

POWER FOLDING MIRRORS FOR 5TH GEN 4RUNNER

CAR TRIM HOME POWER-FOLDING MIRROR STEP-BY-STEP INSTALL FOR THE 5TH GEN 4RUNNER

While 5th Gen 4Runners are extremely capable vehicles off-road, there are times when the lack of luxury features becomes apparent. One such feature is power-folding mirrors, invaluable in situations ranging from parallel parking to threading the needle in a tightly packed forest.

Thankfully, Car Trim Home has a kit that allows you to do just that, and you'll have mirrors that automatically fold and unfold as you lock and unlock the vehicle. You'll also have a manual override if you want to fold the mirrors while the vehicle is on.

PRICE

Car Trim Home Power Folding Mirror Kit: [Power Folding Mirrors](#)

STEP-BY-STEP INSTALLATION

The installation is relatively easy; it includes removing the door panels and completing mirror disassembly. Before tackling this mod, you should be comfortable undoing snap fits and keeping track of multiple parts of a complex assembly.

If you're still with me, let's get started!

Tools and materials

- Auto Trim Removal Tool
- Phillips Screwdriver
- 10mm Socket Wrench
- Needle Nose Pliers
- Wire Fishing Tool
- Zip ties

Item Description

This system can unfold the side mirror automatically when opening the door before igniting the car; fold the side mirror automatically when ACC is off and close the door. Compatible with the original car electric system and security system.

Specifications

- Material: ABS
- Voltage: 12 (V)
- Model Name: Auto Side Rearview Mirror Closer

Features

- Auto folding/unfolding, effective anti-scratching, and anti-collision.
- Overload protection, if the door is closed/opened too frequently, the system will stop to fold/unfold the side mirror to protect the motor of the side mirror.
- Easy installation, no need to change any original car lines and settings. The box can be hidden in the center console.

Kit Items

- 1 - Automatic Control Box
- 1 - Control Box adhesive Velcro applicator
- 2 - Power Fold Actuator motor
- 1 - Actuator Wire Harness with inline fuse
- 1 - Replacement Adjust & Fold Switch Controller
- 2 - Extension Wire Harness - Driver/Passenger
- 7 - Replacement Screws motor mount assembly



STEP 1. REMOVE COSMETIC COVER

To remove the cosmetic cover using the trim removal tool, pry off the bottom corner, then the outside corner to remove the locks that hold the cover in place.



Another effective method to remove the cosmetic cover is folding the mirror and then pulling the bottom corner with one hand till the locks are loose.



STEP 2. REMOVE MIRROR MOUNT COVER PANEL



Starting on the driver-side door, pry off the mirror mount's plastic panel using an auto trim removal tool.

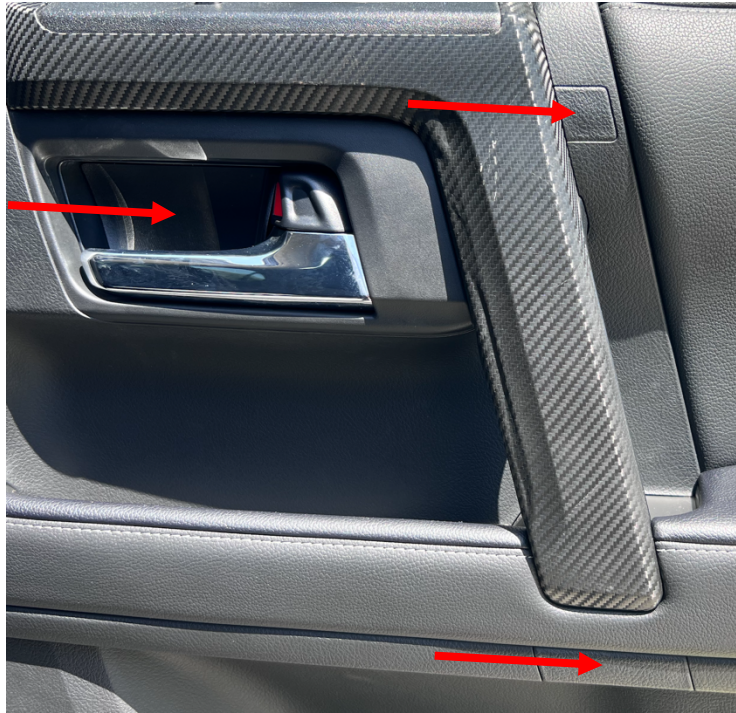
Other tools (i.e., flathead screwdriver) can be used, but using a plastic tool will keep you from damaging your trim.



Once the cover is removed, you should see the three 10mm nuts that hold on to the mirror assembly.

Let's leave these alone for now. Bring the window down before continuing to **Step 2**

STEP 3. POP OFF DOOR PANEL SCREW COVERS



Using the trim removal tool, pry off the three marked screw covers that hold the door panel in place.



After opening the covers, remove the three screws using a Phillips screwdriver.

The door panel will remain in place via perimeter snaps.

STEP 4. REMOVE DOOR PANEL



Using your hand or the trim removal tool, begin by pulling in the panel's lower side and separating the door panel from the door frame.

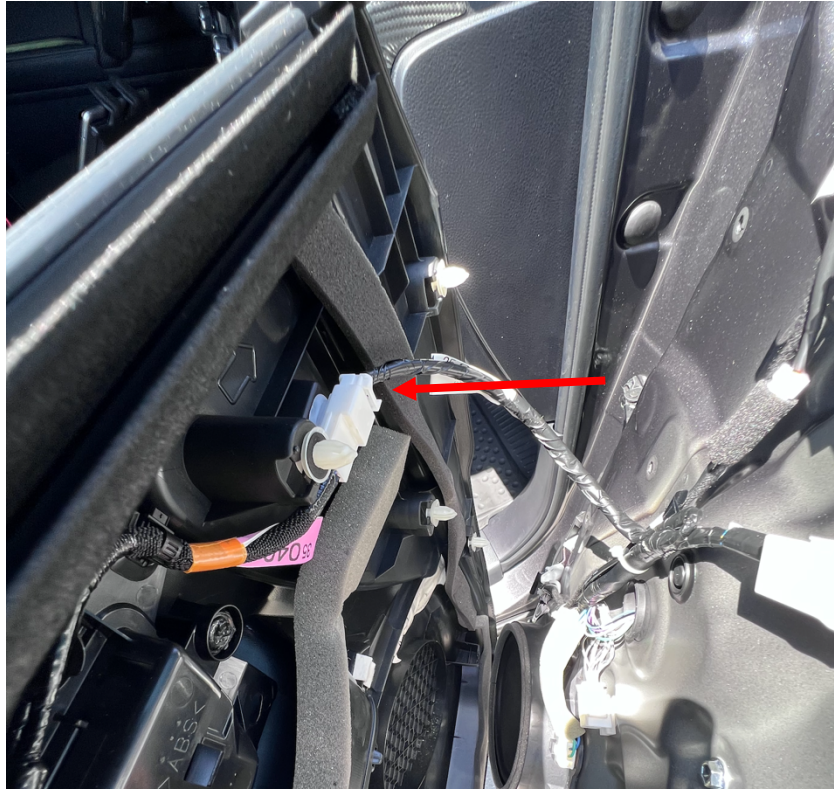
Slowly work your way around the bottom and sides, popping off each snap until you're left with the door card hanging by the top lip.



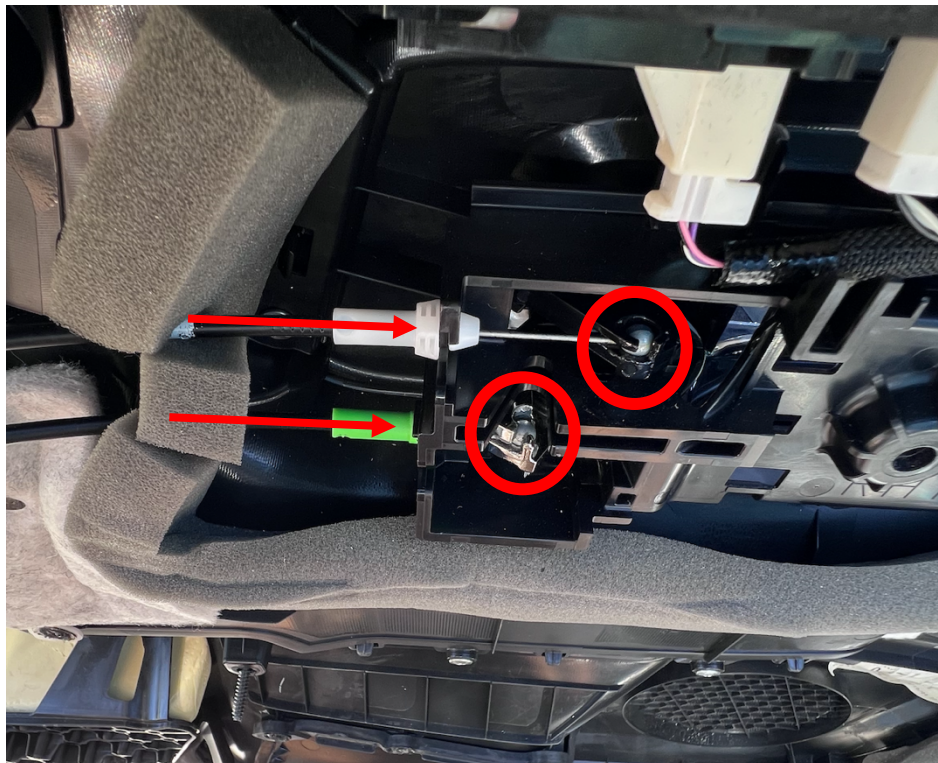
To remove the door panel, hold the door panel from the door handle and lift the panel a bit to separate the panel from the door frame. These are different kinds of snap-fit, so they'll pop off all simultaneously.

