green	Jacks are moving.
Solid Red	Low battery.
Blinking Red	Error - Refer to OneControl Touch Panel or the OneControl App for the specific error, then consult the Troubleshooting section of this manual to clear the error.
Slowly Blinking Faded Red (Red and Green Blinking Simultaneously)	Error - Refer to OneControl Touch Panel or the OneControl App for the specific jack error code, then consult the Special Jack Error Code section of this manual to clear the error.

OneControl Touch Panel or OneControl App Error Codes (Rev. A)

NOTE: Faults can only be cleared via the OneControl Touch Panel or OneControl App. The only exception is when the Auto Leveling Control Touch Pad (Fig. 18) was used to abort an auto-sequence. In this case the fault can be cleared by pressing any Auto Leveling Control Touch Pad button.

OneControl Touch Panel or OneControl App Error Codes (Rev. B)

NOTE: Faults can be cleared via the OneControl Touch Panel, OneControl App or Auto Leveling Control Touch Pad. Most standard faults can be cleared from the Auto Leveling Control Touch Pad by pressing "Retract All."

OneControl Touch Panel or OneControl App Error Codes		
Touch Panel Message	What's Happening?	What Should I Do?
"EXCESS ANGLE"	Unsecured controller. Uneven or sloped site.	Check and secure controller 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 controller. Uneven or sloped site.	Check and secure controller 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 FAIL"	Unsecured controller. Voltage drop.	Check and secure controller placement. Test battery voltage under load - charge or replace.
"FUNCTION ABORTED"	User has aborted an automatic leveling sequence.	Hit OK. 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.

Special Jack Error Codes		
Touch Panel Message	What's Happening?	What Should I Do?
<p>***ERROR***</p> <p>Left-Front Jack Fault Right-Front Jack Fault Left-Mid Jack Fault Right-Mid Jack Fault Left-Rear Jack Fault Right-Rear Jack Fault</p>	<p>Error at a specific jack (left front, right front, left middle, right middle, left rear, right rear). Hall signal issue (open, short, malfunction or loss of communication); open or short circuit between controller and motor.</p>	<p>Check harness connections at controller and at jack.</p> <p>Check harness for damage.</p> <p>Check fuses at controller.</p> <p>Repair or replace as necessary.</p>

Special Jack Error Codes on OneControl Touch Panel or OneControl App (Rev. A)

To clear the error code:

1. Correct or otherwise repair the issue (see Special Jack Error Codes chart).

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".

2. Extend all jacks to reach the 6" of minimum retract needed.
 - A. Press "FRONT" (Fig. 20B or Fig. 23B) to extend the front jacks (if required).
 - B. Press "REAR" (Fig. 20D or Fig. 23D) to extend the rear jacks (if required).
 - C. Press "LEFT" and "RIGHT" (Fig. 20A and Fig. 20C or Fig. 23A and Fig. 23C) simultaneously to extend the middle jacks (if equipped and required).
3. Press "ENTER" to AUTO RETRACT. The jacks will retract until they reach the hard current limit.
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.

Special Jack Error Codes on OneControl Touch Panel or OneControl App (Rev. B)

To clear the error codes:

1. Correct or otherwise repair the issue (see the Special Jack Error Codes chart).

NOTE: In order to clear the special jack error code the jacks need to perform a successful "Auto Retract."

2. Press "ENTER" to AUTO RETRACT. The jacks will retract until they reach the hard current limit.
3. 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.

Clearing Faults From Auto Leveling Control Touch Pad (Rev. B)

NOTE: Landing gear can still be extended/retracted in the "Special Jack Error Code" mode.

1. To clear most standard faults, press "Retract All."
2. To clear jack faults, press and hold "Retract All" until the jacks begin to retract.

NOTE: Three faults cannot be cleared from the Auto Leveling Control Touch Pad and must be addressed from the OneControl Touch Panel or OneControl App: HALL POWER SHORT, BAD CALIBRATION and EXTERNAL SENSOR.

