



# 5<sup>th</sup> Wheel Travel Trailer Automatic Systems

- IDS Quad Gen2 Single Sensor



*Bigfoot Leveling Systems*  
305 US 131 South  
White Pigeon, MI 49099  
800-752-9815  
[bigfootleveler.com](http://bigfootleveler.com)

# Operation Instructions (IDS Gen2 Auto Controller)

## **Set-up #1: Programming Your Sensor**

1. Turn panel OFF, press FRONT 10 times, then press REAR 10 times.
2. Follow the instructions on the screen for selecting ONE sensor using the arrows on the left side of the panel.
3. Place a carpenter's level on the inside of your trailer (countertop, refrigerator or floor).
4. Manually operate by pressing FRONT, RIGHT, LEFT & REAR buttons to get the trailer level from front to back and side to side.
5. Once level in both directions press ENTER. You're done.

*From this point forward when you press AUTO LEVEL your trailer will return to this position.*

## **Getting to know your controls...**

Use the arrows to scroll through the main menu for function selection. Power shut-off switch not shown.



## **How to “un-hook” from vehicle:**

1. With vehicle parked & hitch disconnected, press the “POWER” button to turn system on.
2. Use the FRONT button to raise the front of the trailer off the vehicle.
3. Pull the vehicle safely away from the trailer.

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### How to use the AUTO LEVEL feature:

1. Make sure the vehicle is safely disconnected and out of the way.
2. Scroll through the main menu to AUTO LEVEL, press ENTER.
3. Once the trailer is level, the screen will prompt SUCCESS in the window.

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### How to use the MANUAL LEVELING feature:

1. Scroll through the main menu to MANUAL, press ENTER.
2. Press REAR to extend the rear 2 jacks until the trailer moves (each button operates 2 jacks).
3. Raise or lower the front 2 jacks to your preference using the FRONT button.
4. To operate individual jacks...<sup>EX.</sup> Driver's front leg, press FRONT & LEFT at the same time.

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### How to "hook-up" to vehicle:

1. Scroll to the AUTO RECONNECT feature on the menu, press ENTER. This will retract the rear jacks and extend the front jacks, lifting your trailer to the same height at which you previously disconnected from (within about 1").
2. Once this mode is complete, back vehicle into loading position.
3. Press RETRACT, then FRONT until the trailer is placed onto vehicle.

### Understanding "Lift to Connect" or "Auto Reconnect" mode:

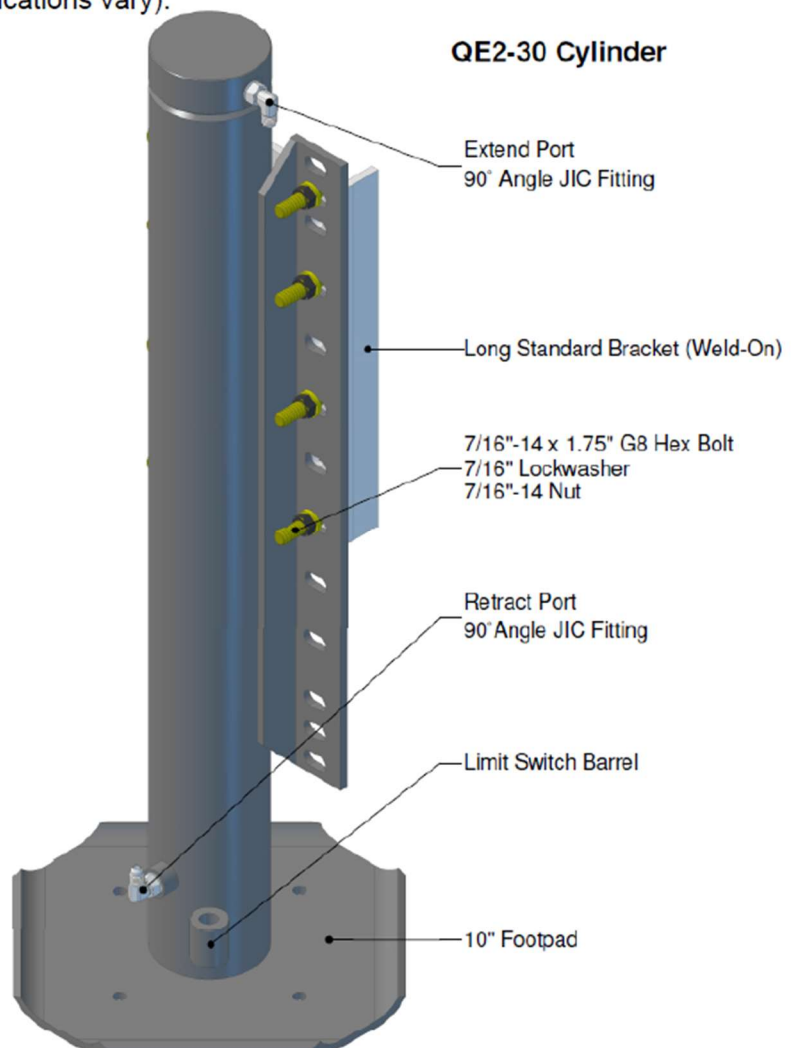
This will retract the rear jacks and extend the front jacks, lifting the trailer to the previous unloading/disconnect position within an inch. This mode can be done by the Panel (Lift to Connect) or by the single grey button above the blue button on the key fob. **This mode will not work if you have not successfully completed the Auto Level Process.** Once this mode is complete, you may back your truck under the unit and lower your front jacks. On your panel, press RETRACT then FRONT until the trailer is lowered on the vehicle safely, then until the jacks are fully retracted. On the key fob, press the "UP" arrow until the trailer is lowered on the vehicle safely, then until the jacks are fully retracted.

# CYLINDER PREPARATION

Pre-assemble jack prior to hanging on vehicle in specified location.

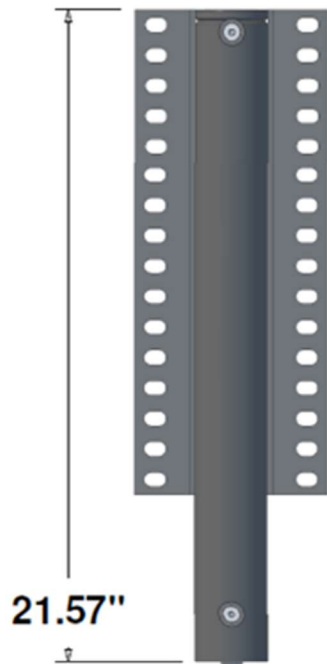
- Attach foot pad with  $\frac{3}{4}$ " thin jam nut using a 1  $\frac{1}{16}$ " socket and impact wrench. **Clockwise ONLY.**
- Remove port plugs with  $\frac{3}{16}$ " allen wrench.
- Install supplied JIC elbow fittings to the bottom & top ports with  $\frac{9}{16}$ " wrench.
- Place  $\frac{1}{4}$ " clevis pin in limit switch barrel then insert threaded limit switch with  $\frac{7}{8}$ " wrench (see wiring section later on in booklet).
- Hang jack using at minimum of six  $\frac{7}{16}$ " or two to four  $\frac{1}{2}$ " Grade-8 bolts, hex nuts & lockwashers.
- Typical cylinder ground clearance (ground to bottom of footpad) should be between 6" and 9" for optimum lift and road clearance (applications vary).

The cylinder shown to the right may be different from the cylinders that came in your kit. (Such as port rotation, length, bracket style, etc.)

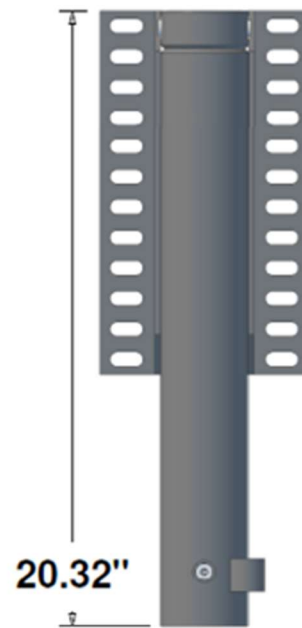


Applications may vary and your trailer may be equipped with different jacks not shown above due to your trailer manufacturer's requirements. For any installation questions or additional information visit our website at **bigfootleveler.com** or simply call **800-752-9815**.

