

## **How-To: Shift Lockout “Pink Thing” Replacement**

There are loads of threads on this on various forums and it's all there (minus some detail) but none of them seems to cover it all from one end to the other. I've been planning on doing this for some time and finally got my BT piece and did it. Yes, it's possible to get it out of park when it fails on the road with a screw driver and I'll show that along the way. There are lots of pics. I'll cover taking everything apart and the fix. Just reverse the steps to re-assemble. Cheatek has been procrastinating on putting his in and maybe this will inspire him as well.

First some explanation.

You cannot move the shifter out of Park unless the key is turned out of the lock position AND the brake pedal is depressed. You cannot turn the key back into the lock position (to remove it) unless the shifter is in Park. There are actually 2, independent, shift lockout mechanisms that accomplish this.

The first lockout is electrical/mechanical and involves the key. There is an electrical solenoid in the shifter assembly that moves a lock in and out of place. Naturally, the unpowered position has the lock in place. There is a similar mechanism in the ignition switch. On the shifter assembly there is a manual override (accessed through the side of the bin next to the shifter) so that if you lose electrical power you can still depress the brake and move the shifter out of Park. (unfortunately this compromises some security as well).

The second lockout is entirely mechanical (cable) and prevents the shifter from moving out of park unless the brake pedal is depressed. This is the one that's prone to failure, leaving you stuck in Park. There is a cylinder with tabs on it. There is a cable attached to an ear on one side and a spring attached to an ear on the other side (the spring attachment is the point of failure). When the brake pedal is up the cable is taught and rotates the cylinder against the spring into the locked position. When you depress the brake pedal the cable goes slack and the spring rotates the cylinder into the unlocked position. If the spring breaks off there is nothing to rotate the cylinder into the unlocked position when the cable goes slack. The pics will make it clear.

Here we go. Captions are BELOW the pic(s) they refer to. (first pic sucks because I never figured out how to use the macro settings on the camera -- actually I did but it was too much of a pain). They get better after the first one.

### Prep:

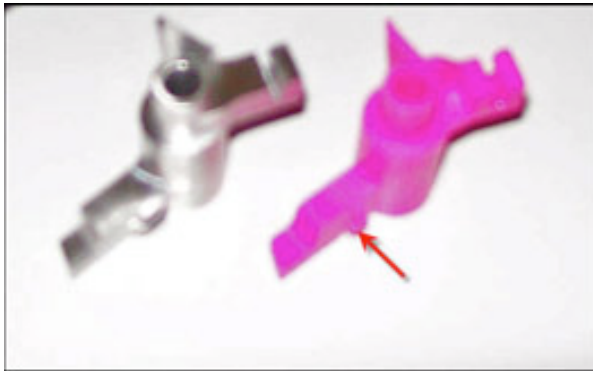
Chock the wheels. You're going to have the car in neutral at some point.

I didn't bother disconnecting the battery. You should. Whenever you are messing with any of the electrical parts or connectors there's always the outside chance of triggering the air bags. Probably not fatal but a much higher risk of death if you have tools and/or parts between you and the air bag or you're not sitting upright in the seat.

So... Depress the brake pedal, turn the key to the on position, move the shifter into neutral, turn the key to the off position (no, it won't go into the lock position as described above). Then disconnect the battery. When you re-connect the battery you will probably have to re-calibrate your auto up/down windows. You press and hold the down button, count to 5 after the window is all the way down. Then pull and hold the up button, count to 5 after the window is all the way up. Then see if the auto up/down works. Repeat on the passenger side.

If you're not going to disconnect the battery then leave it in park so the door ajar chime doesn't sound off for the entire job. We'll put it in neutral for a moment when we get to lifting the center floor console out.

You can remove your shift knob now.



The pink, plastic piece is the one that comes with the car. The arrow is pointing at the little hook for the spring that is prone to breaking off. The piece to the left is the finely crafted BT replacement part. If you opt to do the Cam cotter pin fix you would file off the busted part or drill slightly to the left of it.

1. Torque wrench (if you're going to torque everything. Probably not critical but you know you should). You're going to be dealing with 23, 40, and 65 -- all in inch.lbs.

2. 1/4" drive ratchet

3. 8 mm socket

4. 10 mm deep well socket -- half deep might make it

5. Philips head screw driver (medium or medium small)

6. Needle nose pliers for removing and attaching the spring

7. Interior trim tool -- probably not necessary but good to have and everybody should own one.



8. Tiny rod or precision screw driver. Something like an eyeglass repair screw driver would be ideal but you could probably do just fine with a heavy duty paper clip or wire coat hanger maybe.

9. Blue Loctite thread locker. The shift knob screws on. The stock one has nylon inside to lock it. I think some aftermarket have a set screw. Mine doesn't.

10.2 Q-tips. One so you don't make a mess applying the Loctite to the threads and the inside of the shift knob (ever wonder why Ron picked blue for 1Bad4dr?) and one for applying lithium grease to the inside of the replacement cylinder.

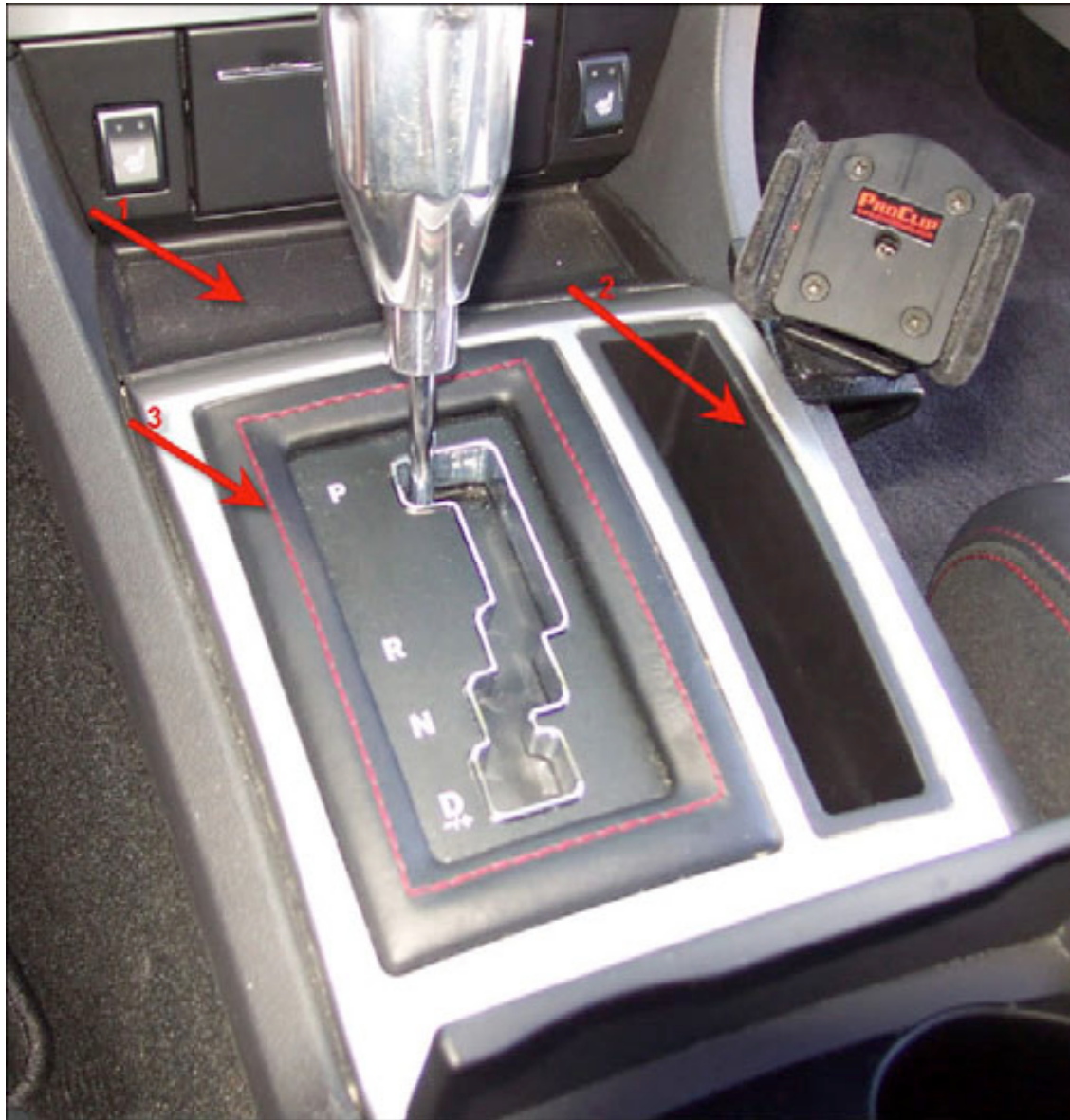
11. White grease (not shown) for the cylinder. If you don't have any you can pop off the top plate of the shifter (the trim plate with the gear lettering on it) once you have it removed and there will be plenty of excess under there.

