



TM

LEVEL-UP[®] (TOWABLE)

TROUBLESHOOTING GUIDE

LIPPERT
COMPONENTS[™]



LEVEL-UP® (TOWABLE) TROUBLESHOOTING GUIDE

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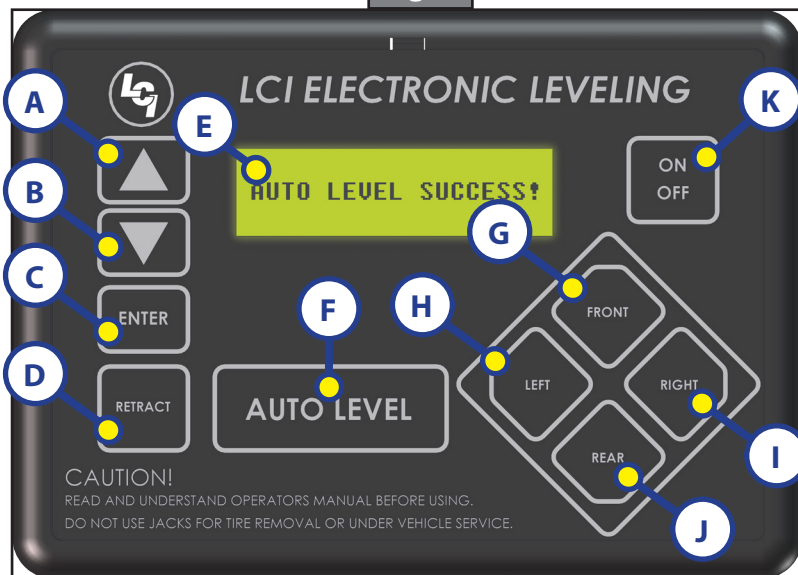
LEVEL-UP® (TOWABLE) TROUBLESHOOTING GUIDE

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.