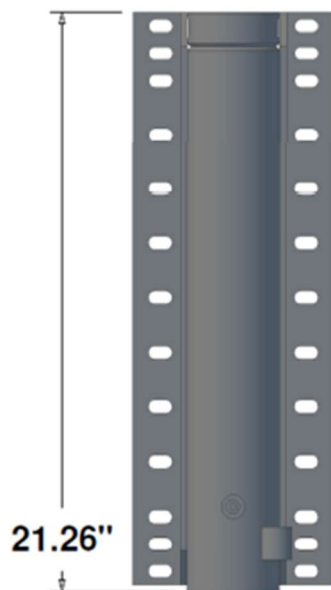
# CYLINDER IDENTIFICATION



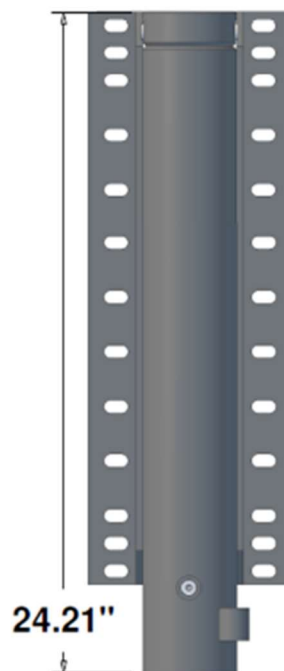
8k-18  
#M0218



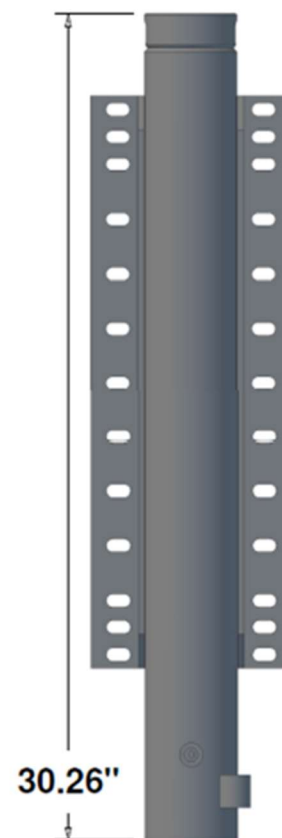
QE1-16  
#M1016



QE2-21  
#M7000



QE2-24  
#M1300



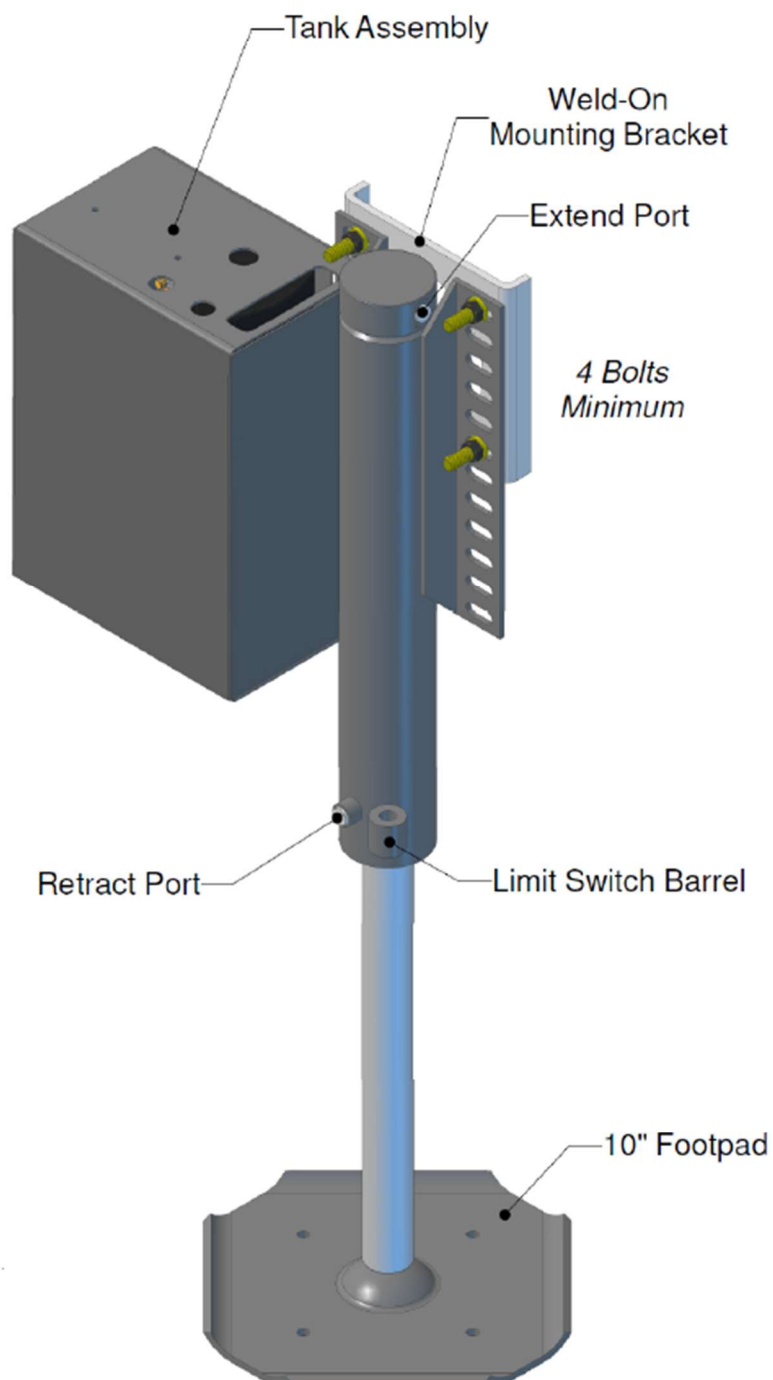
QE2-30  
#M9000

# CYLINDER INSTALLATION

Typical installation includes mounting the jacks to the weld-on bracket then welding the assembly to the frame. Next, install the limit switch with ¼" pin, mount the pump assembly and attach the proper hydraulic lines. Pump assemblies may mount directly to the jack brackets or bolted to the frame. The wires on the limit switch will go to the matching spade connector from the main wire harness and the eyelet will go to a ground on the frame or a stud on the tank assembly.

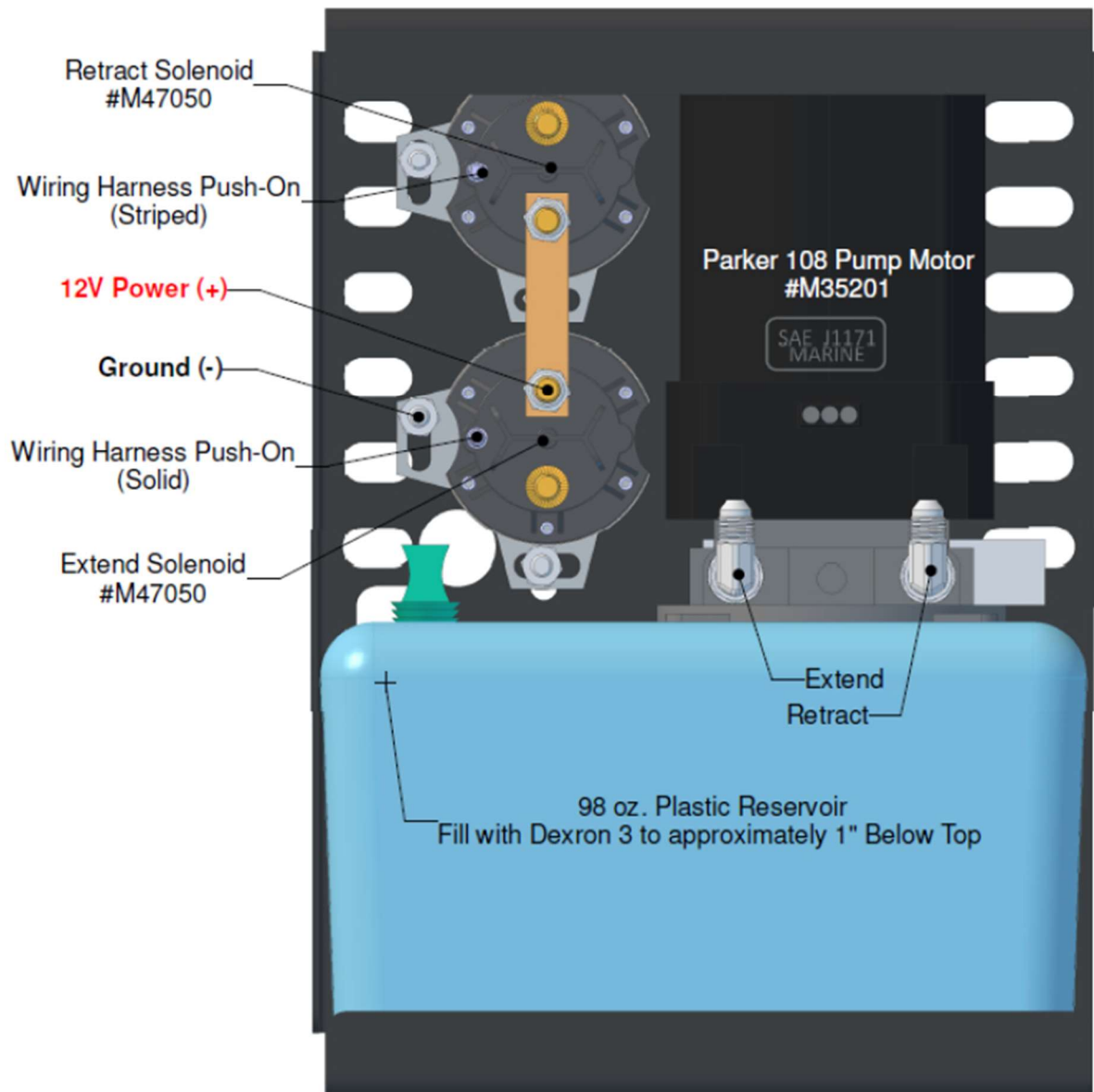
FRONT JACKS will be located at the front of the trailer, usually inside the front storage compartment. You will usually have to remove the existing jacks and their brackets to make room for your Bigfoot jacks. Front installations can be tricky on 5th wheels, make sure you use the QE2-30 cylinder with a 12" long bracket. Get the most weld you can on the front brackets to the frame. Prior to welding, verify the jacks are straight and level!

REAR JACKS should be within 5 feet behind the rear axle on the outside of the frame. Make sure there is a good 4" of weld per side of the bracket. Prior to welding, verify the jacks are straight and level!





## Standard Tank Assembly #M26850



### Quad Pump Wiring Harness Colors

Left Front: Green  
Right Front: Blue  
Left Rear: Grey  
Right Rear: Brown

### Mounting Tank Assemblies

Our tank assemblies are weather resistant and must be mounted vertically and can be mounted:

- by drilling holes in the frame
- welding a bracket to the frame
- directly to a cylinder bracket
- inside a storage box

Use at minimum two 7/16" or 3/8" bolts per tank assembly. Take care when mounting and running hydraulic lines & wiring to avoid moving parts.

# 5<sup>th</sup> Wheel Cylinder Locations and 6pt Information

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The front cylinders are always mounted as far forward as possible, usually in the same place the existing cheap electric landing gear is mounted (electric jacks and brackets will likely need to be removed). Our cylinders can be mounted on the inside of the frame rail or on the outside. Make sure you get as much weld on the frame as possible, if there is a vertical structural beam you may want to tie into that with custom bracketry for additional support.

Notice rear and center jacks straddle the rear axles, the center jacks are designed to support the center of the frame and are “slaved” to the rear jacks. If your RV has a slide out crossbar in the location of the jack, our bracket must be modified to extend out past the crossbar (with enough structure) and cut a slot in the bracket or extension pieces to clear the crossbar. This means each rear jack gets it’s own pump assembly, which can be mounted directly to the cylinder utilizing the cylinder’s existing mounting holes (angle bracket) or mounted directly beside it with it’s own weld-on bracket or bolted directly to the frame.