Manual Override

Top of Jack Motor Override:

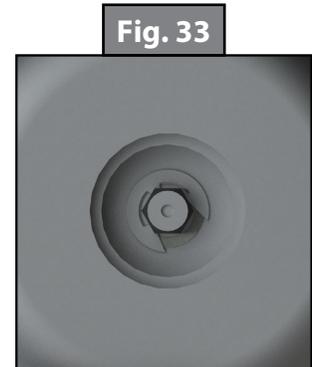
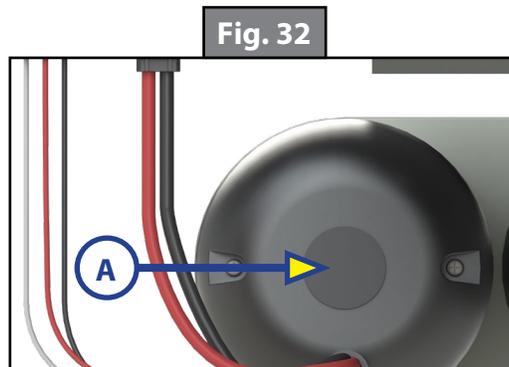
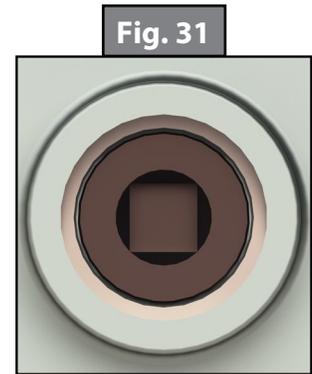
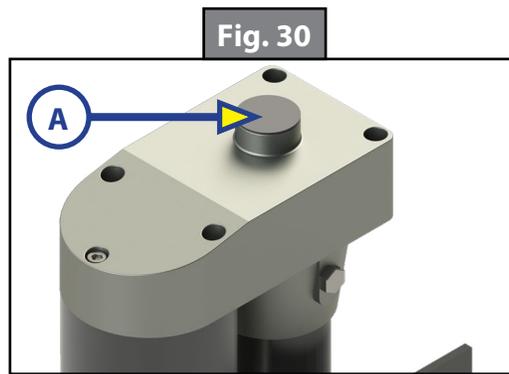
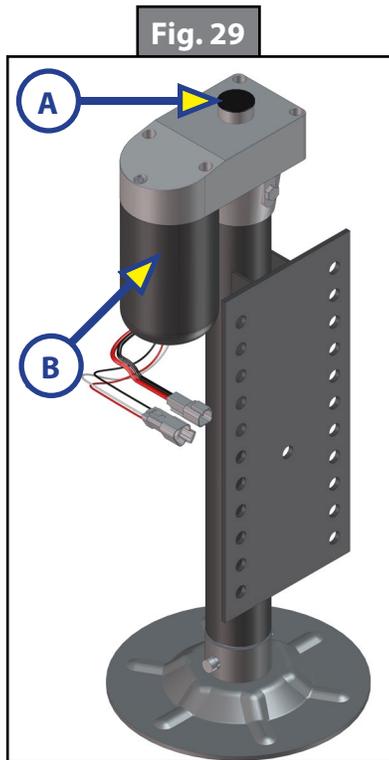
Tools needed: $\frac{3}{8}$ " drive ratchet and extension (no socket)

1. Find the port on the top of the jack motor (Fig. 29A).
2. Remove the rubber plug (Fig. 30A).
3. Insert the $\frac{3}{8}$ " drive ratchet into the port (Fig. 31).
4. Turn the override until the jack extends or retracts to desired position.

Bottom of Jack Motor Override:

Tools needed: $\frac{3}{8}$ " drive ratchet and extension, $\frac{5}{16}$ " socket

1. Find the port on the bottom of the jack motor (Fig. 29B).
2. Remove the rubber plug (Fig. 32A).
3. Insert the $\frac{5}{16}$ " socket into the port (Fig. 33).
4. Turn the override until the jack extends or retracts to desired position.



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 and road debris from jacks as needed.
4. If jacks are down for extended periods, it is recommended to spray exposed leveling jack rods with a silicone lubricant every three months for protection. If the trailer is located in a salty environment, it is recommended to spray the rods every four to six weeks.

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 only available on the OneControl Touch Panel and OneControl App with this system. (Figs. 34-39 depict OneControl Touch Panel.)