12. Recommended: Spray bottle filled with distilled water and a couple of clean rags. Remember that double mocha latte that you fumbled lifting it out of the drink holder? Wondered where it went? There aren't any holes straight down to the transmission. It's going to look like someone got really sloppy with the contact cement.



Open the center console storage bin and remove the molded rubber bottom. Just sort of pull it out while folding it in half a bit. Underneath you'll see 3 bolts that secure the center console to the floor/tunnel. Remove them.

3 bolts: 8 mm, (40 inch.lbs)



1. Remove the little rubber tray under the ashtray.
2. Remove the little rubber bin liner to the right of the shifter. If you pull on this it will pop out.
3. Remove the trim ring around the shift gate. This is held in with trim tabs (shown in the next pic). You should be able to hook your finger tips under the edge or around the outsides and pull this out. If not, use your hand trim tool. Careful, the piece is plastic. If it's stock be careful not to scratch up the plastic chrome prying on it.

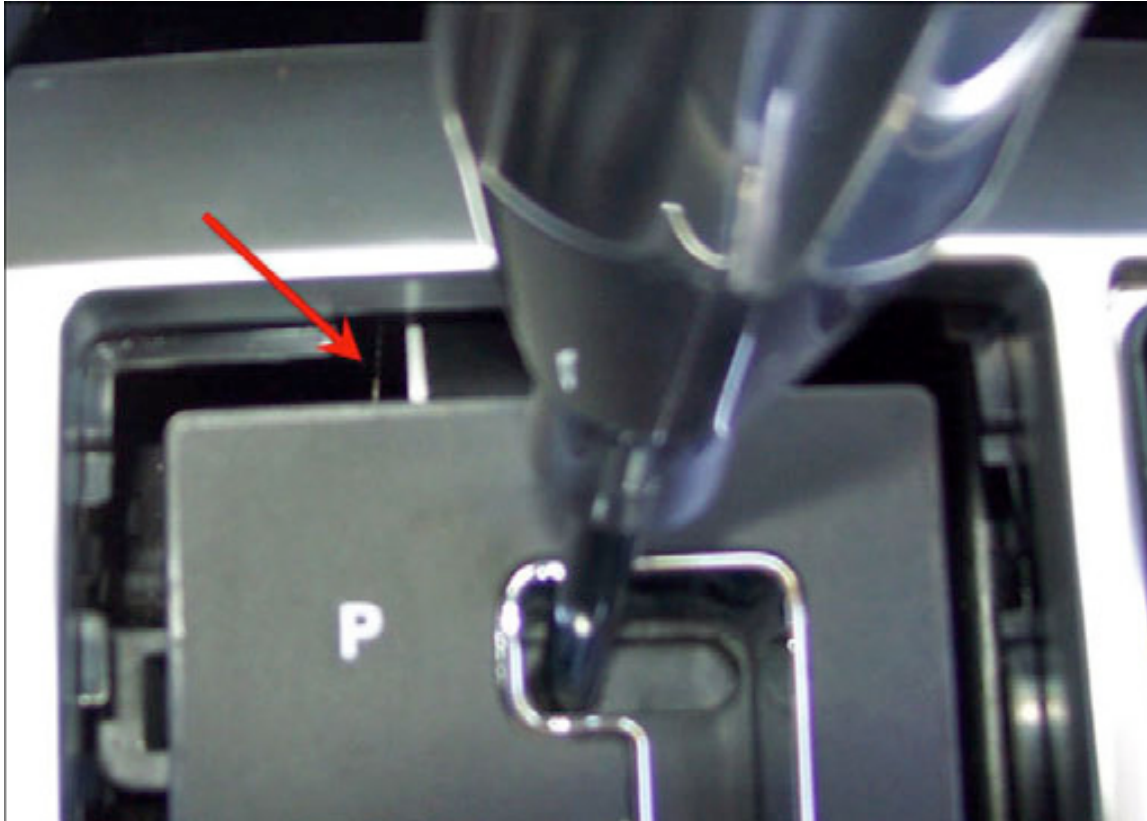


Note that the press tabs are not symmetrically positioned around the trim piece.



1. These are NOT the screws we want. You don't need to remove these.
2. Right at the tip of the arrow you can barely see the cable for the brake pedal lockout. It's not the bright thing, you can barely see it. If you were to get stuck on the road this is where you'd try to fiddle with a screw driver. You'd remove the trim piece, depress the brake pedal causing the cable to go slack. The cable hooks into the ear on the cylinder just under the front edge of the gate. With the cable slack you'd try to push on that ear to rotate the cylinder out of the lock position. You'll see it soon.

3. This is the manual override button in case of a dead battery (described above). You remove the cubby bin liner and there is an access hole in the side of it. You would push straight in on the pink piece (doesn't take much) while depressing the brake pedal and you would be able to shift out of park. Remember? these are two independent systems. The pink button won't do anything for the spring being detached.



Little better view of that cable as seen through the trim ring gap.

