

Tesla Door Handle Replacement steps

Problem: Door handle does not present when unlocked. Will open from inside. Motor making sound when the door is trying to open heard. Replacing paddle only, not microswitches in this guide

Tools needed: Replacement paddle gear and microswitches, trim removal tools, T30, T20, T25, 9mm, 10mm ratchet, 10mm crescent wrench, flathead screwdriver, pick tool, trim screw remover blade, Socket extender, magnetic wand, magnetize sockets if possible, masking tape, small zip ties, sharpie, blanket so nothing falls and breaks on concrete, nitrile gloves, climate controlled workspace, good lighting

Tips from which video: RR- Rich Rebuilds, RD- Reel Deal Ev, EG- Electrified Garage KW- Me

RR Video Link: <https://www.youtube.com/watch?v=5PU0Kbo5Tos>

EG Video Link: <https://www.youtube.com/watch?v=xhxNOFv2Eg8>

RD Video Link: <https://www.youtube.com/watch?v=nUH8MBwaV-I>

Overall thoughts/tips: **DON'T SCRATCH CHROME OR GLASS WITH TOOLS, TAKE PICTURES**

Time Started: _____

Begin:

Tape interior chrome trim and exterior door handle to prevent scratches

Open Door

Put blanket/padding down below open door to help prepare place for door trim to rest, cables not long enough to fall to the ground

Put window down (EG)

Remove chrome trim at top of door. Twist and lift gently on the outside toward the mirror EG

Remove 10mm nut on the handle (seen between the supports of the door handle) EG

BE CAREFUL NOT TO SCRATCH GLASS WITH WRENCH (maybe tape lightly the edge toward the window KW)

When nut is almost out use magnet to grab nut (EG- Different than RR order of operations)

Tape up interior chrome trim KW

Open door latch and remove trim piece behind door trim with T30 (2 screws) RR

Remove trim piece from small pocket below window, will be **either 9 or 10mm** RR

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Remove speaker grill which has four clips, one at each corner, by gripping firmly from larger portion toward the inside of the door RR

Bottom part will probably come off first (EG), if not opened before it will require a lot of force

Use door handle cutout out to help with top (EG)

With fingers inside the above part grab firmly and pull off the door panel trim **DO NOT LET FALL as power cords will still be attached** RR

Put window up all the way before disconnecting switch (EG)

Consider labeling with tape each wire harness that connects together for easier assembly.

Unlatch cable release cord, plastic connectors for lights, puddle lights, door sensor. Some might be behind padding and some might be black, blue, white

Inside door trim is disconnected, stow away safely

Removing door handle assembly

Disconnect three power connectors on the black box that is screwed into the door shielding

Use **T20/25** depending on age of car to open up door access kidney shaped panel. **There are six screws.** RR

There **will** be a wire connected **through** the panel

Rubber handle seal may fall down into the opening that is sound dampening RR

Move rubber grommet with wire connected out with flathead screwdriver. Wire will stay the door. RR

Trick car to thinking door is closed with this step to move up window farther: use screwdriver to push in latch on side of door. Window will move up. RR

Use trim screw removal tool just below an inside QR code and above where the window regulator was you just pushed. Remove screw from door by pulling into the door cavity. Help push with fingers of other hand (CAUTION: It is connected to wiring.) RR

Unplug handle harness from door handle wiring EG

Remove black glued NVH pressure sensors. May not be very sticky anymore. Two of them above the opening. Ignore the three grouped together. RR

Use 10mm socket and go to the side opening. Remove nut out from opening. It may fall in side the door so have hand under it if not going well or magnet arm. Repeat for top opening. Then do the one you can see in the big empty part. RR

If door handle is presented push it in RR (not my problem)

Work the handle down at an angle towards the opening RR

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Will have wire harness trailing it (the one that you popped out from the door above) RR

Repairing handle harness

Remove rubber backing, take picture of wiring for reference, may be held with adhesive and metal washers on top. Careful, removing with tool may bend the washers. I just used my fingers

~~RR says to drill into housing but I don't want to do that for future repairs.~~

Present wiring and opening towards you, take picture for reference

3 or 4 depending on handle generation T25 screws are around the actuator (RD)

