

## **AUDI A8 D3 – REPLACING THE OUTSIDE DRIVER DOOR HANDLE**

The keyless entry system in the D3 is a great feature. If you have the car key fob in your pocket, putting your hand under the door handle will unlock the car and turn off the alarm, and pressing the button on the door handle will lock the car and turn on the alarm. Unfortunately, the sensor electronics built into the door handles can fail in various ways, resulting in no function, partial function or in my case, ongoing intermittent function along with current drain of the battery.

I did not find a DIY writeup on replacing the handle, so decided to put one together. This writeup describes how to replace the driver door handle. All the steps through #17 (except you could skip Step 16) are the same if you are replacing the door latch.

1. Remove the trim piece along the top of the door – use a plastic pry tool and start from the door hinge area. Plenty of posts out there on this.
2. Remove two 8mm bolts. One is visible with the trim piece removed, and the other is inside the door pocket (and will require an extension). DO NOT open the door pocket while you are unscrewing that bolt, or the bolt might fall inside the door – not good. I put a small piece of duct tape around the socket so the bolt would “stick” to it as I unthreaded and removed it.
3. Lift and pull away the door card. It’s best if you have some sort of “stand” to rest it on, like a box or something, and let it lean up against the door because it will still be connected to the door at this point.
4. Locate the two large (3” diameter) rubber plugs/grommets which are near the top of the aluminum panel. Remove these plugs and set aside. See photo on the right – the rubber grommet has been removed from the hole.



5. Next, put the key in the ignition and turn on (don't need to start the engine). Before we start disconnecting things, we need to get the window into a certain position. Lower the window about 3" or so. It doesn't have to be exact, but you need to be able to see the window bolts through the holes where the rubber grommets were. They attach the window to the window rail mechanism – we will remove these bolts in Step 7. For now, just adjust the window as necessary so the screws are visible and accessible, and turn off the ignition. Below left, before the window is lowered. On the right, this is what you want to see after the window is lowered.



6. I used a piece of duct tape about 2 feet long, looped over the top of the door (with a piece of paper so the tape glue wouldn't mess up the door frame – see the picture) to secure the window in its lowered position. Then I affixed the tape to both sides of the window. Once those window bolts are removed, you don't want the window glass sliding down into the door – you want it to stay where it is.



7. Unscrew the two bolts (Torx 30) holding the window. The duct tape should hold the window where it is and prevent it from sliding down.
8. Disconnect the cable going to the inside door handle on the door card. It has a small hook with a black plastic collar that snaps into place on the door. Carefully pull the cable away from the door until it pops free, then undo the hook.
9. There is one electronic cable from the door card that is plugged into the bottom of the door motor. It has a purple (in my car anyway) keeper, use a screwdriver and free the keeper so you can turn it 90 degrees and unplug the cable (pull straight down). The door card should be free now, so set it aside.

10. Now you are looking at the interior aluminum panel. This provides some soundproofing and also holds the speaker, door motor, soft close motor and (on the other side) the window rail mechanism. The two motors need to be removed.

In this photo (driver's door), the soft close motor is in the lower left, the window motor is lower center and the door speaker is lower right.