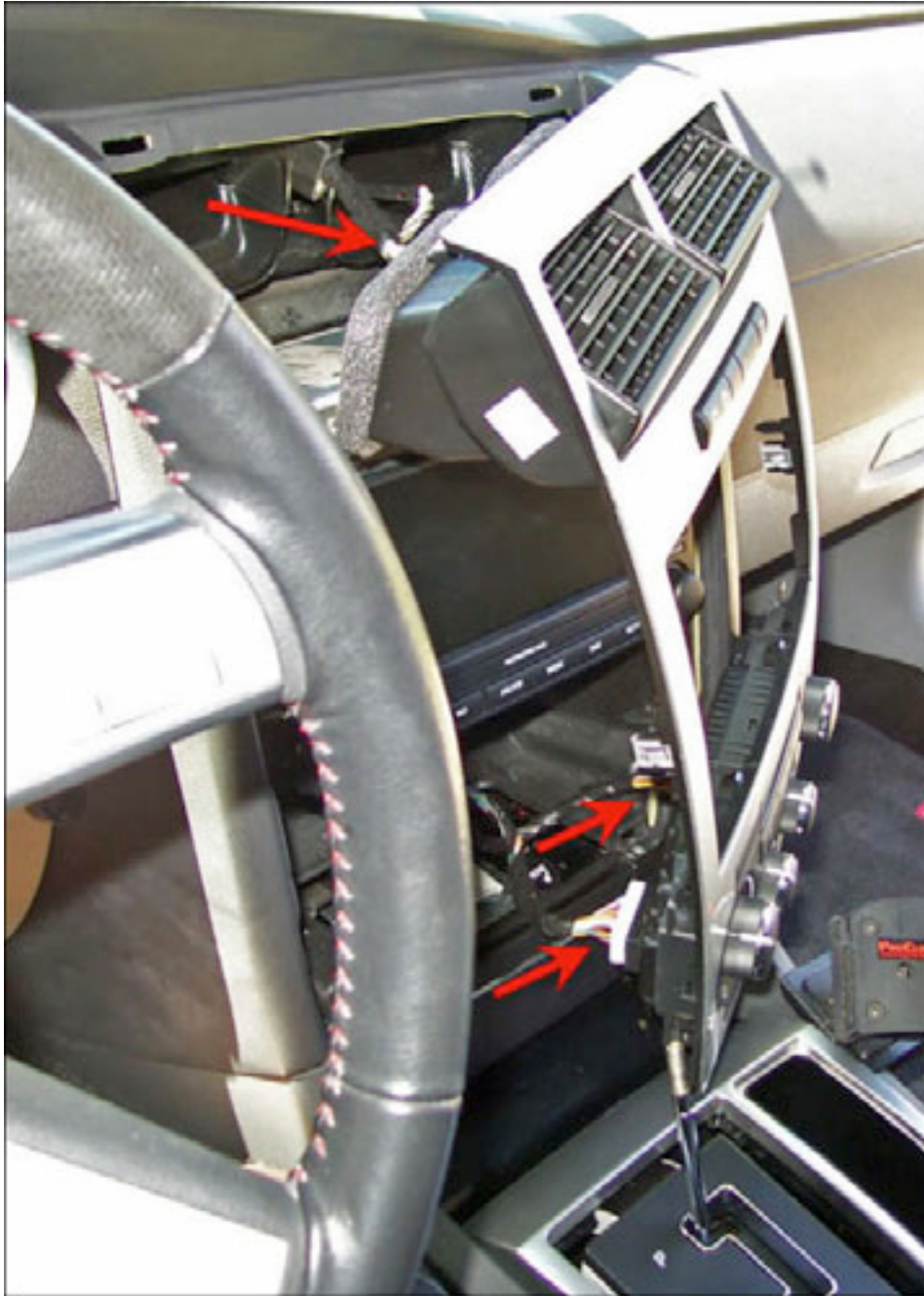
We need to remove the center console trim around the radio in order to remove the ashtray in order to get to those two front screws holding the center floor console to the dash. This is held in with 3 sets of push tabs.



1. hook your fingers under here and pull gently. The top tabs are not very strong but the middle ones (2) are. You don't want to jerk it completely away when the top tabs release and break it. Pull it out just far enough to get them loose.

2. now move your fingers to the sides of the middle press tabs and pull them loose there.

3. the bottom tabs don't do much and mainly align the piece. They'll come loose easily



There are 3 cables/connectors to the back of the center console. I didn't bother removing them. You can sort of hang those vents on top of the dash and it kind of stays there.

If you're worried about scratching the trim then you should disconnect those and put the piece somewhere safe. I've had this stuff apart so many times now I'm pretty comfortable working around it.



With the center trim removed you can now pull out the ashtray assembly. There are 2 cables/connectors for the heated seat switches. I didn't bother with these and just sort of left the ashtray assembly sitting there.

1. the bottom holes are the ones for the ashtray assembly push tabs. The top holes right above them are for the bottom of the radio trim push tabs that you just removed.
2. These are the screws that we want. These are holding the center floor console to the dash. Remove them.

Two Screws: 23 inch.lbs (no, I didn't use the torque wrench on these when I put them back. but you should)

Now we're ready to remove the center floor console.

Note: If your spring already broke off then it's either hanging by the other end or it's rolled off somewhere under the front of the console or shifter assembly. Keep this in mind and keep an eye out for it.

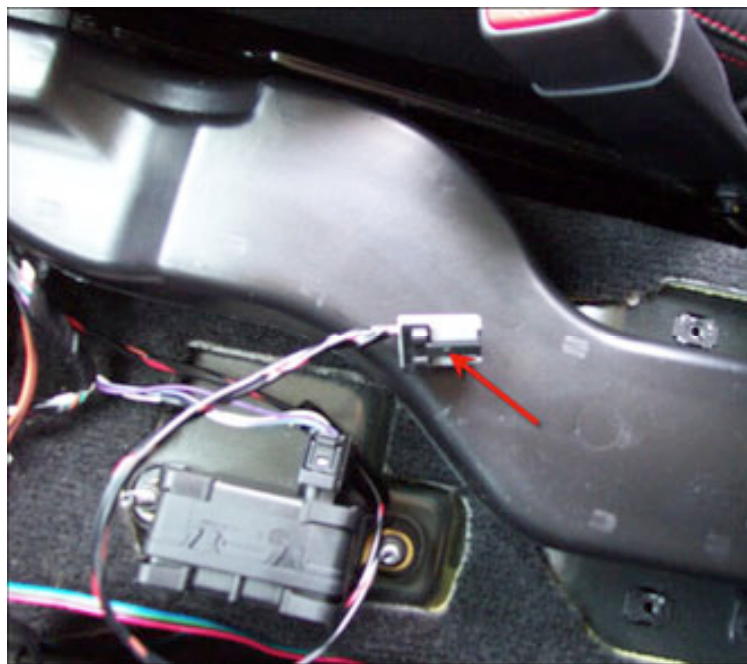
(You should be done with your first beer by now and it's a good break point to get the next one.)

We're going to pull the console straight back towards the rear about an inch or two. This disengages the rear passenger air vents in the back of the console from the ducting. Same type of affair as the front center air vents you just looked at removing the radio trim.

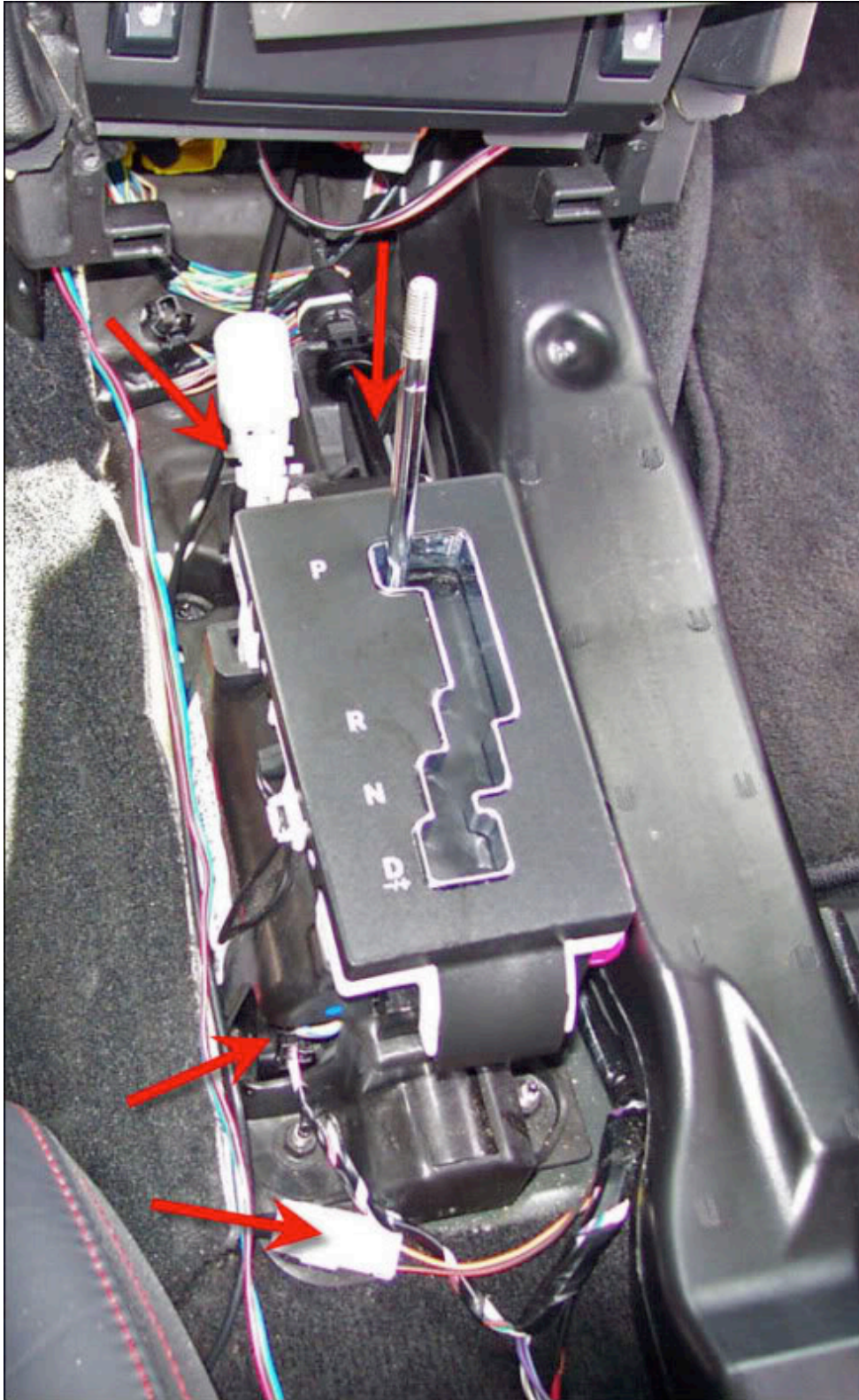
Stop! If you haven't already removed the shift knob and put the shifter in neutral, now is the time to do it.

