



EZE System Installation & Owner's Manual



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www.BIGFOOTLEVELER.com

There are *TWO* versions of our EZE system available:

Wireless Control & Standard Wired Panel

These systems are compatible, so you can simply order the other versions control pad for your system!

Bigfoot EZE Control Panel

Motor Home / Fifth wheel Instructions

STEP 1: Turn system power on

STEP 2: Select extend

STEP 3: Then simply press the front button and hold it until you feel the coach start to lift

STEP 4: Then press the Rear Button until you feel the rear of the coach start to lift.

STEP 5: Then you can level the coach by pressing any of the buttons one at a time until you feel the coach is level.

*****For retract mode, select retract and hold front button until they are all up then press and hold the rear button until they are all up. Once all the jacks have been retracted make sure to do a visual check to ensure the jacks are in the up position.**



WIRELESS EZE LEVELING SYSTEM OPERATION

STEP 1: Press the “WAKE” button on the remote to turn receiver on.

STEP 2: To lift the Front of the coach, press “FRONT” then “EXTEND.” Hold this down until the coach moves, then release.

STEP 3: To lift the Rear of the coach, press “REAR” then “EXTEND.” Again hold this down until the coach moves, then release.

STEP 4: To lift the Driver side of the coach, press “DRIVER” then “EXTEND.” Hold until desired height is reached, then release.

STEP 5: To lift the Passenger side of the coach, press “PASSENGER” then “EXTEND.” Again, hold until desired height is reached, release.

STEP 6: Press “WAKE” to put the system to sleep.

STEP 1: When you are ready to leave press “WAKE” to turn on the receiver.

STEP 2: To lower the Rear of the coach, press “REAR” then “RETRACT.” Hold this down until the rear jacks are completely retracted.

STEP 3: To lower the Front of the coach, press “FRONT” then “RETRACT.” Again hold this down until the front jacks are completely retracted.

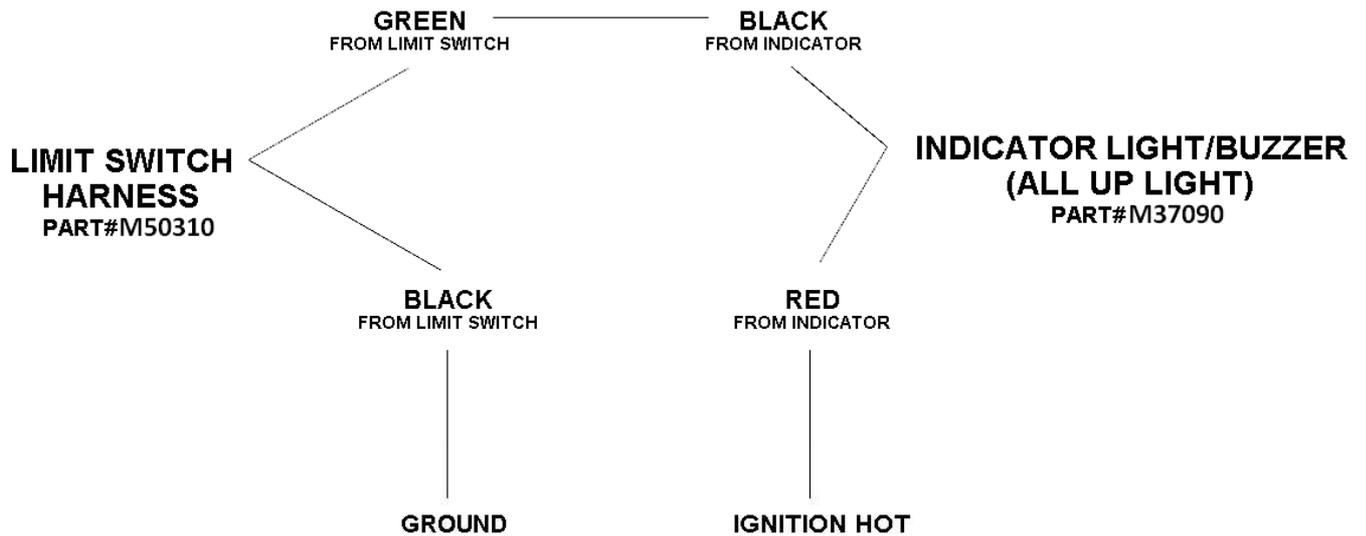
STEP 4: Press “WAKE” to put the system to sleep.

The indicator light & alarm will alert you when one of the jacks are down before you drive away. This is standard on the wireless system.



INSTALLATION GUIDELINE

"ALL UP" INDICATOR LIGHT/BUZZER WIRING DIAGRAM



Indicator to be attached to dash in a convenient & highly visible location for the driver to see.

