

QUADRA

BIGFOOT

HYDRAULIC LEVELING SYSTEMS

800-752-9815

Sprinter 3500 Chassis Operation & Installation Universal Rear 2pt Bolt-On System



Quadra Manufacturing
Home of the Bigfoot Levelers
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800-752-9815
Bigfootleveler.com

Operating the System:

- **Rocker Switch Control** (*standard*)

Simple Press & Hold operation to Extend (to raise vehicle) or Retract (to bring jacks up for traveling).

- **Wireless Control** (*optional*)

Wireless transmitter or key fob remote, with emergency controls on the receiver, operating instructions are on the next page.

System Benefits:

The Bolt-on system does not interfere with the vehicle's frame warranty and is fairly easy to install due to the fact that there is no drilling or welding. Due to the location of the jacks, they do not interfere with the vehicle's departure angle which means when you enter those highly sloped entrances or uneven lots, the jacks will not be scraping the asphalt. And no need for having the exhaust re-routed or losing your spare tire to get jacks on your sprinter!

Pre-Cautions:

Do not use blocks underneath jacks or use them to change a flat tire or for maintenance while working under vehicle (persons should never be underneath vehicle with jacks extended).

Optional...

Wireless Control Instructions



1pt & Slave Systems



Receiver shown on Left,
Transmitter shown on Right.
Replacement Transmitter #M37098
Replacement Transmitter/Receiver #M37029

Operation:

Depress the on/off button on the transmitter to activate. The blue LED light on the top right corner should turn on. The transmitter should be in the off position when the unit is not in use, but is equipped with a safety feature that shuts off if not being used after 3 minutes.

On the transmitter, press & hold the Extend button to lift your unit to desired height. To lower the unit or fully retract the jack(s) press & hold the Retract button.

The controls on the receiver operate the same as the transmitter.

Sync Transmitter:

This is usually done by the original installer, but if you have an issue or have a new transmitter follow these simple steps...

Make sure the receiver and the transmitter are off. Enter the "learn mode" by pressing & holding the on/off button on the receiver until the LED light starts to **flash quickly** on the receiver then release.

Now press & hold the on/off button on the transmitter until the LED on the receiver becomes **constant**, then release. Transmitter now "learned".

Re-Program Receiver:

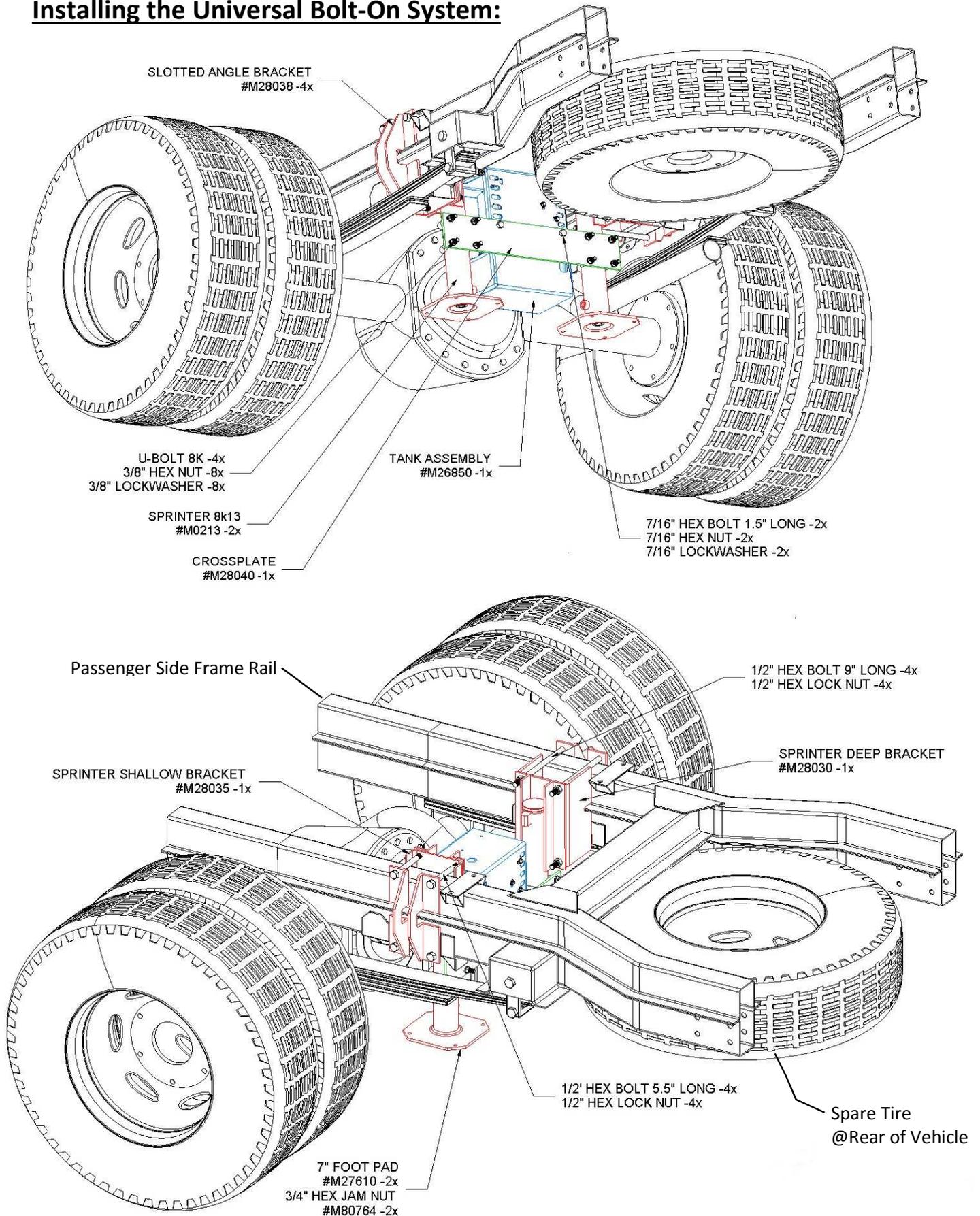
If you are having issues with your controller at all try this before calling for service...

With the transmitter and the receiver off, press & hold the on/off button on the receiver, the LED light will start to flash quickly on the receiver but continue to hold until the light starts to **flash slower**, then release. The receiver module is now cleared of all codes.

Now press & hold the on/off button on the transmitter until the LED on the receiver becomes **constant**, then release. Transmitter now again "learned".

To exit this mode press and release the on/off button on the receiver, the light will become constant. Your controller is now re-programmed and cleared of all error codes.

Installing the Universal Bolt-On System:



Installing the Brackets, Jacks, Crossplate & Tank Assembly:

See the diagram on the previous page for locations and visual confirmation on how this system attaches to the vehicle's frame. This is a bolt-on system and requires no drilling or welding.

Cylinder Preparation

Install the Elbow fittings on the lower ports on the jacks, and the straight fittings on the top ports of the jacks. Take care not to overtighten and break the fittings, just needs to squeeze the o-ring. You can always check the fittings for fluid or final tightening during bleeding process later on. The foot pads can be installed now or after the jacks are installed. Use the ¾" jam nut, two threads should show past the nut and an impact must be used.

Location

The center of the brackets & jacks should be roughly 15" from center of rear axle, just between the sway bar link bracket and a body mount.

Driver Side

First place the slotted angle brackets and shallow bracket on driver's side frame rail in the location listed above. To hold the two brackets up place two 5 ½" bolts & ½" lock nuts (head side to outside of rail) thru the holes as shown in the diagram. Then place the jack (both are the same) on the bolts and have the locknuts ready to keep the assembly from falling. Now place the bottom bolts and nuts thru holes, prior to tightening, assemble other side and crossplate, then make sure jack is level (upright).

Passenger Side

Use the deep bracket & longer 9" bolts & ½" lock nuts due to the exhaust on this side. Follow the same instructions as the driver side.

