

**LCI LEVEL-UP[®] MOTORHOME
LEVELING WINNEBAGO
INDUSTRIES UP TO 9-2015
OWNER'S MANUAL**

**L I P P E R T
C O M P O N E N T S[®]**

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WARNING

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

The use of the LCI Level-Up® Motorhome Leveling System for Winnebago Industries to support the coach for any reason other than which it is intended is prohibited by Lippert's Limited Warranty. The LCI Level-Up® Motorhome Leveling System for Winnebago Industries is designed as a leveling system only and should not be used to provide service for any reason under the coach such as changing tires or servicing the leveling system.

Lippert Components, Inc. recommends that a trained professional be employed to change the tires on the coach. Any attempts to change tires or perform other service while coach is supported by the LCI Level-Up® Motorhome Leveling System for Winnebago Industries could result in damage to the motor home and/or cause serious injury or death.

1. Be sure to park the coach on solid, level ground.
2. Clear all jack landing locations of debris and obstructions. Locations should also be free of depressions.
3. When parking the coach on extremely soft surfaces, utilize load distribution pads under each jack.
4. People and pets should be clear of coach while operating leveling system.
5. Be sure to keep hands and other body parts clear of fluid leaks. Oil leaks in the LCI Level-Up® Motorhome Leveling System for Winnebago Industries may be under high pressure and can cause serious skin penetrating injuries.
6. Never lift the coach completely off the ground. Lifting the coach so the wheels are not touching the ground will create an unstable and unsafe condition.

Prior to Operation

1. The leveling system should only be operated under the following conditions:
2. The coach is parked on a reasonably level surface.
3. The coach "PARKING BRAKE" is engaged.
4. The coach transmission should be in the neutral or park position.
5. Be sure all persons, pets and property are clear of the coach while LCI Level-Up® Motorhome Leveling System for Winnebago Industries is in operation.

CAUTION

After starting the automatic leveling cycle it is very important that you do not move around in the coach until the unit is level and the green LED light illuminates in the center of the touch pad. Failure to remain still during the leveling cycle could have an affect on the performance of the leveling system.

System Description

Please read and study the operating manual before operating the leveling system.

The LCI Level-Up Motorhome Leveling System for Winnebago Industries is an electric/hydraulic system. A 12V DC electric motor drives a hydraulic pump that moves fluid through a system of hoses, fittings and jacks to level and stabilize the coach.

Mechanical portions of the LCI Level-Up Motorhome Leveling System for Winnebago Industries are replaceable. Contact Lippert Components, Inc. to obtain replacement parts. See Page 19 for the Bill Of Materials list.

Component Description

1. Jacks

- A.** Rated at a lifting capacity for your coach.
- B.** 9" diameter (63.5 square inch) foot pad on a ball swivel for maximum surface contact on all surfaces.
- C.** 12" diameter - 113 square inch foot pad also available.
- D.** Powered from a 12V DC Motor/Pump assembly.

2. Motor/Pump Assembly

- A.** 12V DC Motor
- B.** Hydraulic oil reservoir tank
- C.** Control Valve Manifold
- D.** Solenoid Valves

3. System Controls

- A.** Controlled electronically from the driver's seat of the coach.
- B.** Touch pad is mounted in the dash or side console.
- C.** Touch pad can be operated in manual mode or fully automatic mode.

Maintenance

Fluid Recommendation

The LCI Level-Up Motorhome Leveling System for Winnebago Industries is pre-filled, primed and ready to operate direct from Winnebago Industries:

PetroBlend (Mason City, IA), PHO 0022S (group 3 base blend).

NOTE: In colder temperatures (less than 10° F) the jacks may extend and retract slowly due to the fluid's molecular nature. For cold weather operation, fluid specially formulated for low temperatures may be desirable. Please consult fluid specifications on Page 16.

Preventative Maintenance

- 1.** Check fluid in reservoir every 12 months. If fluid is a clear, red color, do not change. If fluid is milky, pink and murky, and not clear red in color, drain reservoir and add new fluid. Use recommended fluid (see Page 16).

NOTE: Check fluid only when all jacks are fully retracted.

NOTE: When checking fluid level, fill to within ¼ to ½ inch of fill spout.

- 2.** Inspect and clean all Power Unit electrical connections every 12 months. If corrosion is evident, spray unit with lubricant.
- 3.** Remove dirt and road debris from jacks as needed.

⚠ WARNING

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

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 coach is located in a salty environment, it is recommended to spray the rods every four to six weeks.

NOTE: OEM to install attachment brackets for leveling jacks.

Fig. 1 - [433458](#)



Fig. 1

CAPACITY - 8,000 lb.
STROKE - 15.00 in.
BORE - 2.00 in.
HEIGHT - 21.1875 in.
ROD DIA. - 1.50 in.
9" FOOTPAD-
STANDARD
12" FOOTPAD-**OPTION**
- **Part# - 117238**

Fig. 2 - [236560](#)



Fig. 2

CAPACITY - 14,000 lb.
STROKE - 15.13 in.
BORE - 2.50 in.
HEIGHT - 21.625 in.
ROD DIA. - 1.875 in.
9" FOOTPAD-STANDARD
12" FOOTPAD-**OPTION** -
Part# - 117238

Fig. 3 - [258550](#)



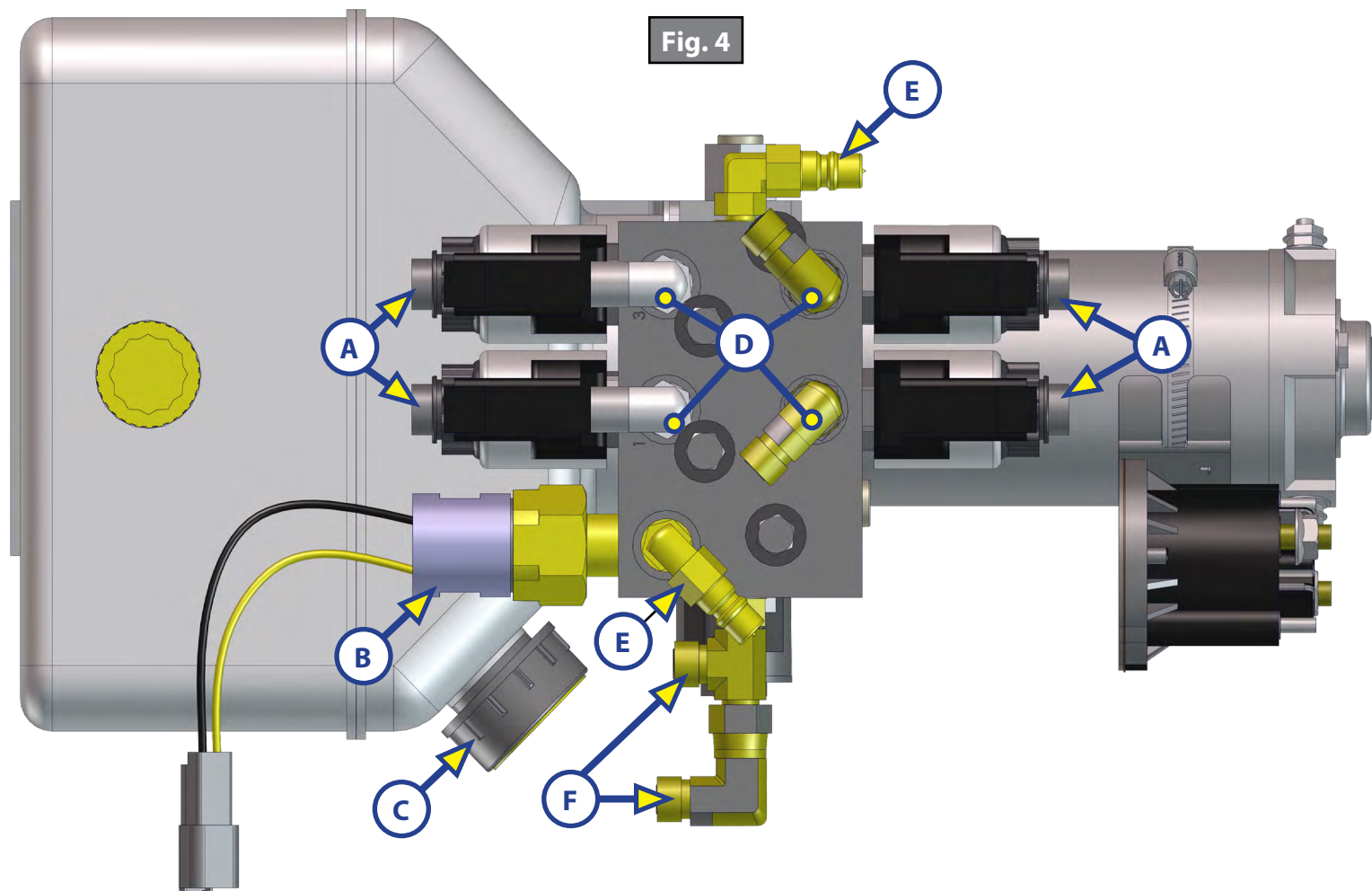
Fig. 3

CAPACITY - 20,000 lb.
STROKE - 16.00 in.
BORE - 3.00 in.
HEIGHT - 23.125 in.
ROD DIA. - 2.25 in.
12" FOOTPAD-STANDARD

Fitting Orientation

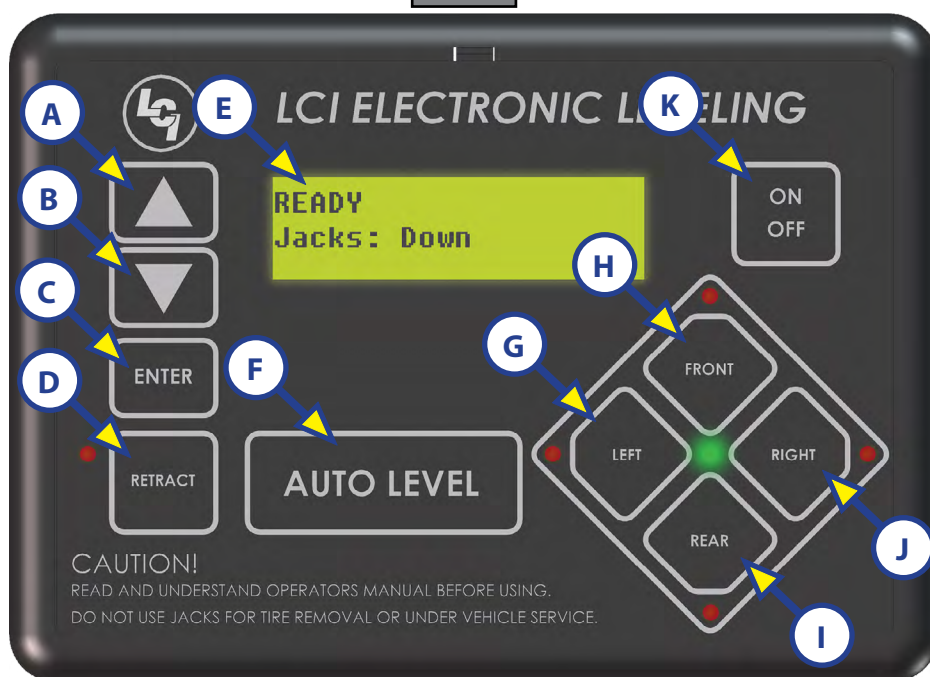
NOTE: Fittings - High pressure O-Ring Face - Size 4

NOTE: Hose - 1/4 in. I.D. 3000 psi - W.P. Rated



Callout	Part #	Description
A	177094 / 174184	Valve/Coil - Rear Jacks
B	142927	Pressure Switch
C	--	Filler Vent
D	156846 / 141109 (Straight)	Extend Fittings Fittings are labeled w/ port assignments found stamped into the manifold.
E	140457 / 320521 (Elbow)	Quick Disconnect for Flush & Fill
F	156846 / 143108	Return Fittings

Fig. 5



Callout	Description
A	Up Button - Scrolls up through the menu on LCD.
B	Down Button - Scrolls down through the menu on LCD.
C	Enter - Activates modes and procedures indicated on LCD.
D	Retract - Places leveling system into retract mode. PRESS and hold for 1 second to initiate Auto Retract.
E	LCD Display - Displays procedures and results.
F	Auto Level - Places leveling system into auto level mode.
G	Left Jack Button - Activates both left jacks in manual mode.
H	Front Jack Button - Activates both front jacks in manual mode.
I	Rear Jack Button - Activates both rear jacks in manual mode.
J	Right Jack Button - Activates both right jacks in manual mode.
K	Power Button - Turns leveling system on and off.

Features

- A. Automatic extension of jacks from full retract position (with automatic ground detection).
- B. Automatic leveling of jacks.
- C. Manual leveling of jacks
- D. Automatic retraction of jacks (with automatic full retract detection).
- E. Air bag suspension features (configurable on/off).
- F. Emergency retract/User alarm mode (jacks not retracted and park brake disengaged).
- G. Automatic jack error detection and error mode.
- H. Configurations mode for Leveling Zero Point.
- I. Remote operation.

System Wiring Requirements

- A. Battery power (2 ga. SAE J1127. Type SGX).
- B. Battery ground (2 ga. SAE J1127. Type SGX).
- C. Logic power (switched via ignition).
- D. Power brake signal (open=park brake disengaged, GND=park brake engaged).
- E. 4-wire harness connecting Controller to Touch Pad.
- F. Jacks status input - Switched to GND.
 - I. Jacks not all up – switch closed to ground .
 - II. Jacks all up – switch open.

Air and Auxiliary Features (When Applicable)

System has the option to control external Air and Auxiliary features.

When enabled, the feature works according to the following logic:

- A. Air bag pressure automatically lowers when starting the auto or manual level sequence to maximize lift of jacks.
- B. Air bag pressure automatically increases when starting an auto retract sequence.
- C. If the parking brake is disengaged, jacks will automatically retract without the 25 second delay. Air bags will fill during and after this emergency retract.

NOTE: When retracting in manual mode, the air bags will not fill automatically and must be done manually.

The Manual Air Bag Dump/Fill functions as follows:

- 1. Set park brake.
- 2. Scroll up twice to "MANUAL AIR CONTROL".
- 3. Press enter.
- 4. Press REAR button (Fig. 5I) to dump, FRONT button (Fig. 5H) to fill.

Level Zero Point Calibration

Before auto-leveling features are available, the Level Zero Point must be set. This is the point to which the system will return when an auto leveling cycle is initiated.

To set the Zero Point (controller module must be fully secured in production intent location), first run a manual leveling sequence to get the vehicle to the desired level point. Then activate the Level Zero Point configuration mode.

This mode is enabled by performing the following sequence:

1. Turn panel off.
2. Perform the following:
3. Press the "Front" button (Fig. 5H) 5 times.
4. Press the "Rear" button (Fig. 5I) 5 times.
5. At this point, an alarm will sound and the display reads "***ZERO POINT CALIBRATION***" ENTER to Set, POWER to Exit."

NOTE: System can be operated in the MANUAL MODE to attain level condition during this period.

6. Press ENTER (Fig. 5C) to set the Zero Point.
7. Screen will then display "PLEASE WAIT".
8. Alarm will sound and the screen will display "ZERO POINT SUCCESSFUL".
9. Control will then turn "OFF".

For DIESEL UNITS with Air Bag Suspensions ONLY:

NOTE: The leveling control will automatically program for air bag control. The option will not be present if no dump valve coil resistance is detected.

Error Mode

- A. If an error occurs before or during operation, the error will be displayed in the LCD and an alarm will sound. To reset all ERROR displays, press ENTER (Fig. 5C).
- B. All normal functions will be disabled when the system is in error mode.
- C. Auto level can only commence if running voltage is 12.75 VDC or above.
- D. Auto level operation will halt if running voltage drops to 9.5 VDC.
- E. Manual level operation can be performed at all running voltages above 9.5 VDC.

Excess Slope

- A. The control will not operate at extreme slopes, i.e. 3.5° fore and aft and 3.5° side to side.
- B. If the coach indicates "EXCESS ANGLE" or "OUT OF STROKE" during an auto level cycle, move the coach to a more level spot.

LCD Display	What is Happening?	What Should Be Done?
****ERROR**** Excess Angle	Coach not parked on level ground. Zero point incorrectly calibrated.	Move coach to level ground prior to starting auto level sequence. Recalibrate Zero Point.
****ERROR**** External Sensor	Rear sensor shorted out or disconnected.	Check wire connection or replace sensor.
Out of Stroke	Jack has insufficient length to complete the leveling procedure.	Check the disposition of the jack.
Low Voltage	Battery voltage dropped below 9.5V DC during operation.	Turn engine on, check battery voltage under load.
Function Aborted	A button was pressed on touch pad during Auto Level operation.	Hit enter to acknowledge. Restart procedure.
Unable to Finish Leveling	Excessive movement inside coach during auto level sequence.	Discontinue movement inside coach during auto level sequence.
Engage Park Brake	Parking brake not set prior to starting auto level sequence.	Set parking brake prior to starting auto level sequence.
Comm Error Check Wiring NOTE: Screen will not back light.	Wiring connections loose or faulty between touch pad and controller.	Check connections, replace communication harness if necessary.
****ERROR**** Retract Timeout Return Levelers for Service	Pressure switch did not sense retract pressure and pump timed out. Leaking hose or fitting.	Return levelers for service. Check for leaks, repair if necessary. Press enter and retract to clear error.
Excessive Angle	Occurs only in manual mode when the angle of the unit is too severe.	Use the manual functions to return coach to a more level condition.

User Alarm Mode

If the alarm system detects that the park brake has been disengaged while at least one jack is not fully retracted and the sensor value changes in any axis more than a predefined amount, the panel will signal this error to the user.

The system performs an automatic retract.

No other features are available in this mode.

Miscellaneous

- A.** The leveling system will automatically shut off after being idle for 4 minutes.
- B.** Auto leveling cycle cannot be started until all jacks are fully retracted. Make sure jacks are retracted before attempting to auto level (unit will perform full retract automatically if jacks are down on the request of an auto cycle).
- C.** System will refuse any operation when a low voltage condition is present.
- D.** System will automatically alarm and retract if park brake is disengaged and jacks are not retracted with any change in sensor readings. In alarm mode, the only available feature is to retract all jacks.

Low Voltage Signal

- A.** The vehicle requires 12.75V DC to operate in the AUTO mode. If the voltage is too low, the screen will display "LOW VOLTAGE".
- B.** Minimum Voltage - If voltage drops below 9.5V DC during AUTO or MANUAL operation, "LOW VOLTAGE" will appear in the screen and the system will cease operating.

NOTE: Coach will operate in manual mode between 9.5V DC and 12.75V DC.

Operation

Selecting A Site

When the coach is parked on an excessive slope the leveling requirements may exceed the jack lift stroke capability. If the coach is parked on an excessive slope, the coach should be moved to a more level surface before the leveling system is deployed.

"EXCESS ANGLE" will appear on the LCD screen if the coach is 3.5° out of level front to rear or side to side. See error code chart on Page 10.

Automatic Leveling Procedure

NOTE: Refer to Component Description, page 4 and Fig. 5, page 7 for questions regarding location and functions of the LCI Level-Up Motorhome Leveling System for Winnebago Industries system.

NOTE: Coach must be running and parking brake must be engaged for LCI Level-Up Motorhome Leveling System for Winnebago Industries to operate.

- 1.** Push "On/Off" button to turn system "On" (Fig. 5K).
- 2.** Push "Auto Level" button (Fig. 5F).
- 3.** The coach will level automatically and indicate "Auto Level - SUCCESS!" in LCD display (Fig. 5E).

NOTE: Display will then read "LEVEL - Jacks: Down". Do not press any buttons until this message appears or a "FUNCTION ABORTED" error will be displayed.

NOTE: In cold weather operation, always check to make sure all jacks, slide rooms, steps are fully retracted before travel.

Automatic Leveling Descriptive Logic

Grounding: Steps 1 - 7 describe the process of how the AUTO LEVEL LOGIC extends the jacks to the ground:

1. Depending on which end of the coach is lowest to the ground the level sensor in the controller will activate the jacks, one at a time on the lowest end first, either front or rear.
2. Ground lowest side jack first; i.e., front passenger side.
3. Ground remaining side jack next; i.e., front driver side.
4. Together, both jacks will lift lowest end until level; i.e., front of coach will lift briefly until the coach is level.
5. The system will then ground remaining jacks, one at a time; i.e., rear jacks.
6. Ground lowest side jack first; i.e., rear passenger side.
7. Ground remaining side jack next; i.e., rear driver side.

Leveling: Steps 8- 11 describe the process of how the AUTO LEVEL LOGIC levels the coach once the jacks have been grounded. This process may repeat several times until level.

8. Fore/aft.
9. Side/side.
10. Individual.
11. Minor adjustments to limit/prevent twist.

CAUTION

After starting the automatic leveling cycle it is very important that you do not move around in the coach until the unit is level and the green LED light illuminates in the center of the touch pad. Failure to remain still during the leveling cycle could have an affect on the performance of the leveling system.

Manual Leveling Procedure

NOTE: When leveling your coach the coach should be leveled from front to rear first. When the coach is level from front to rear, then level the coach from left to right.

NOTE: Coach requires 12.75 VDC to commence auto leveling function. If voltage at the power unit is not 12.75 VDC, run the engine.

1. Apply parking brake.
2. Turn ignition "On".
3. Push "ON/OFF" button (Fig. 5K) to turn system "ON".
4. Push "UP" or "DOWN" button (Fig. 5A/B) to scroll through features to "MANUAL MODE" in display.
5. Push "ENTER" (Fig. 5C).
6. Push "FRONT" button (Fig. 5H) to extend front jacks to the ground; push "REAR" button (Fig. 5I) to run rear jacks to ground and level the coach front to back.
7. Push appropriate "Left" or "Right" button to level the coach from side to side. Red flashing lights next to the buttons on touch pad will indicate which side(s) of the coach needs to be raised to achieve level condition.

NOTE: Jacks always work in pairs, i.e., "FRONT" button operates both front jacks, etc.

NOTE: The right and left jacks are used to level the coach side to side. Pushing the LEFT button (Fig. 5G) on the control panel will extend both left jacks. Pushing the RIGHT button (Fig. 5J) on the control panel will extend both right jacks. Jacks always work in pairs, both front jacks; both right side jacks, etc.

8. Repeat steps 2 through 7 as needed.
9. Turn power off to leveling system by pushing ON/OFF button (Fig. 5K).
10. Visually inspect all jacks to ensure all footpads are touching the ground. Should one of the rear jack footpads not be touching the ground, press the corresponding LEFT or RIGHT arrow buttons to lower the non-compliant jack to the ground.

WARNING

NEVER LIFT ALL THE WHEELS OFF THE GROUND TO LEVEL THE COACH!
Lifting all wheels off the ground may result in death or serious personal injury.

Jack Retract Procedures

1. Energize the system by pushing ON/OFF button (Fig. 5K) on control panel. The LCD screen will display READY Jacks: Down".
2. Push "DOWN" button (Fig. 5B) to display "Auto Retract All" on the screen.
3. Push "ENTER" (Fig. 5C) to begin.

NOTE: If the need to stop the jacks from retracting arises, turn the system off and back on again by pushing the "ON/OFF" button (Fig. 5K) twice. The coach can then be manually leveled by following steps 1-9 in the MANUAL LEVELING PROCEDURE section above. Press "ENTER" to acknowledge.

4. The jacks will retract and shut off automatically; the display will read "READY - Jacks: Up". Push the "ON/OFF" button (Fig. 5K) on the Control Panel to de-energize the system. After a brief visual inspection around the coach to verify the jacks are fully retracted, you may proceed to travel.
5. To retract in the MANUAL mode, push the "RETRACT" button (Fig. 5D) until it lights. By pushing any of the JACK buttons, the jacks will retract in pairs, i.e. "FRONT" button, both front jacks will retract, etc.
6. "AUTO RETRACT" can also be commenced by pushing and holding the "RETRACT" button (Fig. 5D) for 1 second.

NOTE: In cold weather operation, always check to make sure all jacks, slide rooms, and steps are fully retracted before travel.

Remote Leveling Operation

TO BEGIN - INSIDE COACH - Push ON/OFF button. ON/OFF LED on TOUCH PAD will illuminate. LED at REMOTE SWITCH will also illuminate. Ready to operate.

OUTSIDE COACH - Push ROCKER SWITCH (Fig. 6) for operation.

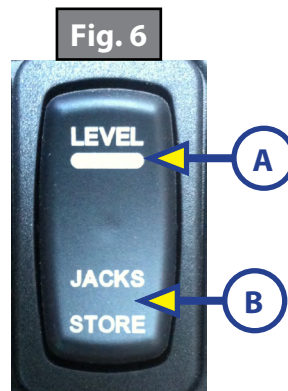
AUTOMATIC MODE - Push ROCKER SWITCH and release toward LEVEL (Fig. 6A) position. A slowly blinking LED indicates Automatic Leveling Operation in progress. Operation completion is indicated by LED at ROCKER SWITCH flashing rapidly for 2 seconds and then staying illuminated until control unit times out.

JACKS STORE - Push ROCKER SWITCH and release toward JACKS STORE (Fig. 6B) position. The slowly blinking LED indicates JACKS STORE (Fig. 6B) in progress. Operation completion is indicated by LED at ROCKER SWITCH flashing rapidly for 2 seconds and then staying illuminated until control unit times out.

STOPPING EXTEND/RETRACT MID-OPERATION - Press the ROCKER SWITCH towards LEVEL (Fig. 6A) or JACKS STORE (Fig. 6B) to stop operation of LEVELING SYSTEM or press the ON/OFF button on the TOUCH PAD inside the coach.

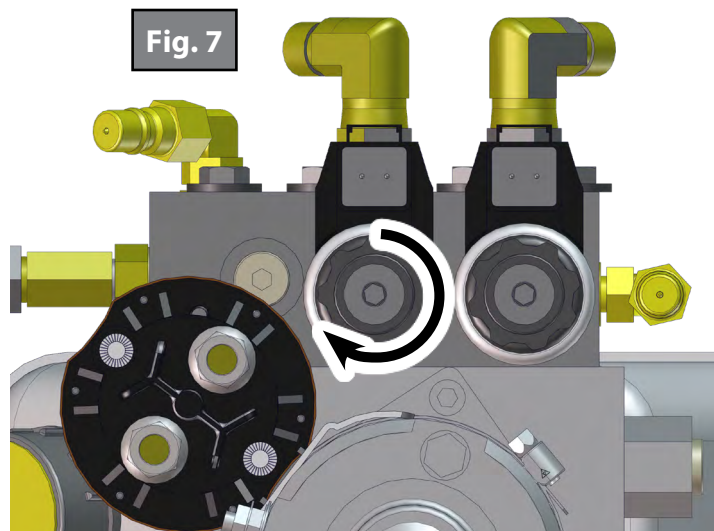
RESTARTING JACKS STORE AFTER MID OPERATION STOP - To restart JACKS STORE (Fig. 6B) after it has been stopped mid-operation, press the ROCKER SWITCH and release in the JACKS STORE (Fig. 6B) position.

RESTARTING LEVEL AFTER MID OPERATION STOP - To restart LEVEL (Fig. 6A) after it has been stopped mid-operation, press the ROCKER SWITCH and release in the JACKS STORE (Fig. 6B) position to retract jacks completely. After jacks are completely retracted, press ROCKER SWITCH and release in the LEVEL (Fig. 6A) position.

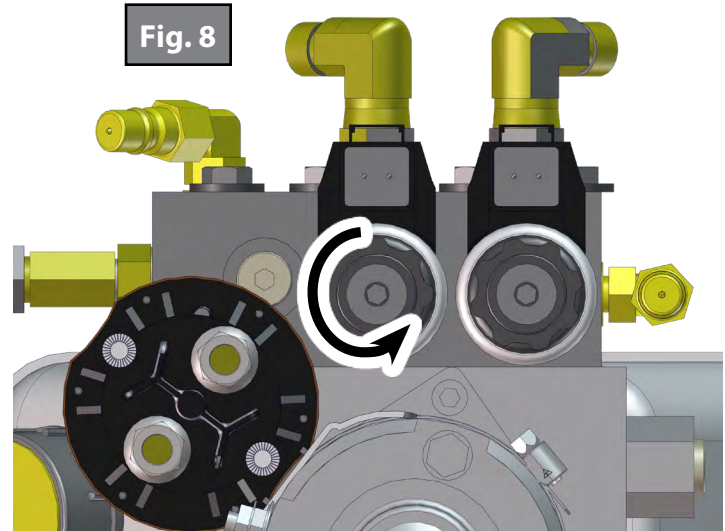


Manual Override - Jacks

In the event that the jacks will not extend or retract, the valves can be manually overridden. By using a $\frac{5}{32}$ " hex wrench to turn the manual override clockwise on the valve, see (Fig. 7), the leveling jacks can then be extended or retracted. Remember to turn the manual override completely counterclockwise, see (Fig. 8), until it will no longer turn, to close the valve after the jacks have been completely extended or retracted. Do not overtighten override set screws, as this can damage the valves.



Clockwise for manual override



Counterclockwise for normal operation

Manual Override - Power System

The LCI Level-Up Motorhome Leveling System for Winnebago Industries can be run with auxiliary power devices like cordless or power drills. In the event of electrical or system failure, this manual method of extending and retracting the jacks can be used. A standard handheld drill is all that is required. See the instructions below.

Fig. 9

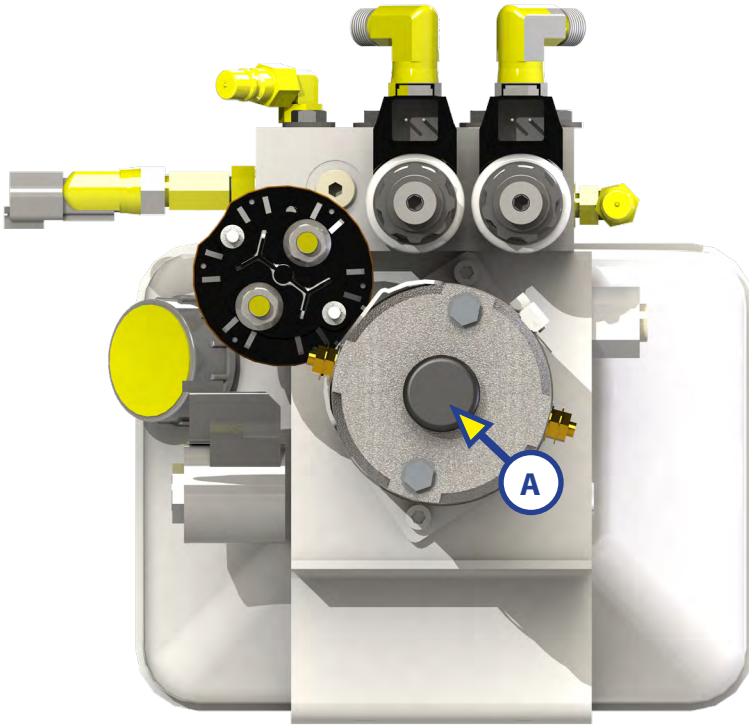
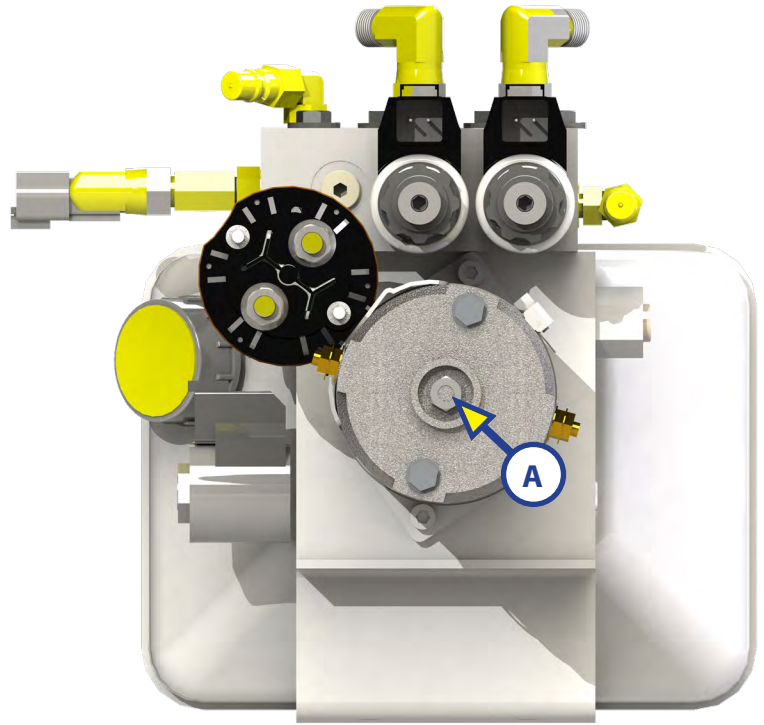


Fig. 10



1. Remove plastic cap (Fig. 9A).
2. Disconnect or shield power cables on the motor.
3. Using a 1/2" socket, insert auxiliary drive device, i.e. cordless or power drill insert onto coupler found under plastic cap (Fig. 10A).
4. Run drill in reverse or counterclockwise to retract jacks.

Automatic Safety Shutoff

If the control panel is left on and inactive for four minutes it will shut off automatically. To reset the system, the coach ignition must be turned off, then back on, and the ON/OFF button (Fig. 5K) must again be pushed.

Drive Away Protection System

If the ignition is in the "RUN" position, jacks are down, and the operator releases the parking brake, all indicator lights will flash and the alarm beeper will activate. The system will then automatically retract the jacks until the jacks are fully retracted or the operator resets the parking brake.

"Jacks Down" Alarm

The LCI Level-Up Motorhome Leveling System for Winnebago Industries is designed to sound an alarm and illuminate the control panel in the event of two (2) possible scenarios:

1. A "RETRACT" hose leaks.
2. The pressure holding the jacks in the retracted position falls to approximately 1500 psi.

NOTE: If you should happen to hear the "Jacks Down" alarm:

3. Immediately find an area to safely pull the vehicle off of the roadway.
4. Set the PARKING BRAKE.
5. Inspect all jacks, hoses and valves for leaks.

NOTE: If no leaks are observed; Turn control panel "ON."

6. Push "RETRACT ALL JACKS" button.
7. Wait until "JACKS DOWN" light and alarm are off.
8. Inspect jacks. If jacks are retracted and no leaks are observed, vehicle can be driven.

NOTE: If system is leaking or alarm does not subside after applying the above procedure, disconnect wires from pressure switch and proceed immediately to a service center. The pressure switch is a blue and gold colored valve located on the power unit manifold identified by the deutsch connector with yellow and black wires. See wiring diagram on Page 17 for location of pressure switch.

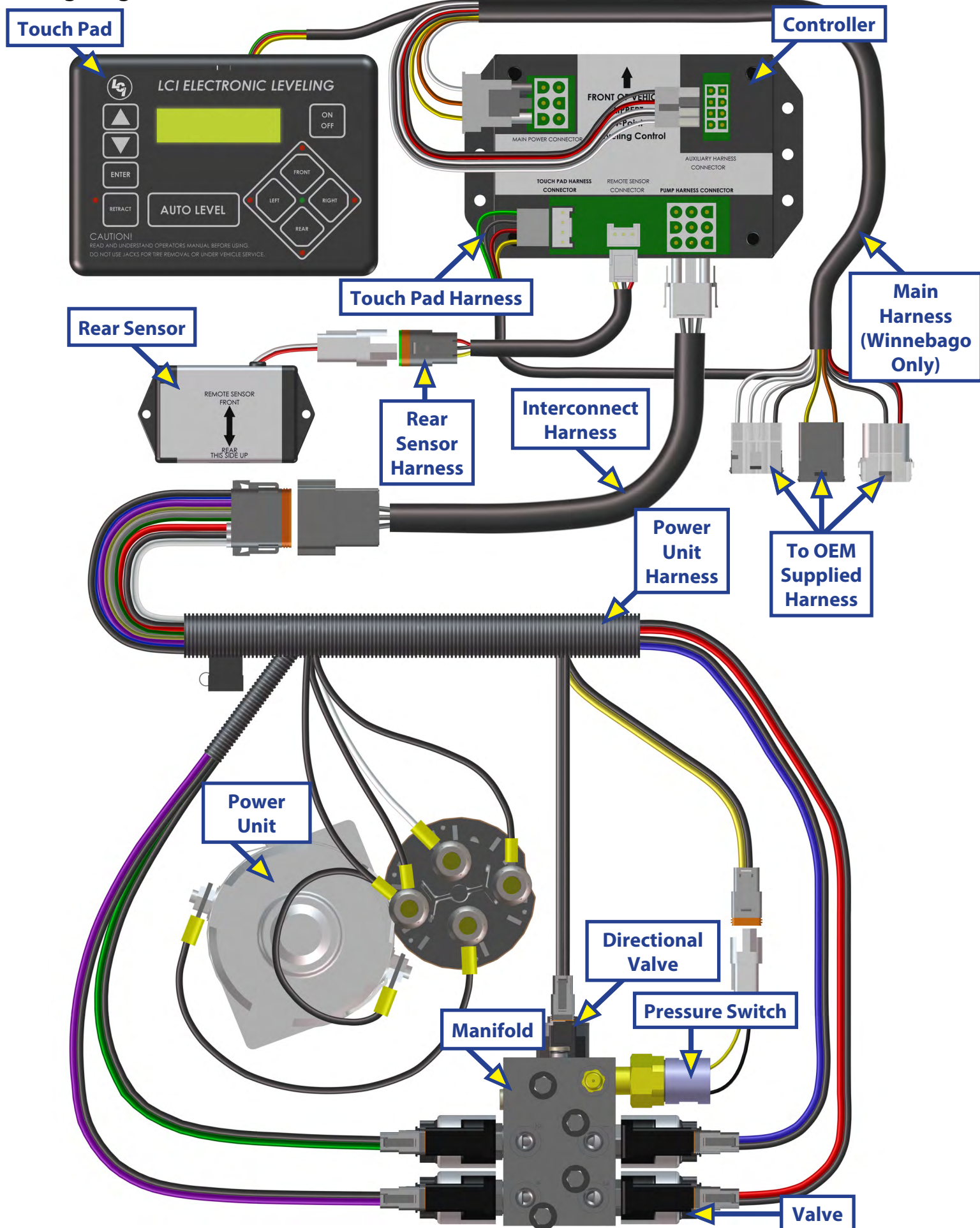
NOTE: For prolonged travel to the service center, be sure to stop and check the disposition of the leveling jacks every so often to make sure they are not extending.

Fluid Recommendation

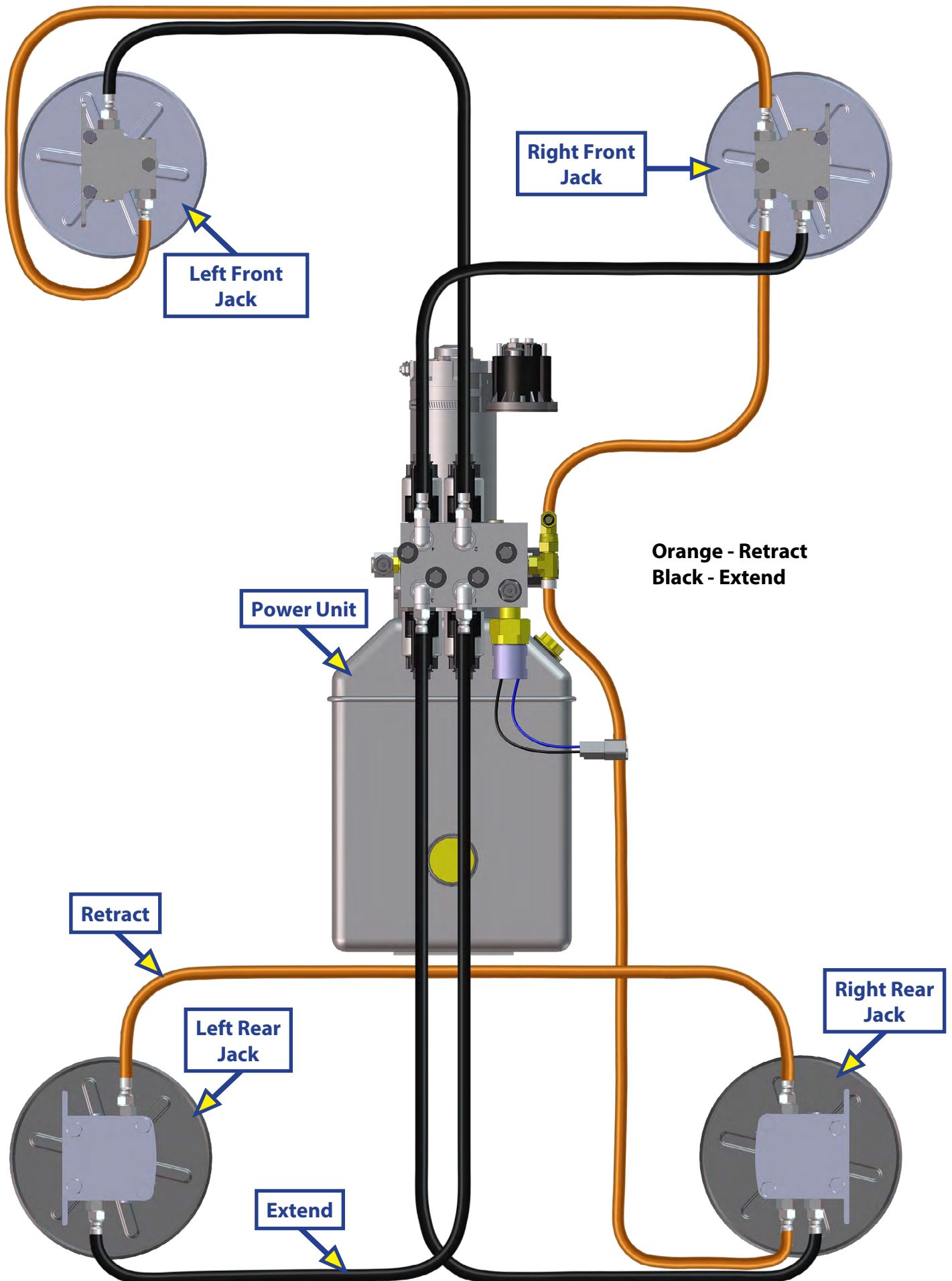
The Lippert Electronic Leveling System is pre-filled, primed and ready to operate direct from the manufacturer. Type "A" Automatic Transmission Fluid (ATF) is utilized and will work. ATF with Dexron III® or Mercon 5® or a blend of both is recommended by Lippert Components, Inc.

In colder temperatures (less than 10° F) the jacks may extend and retract slowly due to the fluid's molecular nature. For cold weather operation, fluid specially formulated for low temperatures may be desirable. For a list of approved fluid specifications, see TI-188.

Wiring Diagram



Plumbing Diagram



Bill of Materials

Description	Part #	Details	Quantity
Power Unit	293414	Hydraulic Power Unit, Leveling Only	1
	293559	Hydraulic Power Unit, Leveling Only	1
Motor	179327	12V DC Motor for Power Unit	1
Solenoid	161394	Motor Solenoid	1
Valve	177094	Blocking Valve	4
Coil	174184	Electromagnetic Coil for Blocking Valve	5
Pressure Switch	142927	2150 PSI Rated Pressure Switch	1
Pump Harness	178373	Electrical Harness for Power Unit	1
Main Harness	285307	Master Feed to Electrical Components	1
Remote Sensor Harness	241314	Remote Sensor to Brain Harness	1
Controller	289252	Control Module	1
Touch Pad	234802	Touch Pad mounted in Dash	1
Rear Sensor	294287	Secondary Level Sensor mounted rearward	1
Hydraulic Jacks	433458	8k Leveling Jacks	*
	236560	14k Leveling Jacks	*
	258550	20k Leveling Jacks	*
Footpad	113309	9" Footpad for Leveling Jacks	4
	117238	12" Footpad for Leveling Jacks - Optional	**
Hardware Kit	176556	Hardware Kit	
Main Harness	178375	30' Main Harness	
Interconnect Harness	178372	21' Power Unit to Controller Harness	1
Fitting	141109	Straight Fitting	2
	141610	Elbow Fitting	8
	162838	Washer	16
	196994	Bolt	16

*Jack quantities will either be 2 or 4 depending on OEM specified design.

**Optional - Quantities will vary.

Troubleshooting Guide

What Is Happening?	Why?	What Should Be Done?
System will not turn on and on/off; indicator light does not illuminate.	Coach Ignition not in RUN position.	Turn ignition to RUN position.
	Controls have been on for more than four minutes and have timed out.	Turn ignition OFF and then back ON.
Touch Pad turns on but turns off when leg button is pushed or displays "low voltage".	Low Voltage on battery.	Start coach to charge battery.
Touch Pad turns on, coach will not auto-level, "jacks down" displayed, jacks are retracted.	Low fluid Level.	Check fluid level in reservoir, if fluid is low add fluid to 1/2" from top of reservoir with jacks retracted. If "JACKS DOWN" light remains on, call Lippert Service.
Jacks will not extend to ground, pump is running.	Little or no fluid in reservoir.	Add fluid as recommended; See page 16.
	Valve is inoperative.	Clean, repair, or replace.
	Electronic signal is lost between controller and solenoid.	Trace wires for voltage drop or loss of and valves signal. Repair or replace necessary wires or replace control pad.
Any one or two jacks will not retract.	Hose damaged or unconnected.	Replace with new hose or reconnect hose.
	Valve inoperative.	Replace inoperative valve.
	Electronic signal is lost between controller and solenoid.	Attempt to retract jacks in MANUAL mode. If successful, replace touch pad; if not, test for voltage drop between touch pad and valve repair bad wiring or replace defective board or valve.
"READY - Jacks: Up" does not display when all jacks are retracted.	Low fluid level.	Add fluid as recommended; See page 16.
	Retract pressure switch inoperable.	Check connection or replace.
Alarm sounds and "jacks down" light starts flashing while traveling; jacks are fully retracted.	Low fluid level.	Add fluid as recommended; See page 16.
	Retract pressure switch inoperable.	Check connection or replace.
Coach bleeds down after jacks are extended. Jack bleeds down after being retracted.	Possible fluid leak.	Check for fluid leaks and repair or replace components as necessary.
	Valve Manual Override open.	Close Override, See pg. 14, Fig 8.
Touch Pad powers up; screen displays "low voltage".	Loose ground wire at power unit.	Check for loose wires.
	Engine not running.	Start coach engine.
No power to Touch Pad.	Tripped circuit breaker.	Reset.
	125 amp fuse blown.	Replace fuse.
	Ignition not ON.	Turn ignition ON.
Auto level function does not finish.	Error code "Unable to finish leveling."	Move coach to a more level site.

