[Toyota 120 Home] [Forum] [4Runner] [Tacoma] [FJ Cruiser] [Lexus GX470] [LC Prado 120] [Tech Write Ups] [Mechanical] [Suspension] [Outfitting] [Audio. Electronics and Electrical] [Maintenance]

## 4Crawler Body Lift installation by buildog and expat



This write-up covers the installation of the <u>4Crawler</u> 1.5♦ body lift kit with heavy duty hardware and radiator brackets on the 2003+ 4Runners with Shrockworks bumpers and Hanna sliders. Owners with other brand bullbars and sliders will find a lot of the information directly compatible, but there may be some different steps or approaches required.

The installation is probably a 5 out of 10 banana job. It is best to do it with 2 people (one working above, one below) and plan on 4-5 hours. It will take less time if you have a very good understanding of what is required or if you have done it before. It might be best to plan on a whole day if you are a basic DIYer. It took us 11 hours to do 2 trucks that includes a few trips to the hardware store, taking photographs and creating procedures. This write up should save you some time!

The 4Crawler 1.5 ♦ body lift we used consisted of the following kit components and can be ordered at <a href="http://4crawler.com/4x4/ForSale">http://4crawler.com/4x4/ForSale</a> /Toyota4RunnerBodyLift.shtml#GenIV

- B Ultimate lift blocks
- HD Heavy Duty hardware
- CLR Custom color (Black in our case)
- RAD Radiator drop brackets
- DOC Documentation for good measure

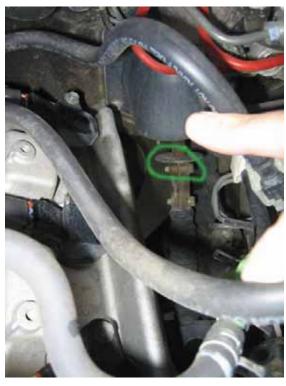
Preparation is very important to make the installation proceed smoothly. Please read through the entire write up before starting. Understanding all the steps taken and special tools or equipment required will make the process less time consuming.

In our case we found that removing the bolt on sliders and front bumper made it a lot easier to get the work done. Trucks with running boards should not need to have them removed but those with weld-on sliders will have to find a safe way of lifting the body from the frame. (We used a space normally taken up by sliders to use as the lifting point.)

We found that as we lifted the body off the chassis, it pushed into the rear chassis frame rail and also into the bullbar. The rear bumper was not really a problem. It simply flexed enough to accommodate the lift, however the front fenders would not clear the bullbar so we removed the bullbar completely. This made other aspects of the install easier so it was not an issue.

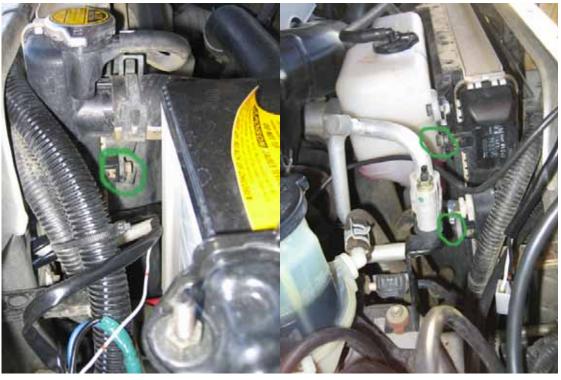
Also it made access to the radiator brackets much easier. Your mileage might vary, but make sure you have easy access to the radiator brackets before

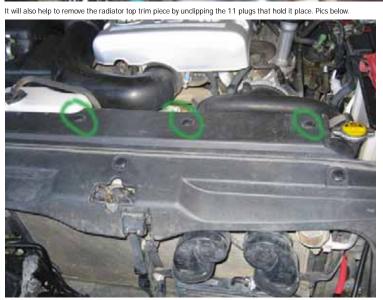
After the sliders and front bumper was removed the steering slip joint was loosened to allow it to extend outwards when the body is lifted. Only the top nut needs to be loosened. See pic below.



The radiator fan shroud needs to be loosened and laid over the fan temporarily. This avoids the fan binding on the shroud later when the body gets lifted and makes moving the radiator a lot easier. The fan shroud is held by 3 bolts at the top and then 2 clips at the bottom. Once the 3 bolts (pictured below) are removed, the shroud can be move upwards to unclip and then placed over the fan assembly.

6/4/2011 12:30 PM 1 of 13







Next drop the spare tire to allow access to a centering bracket on the body. The centering bracket is meant to help you guide the handle into the winding mechanism (pulley) that raises and lowers the spare. Once the lift is complete the centering bracket will prevent easy access to the pulley to lower the spare later. This is because the pulley is mounted on the frame and the centering bracket on the body. Once the spare was lowered, we bent up the centering bracket with a few hammer blows. See pics below.







Now the interior trim can be removed to allow access to the body mounts.

Rear cargo area trim removal and body mount pics.







Rear cabin trim and body mounts. These mounts are just in front of the rear wheel well.





Front cabin mount trim and body mount pics.



Screw that holds down side panels in front cabin.



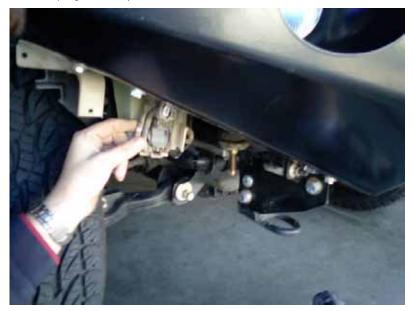
Driver side



Passenger side



Next you will need to remove the washer bottle to gain access to the front passenger mount. Unclip the wires and also the 2 tubes, pic below. Then remove the 3 bolts and locating tabs that keep it in place and slide it out. Lastly remove the fluid level dipstick and surrounding tube by unclipping it from the frame and pulling out from the top.



Now you will have access to the front mounts through the hole in the body on the inside of the wheel well and the exposed underside.

Next step of preparation is to remove the clips holding the inner rubber fender liners by the front wheel wells, from the frame side. This prevents you from

tearing it. Remember to do both sides.

Now sort the body lift kit hardware. There will be 8 bolts and 8 spacers with the kit listed above. However 2 spacers are smaller and 2 bolts are shorter. These are used in the front mounts in front of the front wheels. It is probably best to put them there to start with to avoid confusion later. Also check that the threads on the nuts match the bolts. In one kit we had finer thread on the shorter bolts and the other kit it was not the case. Either way it is best to make sure you pair the bolts with the respective nuts. Lastly, we got larger washers than the ones supplied in the kit. We used 1/2 ♦ inside and 1 1/2 ♦ outside diameter washers, the thickest and strongest ones I could muster at the local hardware storel Roger Brown was notified of this, so maybe the future kits will have the bigger washers. Below is a pic of the new washer, stock washer (and bolt) and the supplied washer.



Doing the body lift requires you to do one side at a time by lifting the body off the frame, inserting the spacers and the new bolts. To be able to do this you need to remove the nuts on the body mount bolts on the side you are going to lift first, and loosen the nuts on the other side of the body. It is important to loosen the nuts on the other side, but not remove them. This will allow the body to move on the frame, but not slide off the frame.

To lift the body off the frame we used a SUV floor jack from Sears that can lift 21 ♦ high. We had to add a wood base of 4 ♦ below it. Obviously make sure that the base is secure. We lifted the body below the B pillar area to balance out front and rear, as well as find the area of most strength on the body for a center lift.

\*Folks with weld on sliders will have to find an alternative method of lifting the body. Also keep in mind that the body will tilt away from you while lifting, so make sure whatever method you use does not slip away or move when that happens. People with access to a professional shop lift that can hold both sides of the body at the same time can adopt a different method.

Once the floorjack is in place, use a 2" x 4" piece of wood to spread the load over a bigger area on the body. We used a 1ft piece of 2"x 4" and it fitted perfectly. Below is a pic of the wood and jack in place.



Slowly start to lift the body off the frame. Keep in mind that the suspension will move up as you lift the body off. Use the body lift spacers to judge if you have lifted the body sufficiently to fit the spacers, and then remove the body mounts. Only lift enough to get spacers and body mounts in. Make sure nothing binds or any cables get pinched. Everything should lift fine. We could not identify any cables or wires that should cause concern. You might need to consider any accessories you have added beyond stock including rock light wiring etc.

Once you have lifted the body sufficiently, you can remove the stock bolts and body mounts on the side you are working on. Take note of the orientation of the body mounts on the top and bottom of the frame. Also retain the stock lower washers.

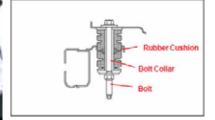
Before I go further, we did notice that the front top body mounts on both trucks were worn. So it is highly recommended that you buy replacement ones for your truck if it has worked a bit. You might as well replace them while you are there. Unfortunately we didn that have replacements so we could not do it at this time. Below is a pic of the front top mount.

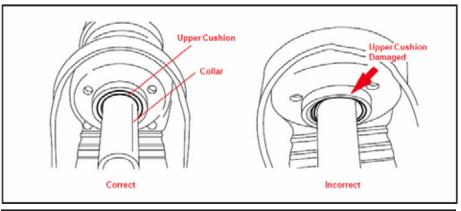


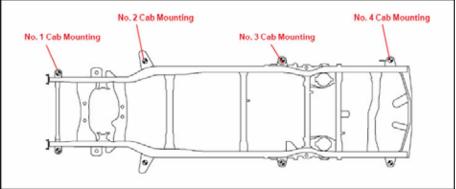
Once you have removed the stock bolts, you will have to slightly enlarge the holes in the body for the heavy duty bolts supplied. We used a 12 • long • dill to enlarge the holes from the bottom. Also check the front and rear body mounts and lower washers to make sure they fit over the new heavy duty bolts. If not enlarge the holes with the drill. You will also notice that the rear driver side hole in the body is elongated, so you will have to wiggle the drill bit to make it larger. Another tip is that the front and rear bolts have washers that twist into slots on the body, so you might have to wiggle and twist them to get them out. It would also be worth spraying the holes you elongated with some rust protector and later fish oil to prevent rust and oxidization.