CrossPlate

Attach using the supplied U-Bolts, 3/8" nuts & lock washers, make sure it is level prior to tightening.

Tank Assembly

Attach facing the rear axle and the lowest holes for the best ground clearance. Use the 7/16" bolts, nuts & lock washers. Fill with fluid before the tank cover is installed (see following pages).

Make sure the proper hardware is used in the proper locations. Everything should be attached and level prior to tightening. All hardware to be fastened to following torque specs:

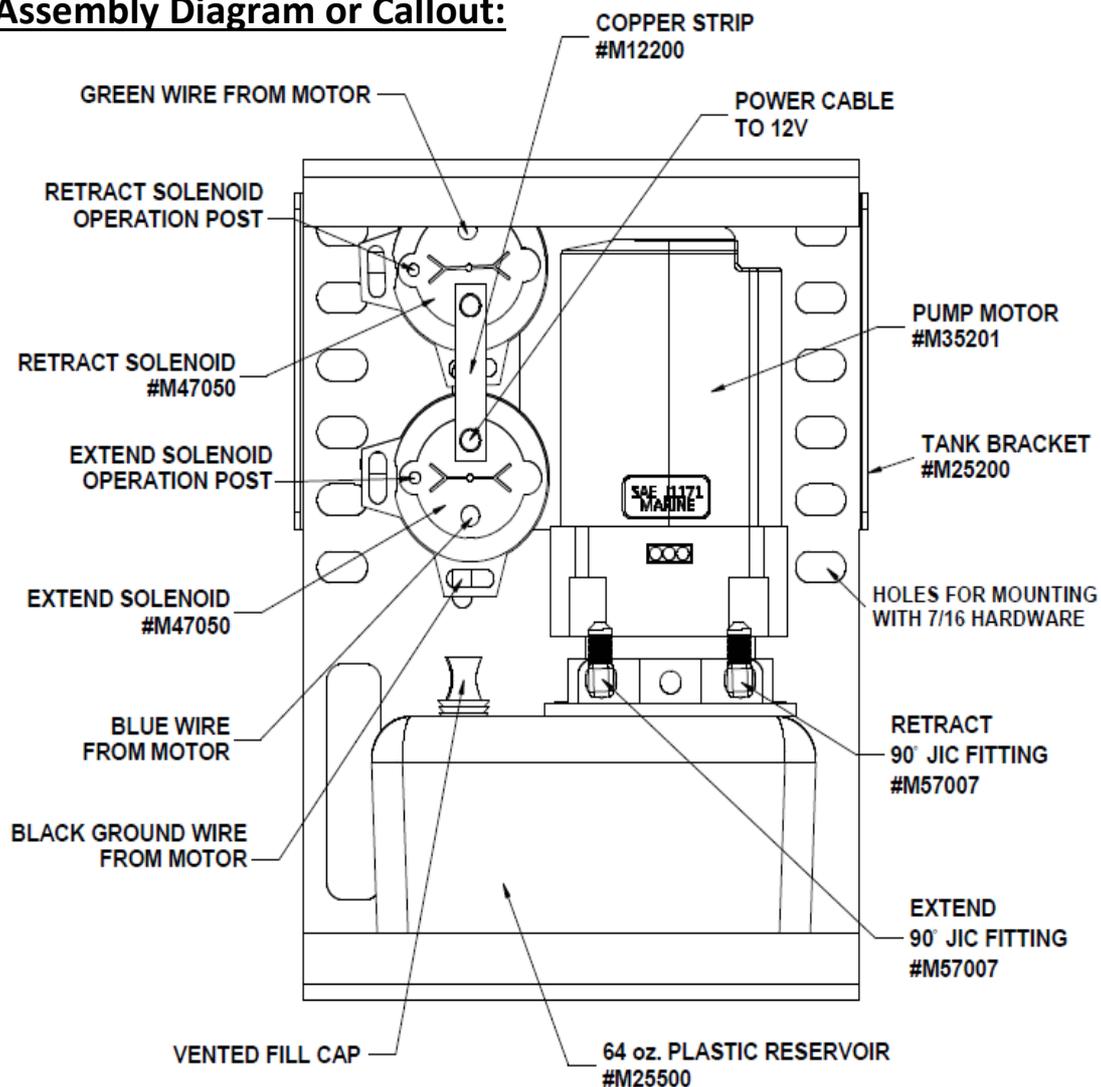
1/2" (5 ½" & 9" Bolts) = Torqued to 80 ft/lbs.

7/16" (1 ½" Bolts) = Torqued to 70 ft/lbs.

3/8" (U-Bolts) = Torqued to 45 ft/lbs.

3/4" (Nuts for Foot Pads) = Impact must be used and one to two threads should be visible past nut.

Tank Assembly Diagram or Callout:



NOT PICTURED:

TANK COVER (BLACK TEXTURED PLASTIC) #M12002

OVERALL DIMENSIONS:

9" WIDE
12.5" TALL
5.75" DEEP

Wiring the System:

Included is a harness (#M43800) that routes from the tank assembly to the rocker control switch. The red wire is the 12V power, this goes from the power stud on the tank assembly (on copper strip with 5/16" studs from solenoids) to the center post on the switch. The black wire is ground & is not needed for this switch. The blue wire goes from the retract operation post on the retract solenoid to the post labeled "1" on the switch. The grey wire goes from the extend post on the extend solenoid to the post labeled "3" on the switch. The switch is not waterproof & must be installed inside the coach. The Wireless option is wired to the tank the same way, but the end to the switch must be converted to attach to the wireless receiver's pigtail. The wires are color coded to mate & the black ground wire is required in this instance. The receiver is podded and can be mounted outside the vehicle, but should be placed where it is easily reached in case if the transmitter is damaged or misplaced, typical placement is inside a storage box wall.

Wiring the 12V Power Cable:

Battery Cable

Supplied will be a 4 gauge battery cable that needs to be cut into two pieces.

- The 1st to run from the Solenoid power stud (see tank diagram) to the 80 amp breaker auxiliary stud.
- The 2nd to run from the battery stud on the breaker to the Positive Terminal on the coach's house battery. Hooking up the power should be the final wiring step so make sure this is done after all the other electrical work is done for safety.
- The supplied 80 amp breaker for the system should be securely fastened in the battery box.

Final Extend Hose Installation

After both jacks, brackets, crossplate & tank assembly are installed it is not time to plumb the system. There are six hoses in your kit, two are 11" and four are 24". The two 11" hoses run from the elbow fittings on the pump (looking at the pump, the right fitting is retract). Run the 11" lines thru the slot in the top of the tank assembly and install the "tee" fittings to the lines. Now run each 24" line from each "tee" fitting to the corresponding jack ports (retract port on jack is at the bottom). The lines are long so they will not "kink" while operating, keep lines from making sharp curves and away from the exhaust or moving axle parts. Fill your tank assembly's reservoir to $\frac{3}{4}$ -1" from the top with ATF Dexron III fluid, do not use hydraulic fluid, the jacks are already pre-filled.

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.

- Extend the jacks fully and let stand for 15-30 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 $\frac{3}{4}$ "-1" below the top (ATF Dexron III).

Finally install the tank cover, check that all hardware and hydraulic fittings are tight and the house battery is fully charged.

Troubleshooting

If all you hear is clicking or the jacks seem slow or the pump is running slow, check battery (should be nearly 100% charged) or check fluid level. If your system is running "choppy" or sounds rough, try **bleeding the system**. If there are issues with the slotted angle brackets hitting the leaf springs, installation of an air bag system may be required.

Call us @ 1-800-752-9815 or Visit: BIGFOOTLEVELER.COM

Owner must activate warranty!

This can be done by phone or right from the website!

See detailed warranty information on next page...

Warranty Guide

2pt Round Leg Systems: Limited 2 years on parts and labor.

Should the product be defective due to workmanship and/or material flaws, we will repair/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 afterhours emergency service please call our normal office number **269-483-9633** and follow the instructions.