Pull motor out/down towards you just enough to access clip and paddle

Mark with sharpie the center of the shaft compared to where the torx bolt is to help center the clip later during reinstallation, also take picture for reassembly reference KW

Remove C-clip behind motor but cover with other hand to prevent c-clip from flying, look for opening for pick tool to go between shaft and c-clip

Left side microswitch held in by Torx RR

Use T10 to remove screw on left side of where motor assembly was that holds micro switch RD

Screw has an L bracket connected to it and the microswitch KW

Push shaft to the right to allow the paddle gear to become uncoupled, remove paddle gear. If shaft will not move use pin punch to the shaft on the other side of the handle. Continue to punch enough for shaft to allow paddle to be inset. Washers may fall out between paddle and housing.

Place paddle where old paddle was

Pin punch the shaft from the other side back to center it with the cut out in housing

Put C-clip back in where the cutout is and where the other one was

Reconnect microswitch with T10

Put motor back in from the right to the left RD

Put T25 screws back in, verify handle moves freely by pushing the handle out to present, paddle will not move

Verify all wires are not obstructing movement and place back in guides if moved

Attempt door handle functions correctly without putting the unit back

Connect 3 cables to the black box on the shielding (does not need to be installed back on door)

Hook up power connector that was left inside door shell RR

Connect opener cable wire

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Door should present *and* open when pulled/touched/unlocked

Open where you un/latched it when you took the window up to get to the last hiding screw

Disconnect cable that was left inside door

Disconnect power

Put rubber backing on the assembly for installation into the door and metal washers. If any zip ties are broken reapply new ones

Check to see if you can actually push through the rubber backing for fit testing below.

Installation of assembly back into door frame

Tilt corner vertically towards door handle corner for easier access in panel and slip in RR/EG

Slide back to left behind crossbar RR

Make sure top assembly opening slides in between stud and window EG

Watch screw head that will fit bottom left corner RR

Fit loosely (finger tight) and screw on (will need to be adjusted to line up with the outside of the door)
RR

Repeat for 12 o'clock panel opening screw RR

Repeat for 9 o'clock panel screw RR

Handle Adjusting- to sit flush

Extend door handle (push vapor barrier? Or just open another door so they all open?) RR/EG

Look for even spacing/ Watch the tips on corners to be as square as possible

Place ratchet on bottom outside nut ahead of following step to tighten as watching for fit from the outside

Keep door handle pressed flush to door with one hand while tightening nut with ratchet on other side of the door

Two bottom nuts tightening should hold the angle

Start with lower nut towards the inside of the door (right when facing inside door the one in the big opening) RR

Top inside nut next. Outer top nut will be connected later when window is down.

Closing up door

Connect door latch connector (the cord that stayed with the assembly) RR

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Push through nylon screw back into the hole RR

Routing door handle cable IS EXTREMELY IMPORTANT- loop the door cable over the actuator of door latch and bring down on the RH side then to the back (failure to do so will result in the window tearing it out when the window goes down) EG timestamp 15:40

Move window to down position slowly to verify window can completely close EG

Put last nut on door handle that was between the window and door on a magnet and slide to stud or very slender fingers. This may be the hardest part for you, it was for me EG

Use the magnet to start the thread turning with the wrench acting as a pressure hold

Move to turning with wrench and can tighten firmly since it is already adjusted EG

Recover pressure circle tape pieces

Thread wire with grommet back into the kidney padding cover of the door RR

Connect the three power cables to the black box

Screw in the bolts (six T20/T25)

Connect cables for puddle lights, underlighting, door open red led, handle and other cables to door trim

Reinstall the entire trim piece by pressure. Start from mirror and work way to end of door RR

Push trim back into trim clips firmly RR

Reinstall speaker grill by pressing firmlyphoto

Reinstall screws behind inside door handle and pocket (back to front on the clip EG).

Reinstall plastic trim in front of screws

Make sure window is down

Shut door

Attempt to open door from outside

Shut door and attempt to have window come up.

Open door and listen/look for window to come down a bit

Close door and watch window go up into the correct closed position

Party that you did something yourself

Time Completed: _____

Total Time: _____

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Notes: