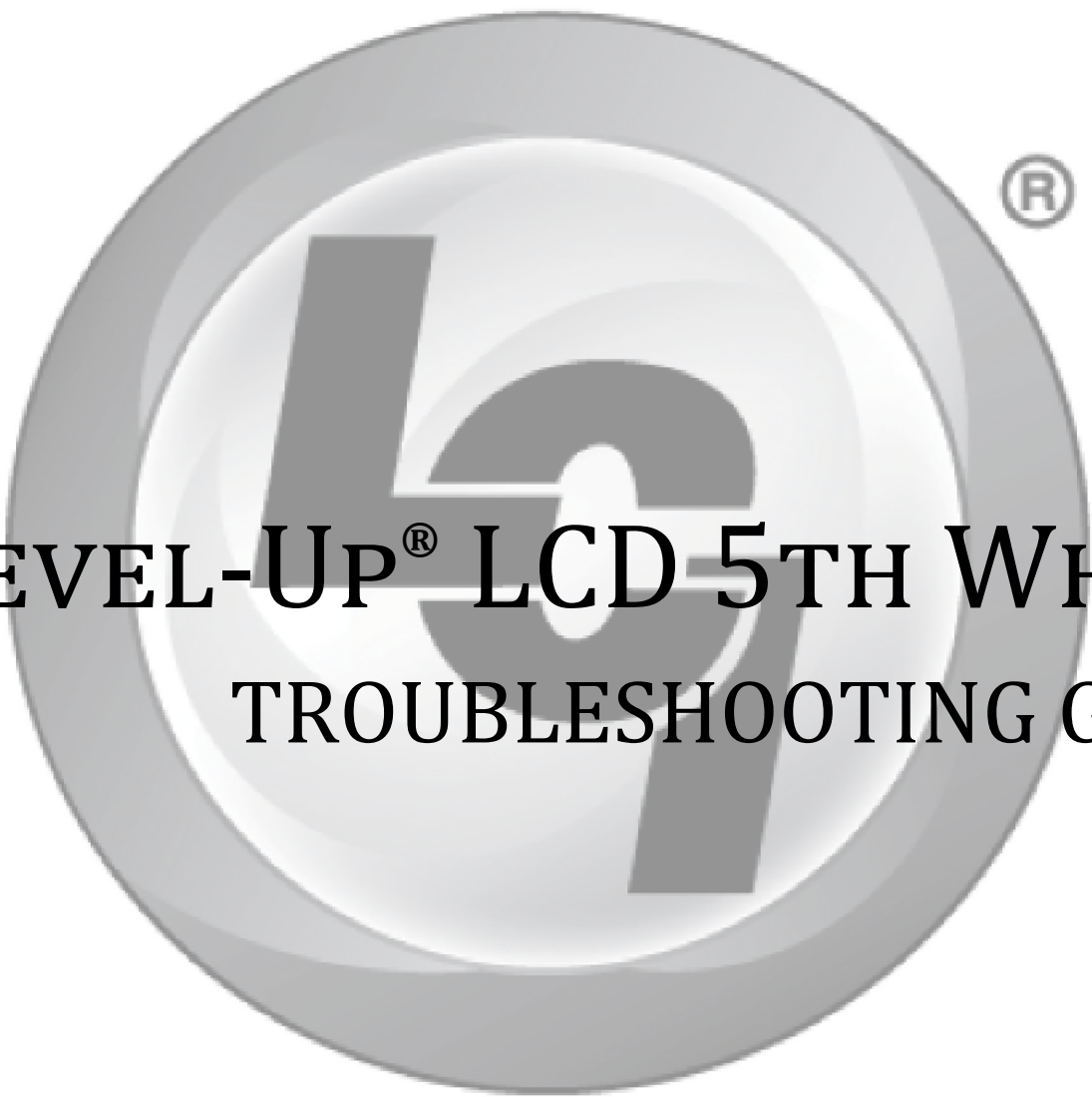


The logo features a large, stylized 'L' and 'U' intertwined within a circular frame that has a 3D, metallic appearance. A registered trademark symbol (®) is located to the upper right of the circle.