For the hydraulic lines, “T” fittings are attached at the pump or at the cylinder ports so the lines for the center jacks can be tied to the corresponding or same side rear cylinder (Example: passenger side rear cylinder and passenger side center cylinder are slaved together).

As far as the limit switches are concerned they must be tied together similar to the method the hydraulic lines are tied to each other. Attach the white wire from each limit switch together and the same for each black wire from the limit switches (you should have a 2-3ft limit switch wire for the rear jack and a longer 12-16ft limit switch wire for the center jacks). Attach the limit switch white wires to the corresponding limit switch wire from the main wiring harness (harness that goes to all pumps and control unit) the passenger side will be white with black tracer and the driver side will be white. Attach the limit switch black wires to an eyelet and ground at the tank assembly or the trailer frame.

Any modification to our products (cylinders, brackets, wiring, etc.) voids all parts & labor warranty related to that particular item.



## **Basic Installation Instructions**

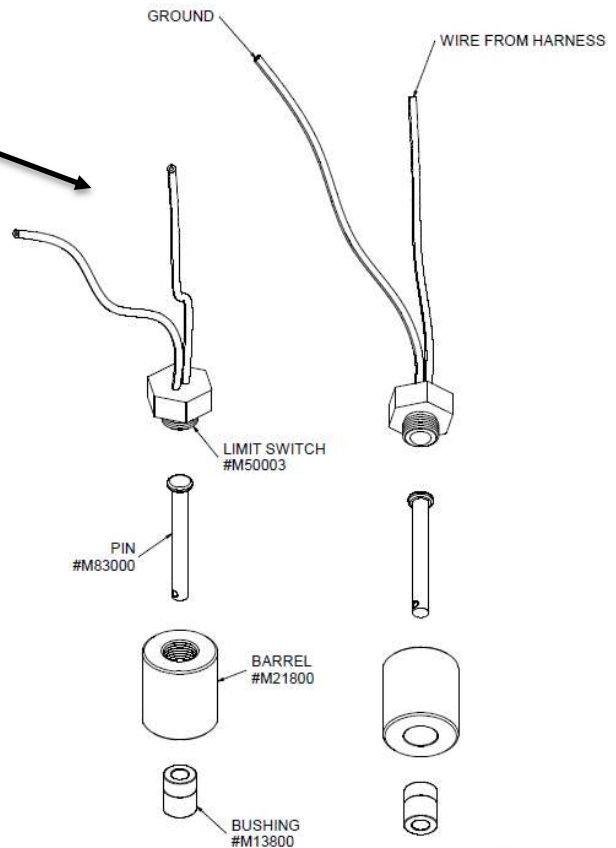
**Rear jack assembly:** Bracket may vary depending on application. Rear jack location should be within 5 ft behind the rear axle on the outside of the frame. If it is a six point the “center” row of jacks should be in front of the rear axle and typically within 10 ft from the rear jacks. Typical installation includes mounting the jacks to the weld-on bracket then welding the assembly to the frame. Attach the jack with four 7/16” x 1.75” bolts, nuts & lock washers (minimum of 6 per 17k-lb or 24k-lb jack) tighten to 70 ft/lbs. Prior to welding the assembly to the desired location, make sure the jack is straight and level and also between 8” and 11” of ground clearance from the bottom of the jack to the ground. Make sure there is a minimum of 4” of good weld per side of each bracket. Slide outs can cause issues with the rear jack location, typically the linkage/shaft is in the way of the weld-on bracket. What can be done is to slot each side of the bracket so there is plenty of room for that shaft to spin freely. If the supplied bracket is not “deep” enough, the bracket must be professionally extended to clear the shaft.

After welding, place the ¼” pin into the limit switch barrel and install the limit switch with a 7/8” wrench (See diagram on next page). The wires on the limit switch will go to the matching spade connector from the main wire harness and the eyelet will go to a ground on the frame or to a stud on the tank assembly. Now attach the elbow fittings to the top and bottom ports (top port is extend) with a 5/8” wrench (make sure to not over-tighten). Mount the tank assembly to the rear jacks utilizing the same mounting bolts you used to fasten the jacks down or use the 7/16” x 1.5” full threaded bolts on the jack bracket to mount the pump.