Make sure not to pull the door panel too far away; you still need to deal with the latch and lock cables!

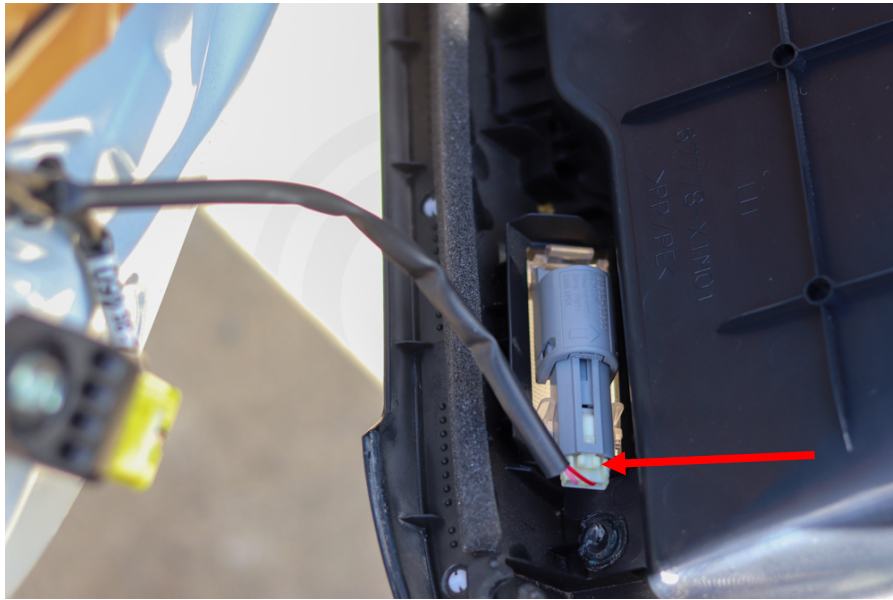
STEP 5. REMOVE DOOR CARD CONNECTIONS



If you look behind the door panel, a white connector needs to be unplugged by pressing the secure lock.



Also, there is a white and green Bowden cable termination. Carefully snap these out of the black housing and maneuver the steel cable ends out of their enclosures.

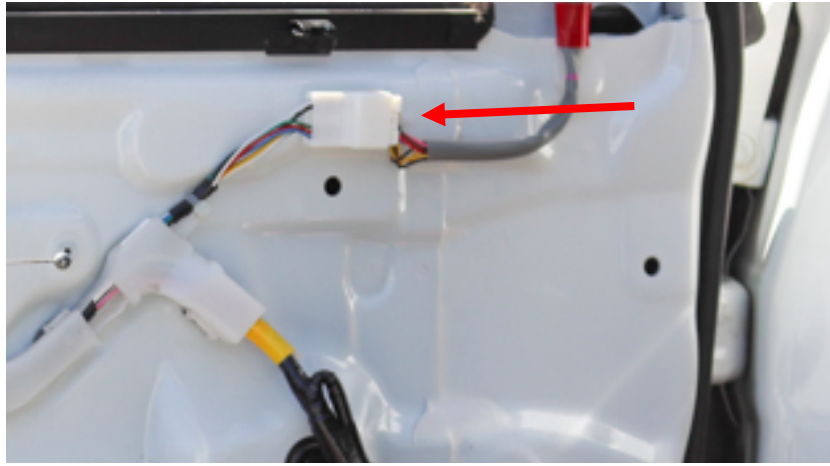


Before pulling the door panel apart, unplug the courtesy light connector located in the bottom left/right of the door panel. You'll have to slightly pull the bottom of the door panel away from the door frame to access the connector.

Push down on the security tab on the rear of the white plug body to disconnect.

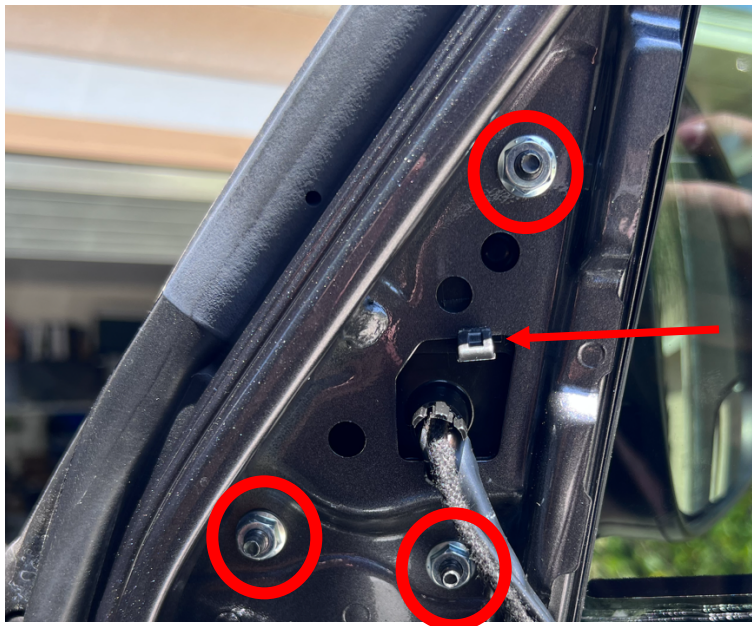
STEP 6. UNPLUG MIRROR CONNECTOR & REMOVE MIRROR





Now that we have the door frame exposed, we can easily find the mirror connector, follow the wire that's coming out of the mirror, and route down to the white connector at the top of the door.

Unplug this and remove any tape holding the cable in place.



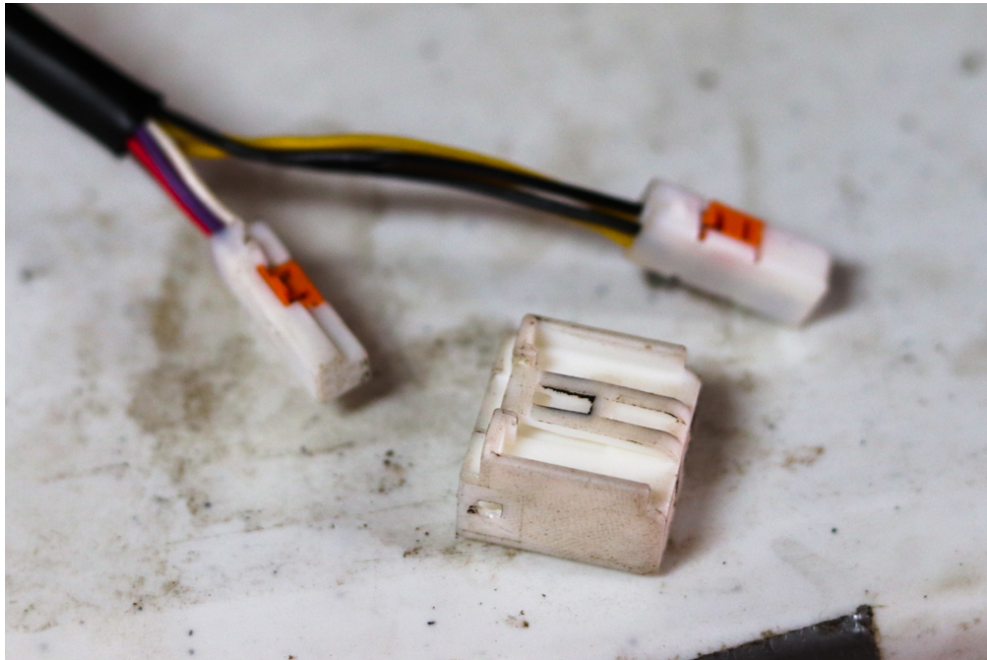
Unbolt the mirror assembly by removing the three 10mm nuts we exposed in **Step 1**. Carefully push down the plastic tab holding the mirror in place and pull the whole assembly out, cable and all.