EZE LIMIT SWITCH HARNESS

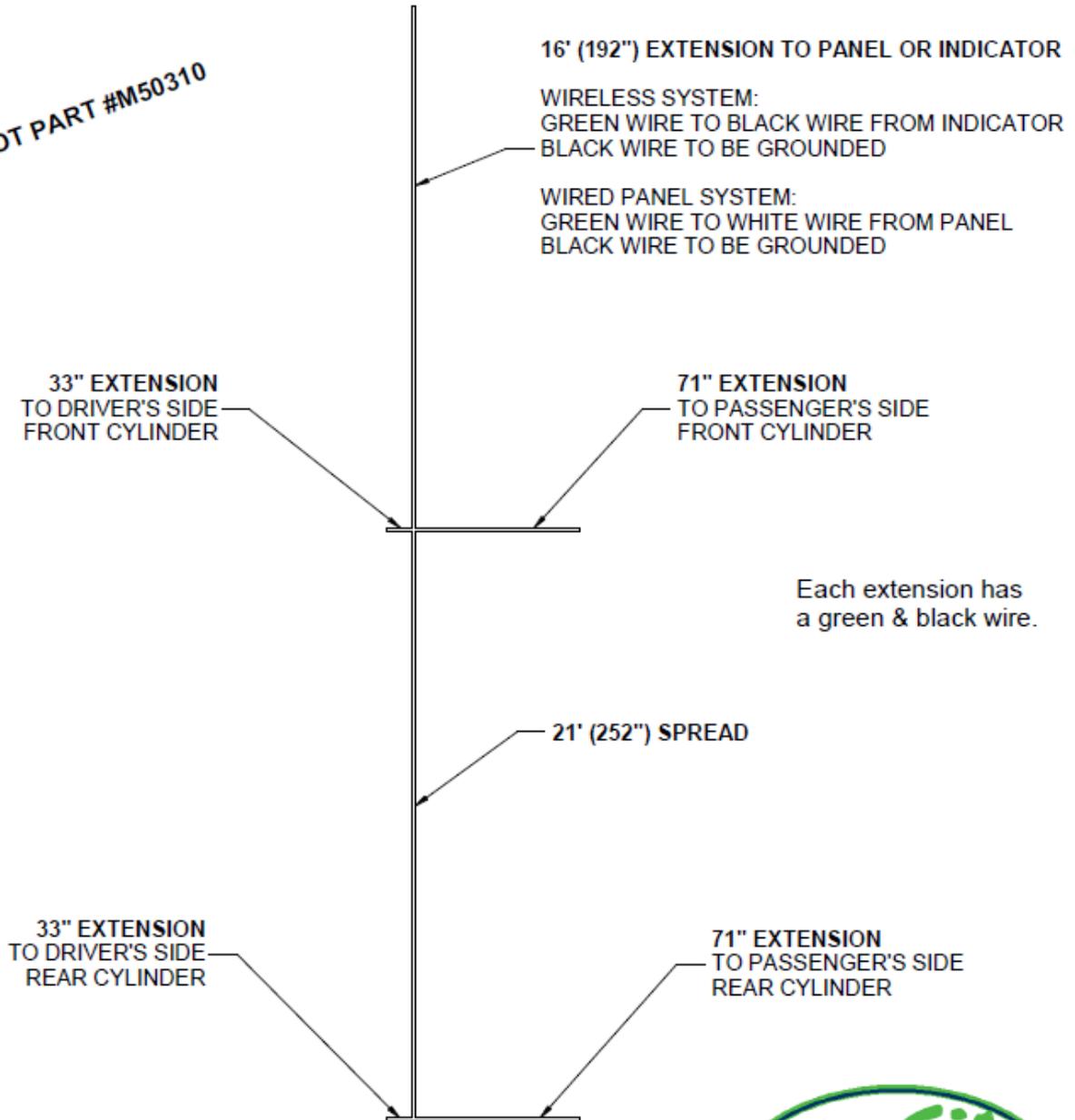
THIS IS THE HARNESS THAT ATTACHES TO EACH CYLINDER & TO
THE INDICATOR LIGHT/BUZZER FOR THE WIRELESS SYSTEMS

OR

THE ALL UP LIGHT ON THE STANDARD WIRED PANEL SYSTEMS.
THE INDICATOR LIGHT/BUZZER ASSEMBLY SHOULD BE SCREWED

INTO THE DASH IN AN AREA THAT IS EASY TO SEE AND CATCHES THE DRIVER'S ATTENTION.

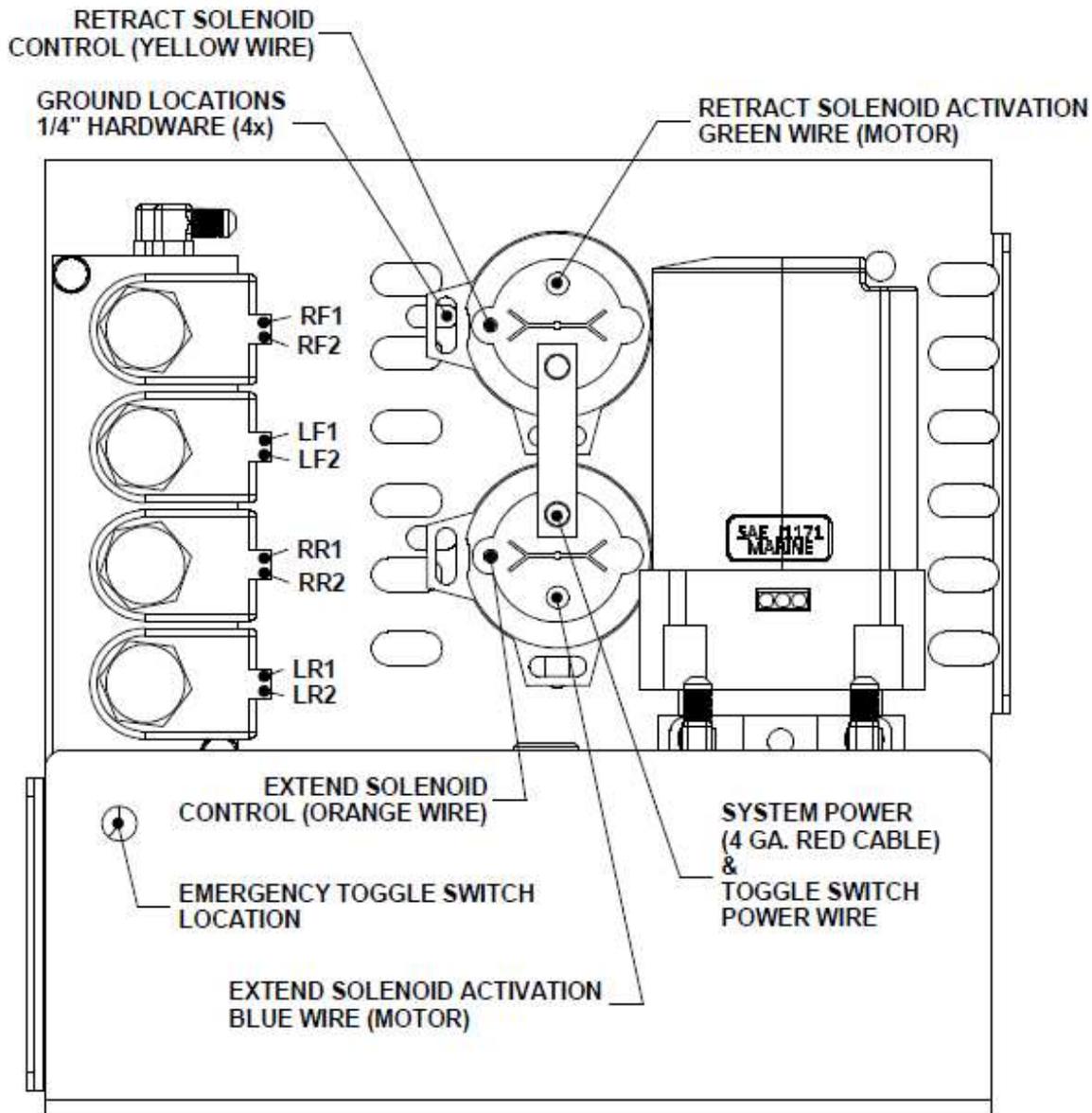
BIGFOOT PART #M50310



FEMALE SPADE CONNECTOR ON GREEN WIRE
MALE SPADE CONNECTOR ON BLACK WIRE
AT EACH END ATTACH TO
PLAIN LIMIT SWITCH ASSEMBLIES (NO EXTENSION)
WITH MALE & FEMALE SPADE CONNECTORS



EZE TANK ASSEMBLY DIAGRAM

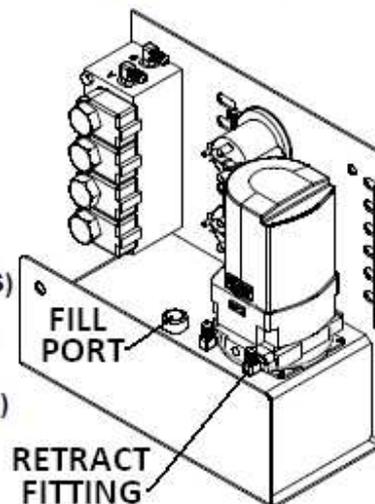


FROM 10 PIN HARNESS:

RED > ANY COACH BATTERY FUSED POWER WIRE
BLACK > GROUND LOCATION
WHITE > GROUND LOCATION
GREEN > RF2
GREY > LF2
BROWN > RR2
BLUE > LR2
ORANGE > EXTEND SOLENOID CONTROL POST
YELLOW > RETRACT SOLENOID CONTROL POST

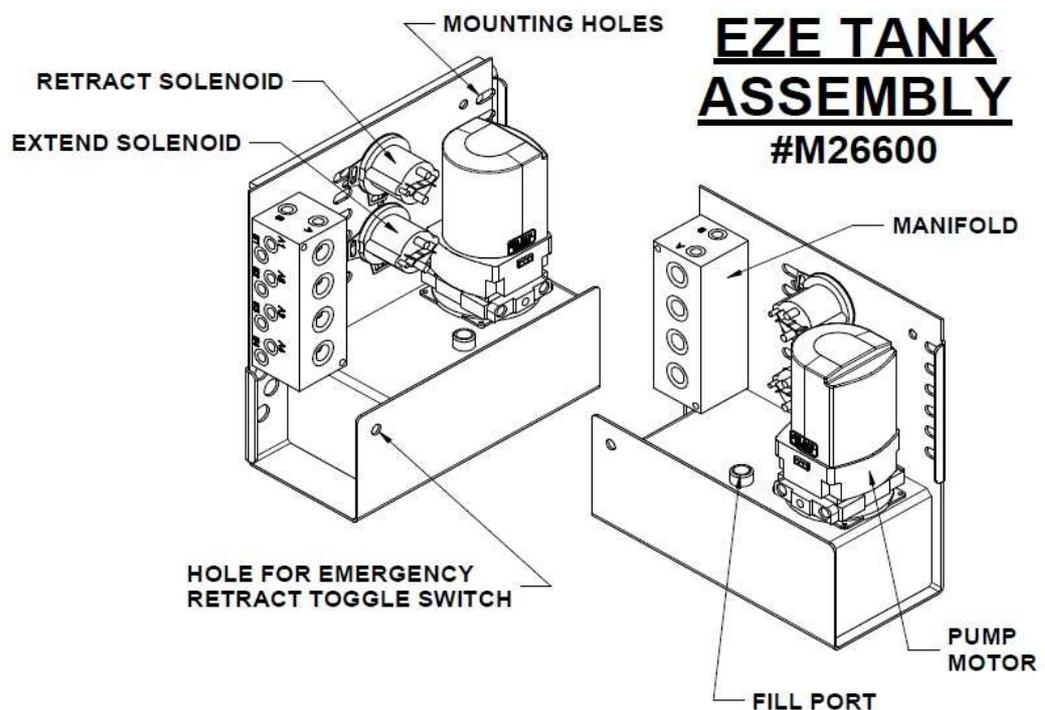
RF1: RIGHT FRONT TO GROUND LOCATION
RF2: RIGHT FRONT TO GREEN WIRE (HARNESS)
LF1: LEFT FRONT TO GROUND LOCATION
LF2: LEFT FRONT TO GREY WIRE (HARNESS)
RR1: RIGHT REAR TO GROUND LOCATION
RR2: RIGHT REAR TO BROWN WIRE (HARNESS)
LR1: LEFT REAR TO GROUND LOCATION
LR2: LEFT REAR TO BLUE WIRE (HARNESS)

TANK COMES PRE-WIRED FROM BIGFOOT EXCEPT: RED WIRE FROM HARNESS



Mounting the Tank Assembly

- The tank assembly can be mounted anywhere on the frame, but is usually placed near the center of the four jacks or in correspondence with the given hose lengths (custom hose lengths may be ordered directly from Quadra Mfg or at bigfootleveler.com).
- Drilling the frame to mount the tank is a usual method along the inside of the driver's frame rail in front of the rear axle depending on the vehicle, others are storage boxes or at the jack.
- Mount the pump using a minimum of two 7/16" bolts, nuts & lock washers.
- The main wire harness will plug directly into the 14-pin connector that is pre-wired to the assembly.
- The three sided plastic tank cover will need to be trimmed to your liking around the hydraulic lines. Fasten the tank cover with at least two self-threading screws, be careful not to puncture the plastic reservoir. This should be done later on in the assembly so don't bother with it now.

