

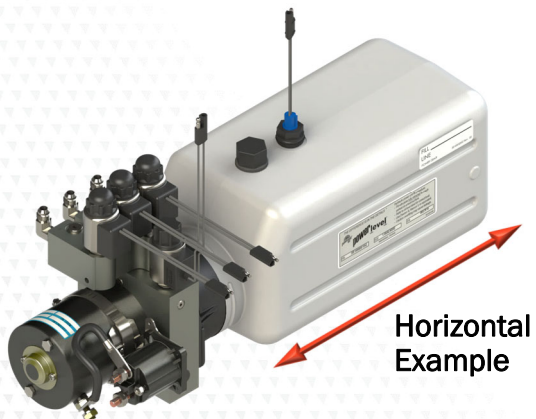
POWER GEAR MOTORIZED HYDRAULIC LEVELING



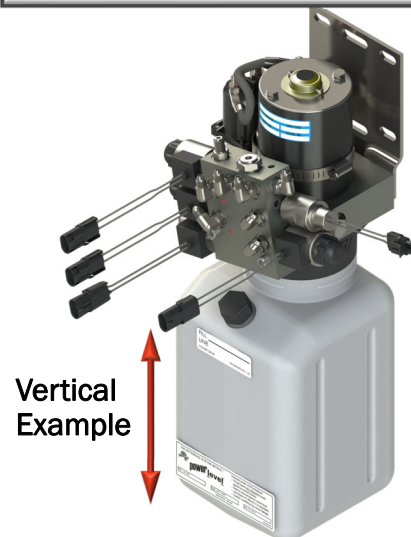
1

POWER UNIT IDENTIFICATION

Power Down / Spring Return (PD/SR)
Horizontal or Vertical



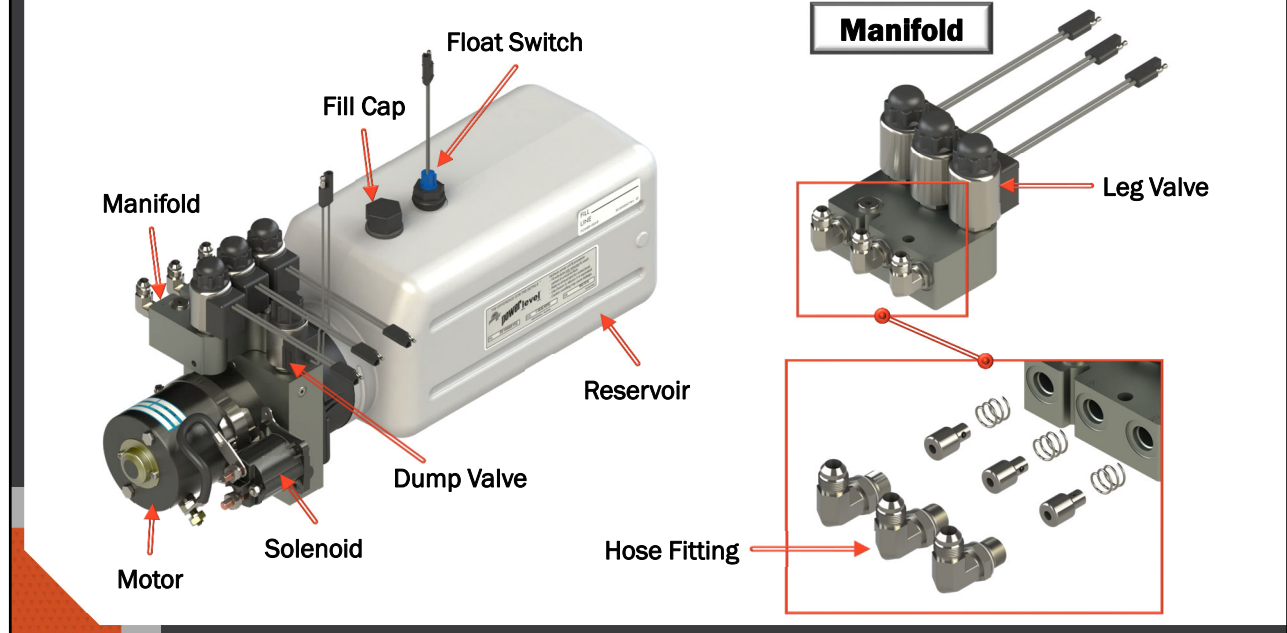
Power Down / Power up (PD/PU)
Vertical Only



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POWER UNIT

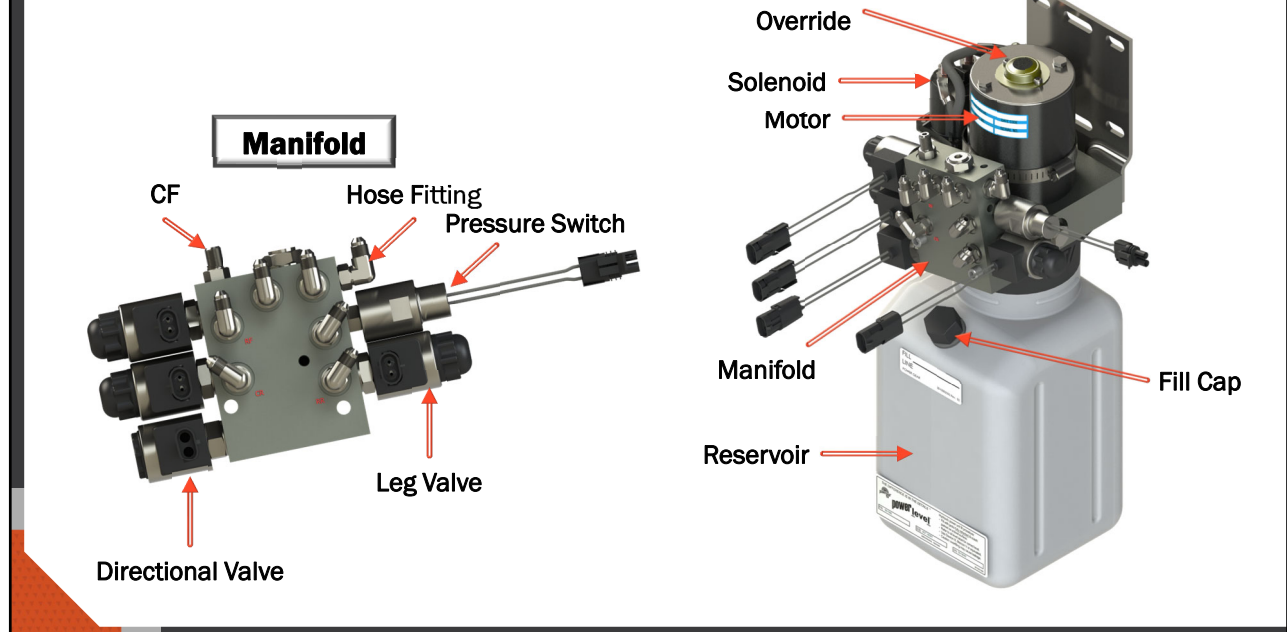
POWER DOWN / SPRING RETURN (PD/SR)



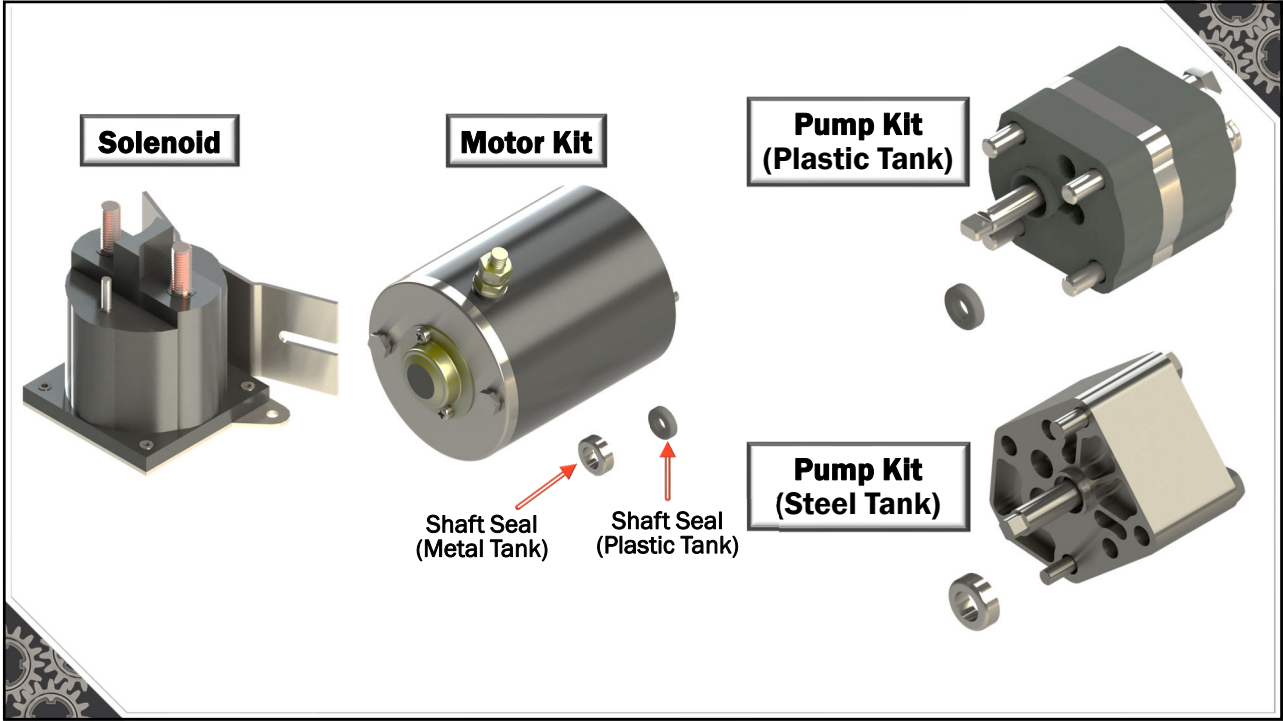
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POWER UNIT

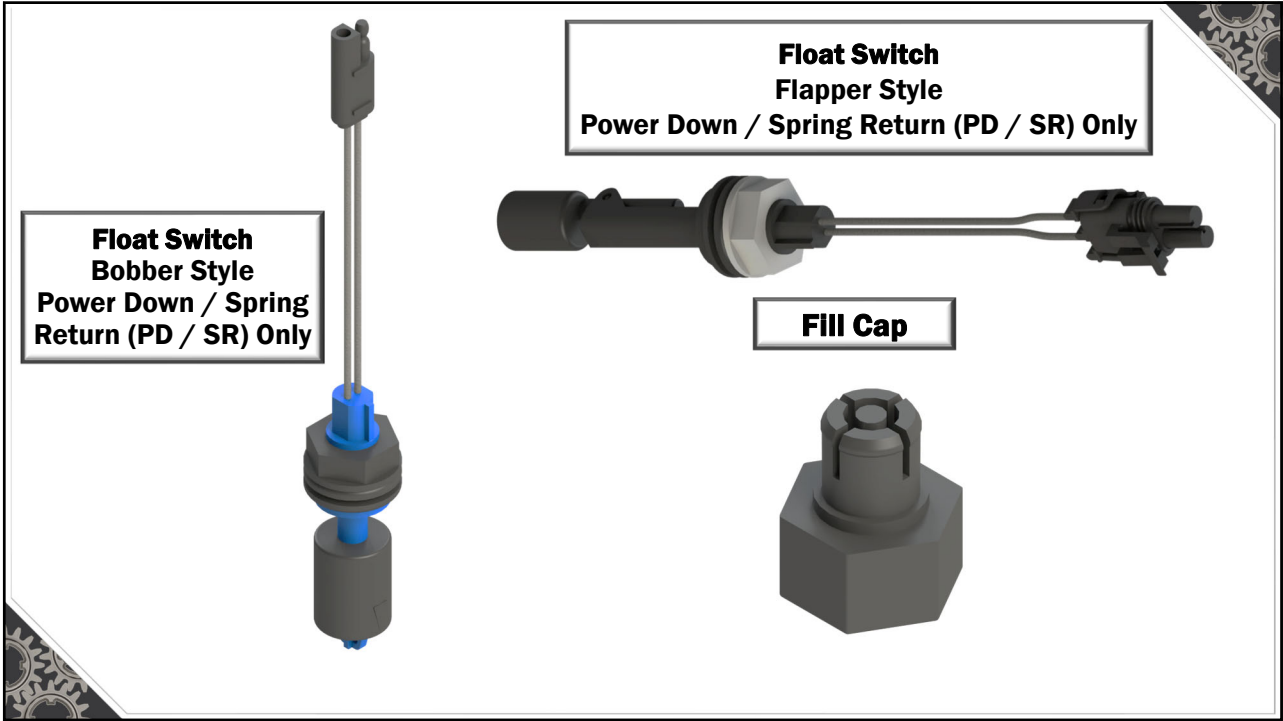
POWER DOWN / POWER UP (PD/PU)



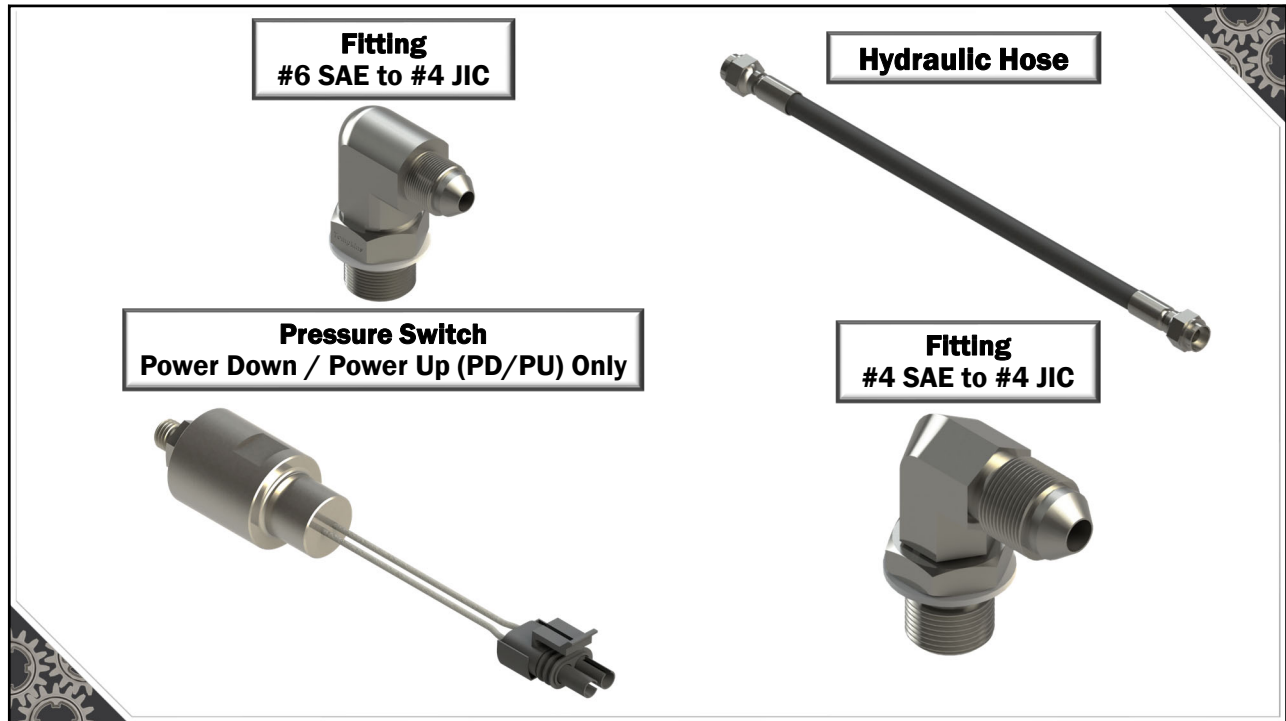
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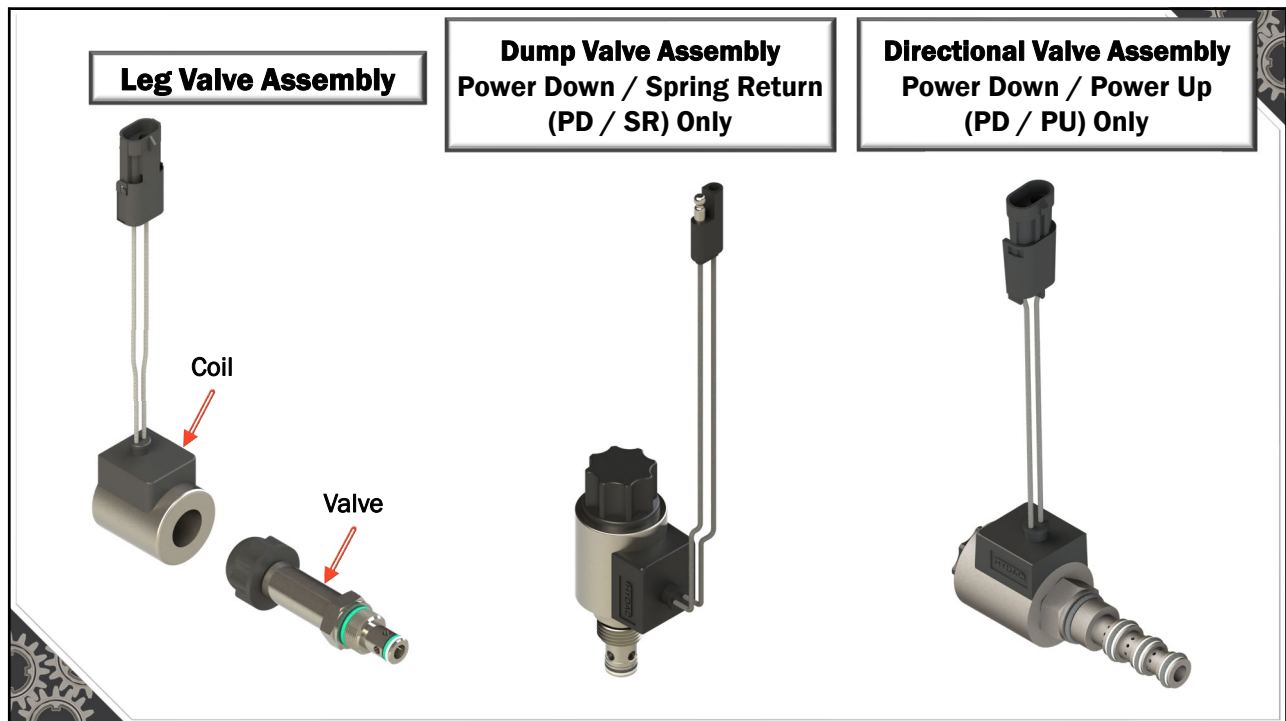
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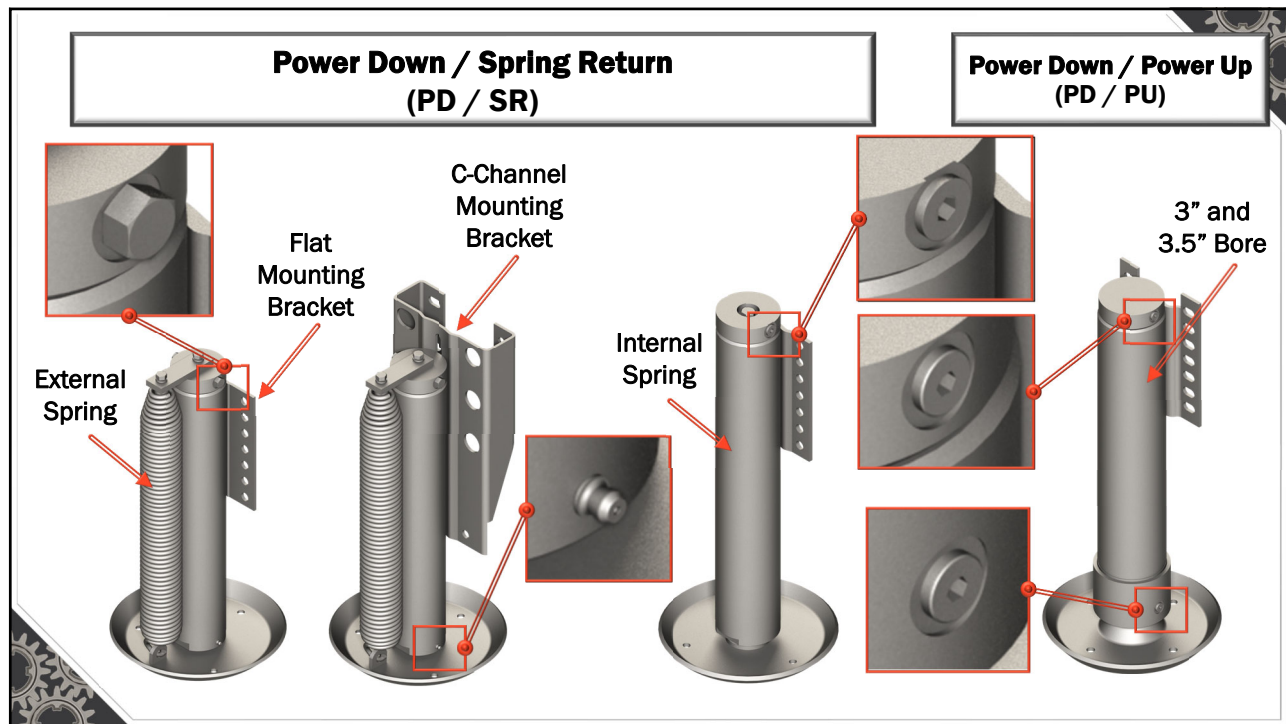
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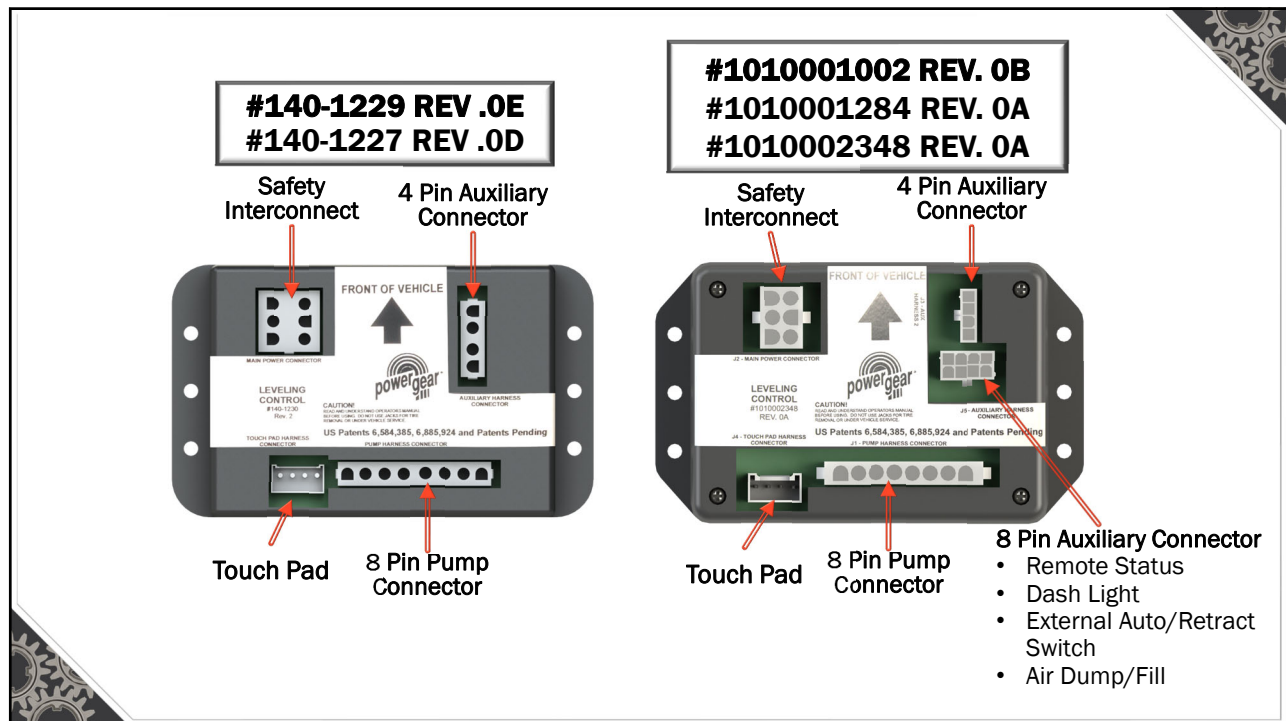
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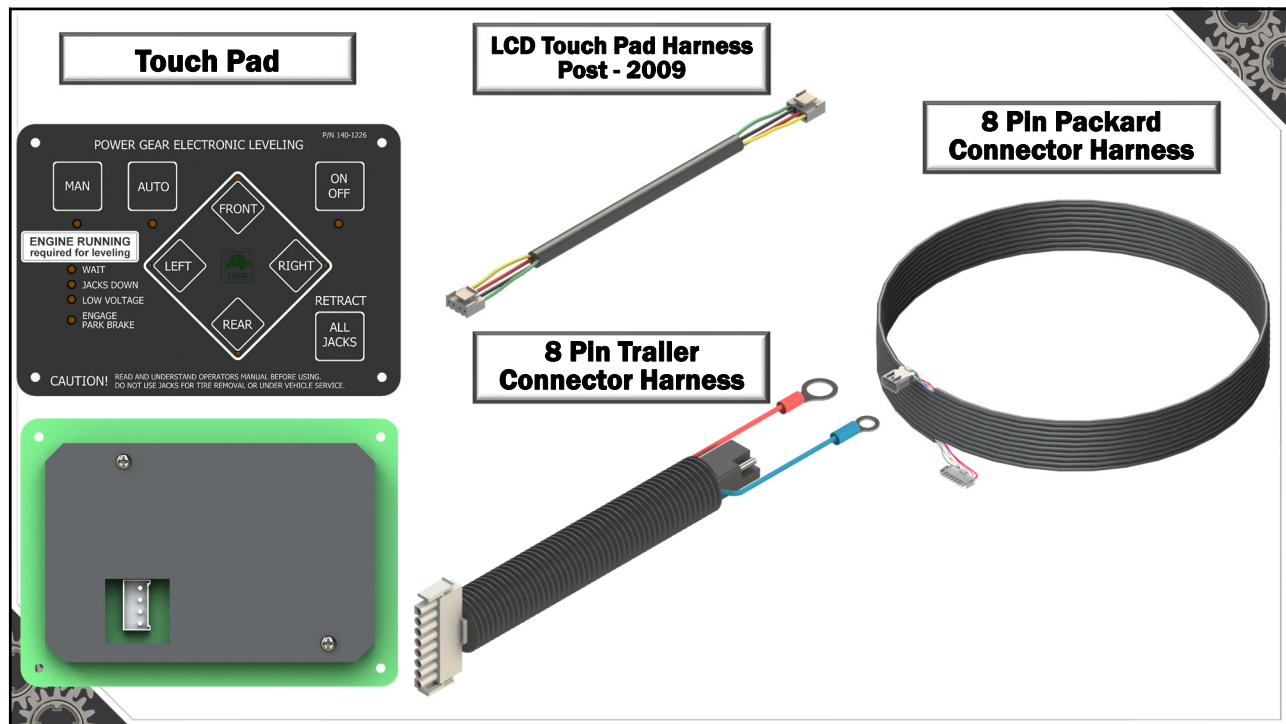
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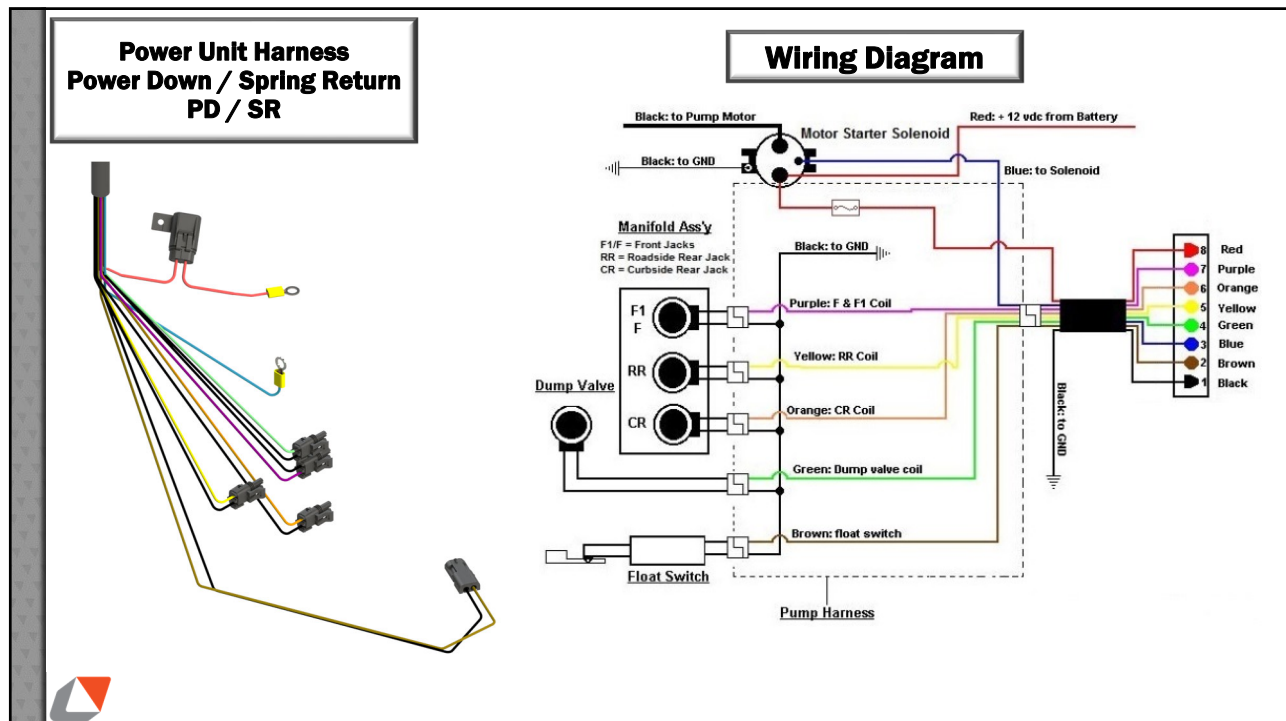
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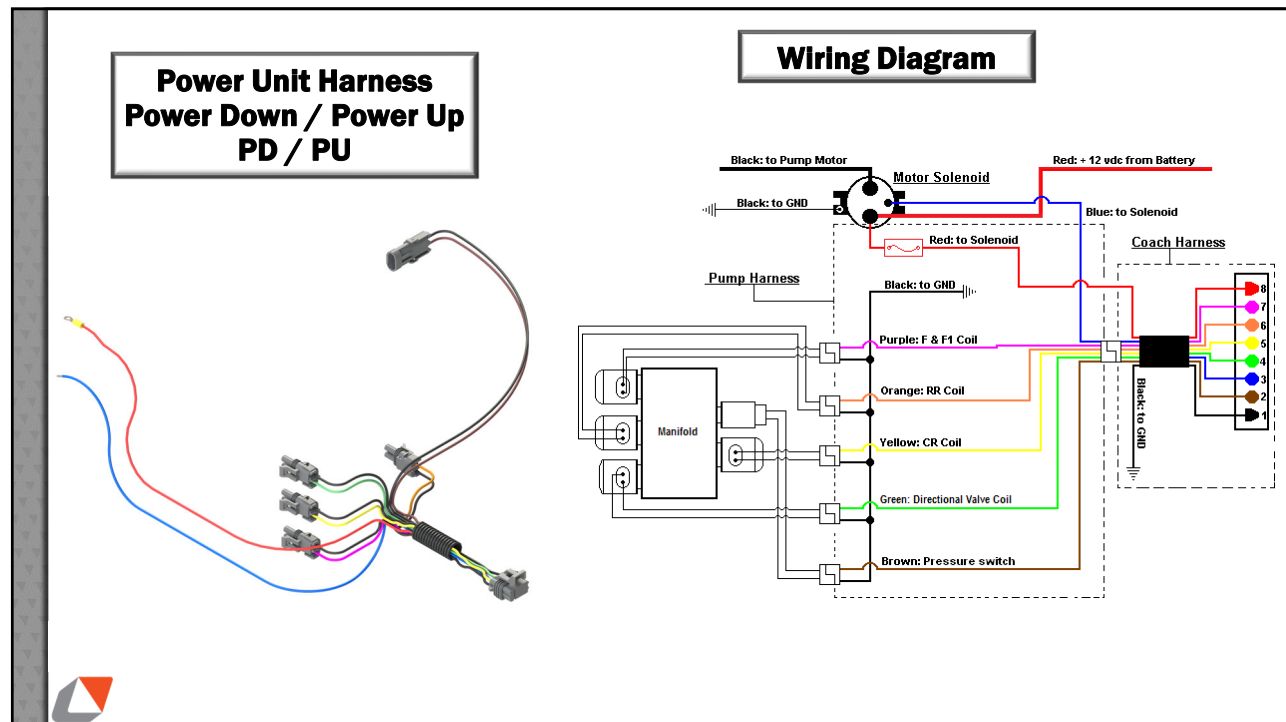
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LED CODES

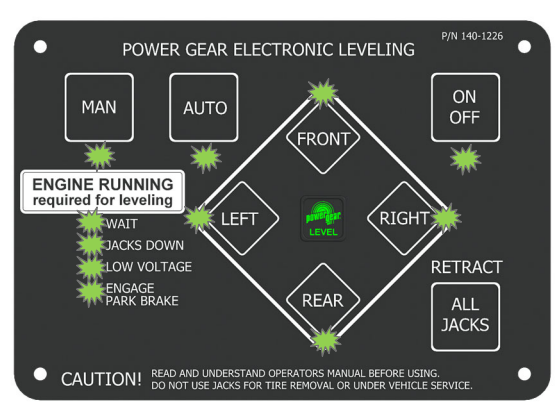
All Level LED Blinking
Vehicle is already level. Nothing can be done. Leveling system can be deployed for stabilization purposes.

On/Off, Jacks Down and Park Brake LEDs Blinking
Panel communication error. Check connections between touch pad and control box, check harness.

Park Brake LED Blinking
Control does not recognize that park brake is not set. Engage park brake or check wiring.

Wait and On/Off LEDs Blinking
Transmission error. Control does not recognize that the transmission is in park or neutral. Take out of gear or check wiring of neutral safety switch.

All LEDs Blinking
Zero point has not been set. Calibrate control box.



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LED CODES

Left, Right, Front, Rear and All Level LEDs Blinking

Coach is too far out of level for the system to achieve the programmed level point. Move the coach to a more level location. If location is level, check that control box is mounted correctly.

Wait LED Blinking

The control is processing information. Wait for this LED to stop flashing.

Low Voltage LED Blinking

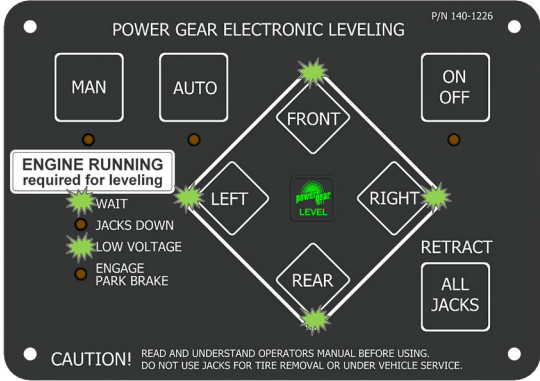
Voltage is low at the control box. If a leveling procedure is being attempted, coach engine should be running.

Left, Right, and All Level LEDs Blinking

Retract has been active for over 4 minutes.

PD/SR System: Check fluid level, check float switch.

PD/PU System: Check pressure switch and wiring, check jacks for internal seal leakage.

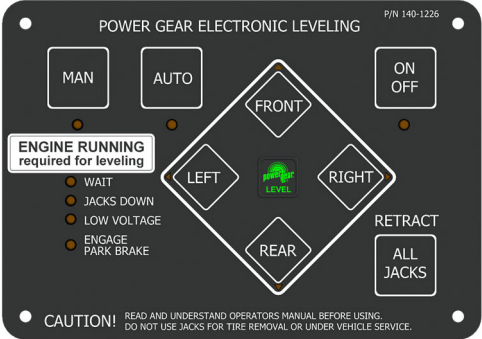


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ZERO POINT CALIBRATION

- Place system into Manual Mode by pressing and holding the “MAN” button until the LED light is illuminated.
- Level from front to back and then side to side using a level on the floor of the coach.
- Turn the touch pad off, and then back on.
- Push the “FRONT” button 5 times and within 10 seconds push the “REAR” button 5 times. All the LED’s on the touch pad will begin flashing.
- To store the Zero Point, push the “All Jacks” button 3 times.
- After the “All Jacks” button has been pressed 3 times, all of the LED’s on the touch pad will stop flashing except the “ON/OFF” LED. The “ON/OFF” and “WAIT” LED’s will flash for approx. 10 seconds. During this time, the control will be looking for one of the follow two instructions:
 - If there is no air dump or fill feedback to the control, the “ON/OFF” LED will stop flashing and the “AIR DUMP/FILL” feature will be disabled.
 - If there are air dump and fill feedback to the control, the “ON/OFF” LED will stop flashing indicating the “AIR DUMP/FILL” feature is enabled and an audible buzzer will sound for 3 seconds.
- Upon successful completion, the green “Power Gear” logo LED will flash continuously.



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TROUBLESHOOTING

Problem	Probable Cause	Solution
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 .
Jack will not extend, pump is not running	Low voltage on battery	Start coach to charge battery.
Jacks will not extend, pump is running	Low fluid level	Check fluid level in reservoir. If fluid is low, add fluid to FILL TO HERE line on reservoir.
	Bad pump	Replace pump assembly.
	Dump valve open (PD/SR)	Return dump valve to normal operation position.
	Faulty dump valve (PD/SR)	PD/SR systems: replace dump valve.
All jacks will not retract or will not fully retract	Little to no fluid in reservoir	Fill reservoir with DEXRON III ATF or hydraulic fluid as appropriate.
	Faulty dump valve	PD / SR systems: replace dump valve.
	Electronic signal is lost between control and valve coils	Trace wires for voltage drop or loss of signal. Repair or replace necessary wires or replace control pad.

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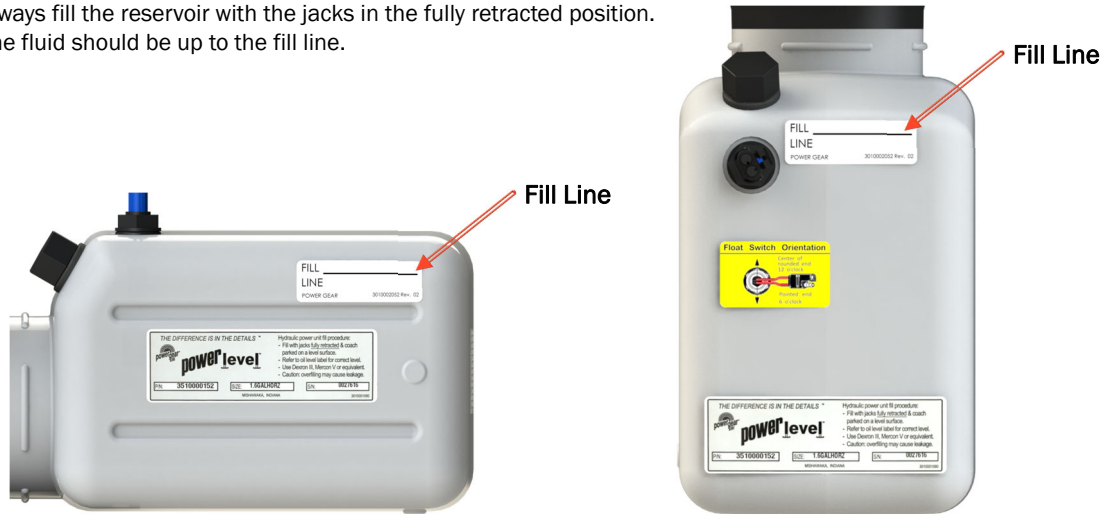
TROUBLESHOOTING

Any single jack will not retract	Hose damaged or disconnected	Replace with new hose or reconnect hose
	Faulty dump valve or coil	PD / SR systems: replace dump valve or coil.
	Electronic signal is lost between control and leg valve coil	Attempt to retract jacks in MANUAL mode. If successful, replace control pad. If not, test for voltage drop between control pad and jack valve. Repair bad wiring or replace defective board or valve.
	Broken spring	PD / SR systems: External spring jack, replace spring. Internal spring jack, replace jack assembly.
"JACKS DOWN" light does not go out when all jacks are retracted	Low fluid level (PD / SR)	Fill reservoir to proper level with ATF or hydraulic fluid as appropriate.
	Retract pressure switch inoperable (PD / PU)	Check connection or replace.
Alarm sounds and "JACKS DOWN" light starts flashing while traveling; jacks are fully retracted	Low fluid level (PD / SR)	Fill reservoir to proper level with ATF or hydraulic fluid as appropriate.
	Retract pressure switch inoperable (PD / PU)	Check connection or replace.
Jack bleeds down after being extended or retracted	Air in system	Purge system of air.
	Faulty piston seal in jack (PD / PU)	Replace jack assembly.

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FLUID LEVEL

- Check the fluid in the reservoir every month. If the fluid is a clear, red color, do not change. If the fluid is milky, pink and murky, and not clear red in color, drain reservoir and add new fluid.
- Check fluid only when jacks are fully retracted.
- Always fill the reservoir with the jacks in the fully retracted position.
- The fluid should be up to the fill line.



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BASIC PURGE PROCEDURE

Reasons to purge:

- To remove air from fluid
- Jack replacement
- Power unit replacement
- Hose replacement
- Valve replacement
- Manifold replacement
- Pressure switch replacement
- After flush procedure



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Maintenance

- Check and/or fill the reservoir with the jacks in the fully retracted position once a month.
- Inspect and clean all hydraulic pump electrical connections every 12 months.
- Remove dirt and road debris from jacks as needed.
- If jacks are down for extended periods, spray exposed leveling jack chrome rods with a silicone lubricant every 5 to 7 days for protection.
- In extreme conditions (within 60 miles of coastal areas), it is recommended to spray the rods every 2 to 3 days with a silicone lubricant.
- If applicable, grease the fitting on the bottom of each jack cylinder.

Safety

- Do not use leveling system as a lift for changing tires or working under the coach.
- Never check for hydraulic fluid leaks using your hands and/or any other body part.
- Keep people clear of the coach prior to turning the leveling system on and while operating the system.
- Never lift the wheels off of the ground to level the coach. Doing so may create an unstable condition.

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Question and Answer

If you have questions, please feel free to ask us now. Otherwise, we are available and happy to discuss anything presented with you.

TECHNICAL SUPPORT



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