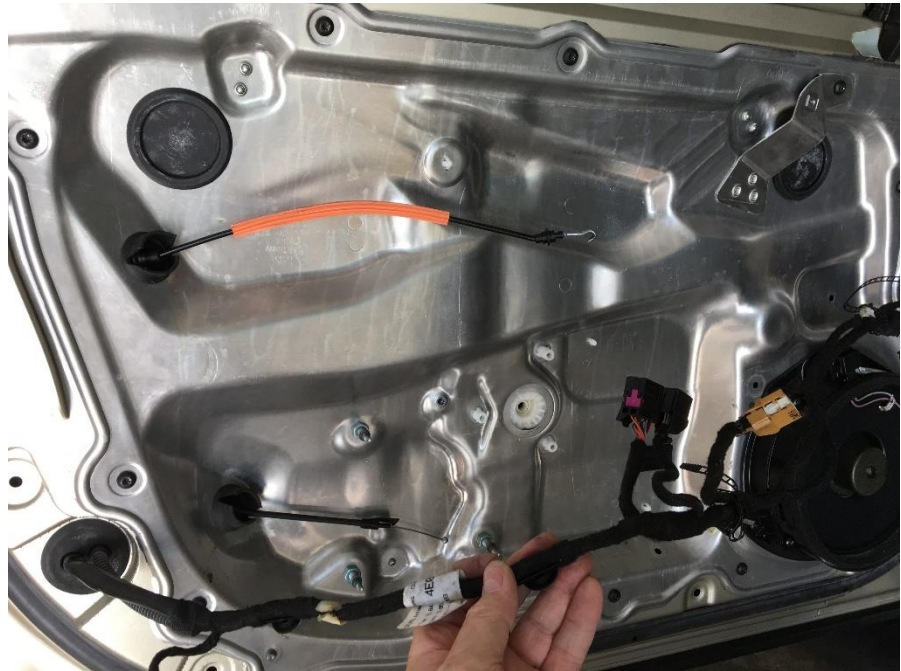


11. Door motor – three Torx 25 screws and three cables plugged in along the bottom. Once the screws are removed, pull the motor away from the panel and it'll be easy to unplug the cables.
12. Soft close motor – three 8mm bolts and one D-plug on the side. As you remove the soft close motor from the aluminum inner door panel, you will also need to disconnect the cable that comes in from the door latch. It is kind of tricky, take your time and avoid pulling or forcing. Push the black cable toward the round white plastic ring, then lift up and remove it. Now the cable itself (with the ball on the end) can be easily removed.





13. With the two motors removed, you can pull the cable harness along the bottom away from the aluminum door panel. The harness is held by snap-in tabs that will need to be pried out of their mounting holes. Unplug the door speaker connector as well. Right, motors are out and all wiring has been unplugged.



14. Now loosen the 12 black Torx 30 bolts around the perimeter of the aluminum panel, that fasten the panel to the door itself. With these bolts removed, the aluminum panel can be pulled away from the door. There is sealing material around the perimeter, so you might have to pry one side a little to get it started, but it will eventually separate from the door. As you pull it away, you will also have to push the two large rubber insulator/grommets for two latch cables (soft close cable and door latch) through to the other side of the panel.

15. Now you should be able to remove the aluminum inner door panel...set it aside. Don't worry, all of this will go back together. On the right, the aluminum panel has been removed. Note, you can see the window mounting tabs at the top of the opening. The door latch cable (orange protective shield) and the soft close cable below it are also visible. Cable harness is at the bottom.



16. With the aluminum panel removed, you can see the door latch inside the door, and above that, the door handle. To make it easier to work on the handle, I lifted the window up as far as it would go (to the “window closed” position). Lift one side of the duct tape off the glass and pull the window up (with one hand on each side of the glass) until it is all the way up, and reattach the duct tape. Right, my window is now duct taped “fully up/closed.”



17. Look up inside the door to the handle area. Locate the small white plastic connector that attaches the aluminum latch rod to the handle. It is kind of hard to see up there. The rod needs to be detached from the white connector. The first step is for the “keeper” part to be pried away from the rod. Study the way the keeper connects to the rod, and how the rod (with a 90-degree angle at the end) fits into a hole in another part of the same connector, and you’ll see what needs to be done. Just be careful and don’t break anything. I used needle nose pliers, but a screwdriver could also work.



Below left, the latch rod with white plastic connector in normal position. Below center, the “keeper” portion of the white connector has been released from the latch so the latch rod can be pulled away from the white plastic connector (and the handle).

Below right, the latch has been removed from its mounting hole in the white plastic connector, and is free. Also note, the grub screw that removes the handle is visible in the middle of these photos.