Components

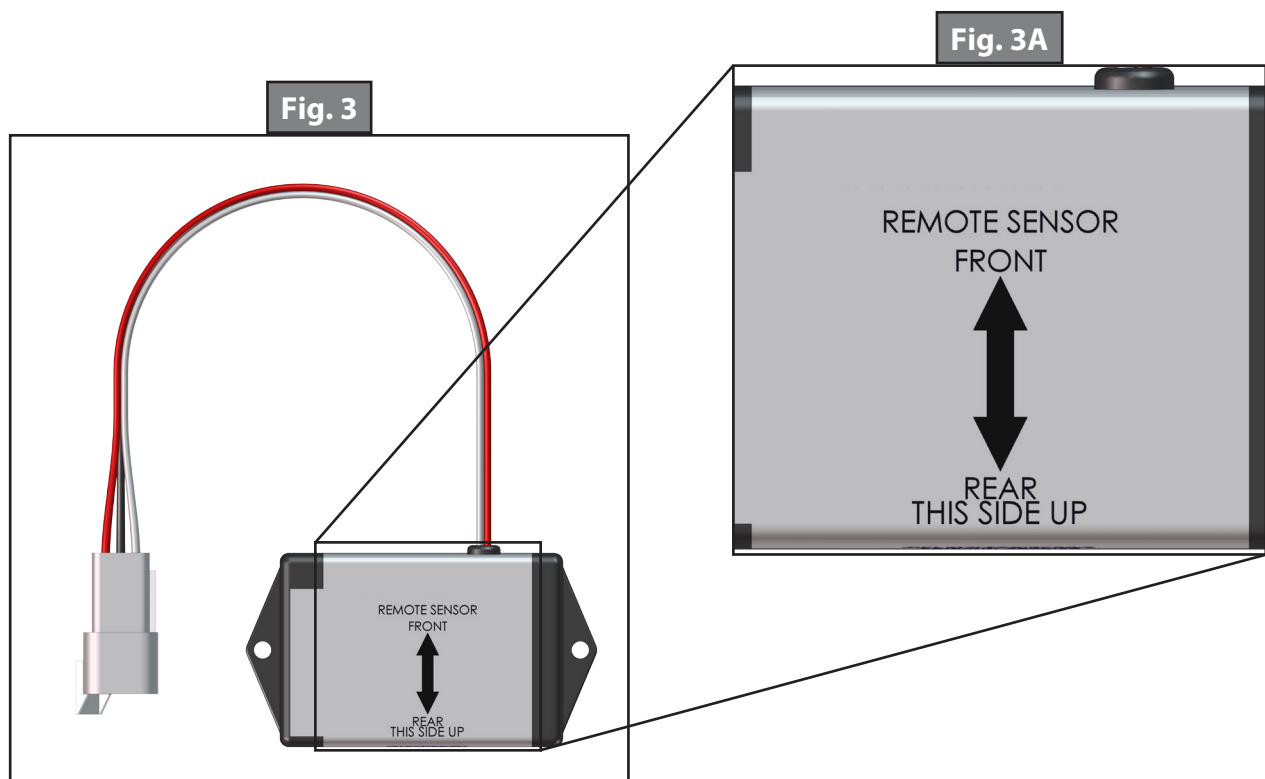
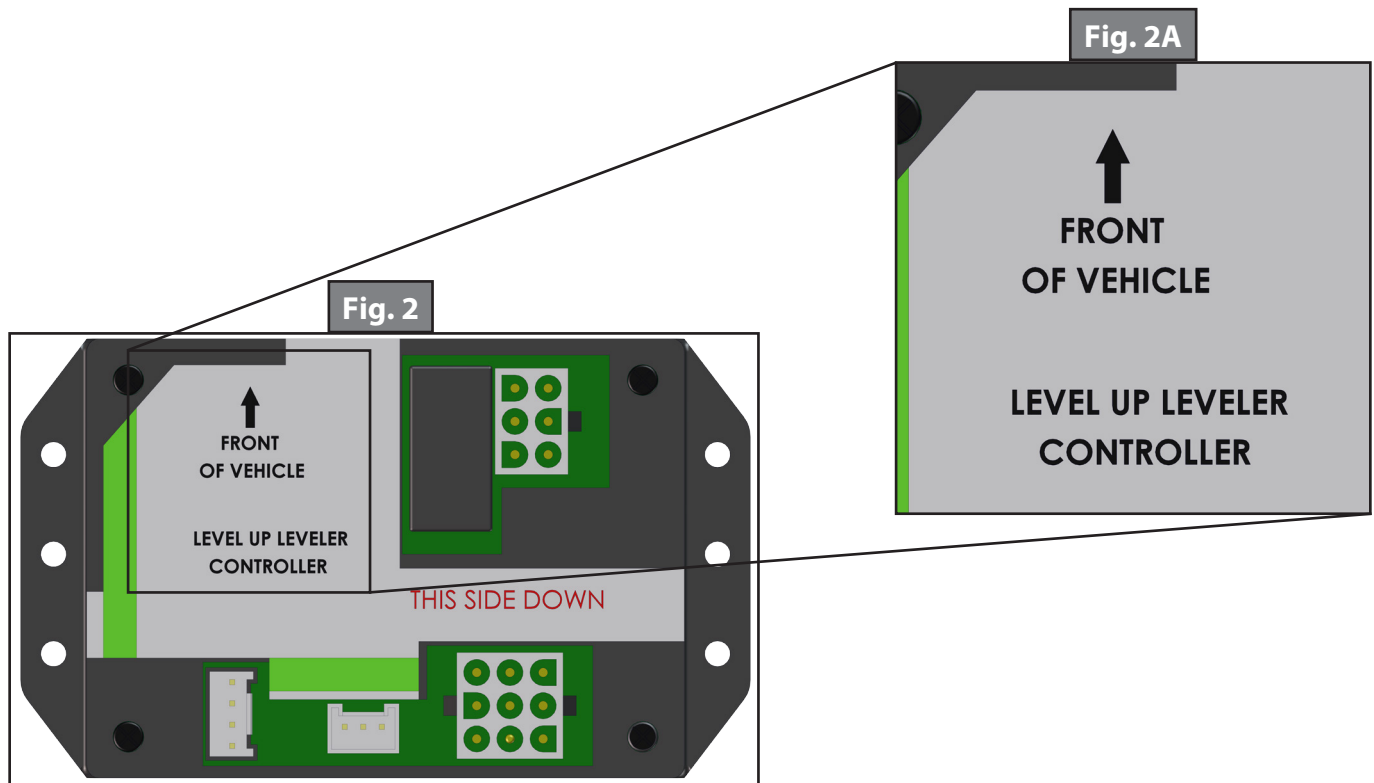
Fig. 1