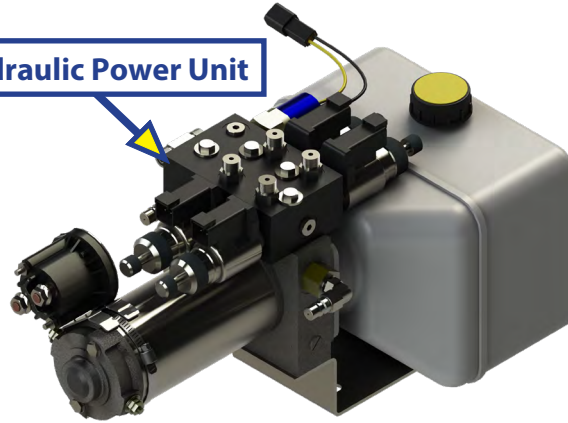
LEVEL-UP MOTORIZED LEVELING

LEVELING AND STABILIZATION

Leveling Jacks



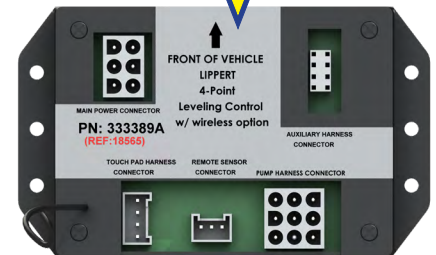
Hydraulic Power Unit



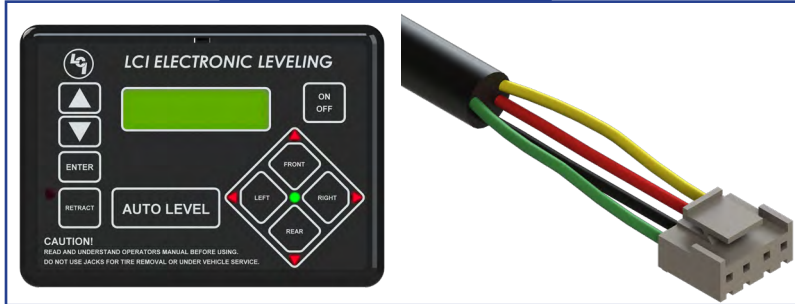
Bolt; 1/2" x 13



Controller



Touch Pad & Harness



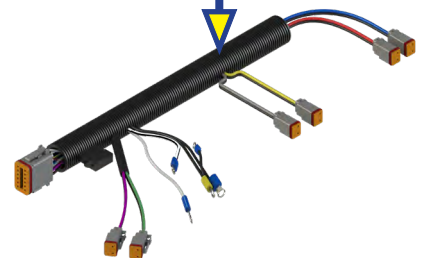
Auxiliary Harness



Rear Sensor & Harness

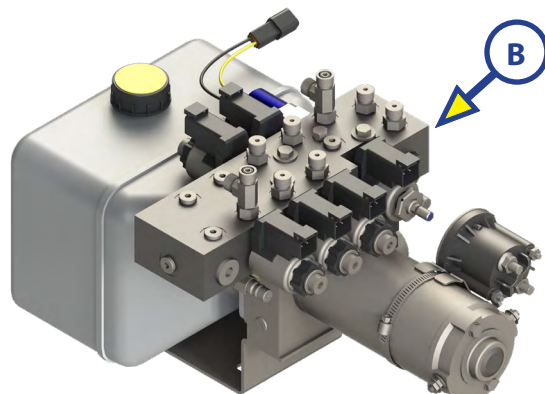
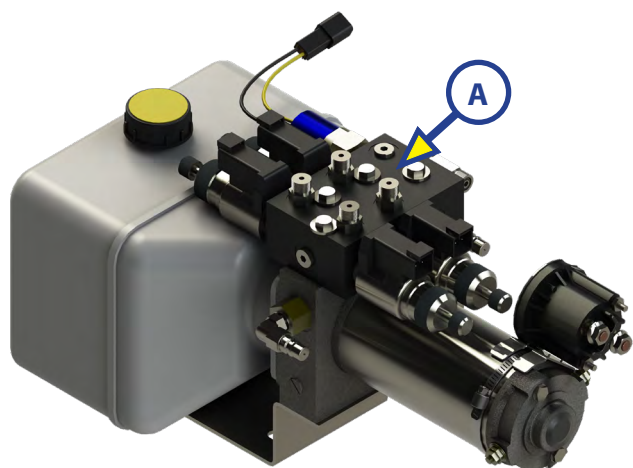


Power Unit Harness



LEVEL-UP MOTORIZED LEVELING

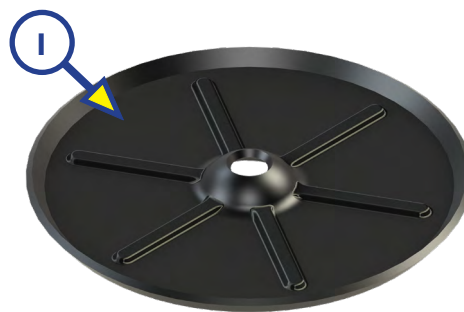
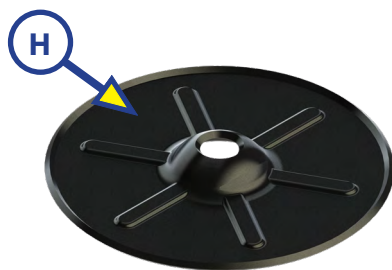
LEVELING AND STABILIZATION



Callout	Part #	Description
A	196471	Hydraulic Power Unit, Leveling Only
B	175249	Hydraulic Power Unit, Leveling Only
C	179327	12V DC Motor for Power Unit
D	161394	Motor Solenoid

LEVEL-UP MOTORIZED LEVELING

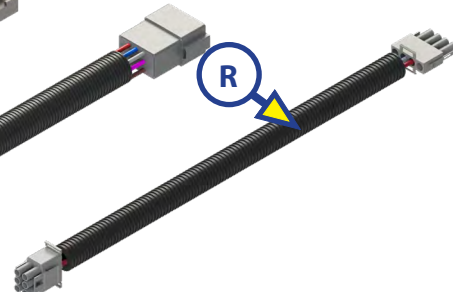
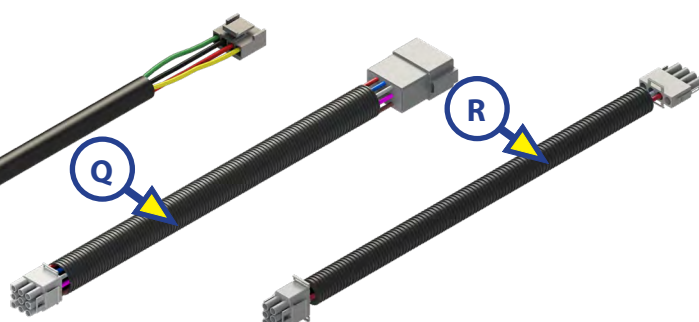
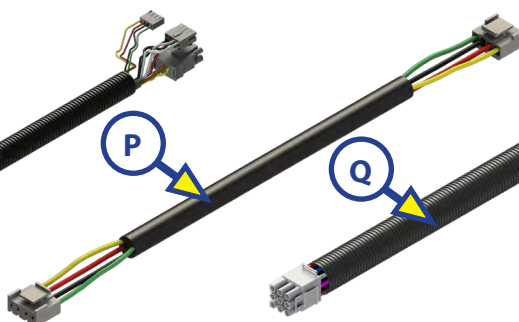
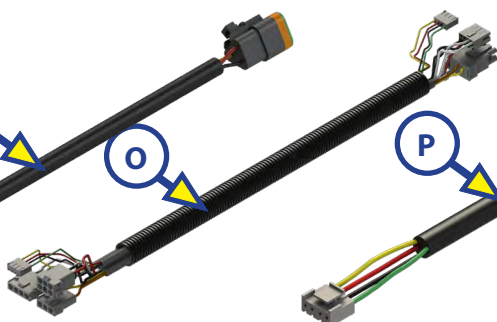
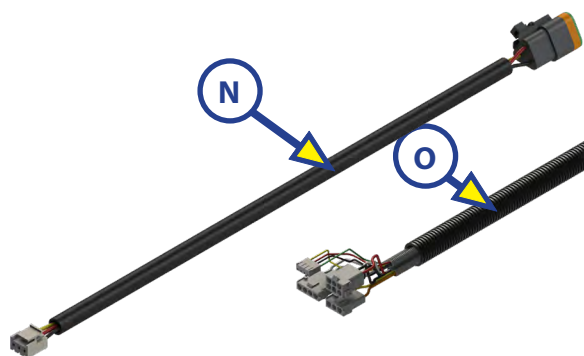
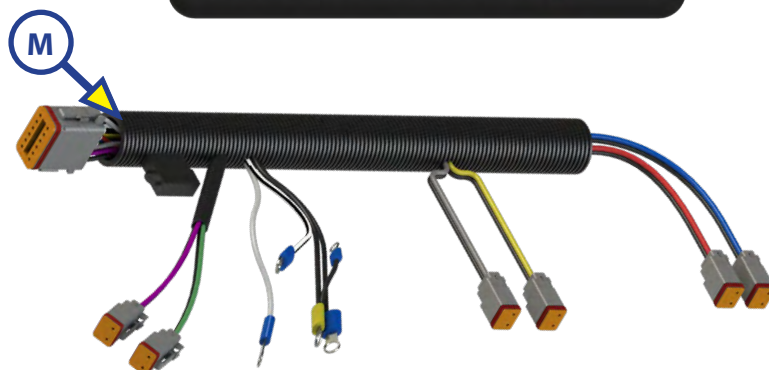
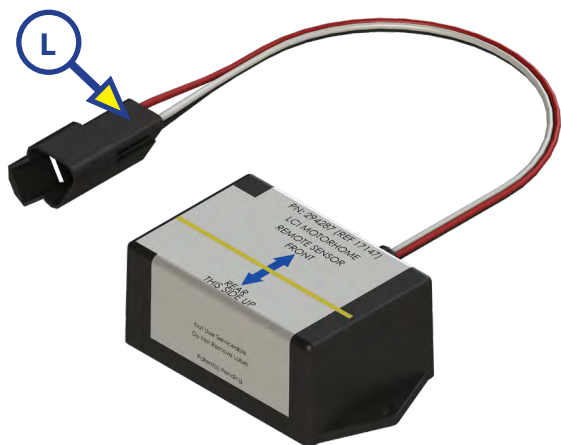
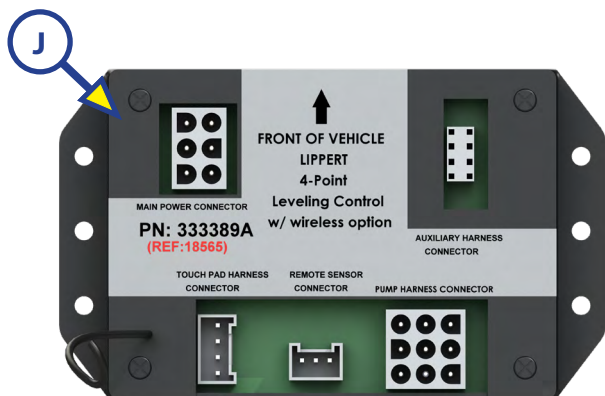
LEVELING AND STABILIZATION