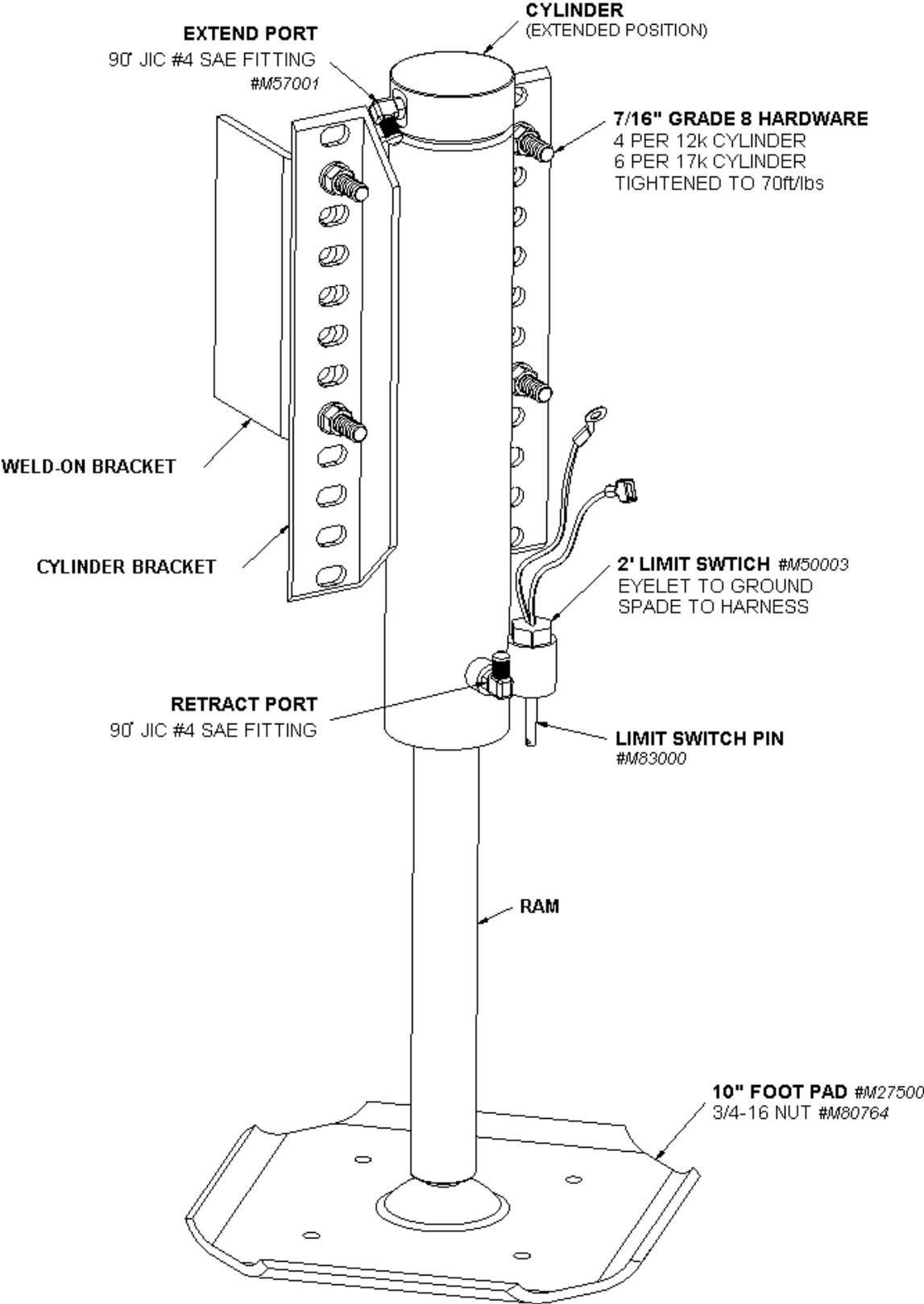


Mounting the Cylinders

- Remove port plugs with 3/16" allen wrench, there are two extend ports, choose only one side.
- Install supplied JIC elbow fittings to the top and bottom ports with a 9/16" wrench.
- **DO NOT** install the extend hose to the top port yet, this will be done later on in installation.
- Attach the cylinder to the weld-on bracket with supplied 7/16" grade 8 hardware, tighten to 70 ft-lbs, using 5/8" wrench on bolt head and 11/16" socket on nut end.
- Set cylinder with bracket on frame in pre-selected location, verify proper ground clearance (typically no lower than 6") set level from side to side and front to back then proceed to weld. Make sure there is adequate penetration and get as much weld as possible to the frame.
- Next attach foot pad with 3/4" thin jam nut using a 1 1/16" socket, there should be two threads visible, foot will not be tight when the cylinder is at all extended, it tightens against the cylinder tube.
- Place 3/4" pin in limit switch barrel then insert threaded limit switch assembly with 7/8" wrench.