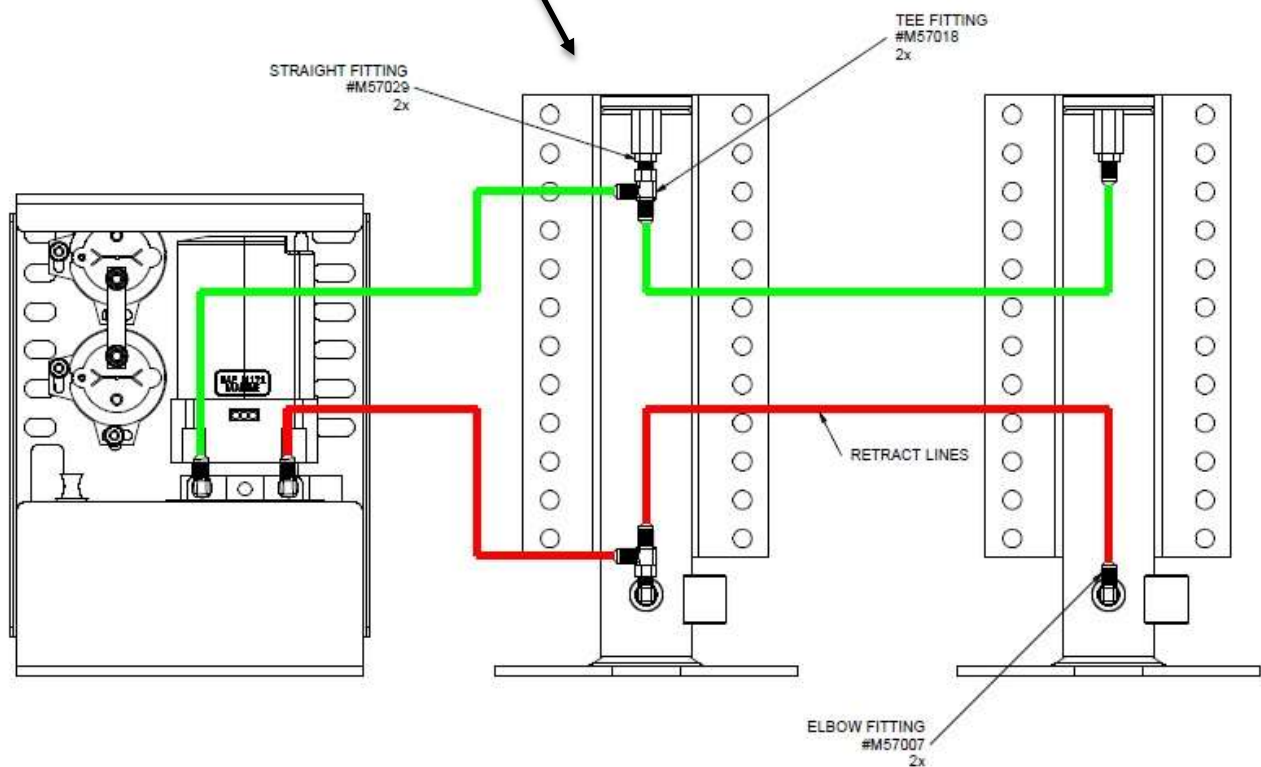
Time for **plumbing**, on four point systems simply install the corresponding length hose from the bottom port on the jack to the right port on the pump and the top extend port on the jack to the left port on the pump. If installing a **six point**, the middle and rear jacks will be “slaved” together (See diagram on next page). This means install the “tee” fittings to the rear jack with the pump attached. Then install the short hoses from the “tee” fittings to the corresponding ports on the pump. The other lines will go from the “tee” fittings to the center row jacks, bottom port to bottom port. The jacks are now slaved. The pump assembly may mount directly to the jack bracket or bolt to the frame. Do not slave driver and passenger side jacks together, slaved jacks should be on the same side of the trailer.

**Front Jacks** will be located at the front of the trailer, usually inside the front storage compartment (sometimes front wall may have to be temporarily removed to access proper jack location on frame). Any existing jacks and their brackets will typically have to be removed to make room for the Bigfoot jacks. Front installations can be tricky on 5<sup>th</sup> wheels due to lack of space in those compartments and finding frame to weld too. There are two versions of the front jacks the channel style and the standard style (See 5<sup>th</sup> wheel jacks page). Make sure you use the QEII-30 or QEI-24 jacks and at minimum 12” long weld-on brackets. Get the most weld you can on the front brackets to the frame. Prior to all welding verify jacks are straight/level and the bottom of the jack & footpad clear the outside/bottom of the trailer nicely without an excessive amount hanging down. Install limit switch, tanks and plumbing as you did for the rear jacks (front jacks are never slaved together). Front jacks need at minimum six 7/16” x 1.75” bolts per jack or two 1/2” x 5.5” bolts (channel style) per jack.

## Limit Switch Assembly



## Plumbing "Slave" Setup



VERSION #1: (SHOWN) THE "TEE" FITTINGS MOUNTED TO THE DRIVE JACK.

VERSION #2: INCLUDES MOUNTING THE "TEE" FITTINGS TO THE PUMP FITTINGS.

VERSION #3: RUNNING TWO LINES FROM THE PUMP AND PLACING THE "TEE" FITTINGS IN-LINE, THEN RUNNING INDIVIDUAL LINES TO EACH JACK FROM THE "TEE" FITTINGS.

# Wiring Harness & Battery Harness Installation

## 14-Pin Wiring Harness

The main wire harness will have three wires for each corner.

- One wire goes to the limit switch (has spade connector - the limit switch has two wires coming from it, the wire with the eyelet goes to ground, the spade connects to harness).
- The other two wires (same color except one has a tracer) have female push-on connectors that plug into the operation posts on each solenoid.
- The main harness lead has a 14-pin connector at the end, this end will need to route to the control panel. Attach the wire harness to the frame rail (usually inside of driver's side rail with other wiring) with p-clips or zip ties safely routing away from any moving suspension parts (complying RVIA regulations).

## 6-Pin Pigtail

There are 2 wires on the 6-Pin pigtail that need hooked up - the Red and Black. We recommend using a voltmeter to ensure connections are made to wires with the correct voltage.

- The Red wire needs to be connected to a constant +12V circuit.
- The Black wire needs to be grounded to the chassis.

## Battery Harness

- Mount a 120 amp breaker beside the coach/house batteries.
- Do not connect the batteries to the breaker at this time - this will be final step of system installation. Connect the eyelet at the beginning of the harness to the breaker.
- Route the harness along chassis, being sure to avoid heat sources and moving parts, so that each corners pump gets it's own leg of the 4 on the harness.
- Connect the eyelets at each of the pumps to the power stud on the lower solenoid (with the copper strip).

# QUAD PUMP SYSTEM BLEEDING

In Manual mode, extend all four jacks to complete extension and leave in this position for 20 to 30 minutes. This pushes all the air out of the lines by weight pressure. After the bleed time has expired, turn the panel back on and press Retract.

## HYDRAULIC CYLINDER/PLUMBING TROUBLESHOOTING

**What fluid do we use in the system?**

Automatic Transmission Fluid Dexron III ATF

**Cylinders running “choppy”**

Bleed the system, if central pump system, try quad pump method first.

**Cylinders make loud “squeaking” noise while operating**

Spray rams with Teflon spray (dry lubricant).

**Hydraulic fluid on footpad or on ground around cylinder**

Loose fitting or broken hydraulic line.

**Cylinders “creep” down or don’t hold pressure when lifting/holding coach**

- Check fluid level, Check for leaks in hydraulic lines/fittings
- Possibly plumbed backwards... (Bottom port on cylinder tube connects to right port on pump, etc.)



# SYSTEM MAINTENANCE

For most Bigfoot landing gear and leveling systems...

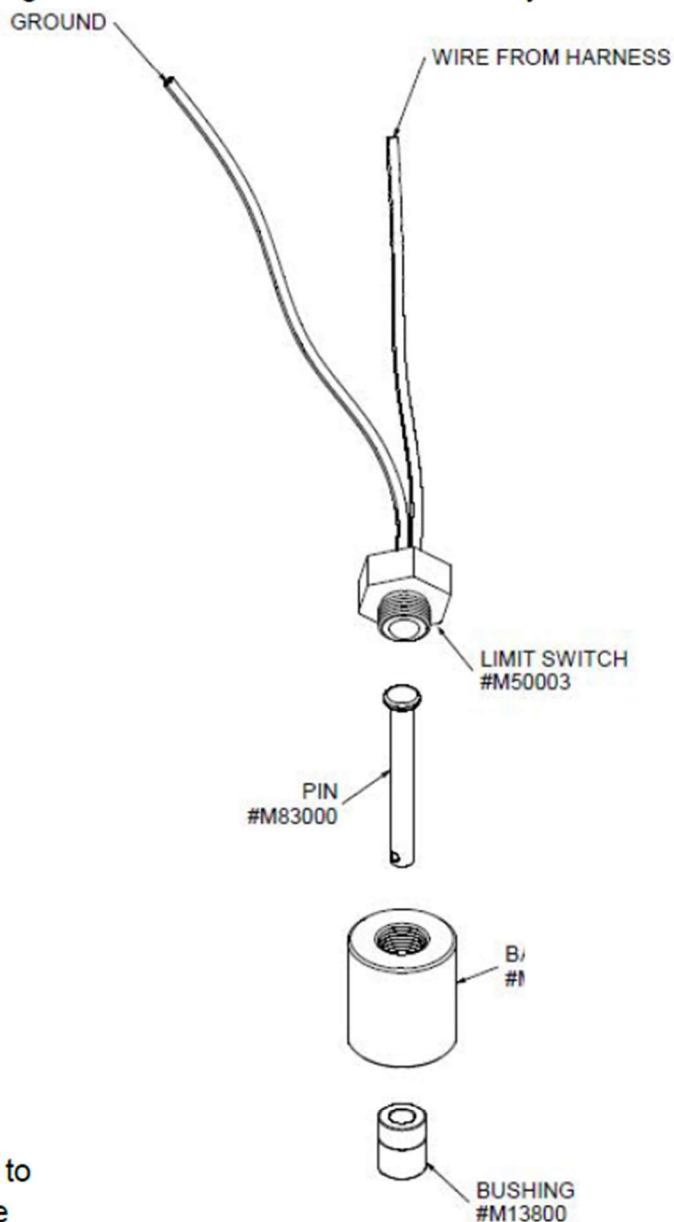
**#1.** Check the power supply to the Bigfoot system, RV house batteries, diesel chassis battery, trailer battery, etc. Test the voltage under load by using a volt meter and test your voltage with the system pump operating, if this drops below 10-11 volts, you may need to look into replacing the battery or batteries. If voltage is good under load, you may need to replace or check other connections on the pump assembly, including the power wire (connected to copper strip) and the ground from the pump to the frame. Our pumps ground at the solenoid mounting flange and contact between the pump steel housing and the frame it is bolted to, and has a 10 ga. cable that connects the tank body to the frame, typically only 3-6 ft long.