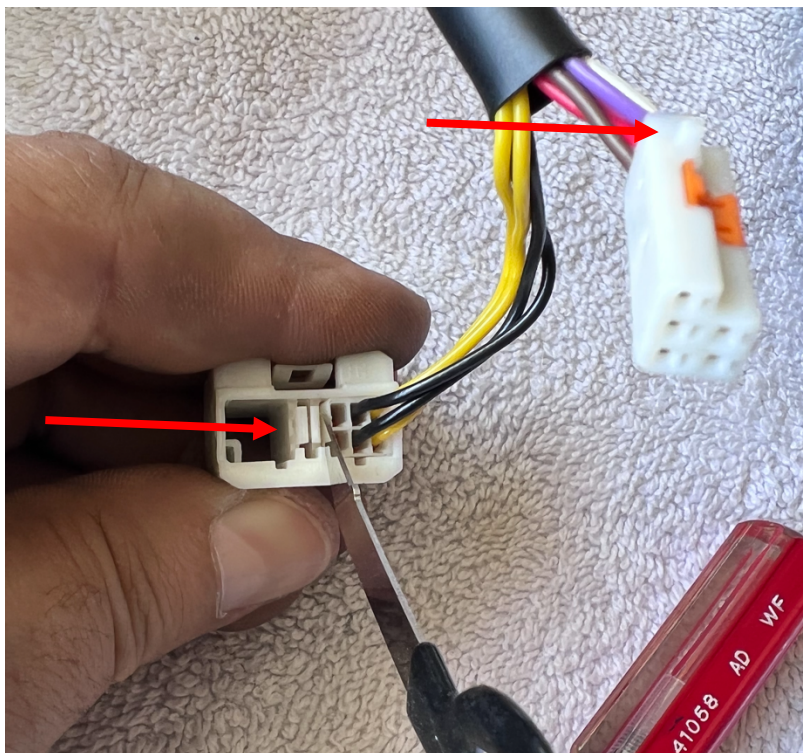
Remove the push clip from the corner.

Now follow Steps 1-5 to remove the other side mirror.

STEP 7. SEPARATE MIRROR CONNECTOR



This is a tricky step. To fully disassemble the mirror, we'll need to slip the cable and connector through narrow openings. The only way this can be accomplished is by separating the two small connectors from their outer enclosure.



Looking closely at the entire connector, you'll notice four captive barbs on the outer sides and between the two internal connectors. These need to be pushed in to release the internal connectors from the external enclosure.

Be careful since we'll need to reassemble this connector later.

STEP 8. REMOVE RUBBER ISOLATOR



We can peel off the rubber isolator from the mirror assembly and slip the cable through it. Please make a note of how the mirror cables are routed behind it.

STEP 9. REMOVE LOWER MIRROR ARM COVER



Using the trim removal tool, carefully pry open the lower mirror arm cover. It's a handful of snap fits, so be careful not to break any.

STEP 10. REMOVE SPRING CLIP

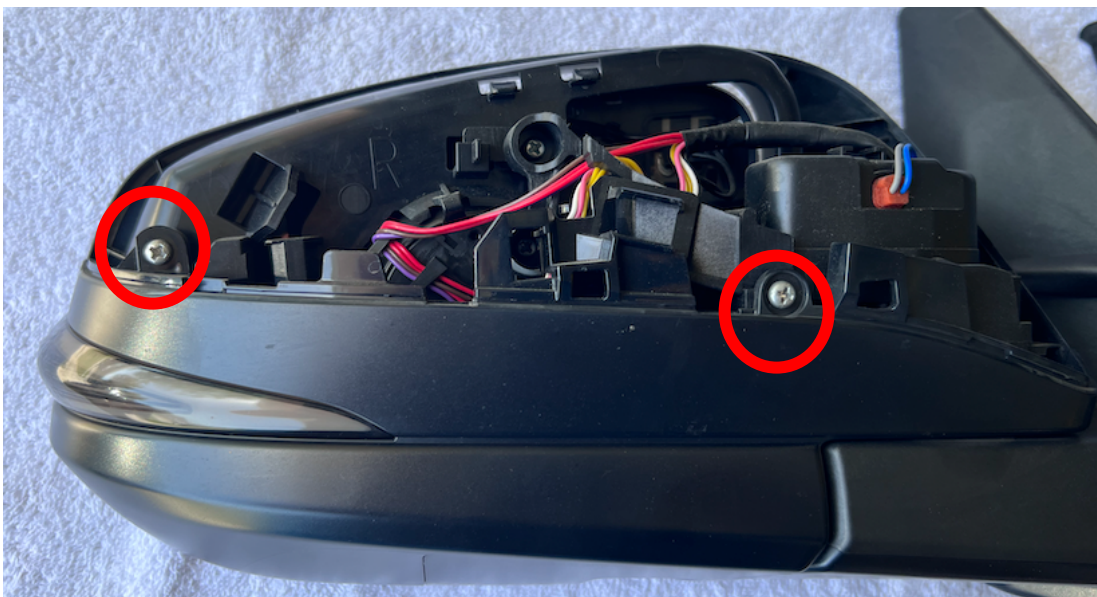


Use the needle-nose pliers for this step. The metal clip here keeps the mirror spring-loaded in open and closed detents. With the addition of the motor, this becomes unnecessary to get rid of it. Insert the tips of the needle-nose pliers into the two opposing holes on the spring clip.

Keeping some force on the pliers to keep the tips inserted gives the whole thing a firm twist. This should align the slots on the spring clip with tabs on the center shaft, and it should pop right off.

At this point, remove the spring and plastic washer held down by the spring clip.

STEP 11. REMOVE LOWER COVER

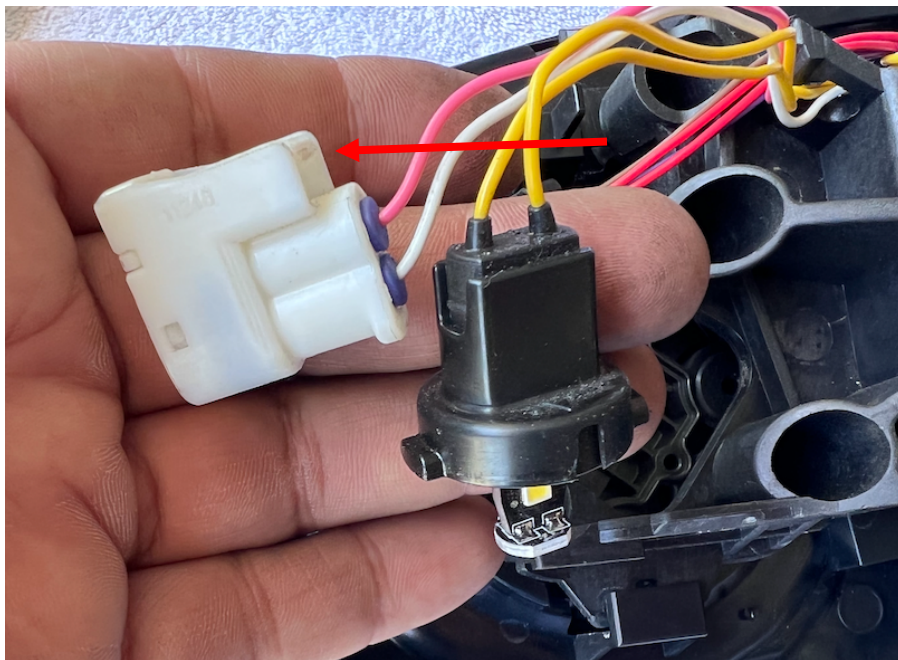


Remove the two screws and prim open the cover using the trim removal tool.



Some snap-fits around the sides and bottom edge, but gentle persuasion should release the cover.

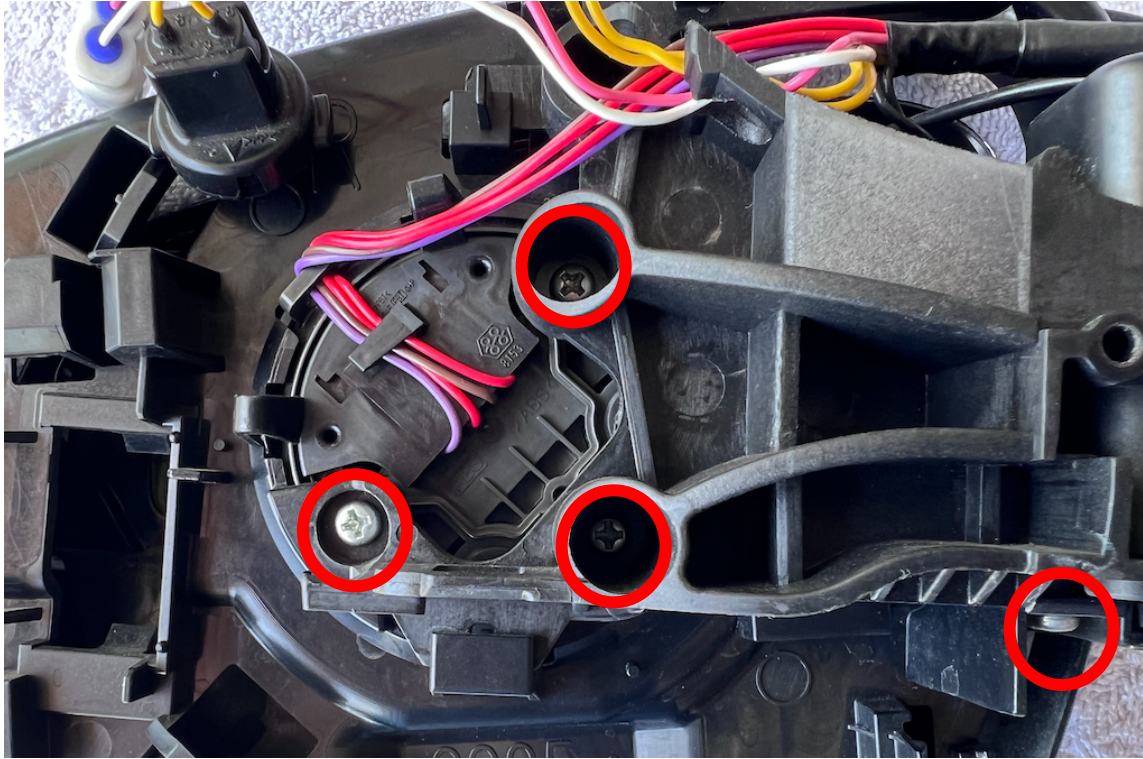
STEP 12. REMOVE SIGNAL LIGHT



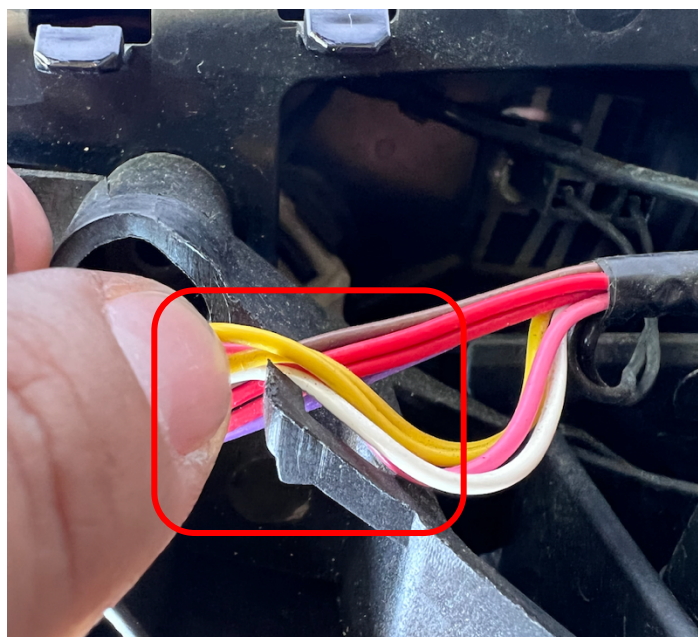
Looking at the assembly from the back, locate the white connector that needs to be unplugged by pressing the secure lock and twisting the puddle light base to remove the light bulb.

Pull each one out and away from the inner bracket to release the light module.

STEP 13. REMOVE SCREWS HOLDING ARM BRACKET IN PLACE

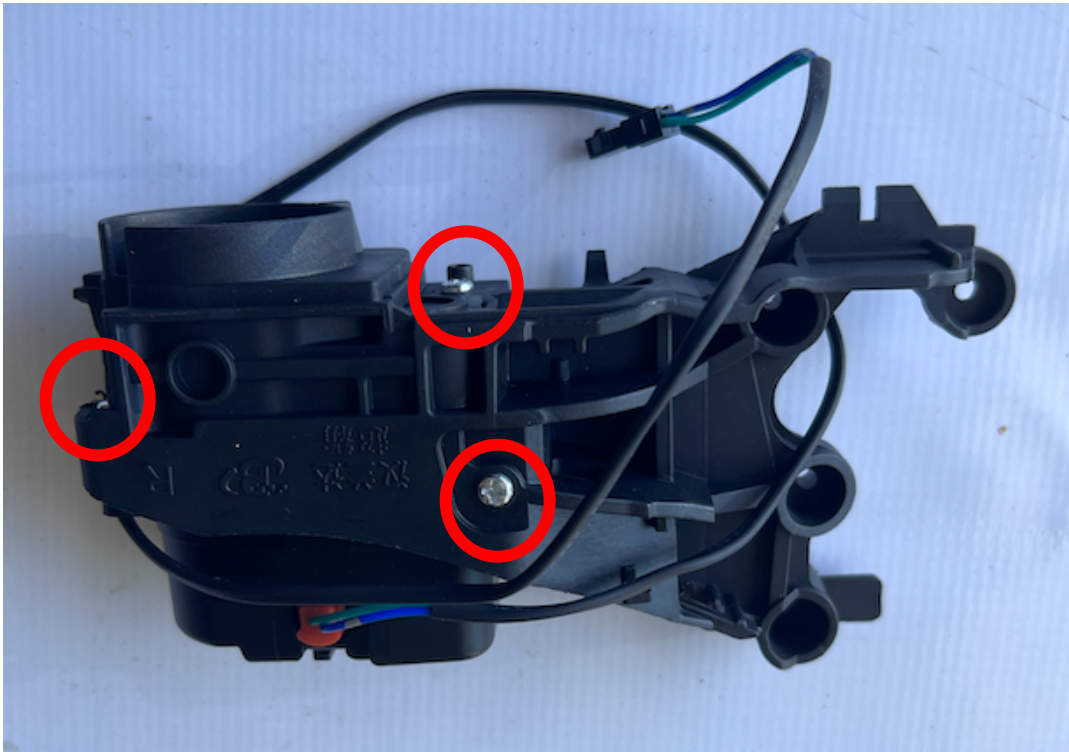


Remove these four screws holding the arm bracket in place and remove the bracket. The kit that we're installing comes with replacement arm brackets with an integrated motor and gearbox that we'll swap in.



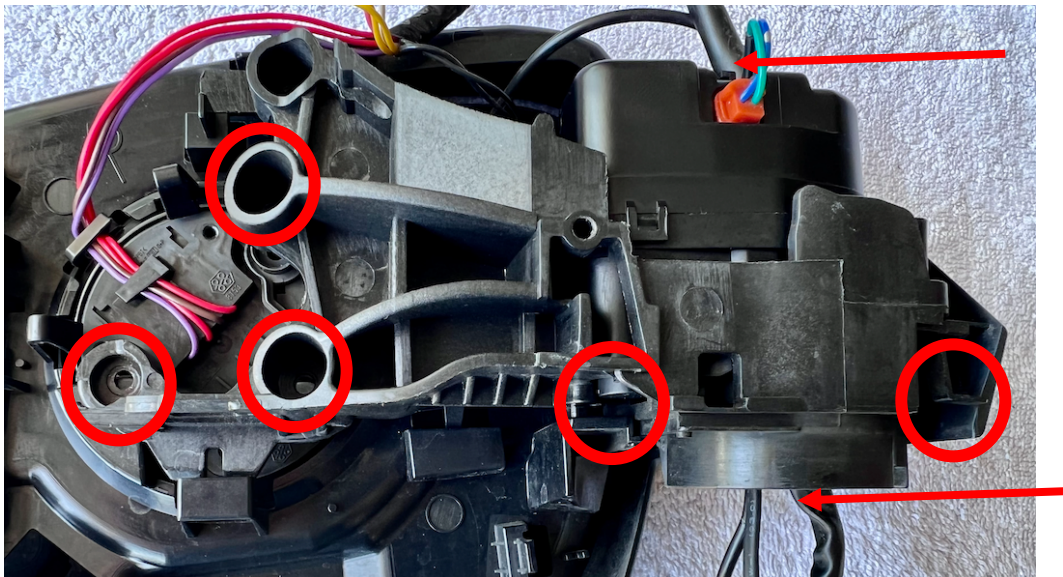
Remove the cables from the guide to get the arm loose.

STEP 14. ASSEMBLE NEW ARM BRACKET W/ MOTOR



Before assembling the new bracket, remove these three screws. They're unnecessary for the kit assembly; feel free to toss them.

We'll be reusing the original mirror assembly screws that we removed in Step 13.