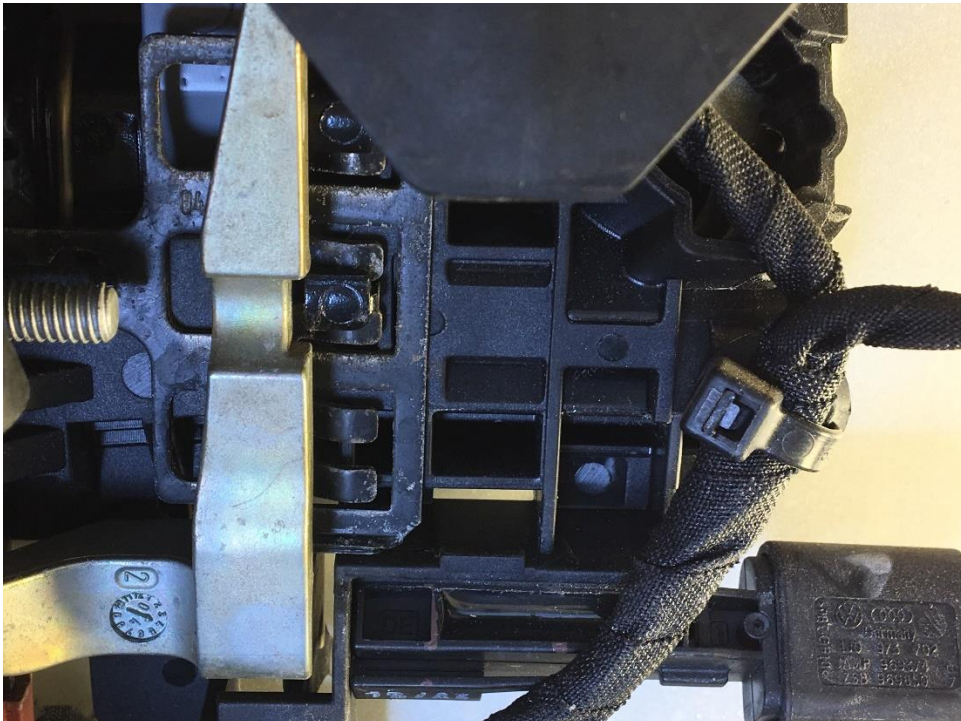
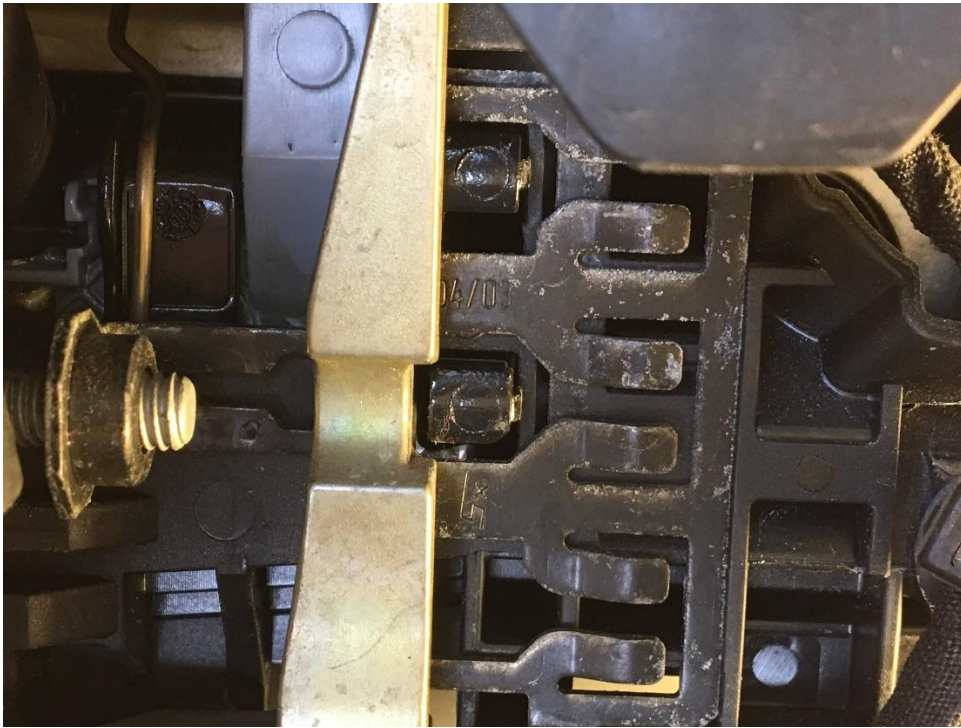
18. Once the latch rod is free, locate the electronic plug that connects to the handle for the keyless entry feature (I assume that's why you are replacing the handle in the first place). You can see it in the photos above. It is a good-sized D-plug, and a bit of a pain to disconnect. Pull up the outside handle up a little to make it easier to get the plug off. You can use a hook tool, or a small screwdriver like I did, to pry the catch on the D-plug so you can unplug it.

19. On the side of the door, above the latch, you will see a 1" rubber plug. Use a long screwdriver and push it out from the inside of the door.

