



CLASS B RV 5" SUSPENSION KIT - 1992-2014 FORD E-SERIES

WARNING! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION
CONFIRM MEASUREMENTS BEFORE DRILLING ANY HOLES

PARTS LIST:

FRONT

- 2** WTD – CUSTOM EXTENDED RADIUS ARMS
- 2** WTD – RADIUS ARM BRACKETS (WELD ON)
- 1** MOOG RADIUS ARM PIVOT BUSHING KIT
 - SLEEVE
 - FRONT CUPPED WASHER
 - FRONT ROUND BUSHING
 - SPACER RING
 - REAR CONCAVE BUSHING
 - LARGE WASHER
 - LOCK WASHER
 - NUT
- 2** SKYJACKER LIFT COILS
- 2** MODIFIED I BEAMS W/ MOOG PIVOT BUSHINGS
- 2** FOX PERFORMANCE SERIES 2.0 SHOCK

REAR

- 2** FOX PERFORMANCE SERIES 2.0 SHOCK
- 1** SHOCK HARDWARE
 - ½" X 3" BOLT
 - ½" FLAT WASHER
 - ½" LOCK WASHER
 - ½" NUTS
- 2** PROGRESSIVE LEAF SPRINGS

TOOLS NEEDED:

- FRONT:**
- 10MM SOCKET
 - 15MM SOCKET
 - 18MM SOCKET
 - 19MM SOCKET
 - 21MM SOCKET
 - 30MM SOCKET
 - 1-1/8" SOCKET
 - 3/8" AND/OR ½" RATCHET GRINDER W/ SANDING DISC
 - MIG WELDING MACHINE
 - TAPE MEASURER
 - SHARPIE
 - HAMMER
 - PLIERS
- REAR:**
- 15MM SOCKET
 - 15MM WRENCH
 - 18MM SOCKET
 - 19MM SOCKET
 - 21MM SOCKET
 - 24MM SOCKET/WRENCH

INSTALLATION INSTRUCTIONS

DISASSEMBLY

Be sure to measure ride height before and after install for a true measurement of the total height lifted. We recommend using a piece of blue painters' tape on the front and back fenders. To find the before measurement, take a tape measurer and measure from the ground to the bottom of the fender well lip. Write that measurement on the blue tape. This step will be repeated once the lift is installed.

STEP 1:

Jack up front of van so the front wheels are off the ground and place jack stands under the frame behind the front bumper. This is for safety while you are completing the installation of this lift kit. Remove front wheels using a 22mm socket.



STEP 2:

1993-2007:

Remove the sway bar from frame with a 15mm, pull sway bar from I beams.

2008-Current:

Remove sway bar from frame with 15mm and a 18mm. Using 15mm remove sway bar from sway bar links from I beams.



STEP 3:

There is a cotter pin in the bottom of the steering castle nut. Using a pliers, bend the cotter pin into a straight position and then tap it out before loosening the nut. Now use a 21mm to remove the tie rod nut.

Tip: Smack knuckle with large hammer to free up tie rod.



DISASSEMBLY

STEP 4:

Undo the brake caliper with a 21mm and move it out of the way by hanging it on a hook to get clear access to the core of the suspension.

Tip: Make a double-sided metal hook, loop one end to a hole in the frame, then hang the steering knuckle on the other end of the hook once you remove it.

Note: Stock brake lines do not need to be removed/replaced and bleeding the brakes is not necessary. Angling 90 degree fitting down will give you more length on you brake line.



STEP 5:

Make sure you have a jack supporting the suspension on the side you are working on. Now remove factory shock using a 21mm, then remove factory coil retainer on top of coil bucket using a 10mm.



STEP 6:

Remove the eccentric bolt on top front of I beam with a 15mm, on bottom side of I beam, remove bolt using a 1-1/8 wrench. Be sure to leave the bolt threaded on finger tight to avoid injury or damage from the whole piece dropping. Once all hardware is removed from the steering knuckle, take a hammer and hit the main points of contact to loosen the assembly. Lastly, remove the lower bolt you left on finger tight, allowing everything to be removed. Set the assembly off to the side in a position that does not put strain on the brake lines.



DISASSEMBLY

STEP 7:

Now that everything is taken off and the caliper, brakes and spindle are moved to the side. Using a 21mm socket on the top and a 30mm socket on the bottom, remove hardware to separate the I beam from the radius arm. We recommend placing a jack stand under the I beam to avoid it from dropping and causing injury.



STEP 8:

Using a 1-1/8", remove the stock radius arm pivot from mounting bracket. Now use 15mm to remove bracket from frame.



STEP 9:

Using a 19mm and a 21mm, unbolt where the I beam pivots on the frame

Tip: The bolt for the passenger side I Beam is on the front side of the van facing the steering. Be sure to put it back the same way. If not done properly, the additional mount could hit the I beam when the I beam is moving up and down due to the additional length.



Note: Now that the front stock suspension is off, clean the frame and prep for the radius arm bracket installation. Start by sanding down the powder coating on the radius arm brackets at the points of contact which will be welded to the frame.

FRONT INSTALLATION (START ON DRIVER SIDE)

STEP 10:

Radius arm assembly: Using the Moog bushing kit. We recommend putting everything together prior to installing it on the van.

Take the extended radius arm and place the hardware on the threaded end in this order:

- Front Cupped Washer
- Sleeve
- Front Round Bushing
- Spacer Ring
- Radius Arm Bracket (Lip end first)
- Rear Concave Bushing
- Large Washer
- Lock Washer
- Nut



Snug the assembly tight so everything interlocks with focus on the crush sleeve.

Note: While installing the I beams, notice the passenger side I beam has a metal nub that will be pointing forward if installed correctly. Also notice that the I beams are two different lengths. The driver side will be the longer one.



STEP 11:

Starting with the passenger I Beam, take the stock bolt and insert it through the original factory hole from the back. Now repeat the same process on the other side. If there is resistance, wiggle the I beam to get the bolt through the hole.

Radius Arm Bracket Relocation:
Repeat Steps for Both Sides



FRONT INSTALLATION

STEP 12:

Starting with the passenger I Beam, take the stock bolt and insert it through the original factory hole from the back. Now repeat the same process on the other side. If there is resistance, wiggle the I beam to get the bolt through the hole.

Radius Arm Bracket Relocation:
Repeat Steps for Both Sides



STEP 13:

Take a tape measurer and hook it on the inside lip of the back of the second body mount bracket (under driver/passenger feet) and mark at desired location depending on tire size.

OEM Up to 235/85/16 Tires:
Measure 10" back on the frame

PRE-WELDING PREP

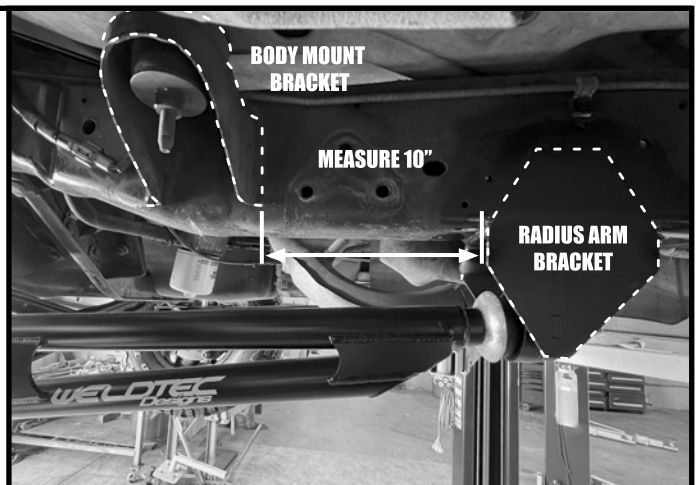


STEP 14:

Take a tape measurer and hook it on the inside lip of the back of the second body mount bracket (under driver/passenger feet) and mark at desired location depending on tire size.

OEM Up to 235/85/16 Tires:
Measure 10" back on the frame

**Note: Welding the Radius Arm Bracket to the frame. Only weld the front and bottom of the bracket, not the back side.*



FRONT END REASSEMBLY

Note: We recommend spraying WD40 on all the threads and insides of bolts prior to assembling. This will lubricate and help everything to go back together smoothly, especially on vehicles that have a lot of rust.

STEP 15:

Next, bolting the extended radius arm with mounting bracket to the I Beam using factory hardware. Place a jack stand under the I Beam to help support it while using a jack to position radius arm bracket flush on frame.

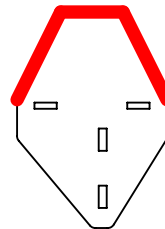
Tip: Once the bracket is positioned correctly, use a C-clamp to clamp the radius arm bracket snug to the frame. Then check the measurement once more prior to welding.



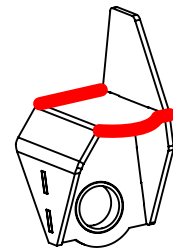
Welding the Radius Arm Bracket to the frame. Only weld the front and bottom of the bracket, not the back side.

Weld Radius Arm Bracket to frame only on red areas.

Front View



Back View



STEP 16:

Bend brake line 90 degrees facing down to give line additional slack.

If you would like to order longer steel braided lines, the product # is FES-EBL



FRONT END REASSEMBLY

Note: We recommend spraying WD40 on all the threads and insides of bolts prior to assembling. This will lubricate and help everything to go back together smoothly, especially on vehicles that have a lot of rust.