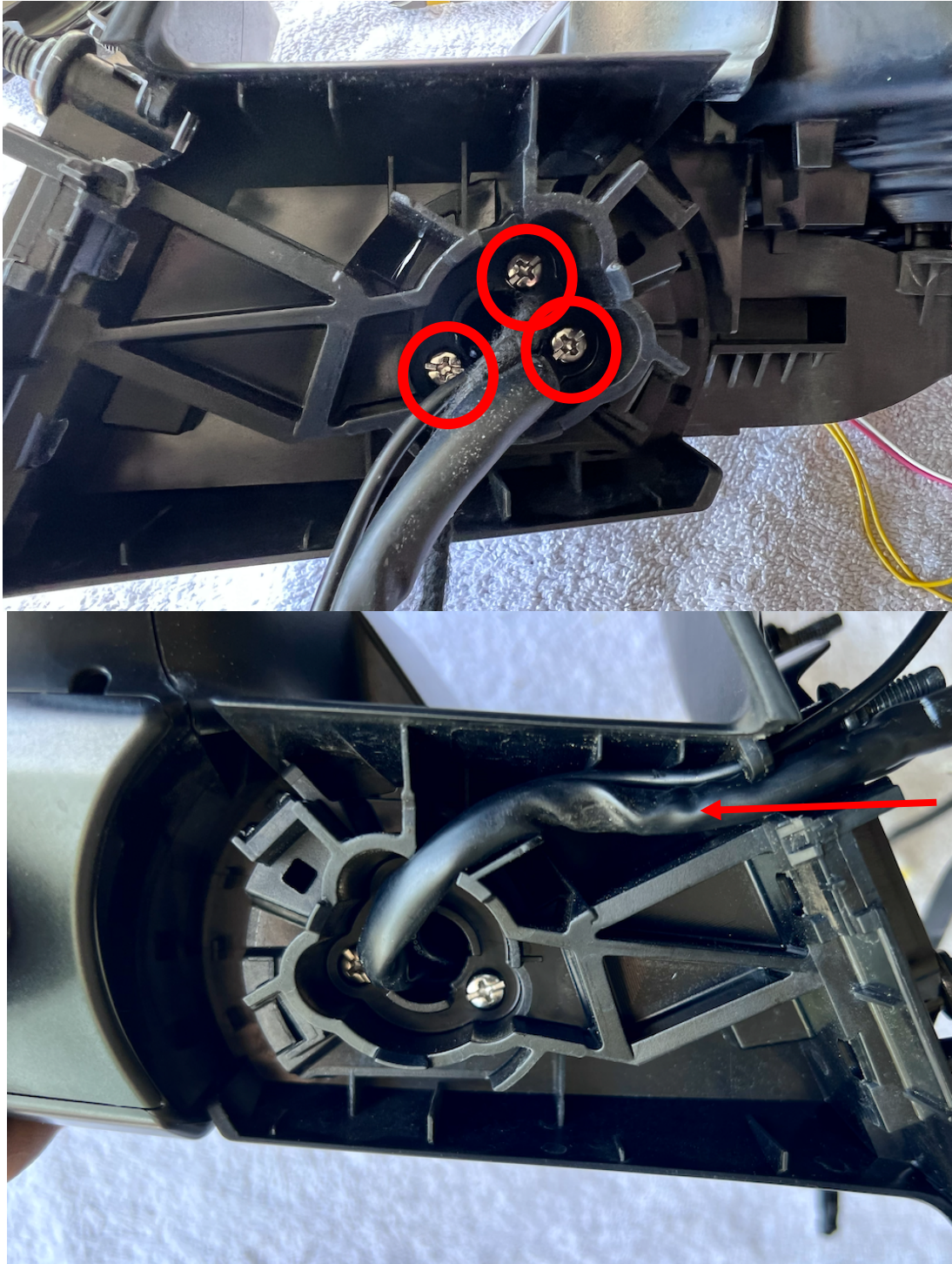


Now we can swap in the new arm bracket. The fit should be identical to the original arm bracket, so follow what you did in Step 13, except backward.

Put back all the screws you previously removed. Tidy the wires up (including the two new cables from the motor) and route them back through the hole in the new arm bracket.

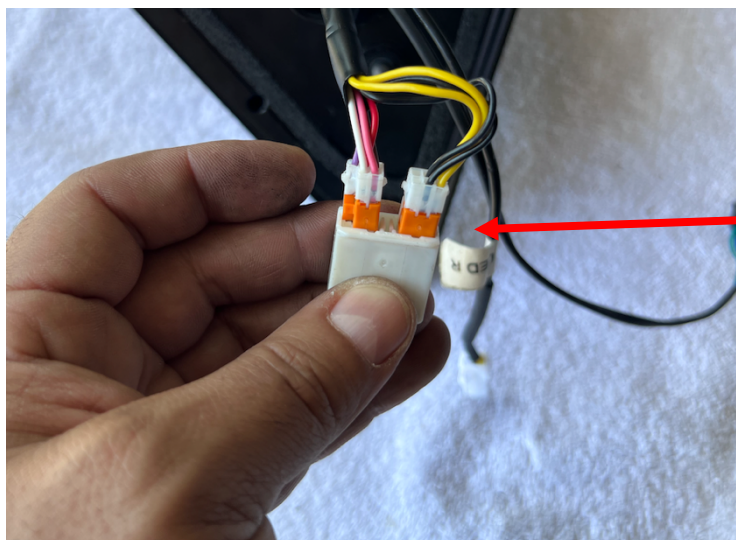
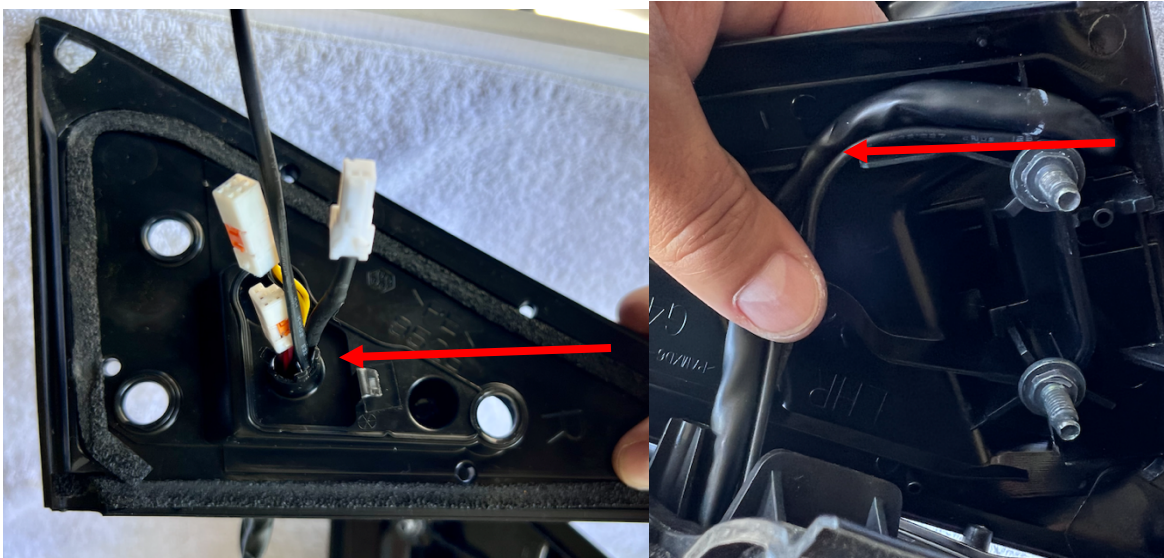
Both outer covers can be assembled at this time; connect the turn signal and puddle light by following the steps you took previously, except backward.

STEP 15. ASSEMBLE MIRROR ASSEMBLY TO MIRROR ARM



Using the supplied screws and washers (three per mirror), mount the mirror assembly to the mirror arm.

Make sure that you position the mirror in the unfolded state when screwing the mirror to the arm. You can now route the cable along with the wire guides and out the mounting face.



Finish up by re-attaching the lower arm cover and rubber isolator. I hope you noted how to route the wires behind it!

Insert the connectors into the housing connector by following the direction fit.

Pro Tip: *In case you didn't, send the wires around the inner perimeter to the center opening so they can exit out the inner hole of the rubber isolator.*

STEP 16. RE-ATTACH MIRRORS TO 4RUNNER

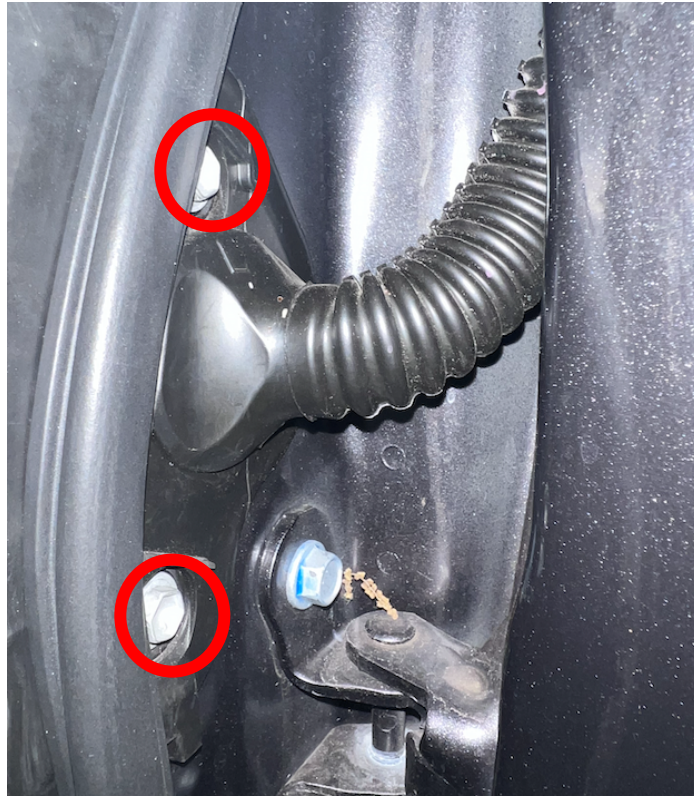


We're finally done with the mirrors!