Look straight inside that hole and you will see a headless hex screw, several inches in. That is the grub screw. Use a long, thin-shaft Hex 3 (I think) screwdriver to unthread it. There was not enough room for me to use a ratchet or anything like that – I ended up using a thin-shaft T15 Torx driver because it's all I had, but it worked. The grub screw unthreads two mechanisms in opposite directions on the handle – this is how the outside handle is tightened against the inside of the handle. When you turn the screw a few times, and watch how it works on the inside, you'll see what I mean. By unthreading it all the way, you enable the outside handle to be pulled apart from the inside handle mechanism.



Below are 2 photos showing the way the outside handle is fastened to the inside handle mechanism. Top photo – grub screw loosened all the way. Note the two rectangular tabs to the right of the gold vertical bar. These are part of the outside handle. The “finger looking” things are tangs that slide under those tabs when the grub screw is tightened. Bottom photo – grub screw tightened all the way. Note the tangs have been pulled to the left, and are now firmly “grabbing” the rectangular tabs of the outside handle.





20. Once the grub screw is unthreaded all the way, hold the inside of the handle mechanism with one hand and the outside handle with the other, and work them apart until the outside handle comes off. It might take a little doing, and it's kind of a tight fit, so be patient to avoid damage to your door paint finish. Once it's out, clean the dirt and grime from the outside door surface.





21. Notice the white plastic connector on the handle. This is the connector from Step 17. Remove it and put it onto the new handle, oriented the same way. Now reassemble the new handle on the door, the way you removed it – the two pieces of the handle snap together, and you tighten the grub screw so the “tang” on the mechanism slide over the 4 plastic tabs on the handle, and the handle parts are pulled together. If you can’t fully tighten the grub screw, or the tangs don’t “grab” the rectangular handle tabs, you haven’t snapped the two parts of the handle together all the way. It took me a couple of tries but once they snapped together, I could easily tighten the grub screw all the way.
22. To attach the keyless entry plug to the new handle, you may have to lift the outside latch to have enough room. Be sure to plug it in all the way, until you hear the snap. Finally, reattach the latch rod, first putting the 90 degree turn into the white plastic connector hole, then snapping the “keeper” part around the latch rod. Test the handle to be sure everything is working correctly, and the door open and closes smoothly.
23. Now reassemble everything else in reverse order:
- Reattach the aluminum door panel. Be sure to feed the two cables (soft close and door latch) back through their holes in the panel, and fit/adjust both cable “grommets” as needed. Replace and tighten all 12 of the black Torx 30 bolts.
  - Remove the duct tape holding the window, and carefully lower the window to the position it was in before. I had one hand on each side of the window as I lowered it. The orange “tabs” will appear in the two aluminum panel holes, and the window should be resting on the small alignment ledges of those tabs – and the bolt holes will line up. Tighten the window bolts (Torx 30) and replace the black 3” rubber grommets. Below, you can clearly see the window’s “alignment ledge” is sitting on the top of the orange piece that fastens the window to the rail mechanism. Use Goo Gone or something similar to remove any residual duct tape glue from the window.



- Replace the 1" rubber plug on the side of the door (grub screw access hole).
- Reinstall the two door motors. For the soft close motor, don't forget to reattach the cable coming from the door latch. I put a little lithium grease on the window motor gears, since I don't plan to be back in here for a while. Reattach all wiring plugs – one to the soft close motor, three to the window motor and one to the door speaker. Reattach the cable harness clips to the panel. I broke a few of these clips, but I was still able to make it work.
- This is a good time to double-check and make sure you don't have any extra parts laying around. All you should have left now are the door card, the two 8mm bolts, and the trim piece.
- Reattach the door card, including the cable from the door latch and the door electronics plug at the bottom. Screw in the two 8mm bolts and snap the trim piece back in place. There are many posts out there related to the door card, door card clips, etc. so I won't repeat those here.
- Now test everything – make sure the window open and closes, soft close works, keyless entry works and keyless locking works. Finally, clear those VCDS error codes once and for all. You're done.

#### Reference

Driver door handle: 4E1 837 205 GGRU

Front passenger door handle: 4E0 839 205 GGRU

Handles come unpainted, take them to a body shop along with the original Audi paint code. I was charged \$25 per handle.