When you lift the console off it will only go so far and then you have to disconnect the plug from the accessory power plug that's in the storage bin. You do this from under the console. The next pic is of this connector and the release/locking tab/button. Use a little screw driver and good luck. Once you get the connector unplugged you can put the center floor console in the back seat or remove it from the car.

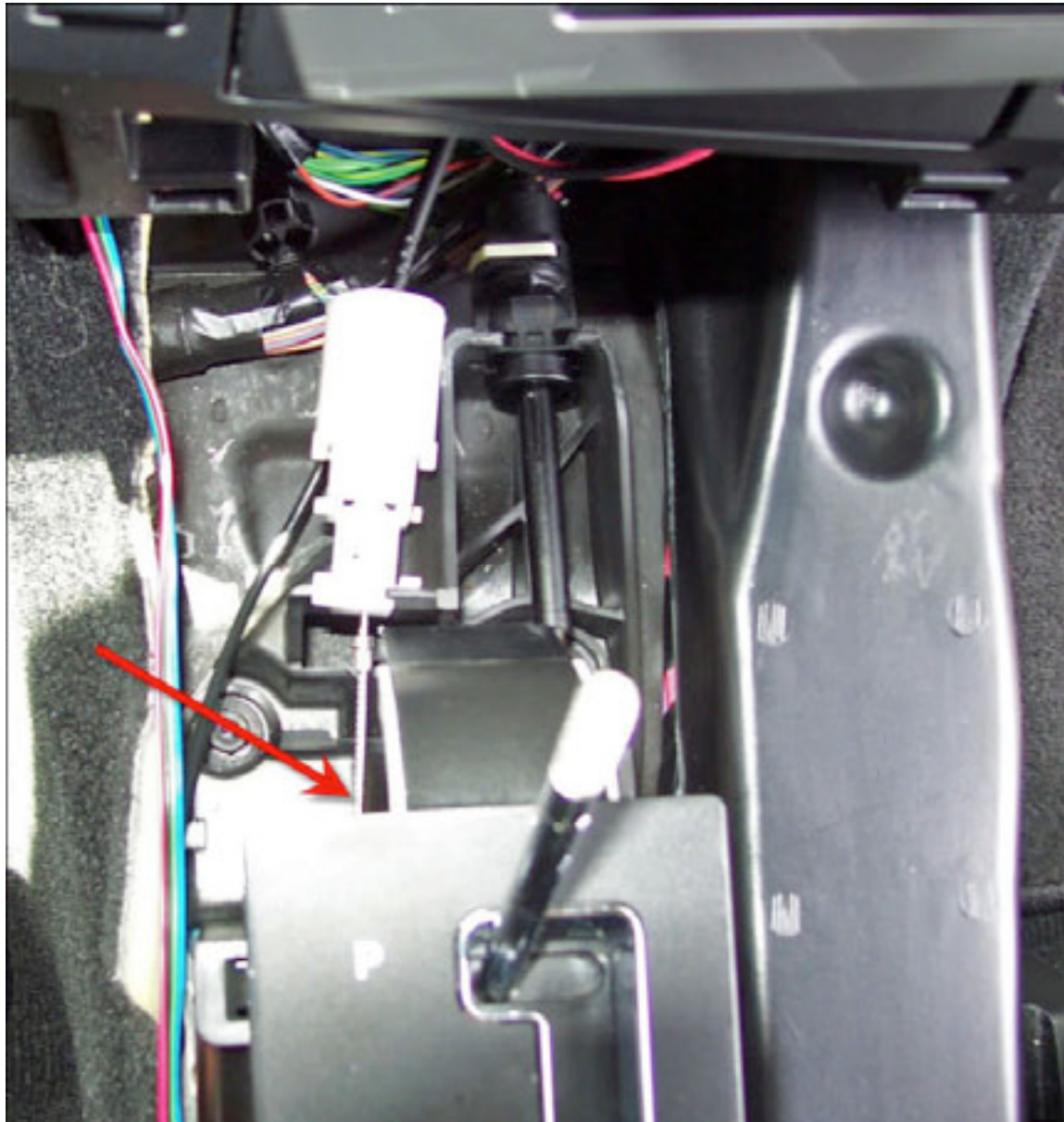
Move the console straight back, then lift up on the rear, and then lift the front off of the shifter. Then disconnect the plug from the accessory outlet. (If you didn't disconnect the battery you can put it back in park and remove the key when you get the console clear of the shift rod.)