Let's reattach them to the vehicle with the three original 10mm nuts. Make sure the wires are cleanly pulled through to the inner side of the door and place the secure pushpin.

Now that we're pulling the cable through tight gaps, we can reassemble the two inner connectors into the outer housing and plug them into the mirror receptacle. The power wires from the motor remain free.

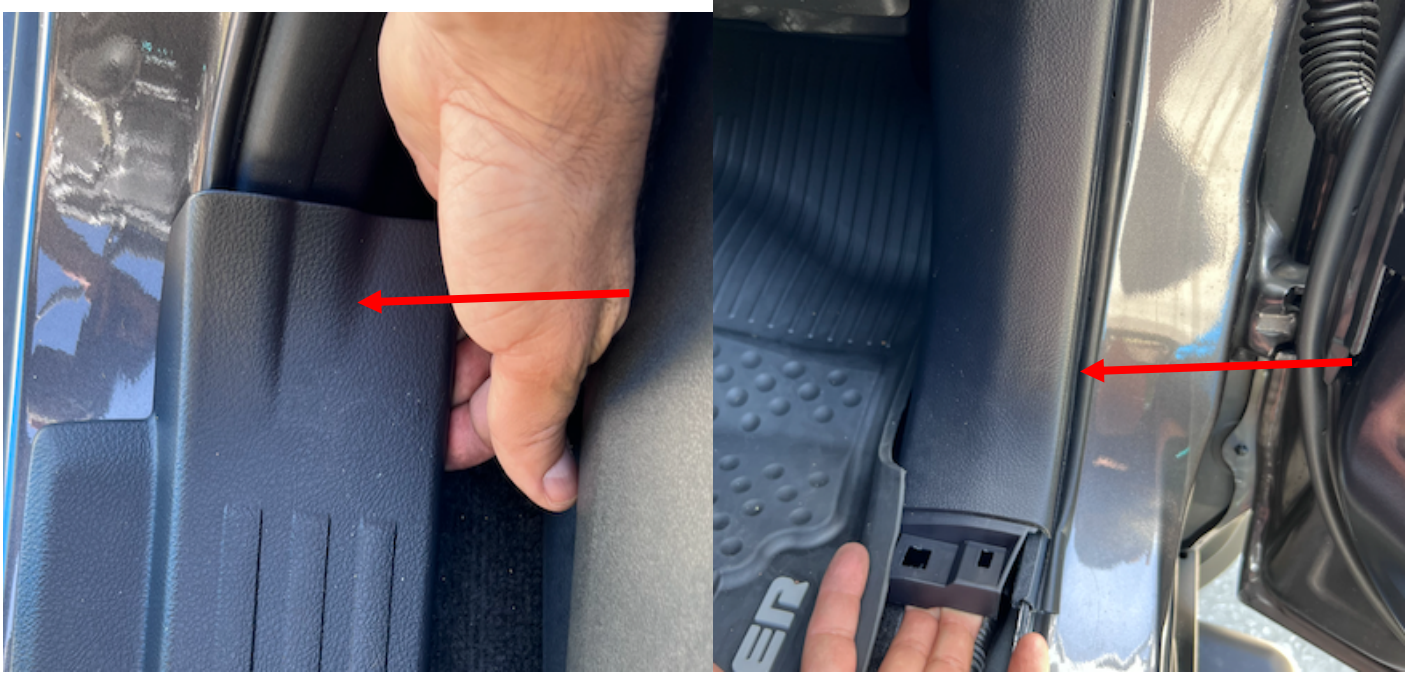
STEP 17. PREPARE DOOR GROMMET FOR WIRE ROUTING



Open the door. This will expose two 10mm bolts that retain the wiring harness's bracket clamping. Undo these bolts and remove the tape securing the harness, giving you free access to the door grommet.

STEP 18. REMOVE INTERIOR PANELS





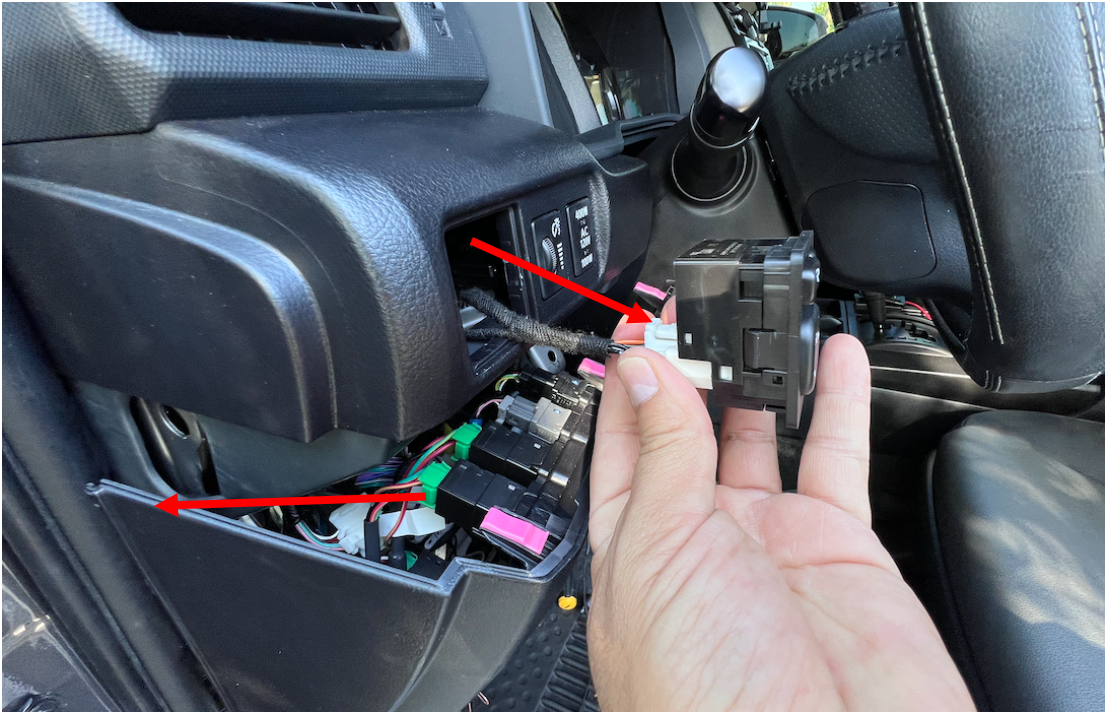
Removing some interior panels is necessary to access the wiring harness and the door grommet.

First, unscrew the plastic screw nut towards the back, and then pull out the snaps in the front to remove the panel. Locate the opening for the door grommet and use the wire fishing tool (sent in from the door side) to pull the short power pair (from the kit's wiring harness) through on the driver side.

