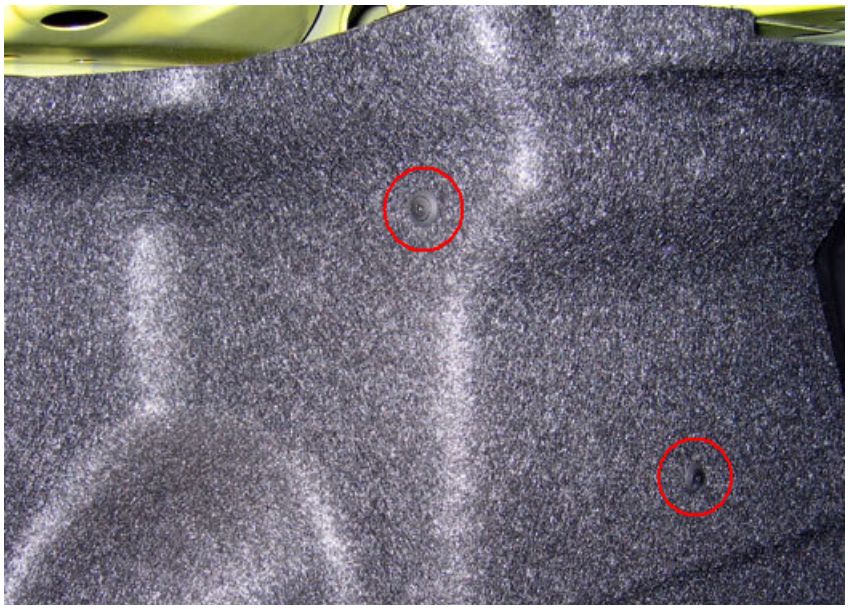
ROBIN YANG

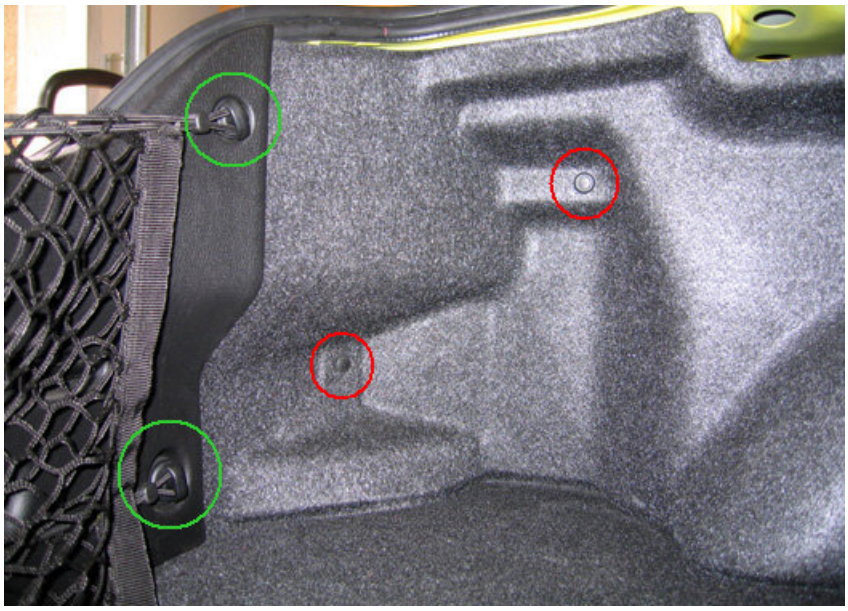
Home / Modify Cars / Rear Shock Install

The following information is intended as procedural reference only and may or may not match the requirements of your vehicle. Use at your own risk and always observe proper safety precautions. This DIY is copyrighted by Robin Yang. Permission is given to redistribute the contents without alteration provided you cite the original author and provide a link back to the original page.



***Note:** All the images and directions shown here are for the left side of the car.*

Step 1: The first step is to remove the side trunk liners. Use a philips screwdriver to remove the two plastic fasteners circled in red.