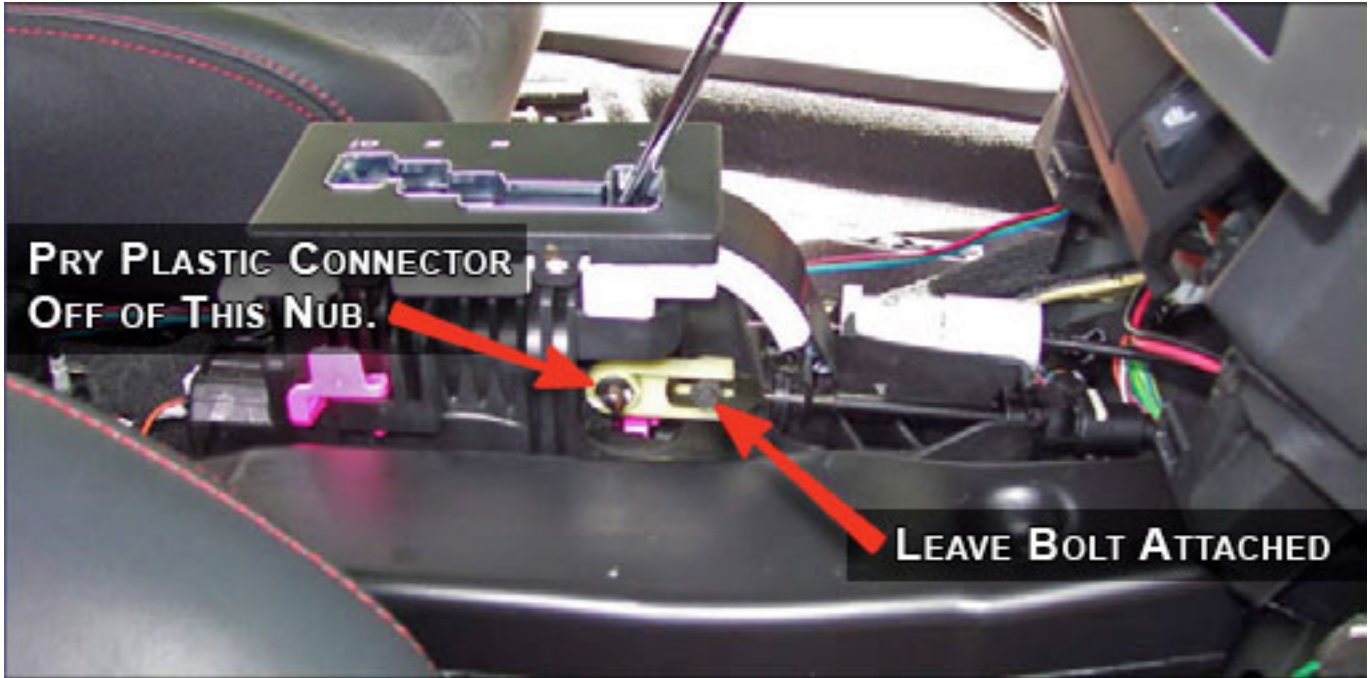
The acc outlet connector



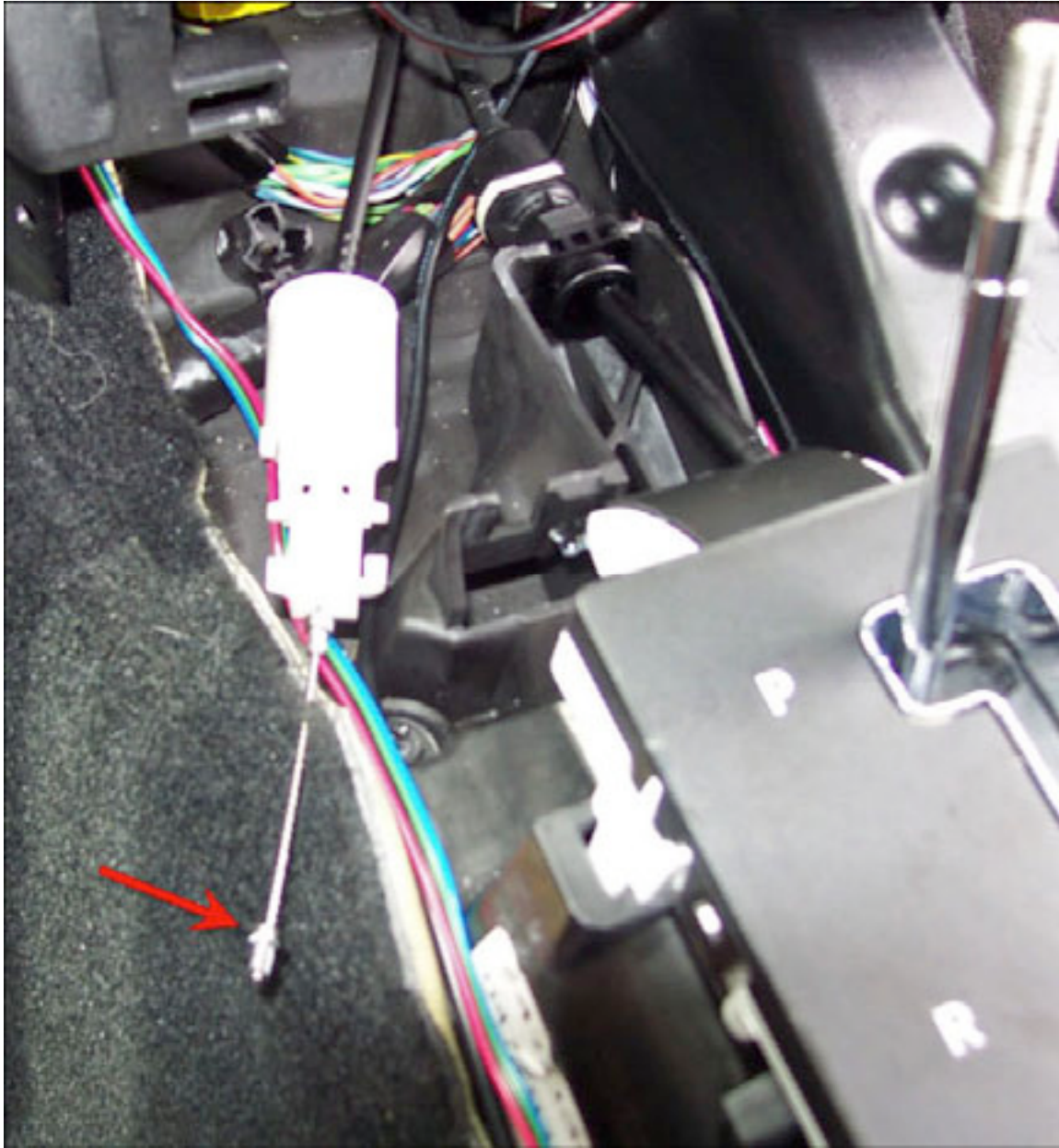
The shifter assembly is held to the floor/tunnel with nuts at all 4 corners. There are 4 things attached to it. 2 cables at the front and 2 wiring connectors at the back.



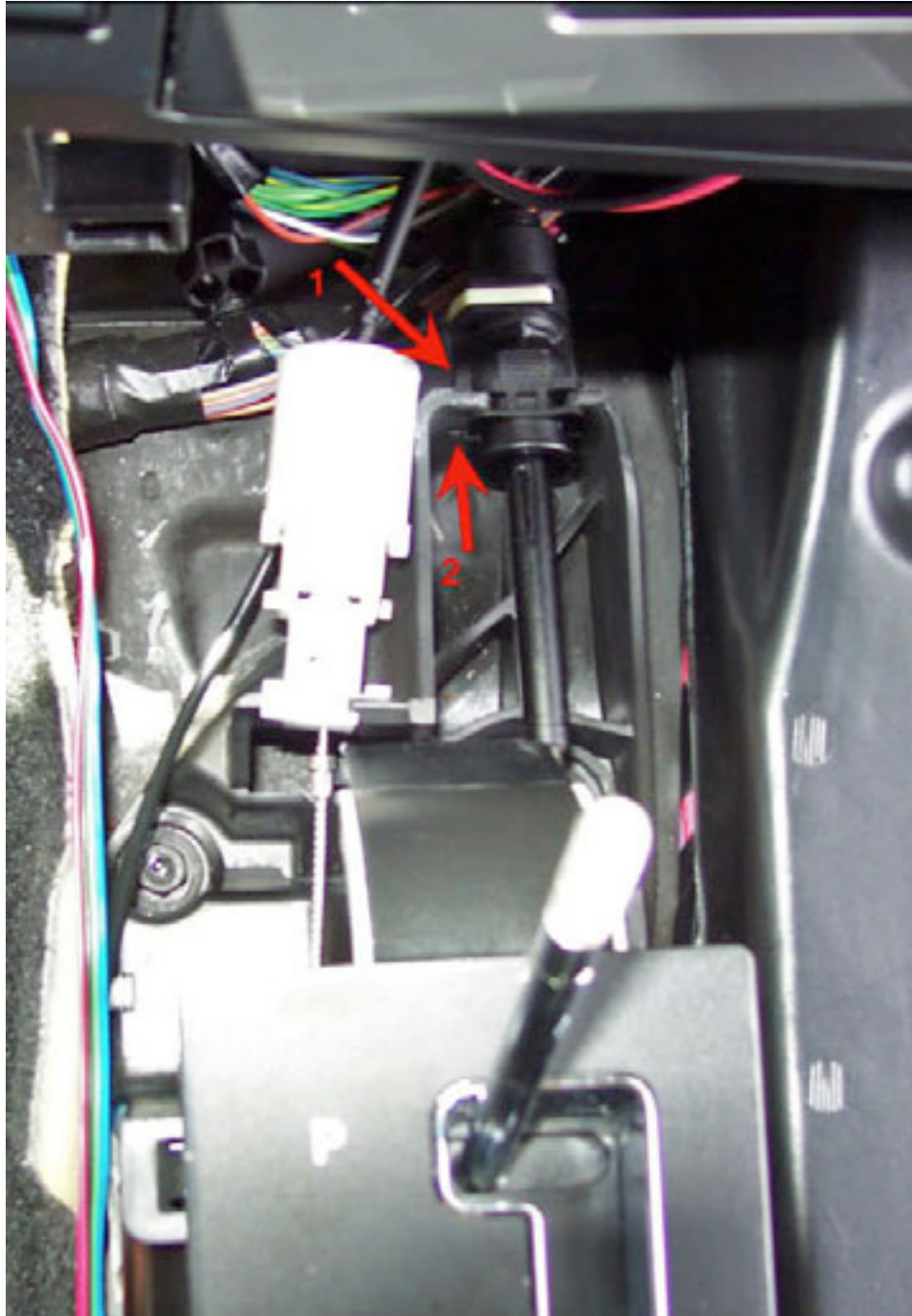
You can disconnect this cable by depressing the brake pedal and lifting the white housing out of the bracket/retainer and then lifting the cable end out of the ear on the cylinder under the front of the shift gate (look at the pic of the pink piece again).