Now fit the body mounts with spacers and slide the new bolts through. Make sure that the spacers supplied in the kit go between the body and the top body mount. Make sure the body mounts are in the orientation they were removed and also that they are centered properly on the frame. Also make sure the sleeves in the body mounts are placed back properly. See picture and diagrams below









Put the stock bottom washers back and put on the supplied nuts on the supplied bolts. Do not tighten the first side, as you will still need to lift the other side. Once you have fitted everything and aligned it, you can lower the body back onto the body mounts. (Be careful of the jack slipping!) Once the body is down make sure all the mounts are still properly aligned.

Now do the other side in the same way. Once the whole body is down on both sides with everything fitted you should do a careful inspection of all mounts to make sure everything is properly aligned and all hardware, new and stock, are properly fitted.

Now you would need to torque the body mount bolts. We used 40lb-ft. Do it front to back. Make sure everything is secure and fitted properly once you are done with this step.

The next step is to fit the radiator brackets. Loosen the 4 bolts holding the radiator to the body. Now fit the supplied brackets to the radiator with the stock bolts. The supplied Allen Key bolts were too short. We notified Roger Brown of this, so in the future this should be corrected. Make sure the bracket is fitted upright before tightening it down. You might want to use the holes in the body and the bracket bolt to hold the bracket in place while tightening it to the radiator. Once you have fitted the brackets, push the bolts on the bracket through the body and tighten. We removed the Shrockworks bumper to gain proper access to the 2 lower radiator mounts. If you can access these radiator brackets without removing the bumper, you can save time by not doing it. This step can take some delicate finesse to fit everything. Once everything is installed, tighten the radiator bracket bolts. Also replace the fan shroud. See pics below.





After the radiator fan shroud is reinstalled, tighten the steering slip-joint before you forget. Now you can start putting everything back.

Probably put the washer bottle back with all the pieces and connections. Then the front bumper. With the Shrockworks bumper you will have to move up a hole on the frame bracket to be able to align it to the body again. Remember to leave a gap as per the original installation. With the stock bumper you will have to refer to the 4Crawler documentation.

Nothing to do on the rear bumper as it pulls tight with the frame now. Put the front fender liners back. You will have to stretch them a bit to be able to clip them in place again. Make sure to stretch both sides where they clip. On one truck we were unable to secure the liners effectively so purchasing some newer liner material and cutting to size using the old liner as a stencil, will be necessary.

Put back the dust covers over the body mount bolt heads and all the interior trim pieces. Pull up the spare wheel and make sure you have easy access to the pulley mechanism.

Go round and inspect everything to make sure it is all installed properly. Go for a quick test drive to make sure all is correct and enjoy the extra height and space for tires, etc.



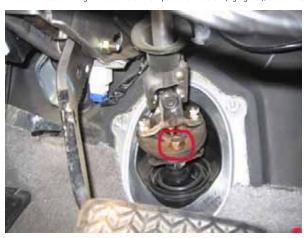
Added now is a steering shaft spacer. The part number is to be finalized soon, but here are the pictures.

Before you start it will help to raise both front wheels of the ground to make turning the steering much easier, and not require the power steering pump.

First loosen the top nut of the steering shaft clamp, as per above pictures. Then go to the inside of the cabin and remove the steering shaft firewall cover, in the pic below. It has 4 white clips that can be turned by hand to loosen. Then simply slide the cover out.



Once the shaft is exposed try and push it back as much as possible to the rear. This will make it easier to get to the bolts to loosen the rubber joint. Only remove the 2 bolts holding the rubber to the front portion of the shaft (highlighted), don  $\diamond$ t mess with the bolts holding the rubber to the steering column.



Now push the steering column in as much as possible and the front steering shaft forward as much as possible. This will allow the maximum room to fit the spacer. Slip the spacer over the center pin of the shaft going into the firewall. Now push the pins of the bolts connected to the rubber and the column through the big holes in the spacer. Then push the new bolts through the rubber, spacer and align with the front shaft holes. Tighten the bolts. A tip would be to turn the steering wheel and wheels so you can gain easy access to the bottom nut.

Once your spacer is in, it will look something like this.



Now move the shaft and column up and down to determine the maximum in and out positions. Center the shaft so that the steerign column is in the middle. I used the clip on the column to determine this position.



Once centered tighten the steering shaft clamp in the engine bay and put the cover back. Now you are done with the steering column spacer.