Callout	Description
A	Up Arrow - Scrolls up through the menu on LCD.
B	Down Arrow - Scrolls down through the menu on LCD.
C	Enter - Activates modes and procedures indicated on LCD.
D	Retract - Places leveling system into retract mode - Manual mode ONLY.
E	LCD Display - Displays procedures and results.
F	Auto Level - 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.
<ol style="list-style-type: none"> Standard Mode - Front can be extended, front and rear can be retracted and hitch recognition can be operated. <p>NOTE: Menu selections include (Only accessible using Up and Down Arrows):</p> <ol style="list-style-type: none"> Manual Mode - Allows for manual control. Auto Retract - All hydraulic jacks. Slope: <ol style="list-style-type: none"> Front to back in degrees Left to right in degrees Battery Voltage 	

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NOTE: Orientation is imperative for proper operation of the system.



5th Wheel Operation

Auto Level

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

1. After unhitching from tow vehicle press Auto Level (Fig. 1F).

NOTE: In order for hitch recognition feature to function, the auto level sequence **MUST** be started with the front of the unit above level.

Auto Level Sequence

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

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 above, check to ensure proper manual function in all zones.

Hitch Recognition

1. Turn on touch pad.
2. Press the left and right buttons simultaneously (Fig. 5A and 5B).
3. The front of the unit 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 unit in a below level condition, the Hitch Recognition will not function and the LCD will display "Feature Disabled". In order for hitch recognition feature to function, the auto level sequence **MUST** be started with the front of the unit above level.

Callout	Description
A	Steps 1 + 4 (Front Landing Gear)
B	Step 2 (Left/Roadside Leveling Jacks)
C	Step 3 (Right/Curbside Leveling Jacks)

Fig. 4

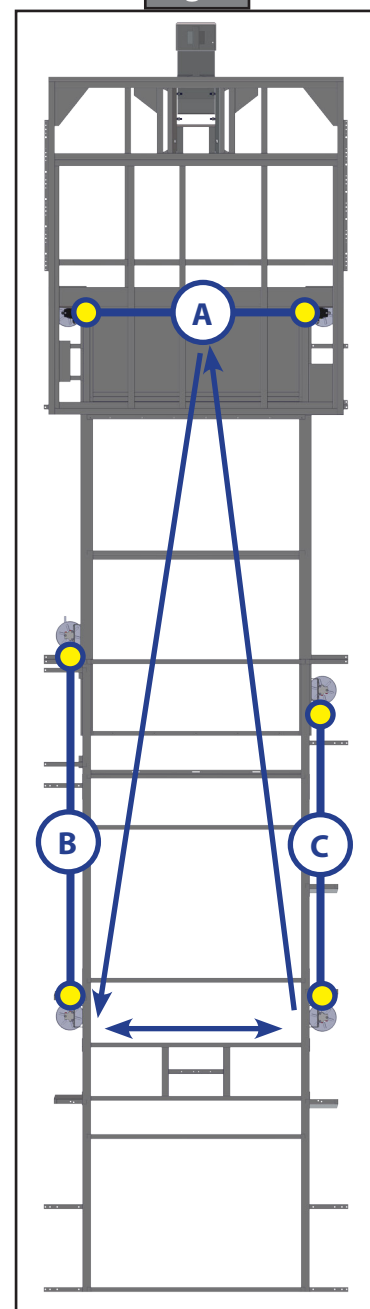
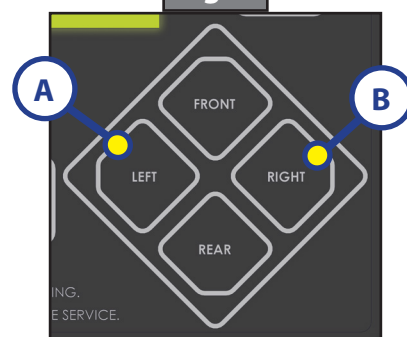


Fig. 5



Travel Trailer Operation

Unhooking Instructions

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

1. Push "On/Off" button to turn system "On" (Green Light).
2. Push "Up" or "Down" arrow to scroll through features to "Manual Mode" in display.
3. Push "Enter".
4. Push "Front" button to extend front jacks to the ground until the trailer is unhitched from the tow vehicle.

NOTE: The Power Tongue Jack **SHOULD** only be used when storing the trailer.

Auto Level

NOTE: The Power Tongue Jack **MUST** be retracted prior to starting auto level sequence (Fig. 6 shows the LCD alert).



1. After unhitching from tow vehicle press Auto Level (Fig. 1F).

NOTE: In order for hitch recognition feature to function, the auto level sequence **MUST** be started with the front of the unit above level.

Auto Level Sequence

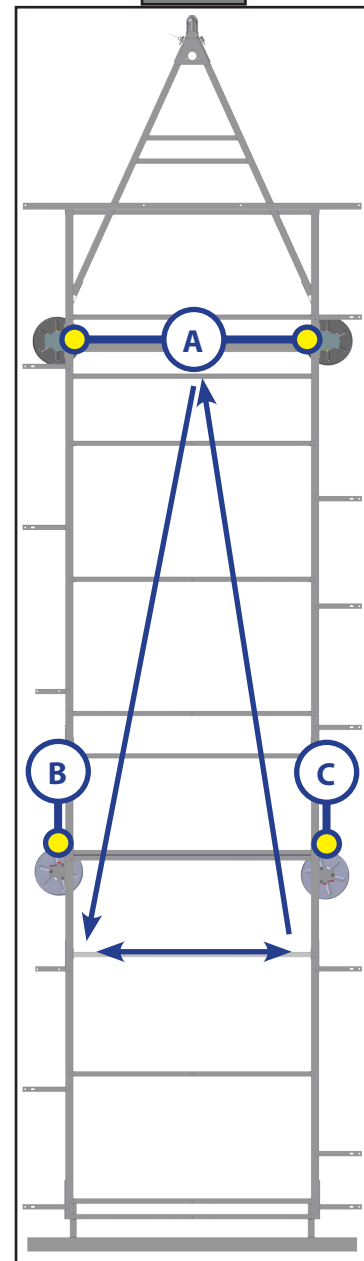
1. Front jacks retract, lowering the front of the unit below level, stopping, then lifting the front end to level the unit front to back. (Fig. 7A).
2. The left side leveling jack extend and raise the roadside of the unit (Fig. 7B).
3. The right side leveling jack extend and raise the curbside of the unit, beginning side to side leveling (Fig. 7C).
4. The front jacks extend to complete the leveling cycle (Fig. 7A).

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 above, check to ensure proper manual function in all zones.

Callout	Description
A	Steps 1 + 4 (Front Jacks)
B	Step 2 (Left Rear/Roadside Leveling Jack)
C	Step 3 (Right Rear/Curbside Leveling Jack)

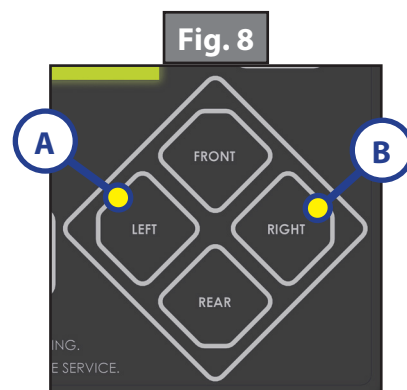
Fig. 7



Hitch Recognition

1. Turn on Touchpad.
2. Press the left and right buttons simultaneously (Fig. 8A and 8B).
3. The front of the unit 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 unit in a below level condition, the Hitch Recognition will not function and the LCD will display "Feature Disabled". In order for hitch recognition feature to function, the auto level sequence **MUST** be started with the front of the unit above level.



Reconnecting the Unit to a Tow Vehicle

1. Connect tow vehicle and make sure travel trailer and hitch are connected and locked.
2. Push "UP" arrow until "AUTO RETRACT" appears in LCD screen.
3. Push "ENTER." System will immediately retract all jacks.