This is the view from the passenger seat. You're going to disconnect the shift cable connection assembly using a small pry bar or flat head screwdriver. Pry the plastic connector free from the male nub.\*

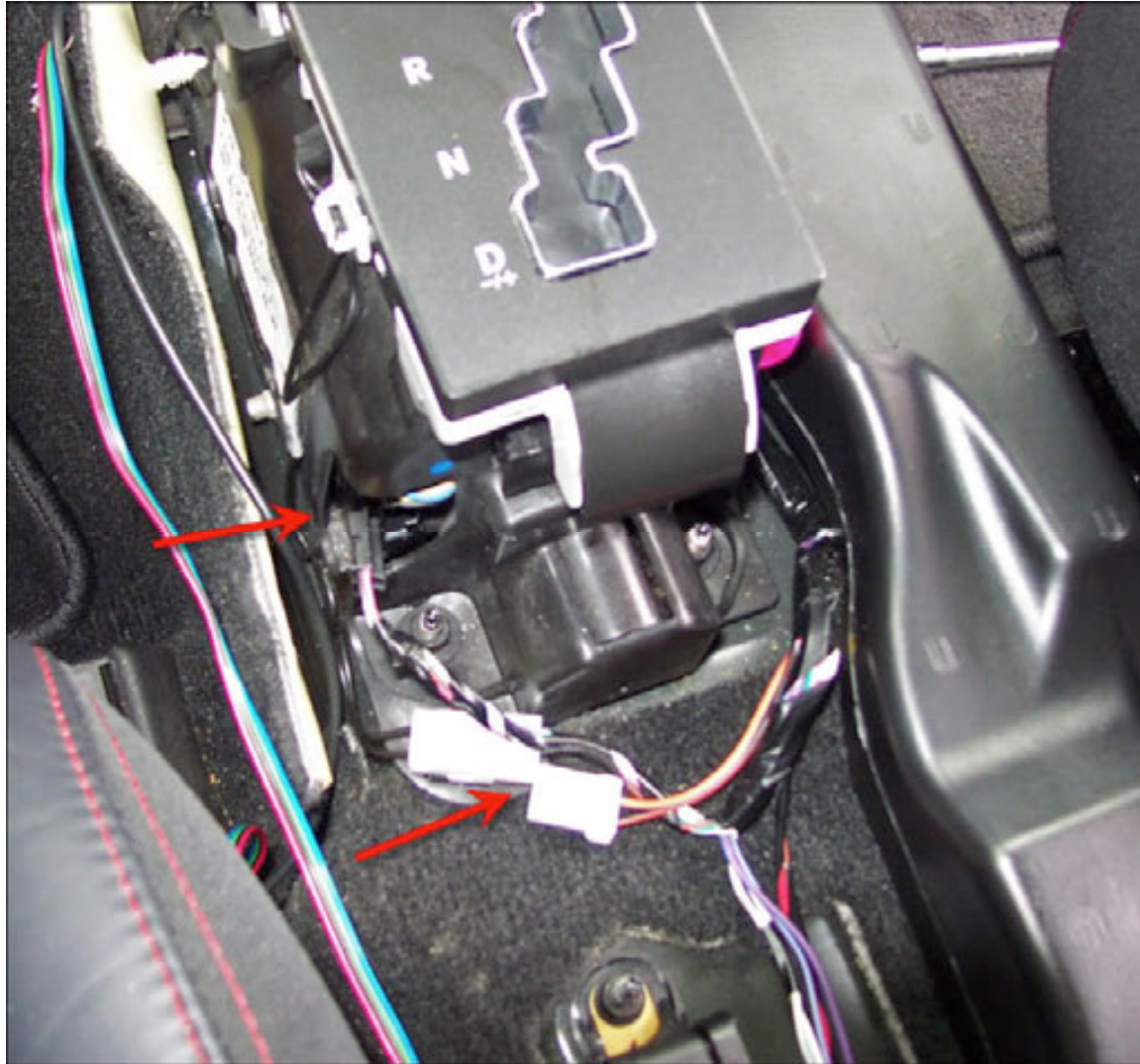


Brake lockout cable removed. That's the end that hooks into the ear on the cylinder.



To remove the shift cable housing from the retainer you want to release the tab (1). The tab locks into that little hole (2).

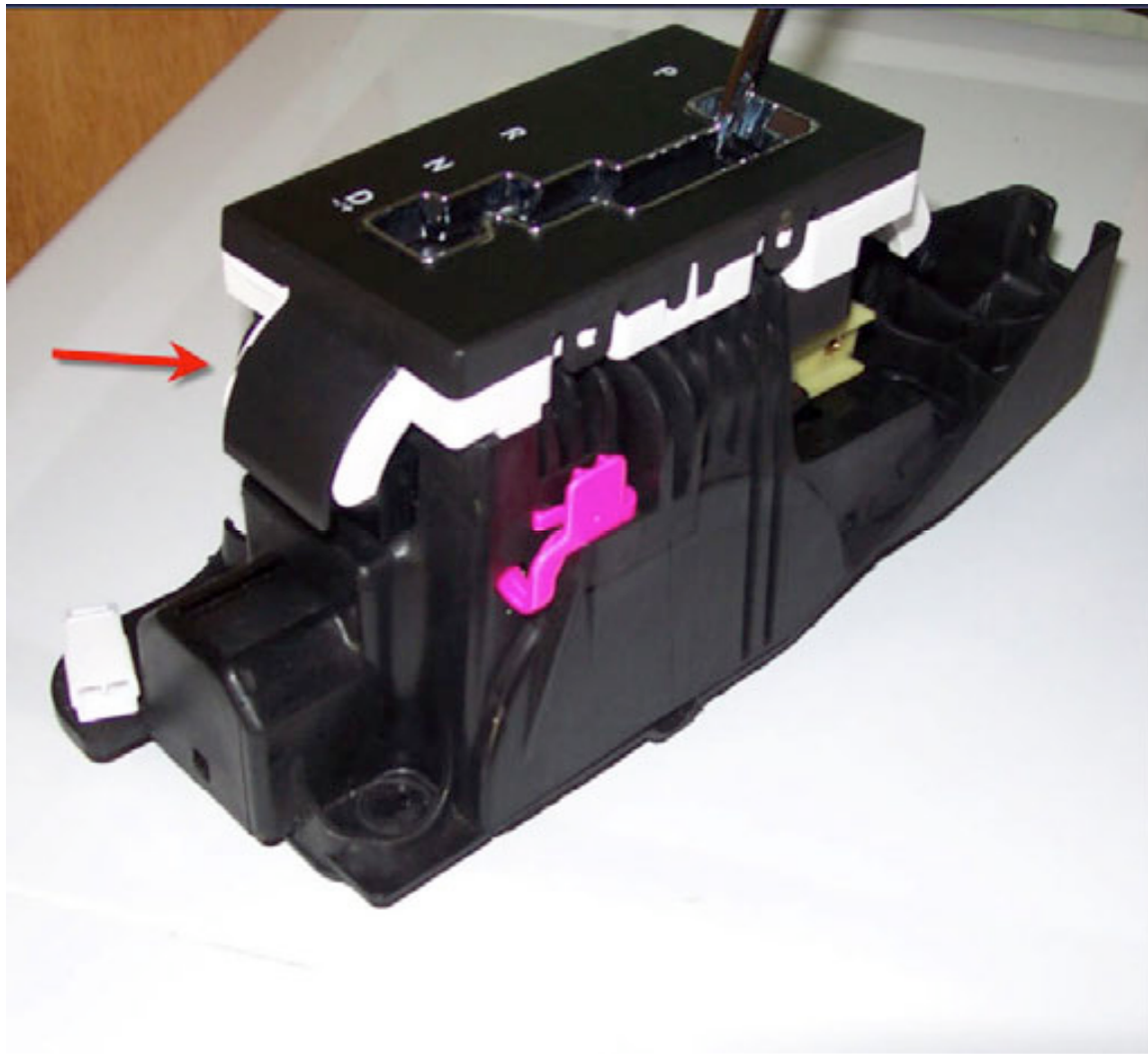
The easiest way to release it is to push your jewelers screwdriver or paper clip or whatever into that little hole from this side. That easily pushes the tab out of the hole and you can lift the housing straight up out of the retainer. Alternatively you could pry the tab away from the retainer while lifting on the housing.