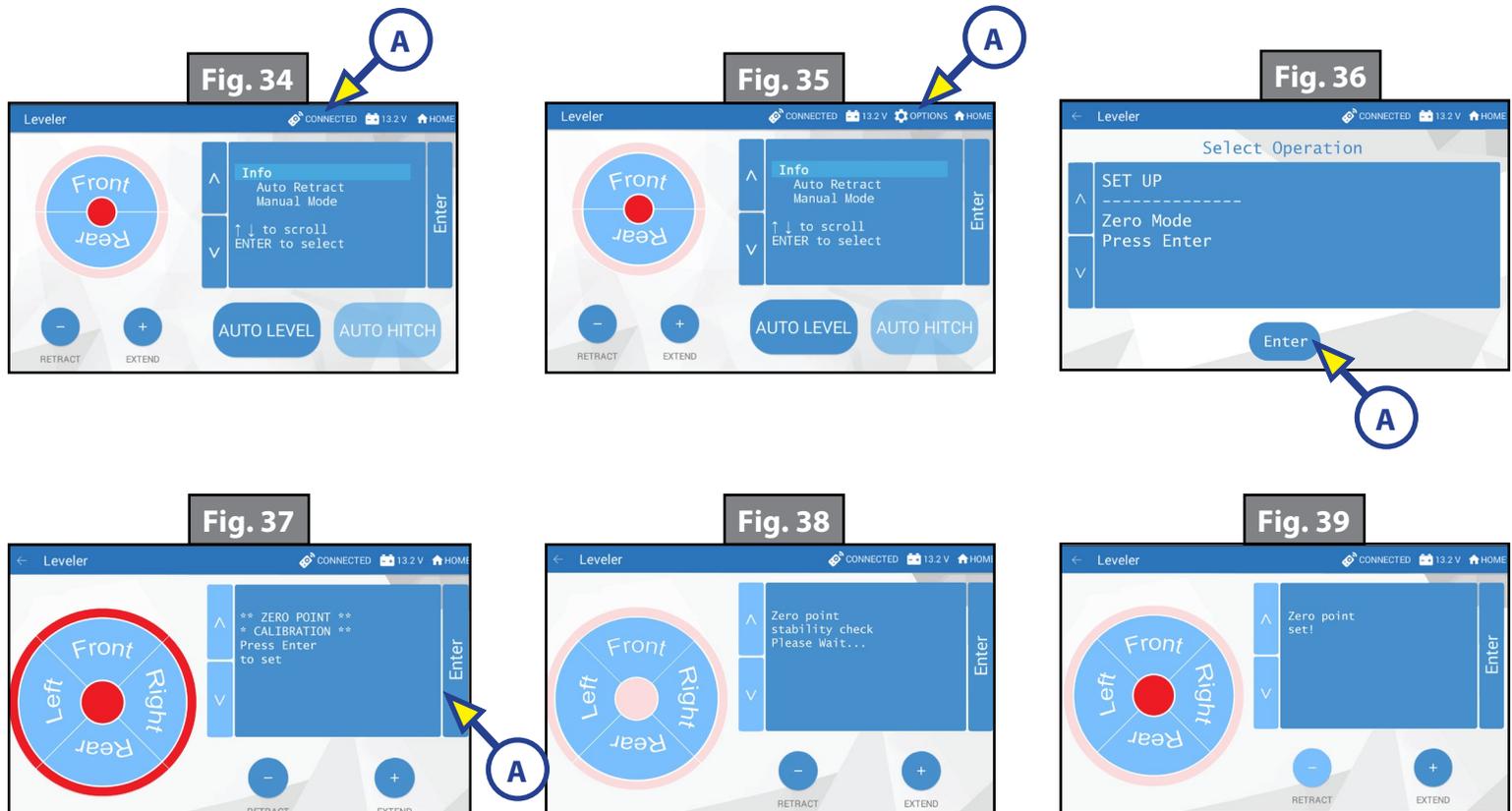
NOTE: Prior to starting this procedure, double check all connections on the controller, jacks and touch panel.

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.