CYLINDER ASSEMBLY

Cylinders, Mounting locations & Bracket styles vary from application to application. Feel free to call Quadra Mfg. or visit our webpage for more information on your system.



ELECTRICAL AND FINAL PREP

Tank assembly requires 12 volt battery; make sure you use at least a 4 gauge battery cable for the power to the tank assembly (supplied).

Remove the plastic cover from pump assembly (if installed).

If this is a trailer installation, they usually have the battery mounted on the front of the trailer in a box, if this is a motorhome installation, hook up to the house batteries not the vehicle battery. Install the 80 amp breaker (if equipped) using the self tapping screws in-line somewhere between the jack and the battery, usually in battery box.

Hooking up the breaker: Attach one end of the supplied battery cable to the tank assembly lower solenoid post (with the copper strip) and route to the house batteries. Cut the cable at chosen breaker location to insert the in-line breaker (additional battery lugs are supplied). Attach the one end of the cut cable to the AUX stud on the breaker, attach the other end of the cut cable to the BAT stud on the breaker. The final end attaches to the POSITIVE terminal on the house battery. (DO NOT CONNECT TO THE BATTERY UNTIL THE REST OF THE INSTALLATION IS COMPLETE)

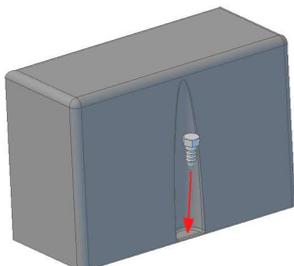
In the event the Tank Assembly *is not* attached or mounted to steel; it is necessary to attach an auxiliary ground from tank assembly to the frame. (If tank Assembly *is* mounted to steel, the ground is reached thru the tank body and frame of vehicle.)

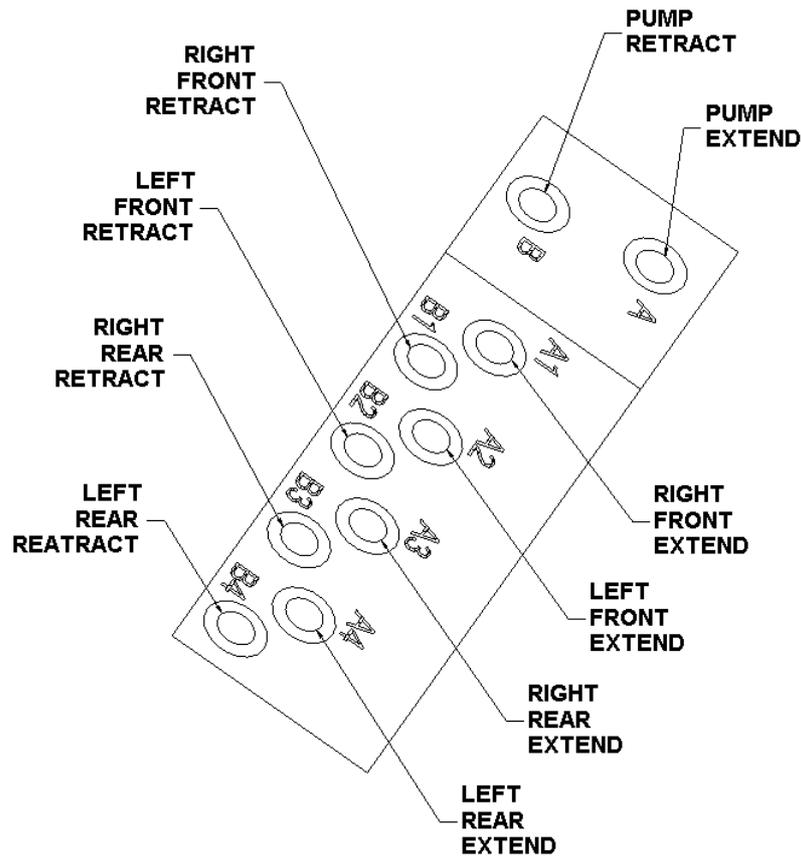
After mounting the cylinders, it's time to plumb the manifold. **Check out the diagram on the next page.** Start by running one hydraulic line at a time to avoid crossing lines. Attach the hydraulic line to a port from the diagram and route it to the corresponding cylinder. Verify that the fittings are tight before moving along, except for the extend ports on each cylinder, leave them loose for the bleeding process done later on in the installation.