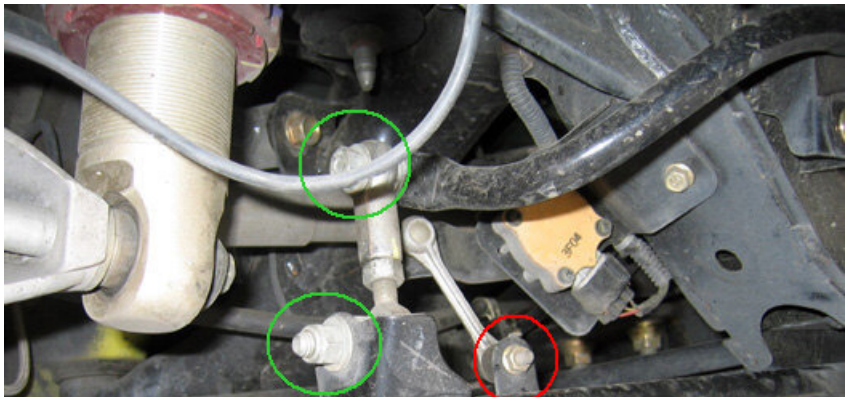


Step 2: Use a philips and flathead screwdriver to remove the two plastic fasteners circled in red.

Step 3: If you have the optional cargo net, unscrew the two hooks circled in green. Otherwise, use a screwdriver to remove the two plastic fasteners.

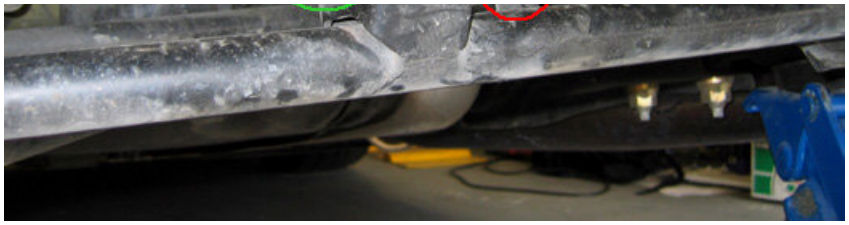
Step 4: Starting from the farthest end of the trunk, remove the trunk liner and set it aside.

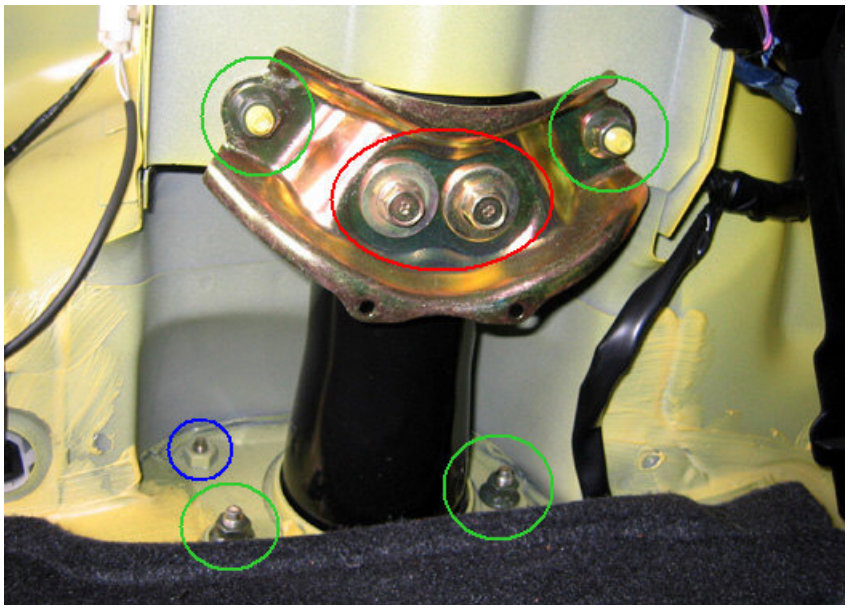
Step 5: Jack up the rear of the car and place it on jack stands. See this page for additional details. Once that's done unbolt and remove the rear wheels.



Step 6: Use a 10mm socket to unbolt the head light leveler arm circled in red. This is only on the left side of the car.

Step 7: Use a 14mm socket to unbolt the rear sway bar. You can do it at either of the two areas circled in green. Once the sway bar is disconnected at both sides rotate it towards the rear bumper to move it out of the way.