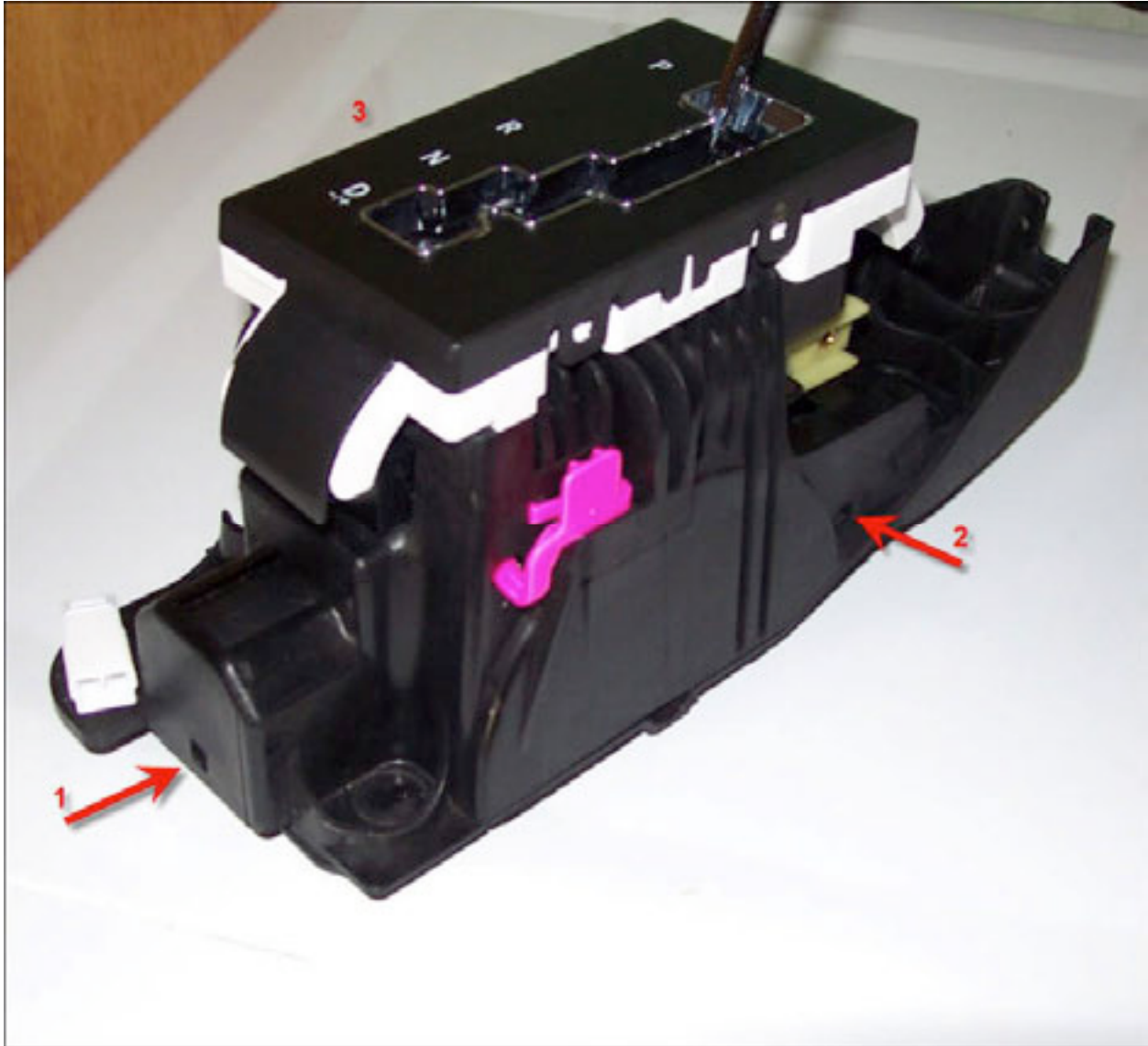
Unplug the 2 wire connectors in the back. Then remove the 4 nuts and the shift assembly will lift straight up off the studs.

4 nuts: 10 mm (65 inch.lbs)

(This would be a good break point to run for another beer.)



(I lost the pic I had of it so we'll have to use this one). There is an internal wire from the base of the assembly to the cover. It's for the light under the numbers on the shift gate. You can access the connector for that through the cutout on the back left. It's right there, can't miss it and easy to disconnect -- this may be the only electrical connector on the whole car that doesn't have a locking mechanism



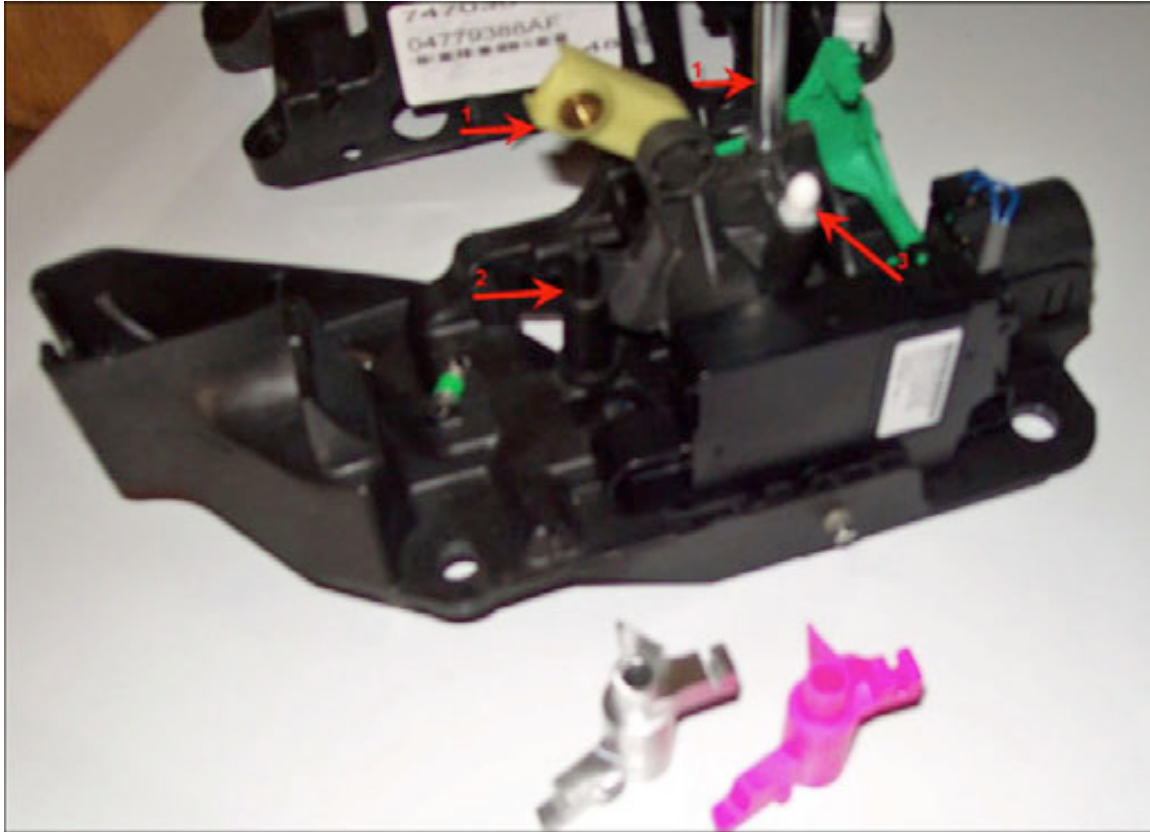
The shift assembly is held together with 3 tabs.