Plug the receiver harness into the plug attached to the EZ tank assembly. After connecting the receiver to the tank assembly, using the provided TEK screws attach the receiver plate to the coach in an easy to reach area without placing it in harm's way. For example, although the receiver is weatherproof, face the component side of the receiver towards the rear of the vehicle where road debris cannot damage the receiver.



Attach the plastic tank cover by placing it over the assembly and screw the supplied TEK screw through the cover shown in the picture below.





Final Extend Hose Installation & Bleeding the System

During installation of the hydraulic lines, air is internally captured in the hose. Due to this, bleeding the air out of the system is necessary for the system to work properly.

This process is done at the end of installation and requires two people and can be messy, so as a warning make sure you are wearing eye protection and have rags ready to use. Make sure all hose fittings are tight on the pump side and the retract side of the jacks. Extend hose fittings should still be un-installed.

- With person #1 running the panel, all jacks should be fully retracted.
- Person #2 (armed with a 9/16" wrench, safety glasses, rag and a one gallon container) needs to access the left rear jack and place the un-attached extend hose into the empty container.
- Now person #1 will extend that left rear jack from the panel (press & hold button).
- Fluid & air will be spilling out of the port, once a solid stream of fluid occurs, person #1 will release the button on the panel, after fluid stops flowing person #2 should install the hose fitting to the jack.
- Repeat these steps with the rest of the jacks.
- After doing so, extend all jacks fully and let stand for 15 minutes.
- Then retract all the jacks and remove the tank cover and check your fluid level to verify the fluid in the reservoir is around 1 3/4" below the top (ATF Dexron III) do not fill to the top!

Finally install the tank cover, check that all hardware is tight, the sensor is facing the correct way and is mounted level and the house battery is fully charged.

Troubleshooting

If your **ALL UP** light is not coming on and you hear the **buzzing sound from your panel** it might be a limit switch on one of the jacks. Sometimes all you have to do is get a “vacuum cap” for the ¼” diameter pin to help the limit switch mechanism mate and complete the circuit, if this doesn’t work you could have a bad limit switch. Or it could be one of the foot pads are loose, remove ¾” nut & re-tighten with impact wrench.

If the **LEFT & RIGHT** lights are flashing that means the program “timed out”, which may mean the coach is on too un-level ground or there was too much movement in the coach during the automatic leveling program. Try again.

If rear jacks are hanging too low to the ground with the jacks retracted fully, check underneath the coach and check to see if the jack can slide up one row of holes. If this can be done, make sure you raise both rear jacks the same height and tighten each mounting bolt to 70 ft/lbs. If your coach is equipped with an airbag system, just increase air pressure slightly to raise the coach.

If your system is running “choppy” or sounds rough, try **bleeding the system**.

If a single jack is simply not working properly, the **valve or coil** to that particular jack might be bad. To replace, simply call or go online to order part number **#M35008**.

What Hydraulic Fluid do I use?

Automatic Transmission Fluid (ATF): Dexron II, Dexron III, ATF+4, Mercon, Mercon V

Panel won’t turn on, system won’t run, clicking noise, FRONT & REAR lights flash...

Battery low, panel won’t turn on = coach battery, the system relies on the house battery. The battery needs to be nearly 100% charged for the system to work, it doesn’t make a difference if the coach is new, that doesn’t mean the battery is fully charged or even good. Battery’s don’t charge instantaneously, so one can’t just expect to hook it up to a charger and the system will work immediately, if the battery is good, then the unit might have a ground issue.

Must un-plug/re-plug the interface cable to clear code on panel regardless.

Cylinders won’t retract...

Broken/crushed limit switches, bent or broken clevis pins (especially rear jacks on fifth wheel)

Limit Switch barrels mounted too low, 1” is bad, 1 ½” is good (Manufacturing defect).

Need new Limit Switches, Clevis pins & Limit Switch Washers (one of each per cylinder).

Cylinders “creep” down when not in use... Check fluid level, OR Bleed the system, OR Pump valve failure.

Cylinders make loud “squeaking” noise while operating... Spray rams with Teflon spray (or 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.)
- Relief Valves have failed on pump motor... replace motor/tank assembly
- Hydraulic seal failure, check for oil around bottom of cylinder... replace/return cylinder OR seal kit

Warranty Guide

EZE 4pt Systems: Limited 1 year on parts and labor.

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

Quadra is NOT responsible for:

- **Freight on warranty parts.**
- **Replacing footpads, bolts, or fluids lost as a result of failure to maintain the system (Loose footpads should be tightened at owner's expense).**
- **Damages caused by abuse, misuse, negligence, misapplication, error of operation, accidental or purposeful damage or faulty installation. Including but limited to hoses, fittings & wiring components.**
- **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. Effective date: 9/1/11

**OWNERSHIP MUST BE REGISTERED WITHIN 30 DAYS FROM THE DATE OF PURCHASE TO
ACTIVATE WARRANTY.**

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 Quadra 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 Quadra service representative.