**#2.** Inspect and maintain the limit switches (if equipped) for each cylinder. See diagram on the right to identify the limit switch. These can be removed with a 7/8" wrench. To prolong the life of the switch, remove and apply di-electric grease on the ball itself and the limit pin. These are normally closed switches and are tied to your "Jacks Up" indication, Retract function, and ignition safety alarm on your panel (if equipped).

**#3.** Check for fluid leaks on the ground, footpad, hose, fittings, etc. Our systems use ATF so the fluid should be red in color. If leak is found, locate the origin and check fluid level inside the pump assembly, fluid level should be between 1-1.5" below the top of the reservoir.

**#4.** If your cylinder chrome shaft/rod is exposed (not a square jack), spray dry teflon spray on the shaft when leaving for long period of time, more frequently if by the ocean or salty environment.

**#5.** After a few uses, check all the hardware for cylinder mounting and pump mounting, re-torque to proper specs to make sure the bolts did not come loose. 3/8" & 7/16" hardware to 70 ft/lbs., 1/2" hardware to 100 ft/lbs., if bolt-on system, note any frame or bracket deformation prior to reaching full torque spec. (some deformation is OK, as long as the structure & function of component is still intact).



# TROUBLESHOOTING

Most issues are power related. Always check power and ground wire connections first. Check power level of battery under load (place volt meter on battery then press and hold EXTEND ALL on control to see if voltage drops).

## **Control Panel shuts off during operation**

This means the control is receiving less than 9.5v from your house batteries, please check and charge your batteries, then try again.

## **Cylinders not lifting or holding pressure**

This means there is more than likely air in the system (not bleed during installation). Two methods, easy method is to enter manual mode and completely extend all four cylinders to full extension and leave for an hour, then retract, wait another 30 minutes before operating again. If this does not fix the issue then the secondary bleeding procedure must be done, see below for instruction.

## **Secondary air bleeding process**

If there is still air in the system, a more strategic method may be required. Loosen all four extend hose fittings (15mm wrench) on the jacks (located near the top of each cylinder), enough that fluid and air can escape. Enter manual mode on panel Press and hold each cylinder until solid fluid comes out of each fitting. Tighten fittings and repeat for retract hose fittings to ensure all air is out, to retract cylinders in manual mode, press each cylinder and the RETRACT button simultaneously. Re-tighten all fittings and clean up mess. This method can also be done by placing each line in a bucket to minimize mess afterwards. *In some instances, the front jacks may need to be dis-mounted from underneath the cab to access the top extend ports during the bleeding procedure.*

## **Cylinder will not operate, extend or retract**

Attempt to bleed system first, verify that it will not operate in either direction. Then check all wires at the control panel to make sure they are inserted properly and plugged in(wires may be loose in connector). If this is all good, then check wiring at pump(s).



# Warranty Guide



**Owner must activate warranty! Via Phone or Website**

**OEM Installed Quad/Central Pump Systems:** 1 year parts and labor

**Automatic Leveling Systems:** Lifetime Cylinders, 1 year parts and labor

*Should the product be defective due to workmanship and/or material flaws,  
we will repair/replace the defective material.*

**Core charges may be applied and refunded on certain components.**

**Leveltron is NOT responsible for:**

- Freight on warranty parts.
- Replacing footpads, bolts, loose or bent brackets or fluids lost as a result of failure to maintain the system, Ex. loose/missing footpads, loose mounting brackets/hardware from not re-torquing after initial use, etc.
- Damages caused by abuse, misuse, negligence, misapplication, error of operation, accidental or purposeful damage or faulty installation, including but not limited to hoses, fittings & wiring components. Example, bent limit switch pins from hitting ground while driving, missing SnapPads, operating system with rear tires off the ground, modification to system, etc.
- Liability for loss to the vehicle, or apparatus or property, loss of time, manufacturing costs, labor, material, loss of profits, consequential damages (direct or indirect).
- For transportation to and from a service center, onsite service calls to or from the customer, damage from road hazard, loss of salaries, commissions, lodging, towing charges, bus fares, car rentals, fuel expense, telephone charges, inconvenience compensation while repairing or replacing a defective part or material.

This warranty voids all previous issues, regardless of provided manual version. Effective date: **7/1/2025**

**Owner must register within 30 days from the date of purchase  
to activate warranty. Call or online at [bigfootleveler.com](http://bigfootleveler.com)**

Prior to any work being done an **authorization number must be obtained** by calling

269-483-9633 for Warranty Parts or Service Labor. For full warranty transcript just contact us!

Service labor based on a flat rate schedule determined by Leveltron for authorized work performed will be reimbursed. This will eliminate much diagnostic time and avoid refusal of unauthorized claims. Many problems may be resolved by contacting a Leveltron service representative or visiting our support docs on our website.

**Write down your system serial number here** \_\_\_\_\_

Serial # located on the white sticker on the system controller or call us, starts with # 8.....