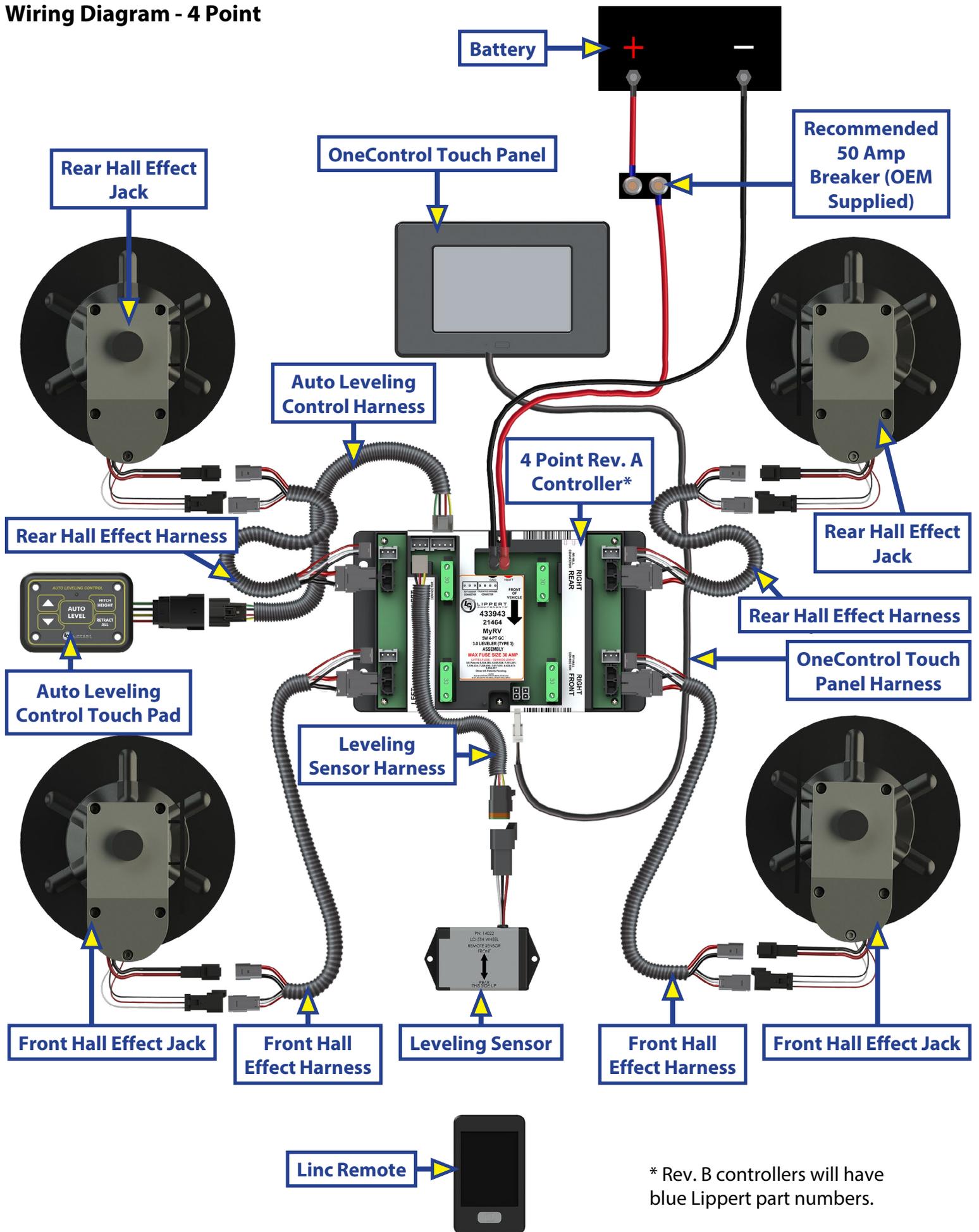
To Set the Zero Point

NOTE: The following procedure works from Standard Mode only. (See "Standard Mode and Menu" to reach standard mode.)

1. Press the "CONNECTED" icon (Fig. 34A) at the top of the leveling screen quickly 6 times. Wait a few seconds until the gear icon with "OPTIONS" appears (Fig. 35A).
2. Press the gear icon with "OPTIONS" (Fig. 36A).
3. The screen will show "SET UP: Zero Mode Press Enter" (Fig. 19).
4. Press the "Enter button" (Fig. 36A).
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. 37).
6. Press "ENTER" (FIG. 37A).
7. Screen will show "Zero Point Stability Check ... Please Wait" (Fig. 38), followed by "Zero Point Set" (Fig. 39).

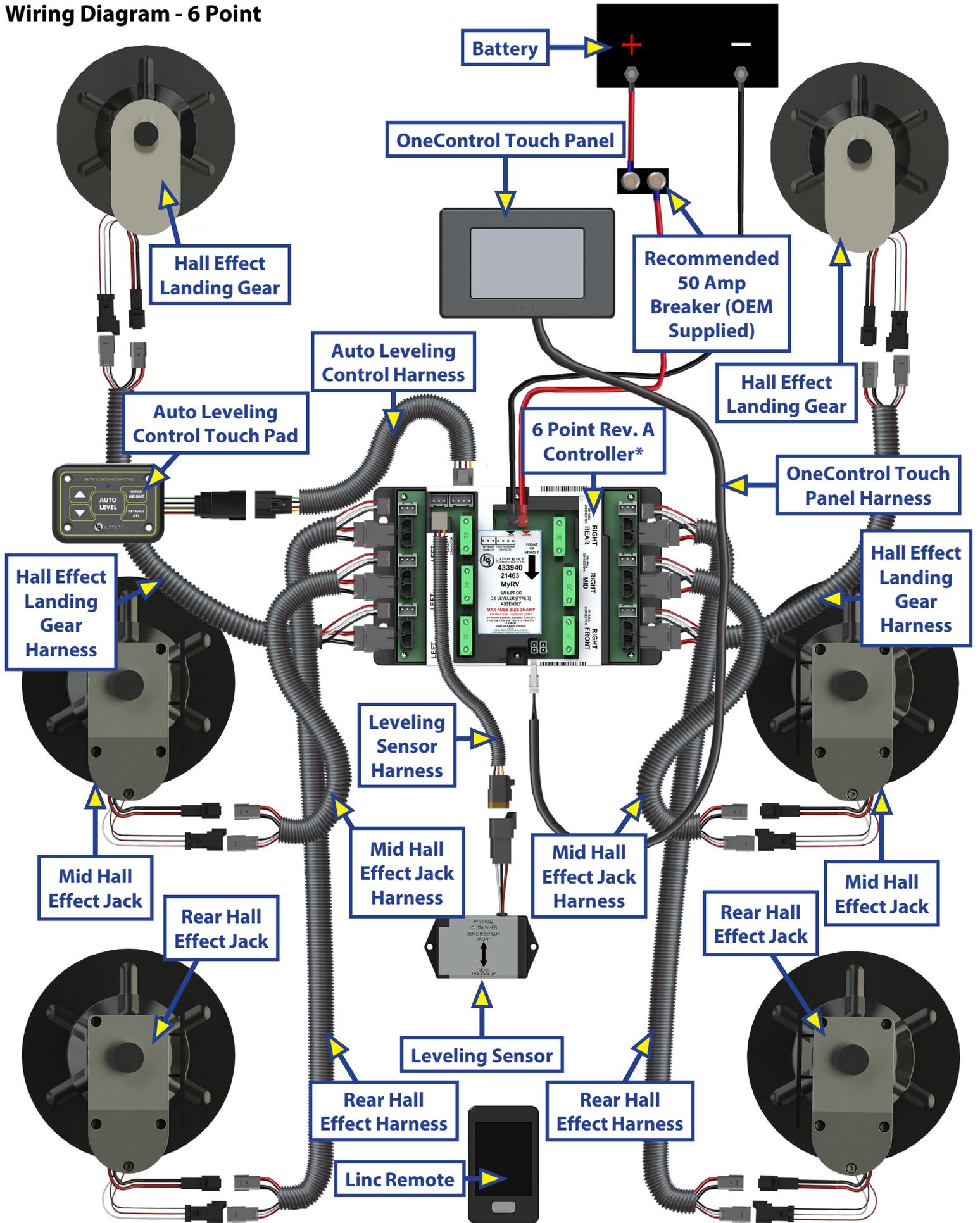


Wiring Diagram - 4 Point



* Rev. B controllers will have blue Lippert part numbers.

Wiring Diagram - 6 Point



* Rev. B controllers will have blue Lippert part numbers.



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