Credit card payment arrangements at time of order will be nullified upon our receipt of your defective parts. **All returned parts need to have the repair authorization number** and be received within 30 days of original order to avoid charges.

Provide the system serial number here _____.

Emergency Service

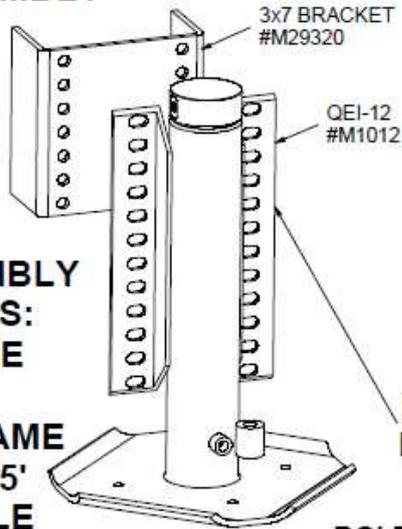
For after hours emergency service please call our normal office number

269-483-9633 and follow the instructions.

Typical Mounting Locations

Example shown: Ford E-450 Chassis

FRONT ASSEMBLY UNDER CAB



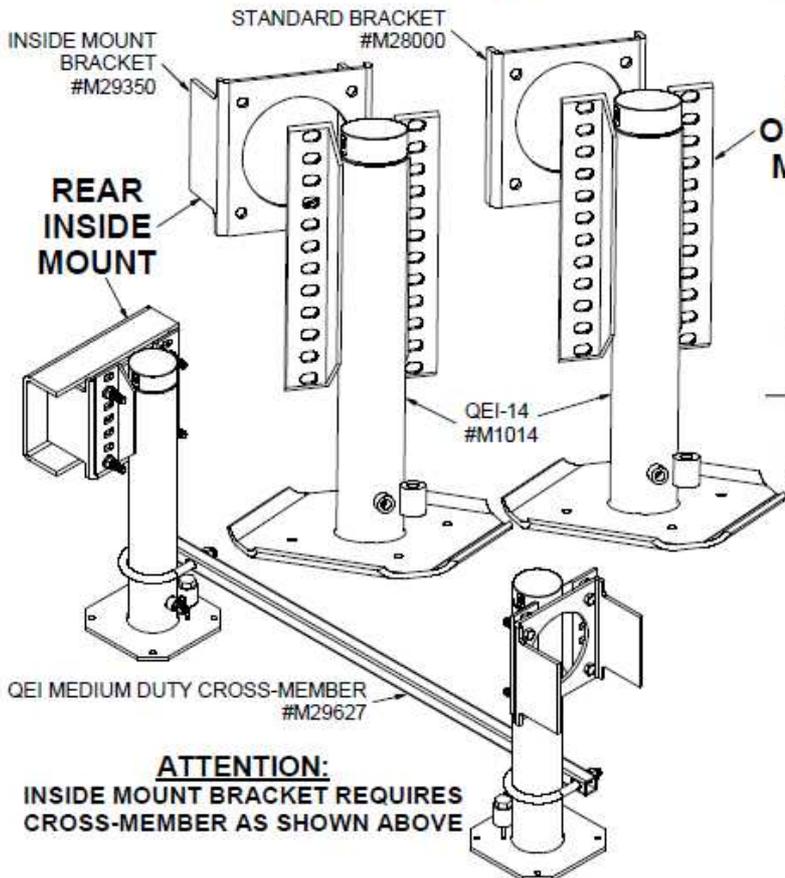
REAR ASSEMBLY TWO OPTIONS: INSIDE FRAME RAIL OR OUTSIDE FRAME RAIL WITHIN 5' OF REAR AXLE

BOLT TANK HERE

FRONT TANK ASSEMBLIES CAN BOLT DIRECTLY TO VEHICLE FRAME BY UTILIZING FACTORY HOLES OR DRILLING NEW HOLES (7/16" HARDWARE).

REAR TANKS MAY BE BOLTED DIRECTLY TO CYLINDER BRACKET OR USE THE OTHER BRACKETS SUPPLIED WITH KIT TO MOUNT THE TANKS.

EXAMPLE: USED INSIDE MOUNT BRACKETS FOR JACKS, USE REMAINING OUTSIDE MOUNT BRACKETS TO MOUNT TANKS



ATTENTION:
INSIDE MOUNT BRACKET REQUIRES CROSS-MEMBER AS SHOWN ABOVE