1. pry to unfasten this one first.
2. pry this one and (3) on the opposite side next.
3. The cover will lift straight up off the assembly.

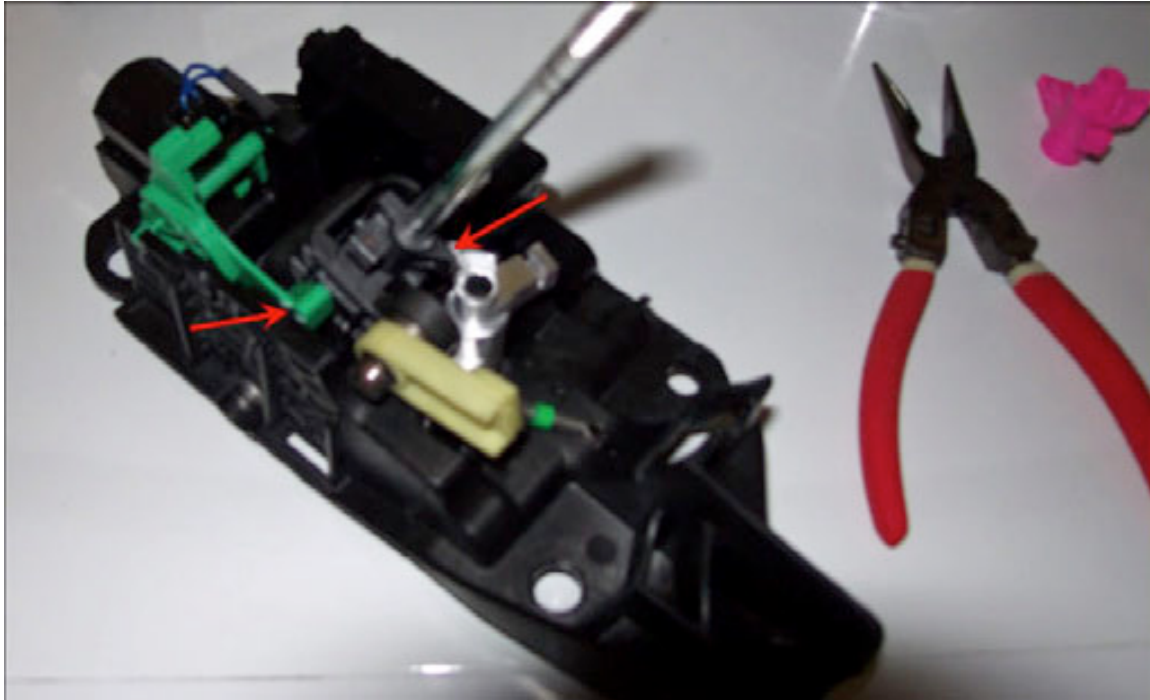


Everything is revealed.

1. the electric solenoid for the ignition key lockout. It works the green piece.
2. The pink part is the brake pedal lockout and this is the spring hook that breaks off. Feel free to try things out and see how the locks operate.



1. you'll need to move the cable attach and put the shifter in neutral to remove the pink piece.
2. The post the cylinder sits on
3. I'm betting this is the button that turns on your backup lights

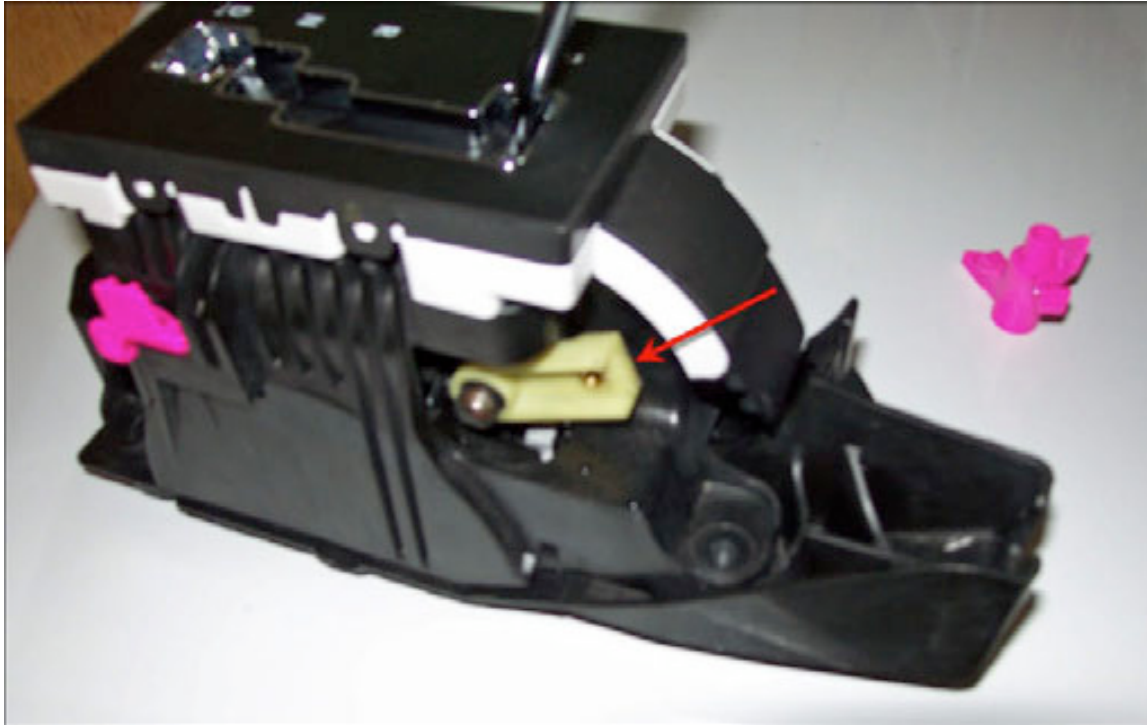


This is the position you want the cylinder in with the shifter in park.

The cylinder tab goes on this side of the shift rod tab.

The green tab is what blocks the shifter in Park for the key lockout.

Use your Q-tip to put just a bit of grease on the inside of the cylinder before placing it on the post.



When you put the cover back on you might have to rotate the cable bracket to fit in the cutout. Then work the cover down to engage the locking tabs. I think it's easiest if you do the 2 fronts ones first before the rear.

If you needed grease for the cylinder you can pop the 4 tabs holding the shift gate in place. there will be white grease under there. Make a note of how the 2 plastic pieces are in there that the shift rod sticks up through before you remove the gate.

Good time to get that last beer.

Now you're ready to walk back through all the steps and reassemble everything.



Note the ears on the inside of the center floor console.

These need to engage corresponding slots to keep those front corners snug and the seam flush.