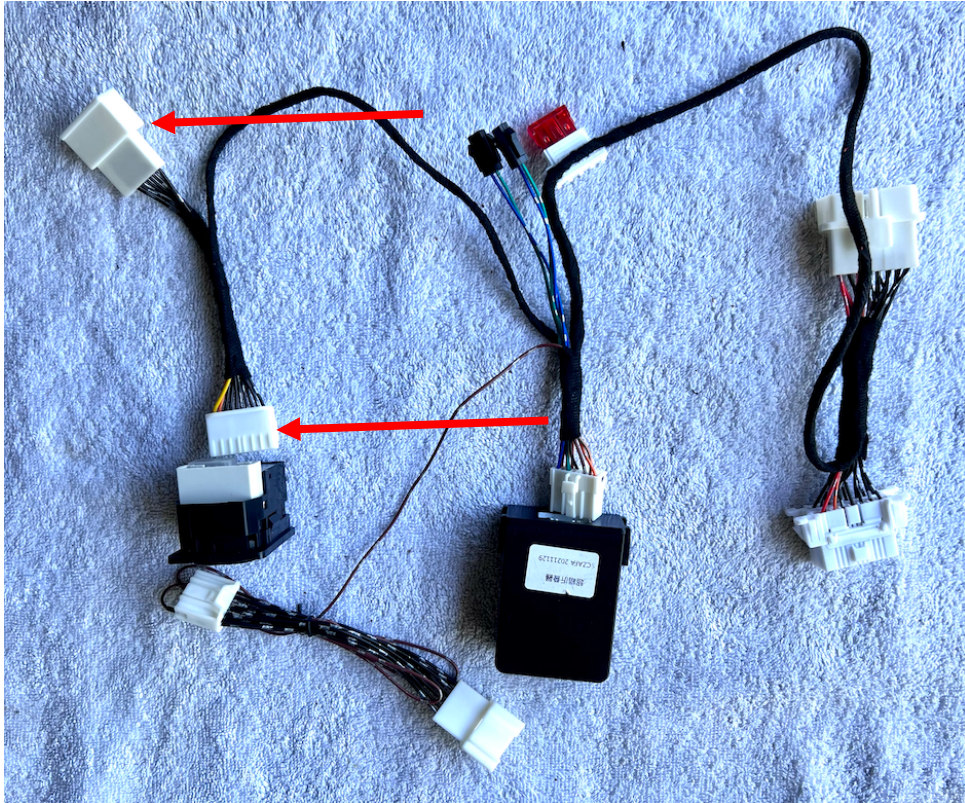
You'll want to take the long power pair, pass it through the center console, and perform the same route through the passenger door grommet.

STEP 19. INSTALL NEW MIRROR CONTROL PANEL

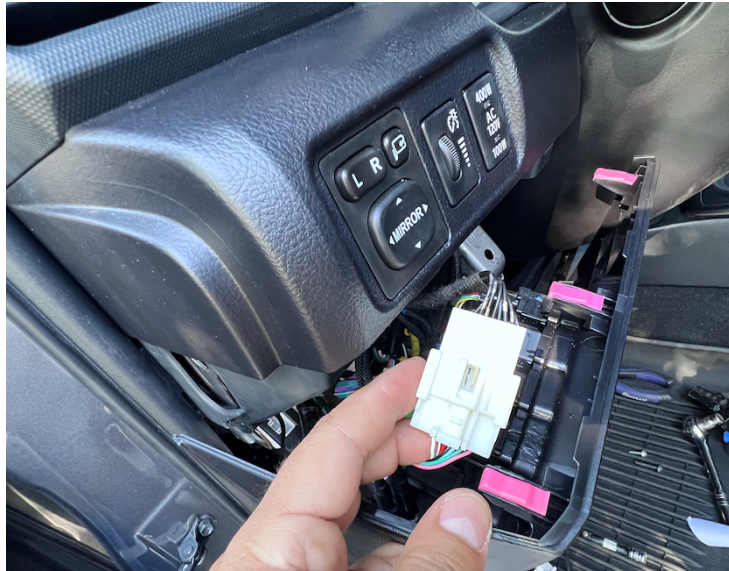




Pop open the dashboard by pulling on the top right corner of the lower panel, directly to the left of the steering column. You can reach up from below the current mirror control module and push it out from behind. Once it's out, disconnect the old control module by pressing the tab on the rear connector.

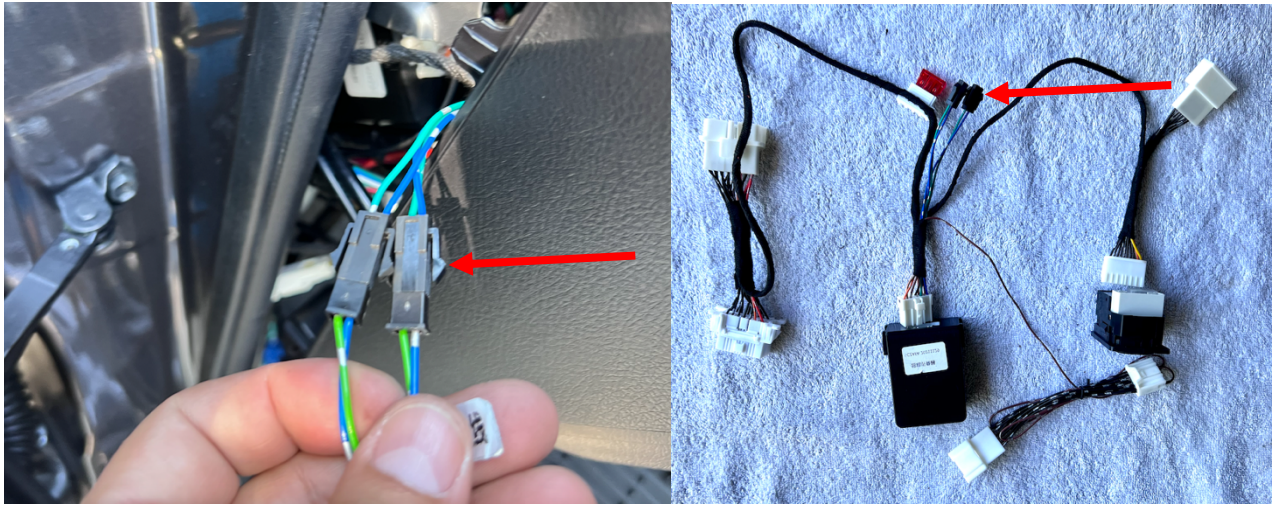


Plug in the intermediary harness; one side connects to the original connector, and the other side plugs into the new control module.



You can now install the new control module into the dashboard.

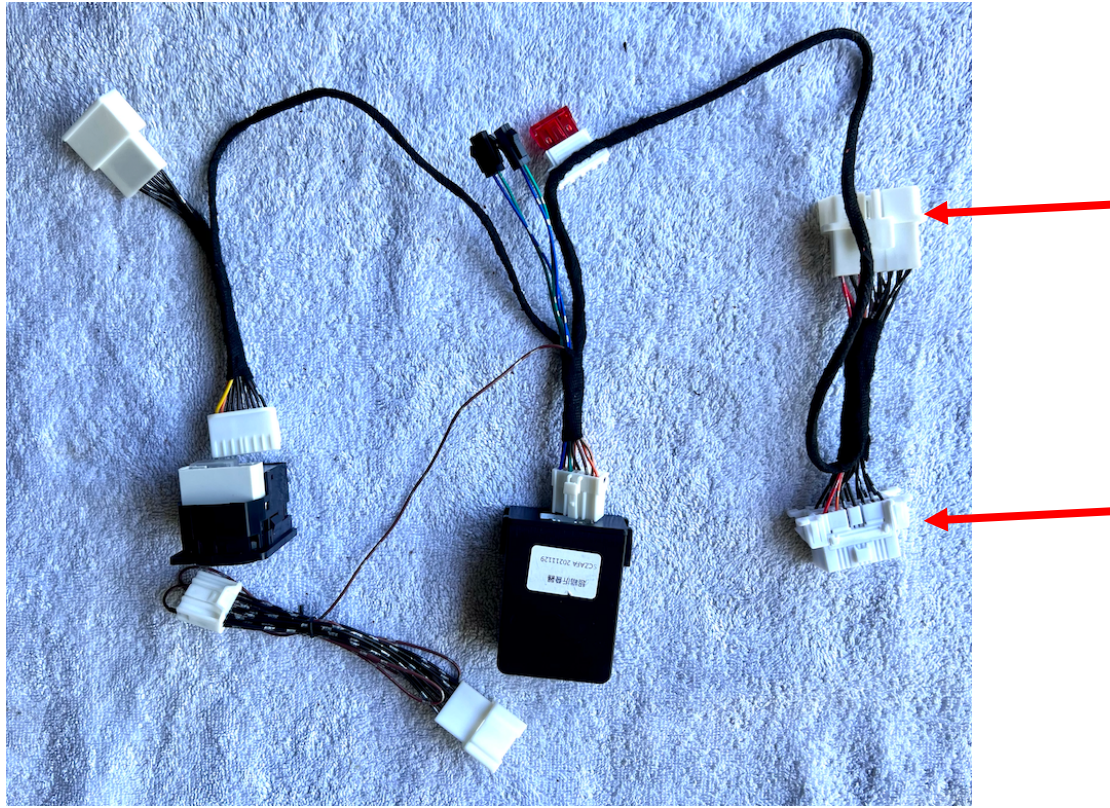
STEP 20. CONNECT POWER WIRES SIDE MIRRORS



Use the included plug/receptacle pairs to connect the terminals from the power wires you just sent through the door grommets and the power wires from the mirror modules.