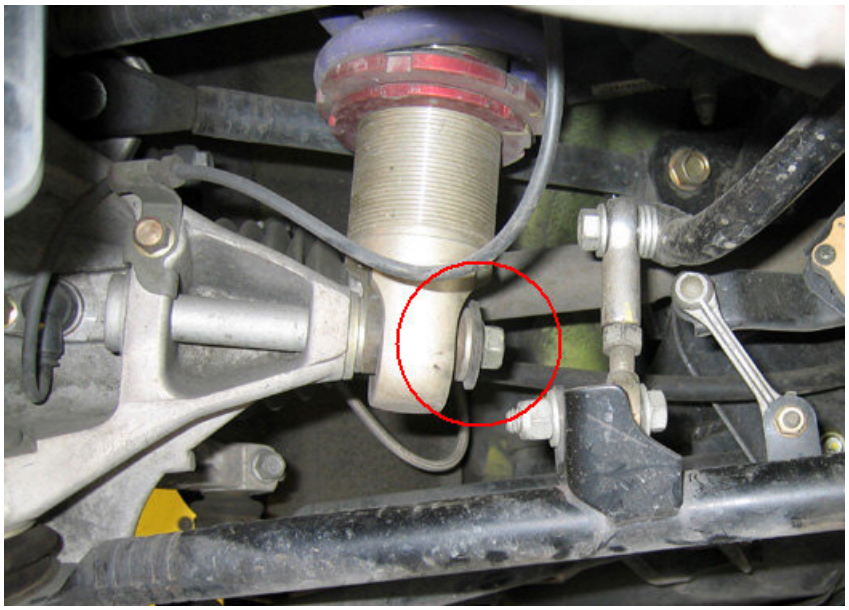


Step 8: Use a 14mm socket to remove the two bolts circled in red.

Step 9: Use a 14mm socket to remove the bottom two nuts circled in green. If you are installing OEM shocks then you do not need to remove the top two nuts circled in green. They, and the tower bracket, are only removed if you need extra access when installing aftermarket coilovers.

Note: The bolt circled in blue will be removed from underneath the car in the following step. At this point it is the only thing holding the shock tower in place.

Step 10: Use a 12mm socket to remove the bolt circled in red. Don't be alarmed when the entire shock assembly drops a little after this bolt is removed.



Step 11: Use a 17mm socket to remove the bolt circled in red.

Step 12: Use a sharpie or other implement to mark the location of the alignment cam (the flat washer with marks on it circled in red) relative to the bracket. When reassembling this part you want to line these marks back up.

Step 13: Use a 19mm socket to remove the nut circled in red.

Step 14: After removing the nut and alignment cam, use a rubber mallet to pound the bolt out. Jiggle the control arm while pulling on the bolt to fully remove it. When the bolt is fully removed let the control arm rest on the ground.

Step 15: Standing directly in front of the wheel hub, tilt the bottom of the shock away from you to remove it from the wheel hub. Continue tilting the shock while lowering it and it should drop out easily.

Step 16: Use a spring compressor to compress the shock spring before unbolting the shock tower. Most local auto shops rent a type that uses long screws to compress the spring on either side. Use of this kind of spring compressor is much quicker when using an impact wrench.

Step 17: Once the spring is compressed measure the distance from the tip of the rod protruding from the top of the shock tower to the nut below. When reassembling the shock tower on your new shock you want to duplicate this measurement.

Step 18: Use a 17mm socket on an impact wrench to remove the nut circled in red from the top of the shock tower.

Step 19: Compress the spring, place it over your new shock and assemble the shock tower on your new shock. Going from left to right in this photo, you have a rubber bump stop, flat washer, and metal collar with one black rubber part. Note it tapers towards the shock tower. The shock tower then goes over all this

and then another black rubber part (again tapering towards the shock tower), flat washer and lock nut. Use an impact wrench to tighten the lock nut to the same depth measured in Step 17.

Step 20: When you uncompress the spring, make sure the top end of the spring fits snugly in the rubber ring's recess. It's important to get this seated correctly.

Note: The stock bump stops are longer than they need to be. Cutting off a third with a sharp razor reduces the chance of hitting the bump stop during hard cornering.

Step 21: Reassemble the parts in reverse order. When inserting the alignment bolt circled in red, you may need to raise the wheel hub (circled in green) with a jack in order to get the hole to align. Depending on how the new shock sits you might have to raise/lower the wheel hub several times in order to fully insert the alignment bolt.

Step 22: Once the bolt is fully inserted from the front of the car, add the alignment cam and nut on the side facing the rear. Make sure the alignment cam is seated flat before tightening the nut. Again, you might have to jiggle the wheel hub up/down while keeping the nut tight against the alignment cam before the cam seats flat.

Step 23: Turn the head of the bolt (side facing the front of the car) until the marks you made in Step 12 line up. Then tighten the nut on the other side to lock it in.

Step 24: Continue reassembling the parts in reverse order. You're done!