LEVEL-UP[®] LCD 5TH WHEEL TROUBLESHOOTING GUIDE

L I P P E R T
C O M P O N E N T S[®]

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Introduction

Level-Up® is an Automatic Leveling system. This system is equipped with 14K Aluminum Front Jacks with 21" of travel and 8K Aluminum Leveling Jacks with 15" of travel. The jacks in the Level-Up® system work in pairs.

System and Safety Information

WARNING

Failure to act in accordance with the following may result in death or serious personal injury. The use of the Level-Up® 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 Level-Up® leveling system could result in damage to the trailer and/or cause death or serious injury.

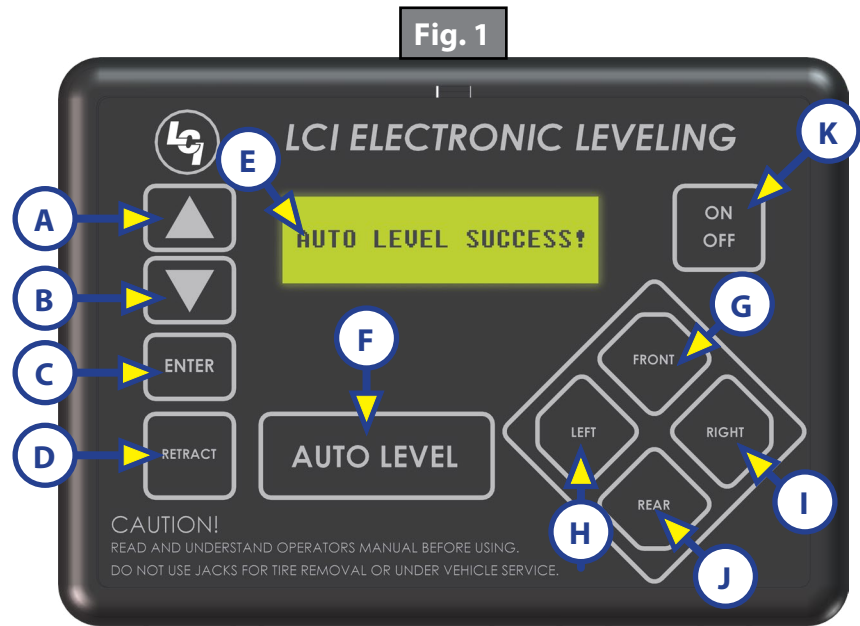
CAUTION

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

Prior to Operation

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

1. The trailer is parked on a reasonably level surface.
2. Make sure all persons, pets, and property are clear of the trailer while the leveling system is in operation.
3. Make sure battery(ies) are fully charged and test at 12V DC under load.



Callout	Description
A	*Up Arrow Button - Scrolls up through the menu on LCD.
B	*Down Arrow Button - Scrolls down through the menu on LCD.
C	ENTER Button - Activates modes and procedures indicated on LCD.
D	RETRACT Button - Places leveling system into retract mode - Manual mode ONLY.
E	LCD Display - Displays procedures and results.
F	AUTO LEVEL Button - Places leveling system into auto level mode.
G	FRONT Button - Activates both front jacks.
H	LEFT Button - Activates left leveling jack(s) in manual mode.
I	RIGHT Button - Activates right leveling jack(s) in manual mode.
J	REAR Button - Activates leveling jacks in manual mode.
K	Power Button - Turns leveling system ON and OFF.

- 1. When the touch pad is initially activated, the leveling system will be in Standard Mode. In this mode, the front jacks can be extended and retracted, the rear jacks can only be retracted and hitch recognition can be operated.
- 2. *Using the Up and Down arrows, the following menu selections are available:
 - A. Manual Mode - Allows for manual control of all jacks.
 - B. Auto Retract - All jacks will retract.
 - C. Slope:
 - I. Front-to-back in degrees will display.
 - II. Left-to-right in degrees will display.
 - D. Battery Voltage - current battery voltage will display.

NOTE: Orientation is imperative for proper operation of the system. See Figures 2-5 for proper controller and sensor orientation.

Fig. 3

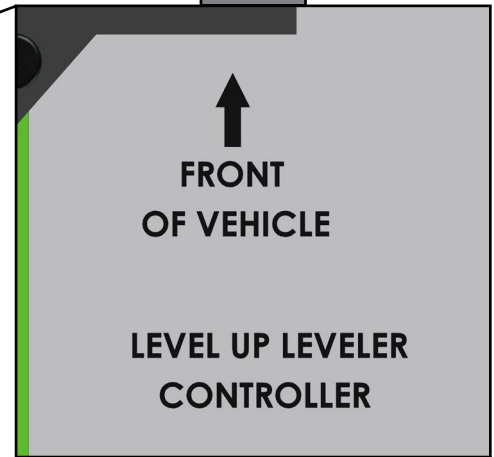


Fig. 2

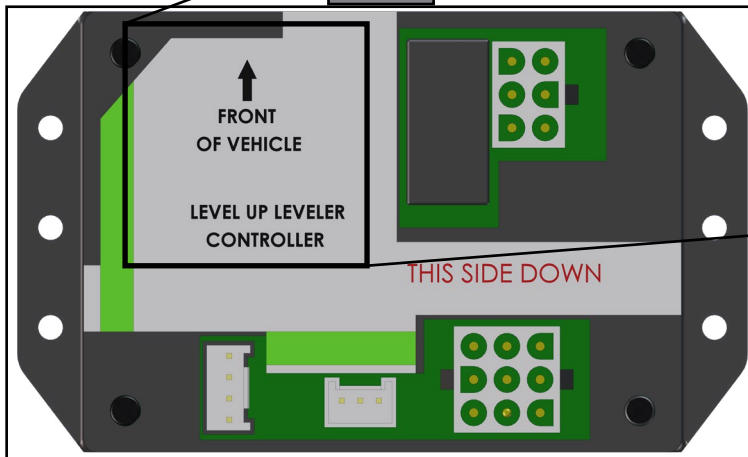


Fig. 5

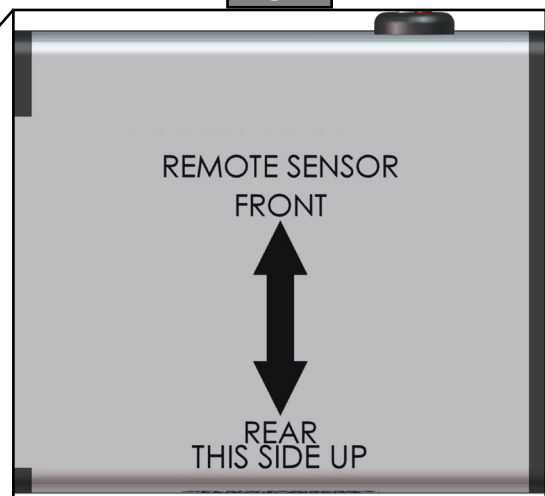
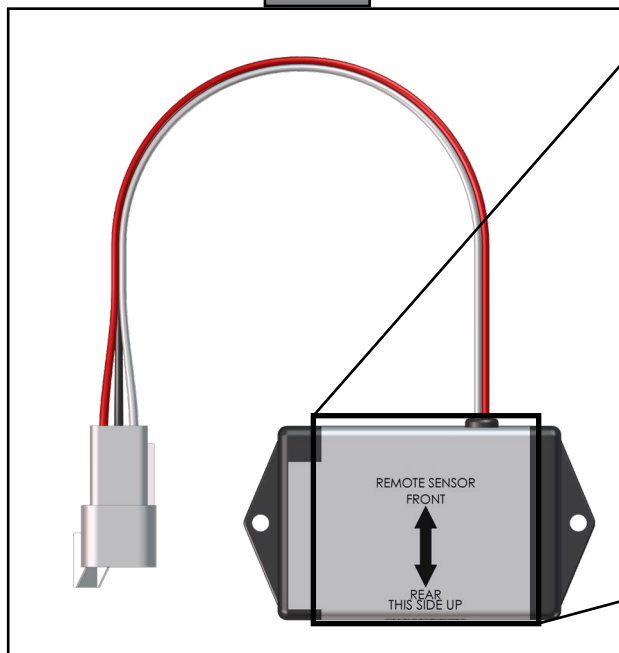


Fig. 4



5th Wheel Operation

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

Unhitching the Trailer From A Tow Vehicle

1. Uncouple the trailer connection on the tow vehicle. Disconnect any wires, chains, or sway control that may be equipped between the tow vehicle and the trailer. Unlatch the trailer coupler.
2. Pull tow vehicle away and park at a safe distance.

Auto Level

After unhitching from tow vehicle press the AUTO LEVEL Button (Fig. 1F).

NOTE: In order for the Hitch Recognition feature to function, the auto level sequence **MUST** be started with the front of the trailer above level.

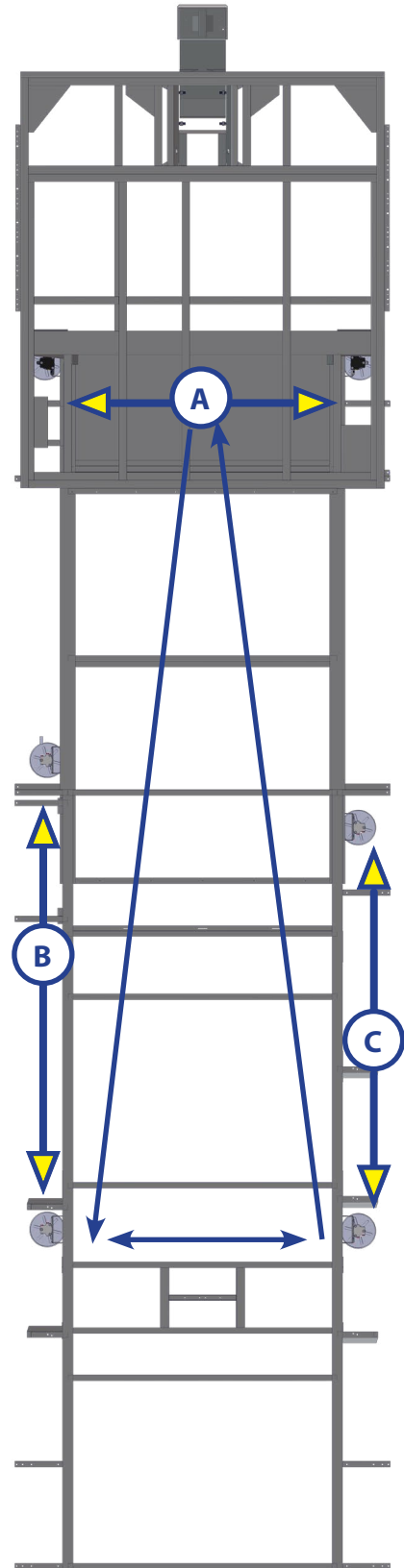
Auto Level Sequence

1. Front landing gear (Fig. 6A) retract, lowering the front of the trailer below level, stopping, then lifting the front end to level the trailer front to back.
2. The left side leveling jack(s) (Fig. 6B) extend and raise the roadside of the trailer.
3. The right side leveling jack(s) (Fig. 6C) extend and raise the curbside of the trailer, beginning side to side leveling.
4. The front landing gears (Fig. 6A) extend to complete the leveling cycle.

NOTE: Additional left-to-right or front-to-back leveling may occur if the controller deems necessary.

NOTE: If the auto level sequence does not happen as stated, check to make sure proper manual leveling functions in all zones.

Fig. 6

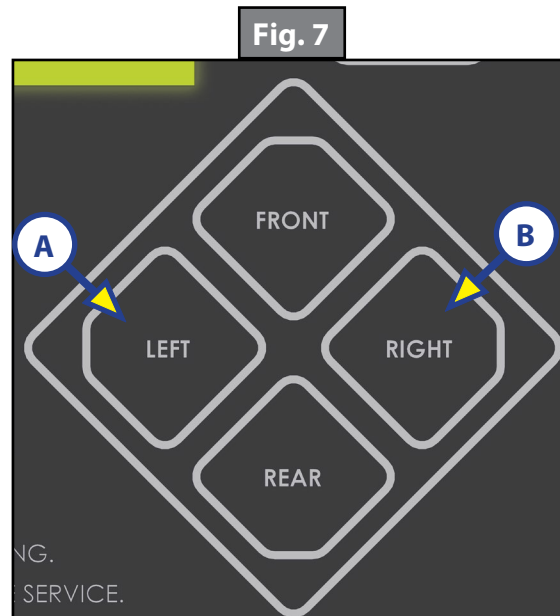


Hitch Recognition

1. Turn on touch pad.
2. Press the LEFT and RIGHT buttons (Fig. 7A and 7B) simultaneously.
3. The front of the trailer will raise to the height where the auto level sequence was started.

NOTE: If the auto level sequence was started with the front of the trailer in a below level condition, the Hitch Recognition will not function and the LCD will display "Feature Disabled." In order for the hitch recognition feature to function, the auto level sequence **MUST** be started with the front of the trailer above level.

4. Push Up Arrow Button until "Auto Retract" appears in LCD screen.
5. Push the ENTER Button. System will immediately retract all jacks.



Reconnecting the Trailer to A Tow Vehicle

NOTE: Prior to hitching to the tow vehicle, make sure trailer is parked on a level surface and chock the tires of the trailer.

1. Connect tow vehicle and make sure trailer and hitch are connected and locked. Connect any wires, chains, or sway control that may be equipped between the tow vehicle and the trailer. Hook up the trailer coupler.
2. Push Up Arrow Button until "Auto Retract" appears in LCD screen.
3. Push the ENTER Button. System will immediately retract all jacks.

Touch Pad Error Codes

NOTE: To clear an Error Code, push ENTER Button - If error remains, the code will appear again.

What Is Happening?	Why?	What Should Be Done?
"Excess Angle"	Controller not properly secured.	Check and secure controller placement.
	Excessive angle reached during auto operation.	Relocate the trailer.
"Excessive Angle"	Controller not properly secured.	Check and secure controller placement.
	Excessive angle reached during manual operation.	Relocate the trailer.
"Feature Disabled"	Front of trailer below level when starting Auto Level process (only when trying to initiate Hitch Recognition).	Push the "FRONT" button to raise the trailer up to hitch height and connect to tow vehicle.
	Auto level has been requested, no zero point set.	Set Zero Point.
	Hitch Recognition has been requested, no hitch angle set.	Set Zero Point.
"Low Voltage"	Battery voltage dropped below 9.5V.	Check wiring - repair or replace.
		Test battery voltage under load - charge or replace.
"Out of Stroke"	Jack has reached maximum stroke length and is unable to lift.	Check disposition of jacks and/or relocate the trailer.
"External Sensor"	Bad connection or wiring from the controller to the rear sensor.	Replace or repair connection to rear remote sensor.
"Jack Time Out"	Time limit exceeded for the requested auto operation.	Check for obstructions, leaks, fluid level and voltage to power trailer motor under load.
"Auto Level Failure"	Unsecured controller.	Check and secure controller placement.
	Voltage drop.	Test battery voltage under load - charge or replace.
"Auto Level Fail"	Unable to auto level due to uneven ground.	Check disposition of jacks and/or relocate the trailer.
	Unable to auto level due to zero point being set incorrectly.	Reset zero point.
"Bad calibration"	Sensor calibration values are out of range.	Replace controller.
"Internal Sensor"	Internal sensor problem.	Replace controller.
"Function Aborted"	The user pressed a button on the touch pad during an automatic operation.	Restart automatic operation and then refrain from pressing any buttons on the touch pad.

Wiring Diagram Parts Table

Callout	Description
A	Touch Pad
B	Touch Pad Harness
C	Controller
D	Rear Sensor
E	Rear Sensor Harness
F	Main Harness (See below for color codes)
G	Cartridge Valve with Spade Coil
H	Lead Front Jack
I	Pressure Switch
J	Power Unit Motor
K	Dual Polarity Solenoid
L	OEM Supplied Circuit Interruption. NOTE: OEM supplied breaker to be rated 50 amps-100 amps as determined by the OEM. All OEM supplied wiring is to conform to RVIA Standards.
M	Grounding Wires (Connect to each Valve Coil, then grounding post of dual polarity solenoid, then grounding bolt on chassis) (All Installer supplied)
N	Battery (Customer Supplied)

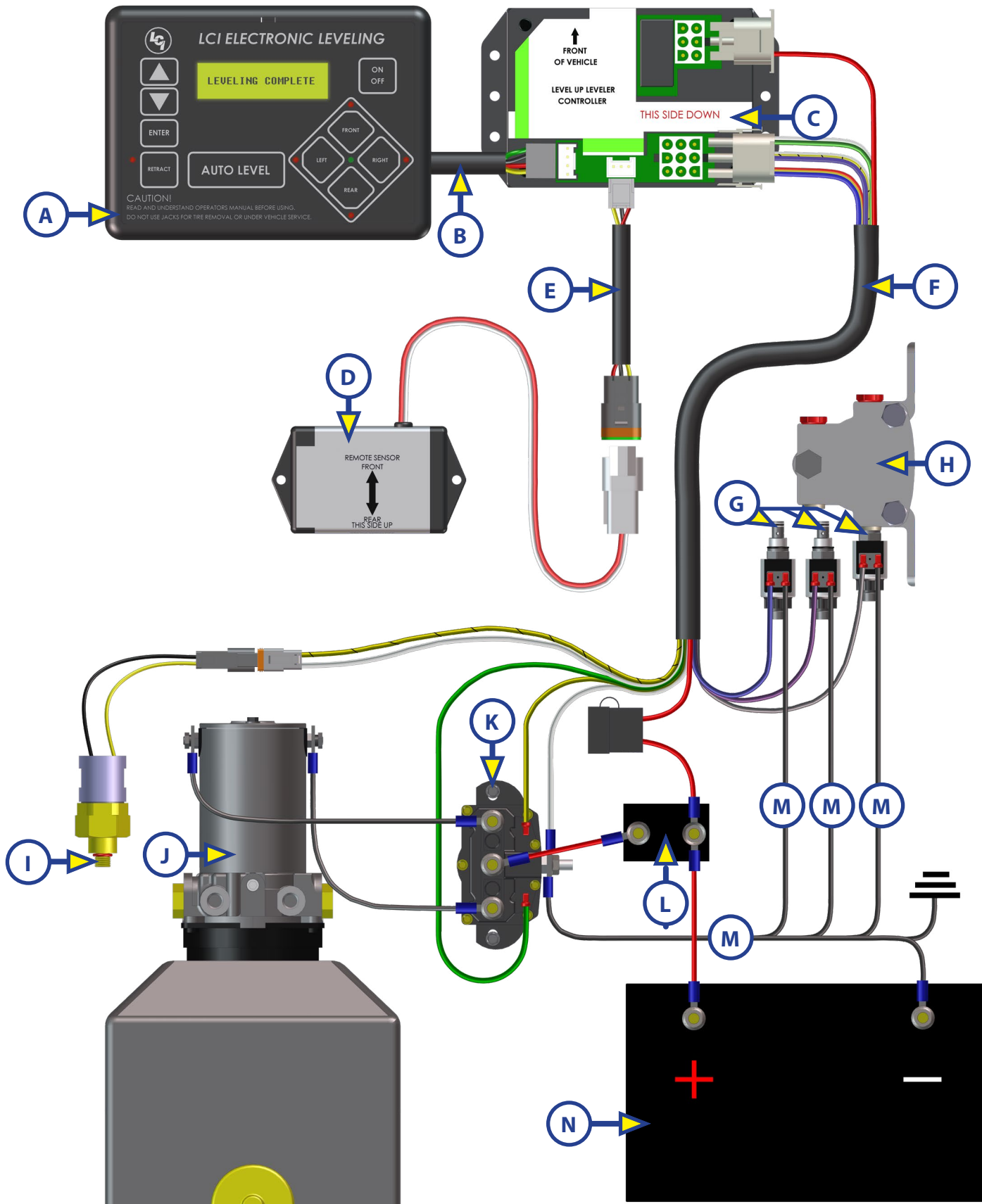
Main Harness Wire Chart

Wire	Description
Green	Extend Spade on dual polarity solenoid
Yellow	Retract Spade on dual polarity solenoid
Red	Power (Controller power with 10 amp in-line fuse)
Blue	Curb Side Leveling Jacks (Connects to Valve Coil on extend manifold)
Purple	Road Side Leveling Jacks (Connects to Valve Coil on extend manifold)
Gray	Lead Front Jack (Connects to Valve Coil on Lead Landing Gear Leg)
Yellow/White	Pressure Switch
White	Connects to Grounding post on dual polarity solenoid
6-Pin	Connects to 6-Pin port on Controller
9-Pin	Connects to 9-Pin port on Controller

Wiring Diagram

NOTE: See Parts Table.

Fig. 8





LIPPERT COMPONENTS®

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