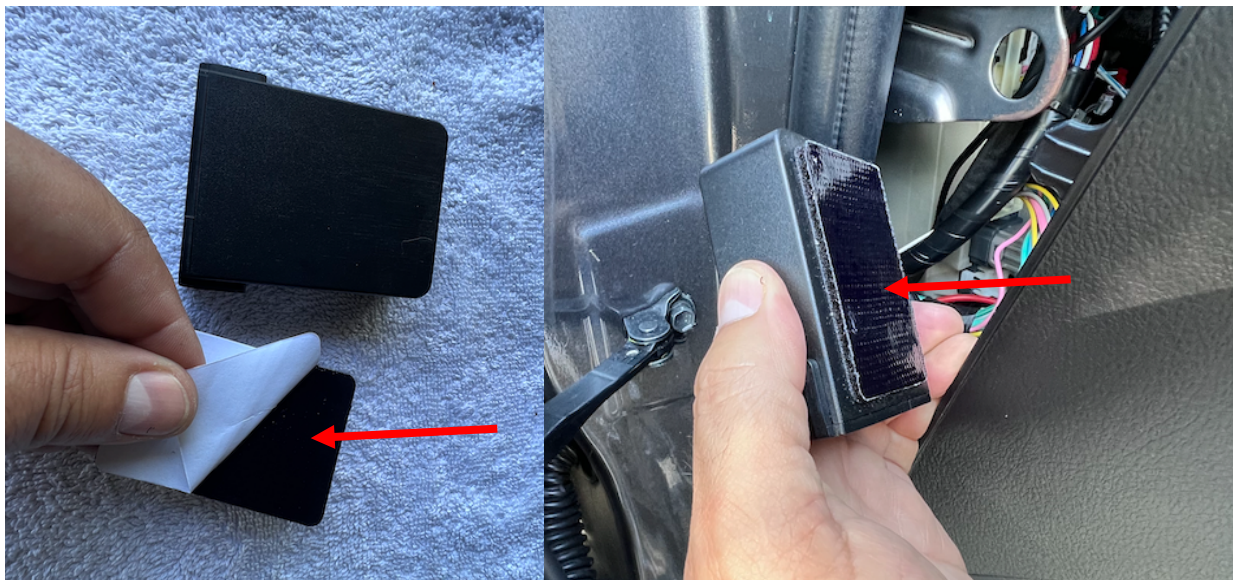
STEP 21. TAP VEHICLE OBD CONNECTOR

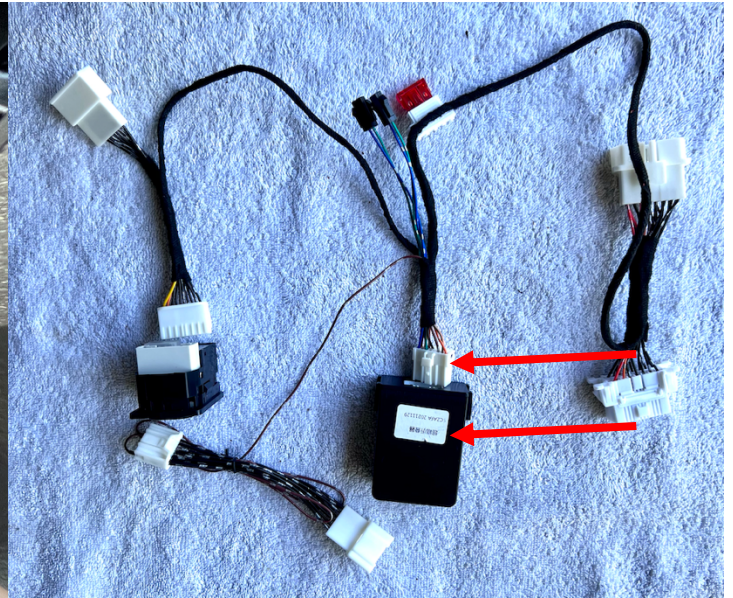




Remove the OBD connector from the frame by pressing the locks on both sides and connecting the intermediary harness. One side connects to the original connector, and the other side plugs into the new control module. Place the OBD side back into the frame.

STEP 22. CONTROL BOX INSTALLATION

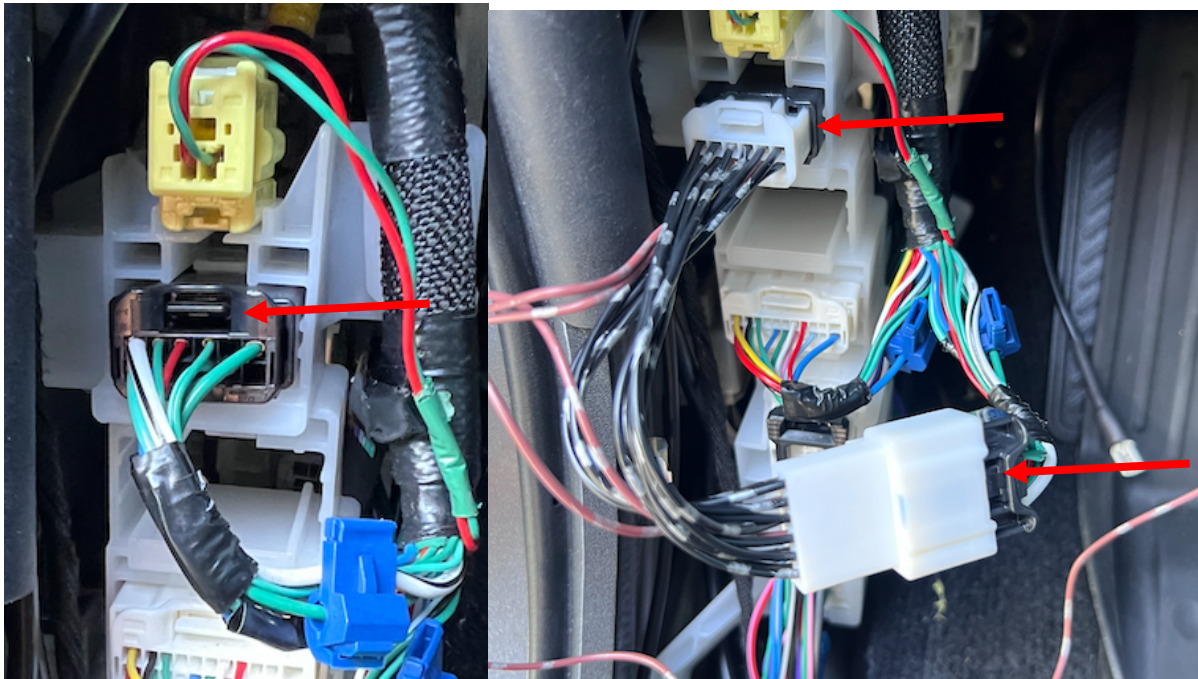


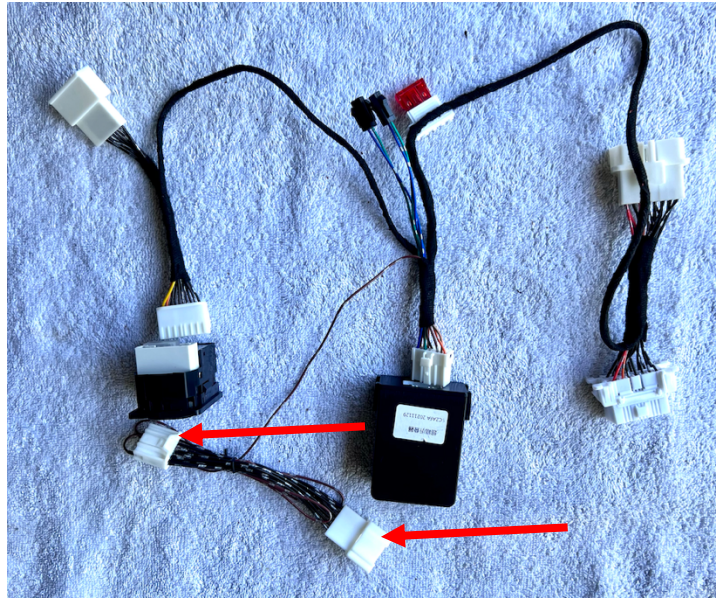


Peel the white paper from the Velcro and stick it to one side of the control box. Peel the other white paper from the other side of the Velcro and place the control box in the desired location (I put the control box by the open area close to the door.)

Plug in the connector to the control box module and proceed to close the panel.

STEP 23. TAP VEHICLE WIRING HARNESS FOR LOCK/UNLOCK SIGNALS





Find the connector pictured above (Kick panel) and remove the black connector by pressing the tab on the top. Plugin the intermediary harness; one side connects to the original female connector and the other plugs into the male connector.

STEP 24. CLEAN UP AND SECURE WIRING & CLOSE UP



After tidying up the wires, put the kick panel and both door panels back on. Remember to plug in all connectors (window controls, courtesy lights, latch/lock Bowden cable terminations) and check that all snap fits are correctly engaged.

Now all you need to do is test your new setup!

FINAL LOOK



Video link

Mirror removal and kit installation. <https://www.youtube.com/watch?v=y8eS7b5qCX4>