

# Body and Motor Mount 1.25" Lifts

Body and motor mount lifts are a pretty popular combination for TJs. They do not take any exotic tools or special skills to install. You will find that about 18" of ratchet extension will be handy when doing the motor mount bolts.

Our comments on body lifts and motor mount lifts assume you are doing one or the other. After covering both lifts, we'll comment on the issues encountered when doing them together.

## Body Lift

Body lifts have been around for quite some time and are pretty common on Jeeps. It is a straight forward method by which to gain wheel well clearance while still keeping the center of gravity low (compared to a suspension lift of comparable height). Most people don't like the gap that grows between the frame and body as one goes up in lift sizes, but a 1" gap can usually be tolerated and is often not noticed (unless they have a dislike for body lifts).

The body lift is simple to install, assuming your existing body mount bolts are not rusted in place (something that the older Jeeps sometimes have problems with, especially if they live in areas that see wet roads and salty winters). In the simplest terms, you loosen the body mounting bolts on one side of the vehicle, jack it up just enough to slip the new spacers in, and install the long mounting bolts. Repeat the procedure on the other side of the vehicle and you are done. On a TJ, there are 11 of them, with the 11th one being in the center of the front grill area.

With a 1" body lift, you shouldn't have to worry about your filler hose (for the gas tank) becoming too short. However, your transfer case shifter and manual tranny shifter may not be in the best position. Most body lifts come with a bracket that helps the t-case regain its proper alignment. The manual tranny stick, however, is attached to the tranny which is still sitting in its original position (bolted to the cross member). Some folks have discovered that shifting into one or more gears, such as 2nd and Reverse, becomes difficult. When this happens, you need to carefully remove your center console and get down to the tranny stick and the body and check them out. You'll have to trim a little metal from the tub so that it does not interfere with the movement of the stick shift.

At this point, the other main issue you need to deal with is the improper positioning of the radiator fan in relationship to the fan shroud. Again, remember that the body moved up, and with it, the radiator and fan shroud (yes, these are attached to the body and not the frame). While these moved up, the radiator fan, which is attached to the front of the engine and thus the frame, stayed in its original position. The usual fix for this is to slot the mounting holes on the fan shroud and lower it back

down a bit so that the fan is again centered in the shroud and there is no clearance issues.

## **Motor Mount Lift**

The motor mount lift, as the name implies, lifts the vehicle's engine a prescribed amount, which is usually 1". The install of these are also pretty straight forward. Loosen both factory mounts (but don't pull the bolts out) and then support the engine with a floor jack. Raise the jack a bit, and install the motor mount spacers. Repeat the process on the other side. While doing this, it is a good idea to loosen up the 4 tranny mounting bolts that are accessible through the bottom of the skid plate. This will allow the engine/tranny combo to move just a bit as you are installing. Don't forget to tighten the 4 bolts back up when you are done.

When you finish the motor mount, the engine will be sitting 1" higher than it was when you started and your radiator fan is going to be crunched up against the top of the radiator shroud. As with the body lift, slotting the holes on the shroud is the most common method to get things back into alignment. You may also find that your t-case shifter linkage may need some adjustment since your tranny/t-case has moved up closer towards the body, albeit not nearly the full inch felt directly at the motor mount (remember that the tranny is bolted to the cross member, courtesy of the tranny mount, so this point acts as a pivot point.) As the front of the engine was raised 1", the back of the t-case dropped a small portion of that inch because it is located much closer to the pivot point, the tranny mount. This will be an important point to remember when we talk about drive line vibrations.

Aside from the change in radiator fan position, the tall motor mounts also moved the oil pan 1" up and further away from the rocks. This is one of the major benefits of doing the motor mount lift. Keeping the oil pan out of harms way goes a long way towards ensuring a timely return trip from the trail.

## **Doing both lifts together**

Most people do a body lift to gain an extra inch of clearance for some new tires and the motor mount lift for two reasons. First, they don't want to mess around with the fan shroud. Second, they want to get their oil pan up and away from potential damage. Also, when you do both your t-case linkage and manual tranny shifter do not usually have to be altered. This makes the installation of the body lift and motor mount combo a little easier install.

When you install the motor mount lift with a 2.5" suspension lift you may also find that you can get by without lowering your transfer case. Usually a 2.5" suspension lift requires a 1" t-case drop kit to eliminate drive shaft vibrations. This is something that each person must decide on their own through trial and error.