STEP 17:

Tighten 30mm and 21mm going through radius arm and I beam and tighten 1-1/8" bolt on radius arm bracket hardware. Install spring isolator on top of radius arm bolt.

**STEP 18:**

Install Fox 2.0 shock. Take the top nut, washer and bushing off the shock and then insert the shock up into the designated hole located on the right side of the coil bucket.

Put the remaining bushing and hardware on the top shock post, which is now exposed on the top side of the coil bucket and make it finger tight.

Then put a 19mm wrench on the top nut and twist the shock by hand until snug (do not over tighten shock bushings).

Using a floor jack, compress the coil spring so the lower shock bolt fits in the radius arm tabs using a 3/4" socket and wrench, tighten shock hardware.



RECOMMENDED SWAY BAR ADD-ON

STEP 19:

Install sway bar drop brackets using the FES-SBDB-08 kit, then install sway bar

Reassemble ALL factory parts in the reverse order in which they were removed. Put the hardware back on finger tight and then follow up with the wrench to avoid fighting the parts.

You are ready to put the front wheels back on. Now is a great time to make sure all bolts are tight



STEP 20:

Now that your vehicle is assembled and sitting on the ground, loosen the tie rods with a 15mm, use channel locks to toe in tie rods to correct the steering.

**Note: Alignment shop will fine tune this adjustment as well as replace eccentric to correct camber and caster.*

If there are rubbing issues with the front tires and the bumper, carefully mark and trim away to avoid potential tire damage.

If you don't have access to a welding machine, you can take your vehicle to a weld shop and have the brackets welded on per step 12. Once this is completed, continue your build.



REAR INSTALLATION - PROGRESSIVE LEAF SPRINGS**STEP 1:**

Lift RV and put jack stands under the rear frame. Lift high enough so that the tires are off the ground without a jack under the rear differential. Before you let the jack down completely remove lower shock bolts using a 18/15mm, then remove the lower nut on sway bar link using a 14mm.

**STEP 2:**

Now remove wheels. Using a 24mm deep socket, loosen both u-bolts on one side, then place a jack under axle to support and remove the remaining 2 u-bolts. Lower the jack so no weight is on the leaf spring.

**STEP 3:** *Note: The shackle will come off with the leaf spring.*

There are 3 possible scenerios for removing the rear leaf spring hanger from the frame:

1. No obstructions: Remove rear (21 mm) and front (24mm) shackle bolts.
2. Drill a hole in the rear/front compartment to access shackle bolt (1.5" in the rear and 1-7/8" hole in the front). A plug has been supplied if the step is necessary.
3. Cut rivits from rear shackle hanger with cutoff wheel (x-shaped) and then air hammer the head of the rivit off.

REAR INSTALLATION - PROGRESSIVE LEAF SPRINGS**STEP 4:**

Remove the front leaf spring bolt using a 24mm. With the front and rear bolt removed you can now remove the leaf spring. Once out, install the shackle on the new spring before installing into the vehicle.

**STEP 5:**

Install the new leaf spring in the same manner as it was removed, then repeat for opposite side.

Note: Do not tighten leaf spring mounts until vehicle is on the ground, these mounts should just be snug. Over tightening will result in a squeaky ride.

**STEP 6:**

Once the leaf springs are installed, remove the top shock hardware using 15mm, then remove the rubber bushing in the frame.



REAR INSTALLATION - PROGRESSIVE LEAF SPRINGS**STEP 7:**

Install the shock adaptor on the shock and tighten using a 24mm. Now install the adaptor into factory shock position using a 19mm. Wait to install the lower shock mount until vehicle is back on the ground.

**STEP 8:**

Sway Bar Relocation: Move the upper sway bar mount down to a lower position on the frame. It may be possible to use an existing hole if applicable. Make sure new position is clear from leaf spring hardware.

Put the wheels back on the vehicle. While lifting the vehicle, tighten the lower shock bolts.

Note: New RV lift may require the driveshaft to be lower.



REAR INSTALLATION - PROGRESSIVE LEAF SPRINGS**STEP 9:**

Reinstall factory u-bolts with new progressive leaf springs.

**STEP 10:**

While installing the new Fox 2.0 Shocks, remove the top nut, washer and bushing. Slide the top shock post into the designated stock hole where the old shock was removed and then reach over the frame to put the bushing, washer and nut on the post. Place wrench on the nut and turn the shock by hand until it is tight. Jack up rear end to align lower shock mounts with tabs and replace factory hardware.



Put the rear wheels and tires back on and lower the jacks.

Now take the tape measurer and measure from the ground to the bottom of the fender lip and write the new ride height on the blue painter's tape that was placed on the fenders before started the install. If everything was done correctly, a true 5 inches of lift should be the result.

Congratulations! You have now installed the Class B 5" Suspension Kit!

You are now ready to take your van to the alignment shop.