Touch Pad Error Codes

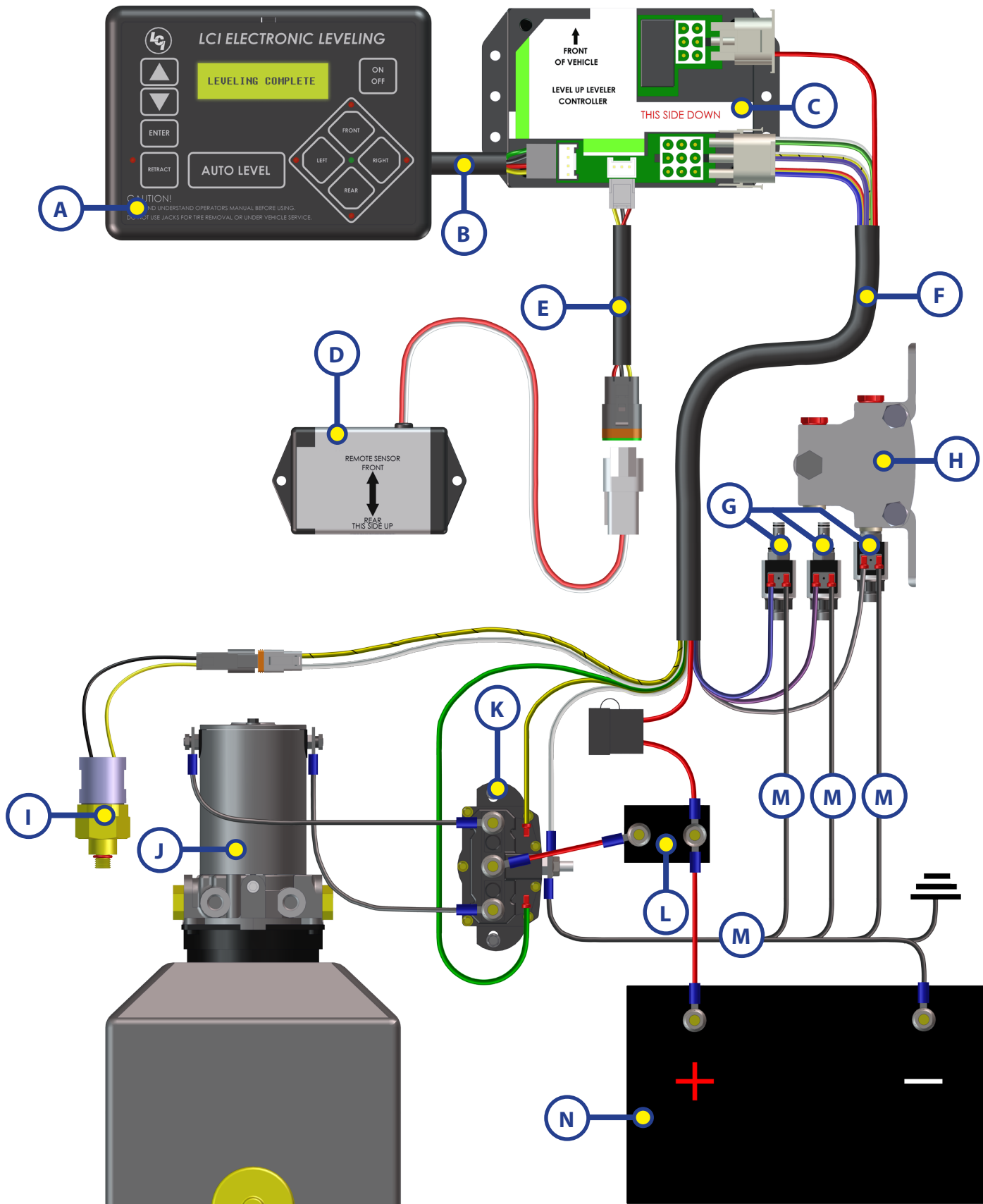
NOTE: To clear Error Code, push "ENTER" - If error remains, the code will appear again.

Problem	Probable Cause	Corrective Action
"EXCESS ANGLE"	Unsecured controller. Uneven or sloped site.	Check and secure controller placement. Relocate the coach.
"BAD CALIBRATION"	Unit zero point was not set correctly.	Reset zero point (See LIP sheet 317)
"FEATURE DISABLED"	Front of coach below level when starting Auto Level process.	Raise front of coach above level and restart Auto Level process.
"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 coach.
"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 for obstructions, leaks, fluid level and voltage to pump motor under load.
"AUTO LEVEL FAILURE"	Unsecured controller. Voltage drop.	Check and secure controller placement. Test battery voltage under load - charge or replace. Retry.

Wiring Diagram

NOTE: See page 9 for parts table.

Fig. 9





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Parts Table

Callout	Description
A	Touchpad
B	Touchpad Harness
C	Controller
D	Rear Sensor
E	Rear Sensor Harness
F	Main Harness (See below for color codes)
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	
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
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)



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