Callout	Part #	Description
F	433458	8K Jack
G	236560	14K Jack
H	258550	20K Jack
I	113309	9" Footpad for Leveling Jacks
J	117238	12" Footpad for Leveling Jacks - Optional

LEVEL-UP MOTORIZED LEVELING

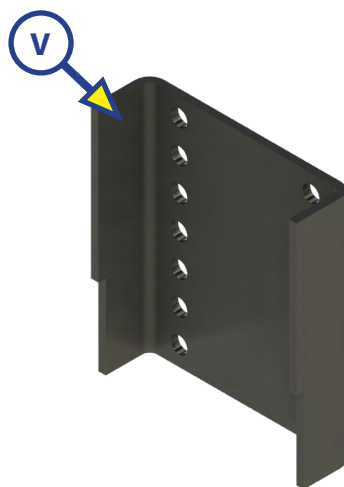
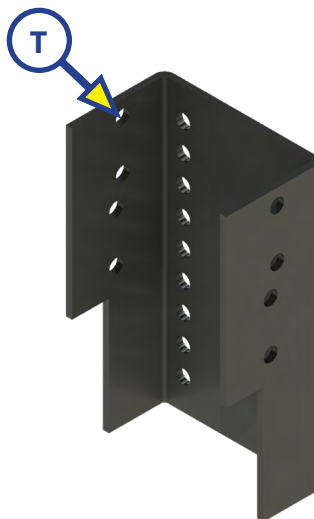
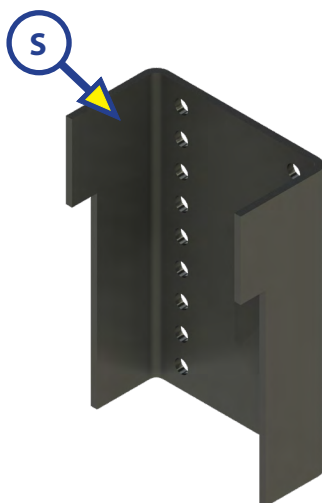
LEVELING AND STABILIZATION



Callout	Part #	Description
J	333389	Controller
K	234802	Touch Pad
L	294287	Rear Sensor
M	178373	Power Unit Harness
N	241314	Remote Sensor Harness
O	178375	Main Harness (Winnebago Only)
P	178279	Touch Pad Harness
Q	178372	Power Unit to Controller Harness
R	140524	Auxiliary Harness

LEVEL-UP MOTORIZED LEVELING

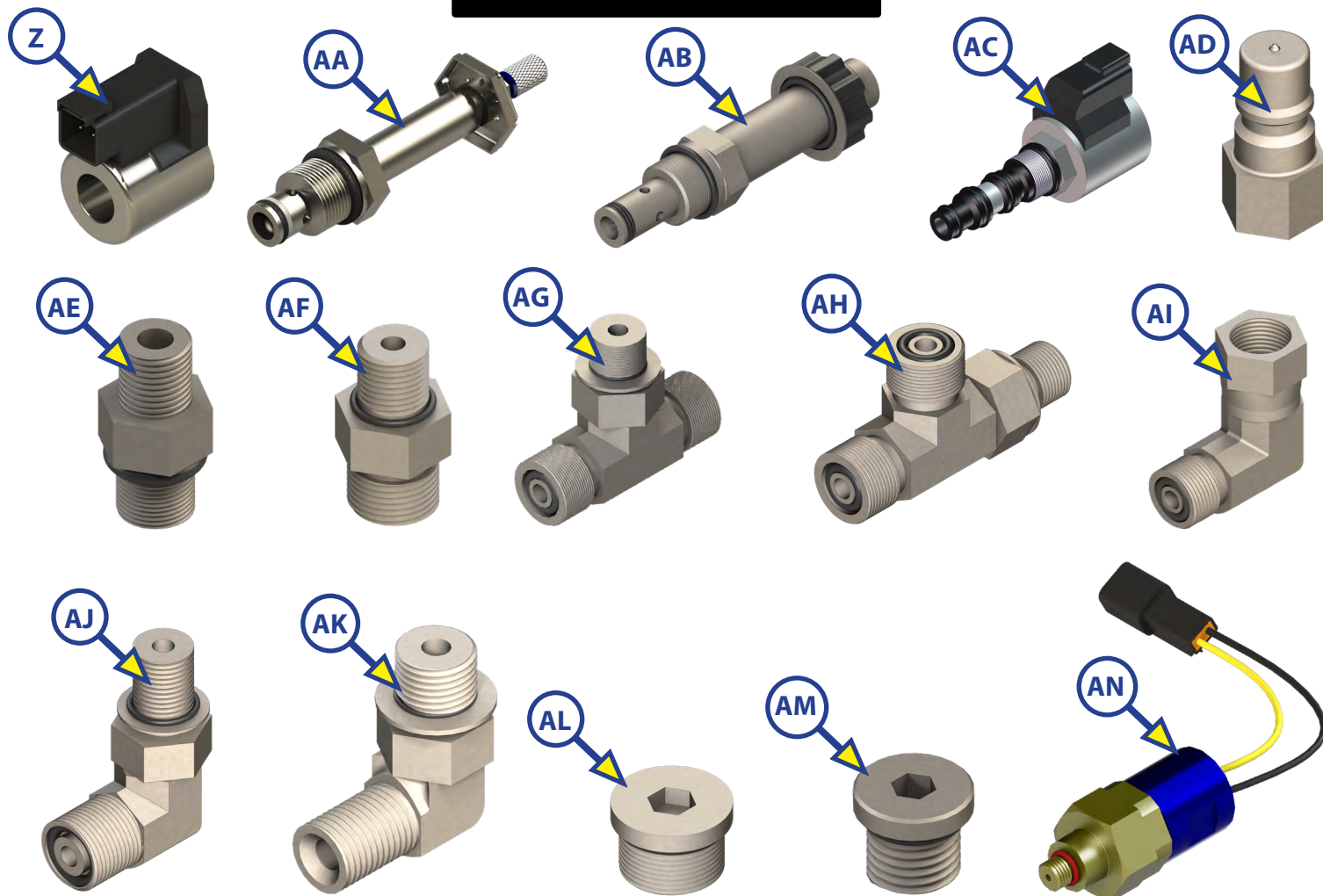
LEVELING AND STABILIZATION



Callout	Part #	Description
S	115567	Weld-On Jack Mounting Bracket
T	116471	Weld-On Jack Mounting Bracket
U	134989	Weld-On Jack Mounting Bracket
V	162349	Weld-On Jack Mounting Bracket
W	100345	Weld-On Jack Mounting Bracket
X	1170591	Bolt-On Jack Mounting Bracket
Y	196994	Bolt; 1/2" - 13

LEVEL-UP MOTORIZED LEVELING

LEVELING AND STABILIZATION



Callout	Part #	Description
Z	174184	12 Volt Deutsch Style Coil (Hydac)
AA	140571	Isolator Valve
AB	177094	Hydac Valve
AC	259524	Directional Valve
AD	140457	Quick Disconnect Fitting
AE	141321	O-Ring to Pipe Straight Reducer Fitting
AF	141109	Straight Face Seal Fitting
AG	143108	Branch T-Fitting
AH	141087	Face Seal T-Fitting
AI	156846	Swivel Face Seal Elbow 90 Degree Fitting
AJ	141610	Face Seal Elbow 90 Degree Fitting
AK	141331	Elbow 90 Degree Fitting
AL	141323	SAE-08 Plug
AM	140998	SAE-04 Plug
AN	142927	Pressure Switch (2150 PSI)

[illegible]



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