

## Driver's Door Lock Actuator Removal

This was one of the most difficult repairs I've ever done on my car, mainly because I had a really hard time loosening the window glass bolt, to allow movement of the window rail.

### Tools Required:

Flat head screw driver (to remove airbag screw cover and screw cover of inner door handle)

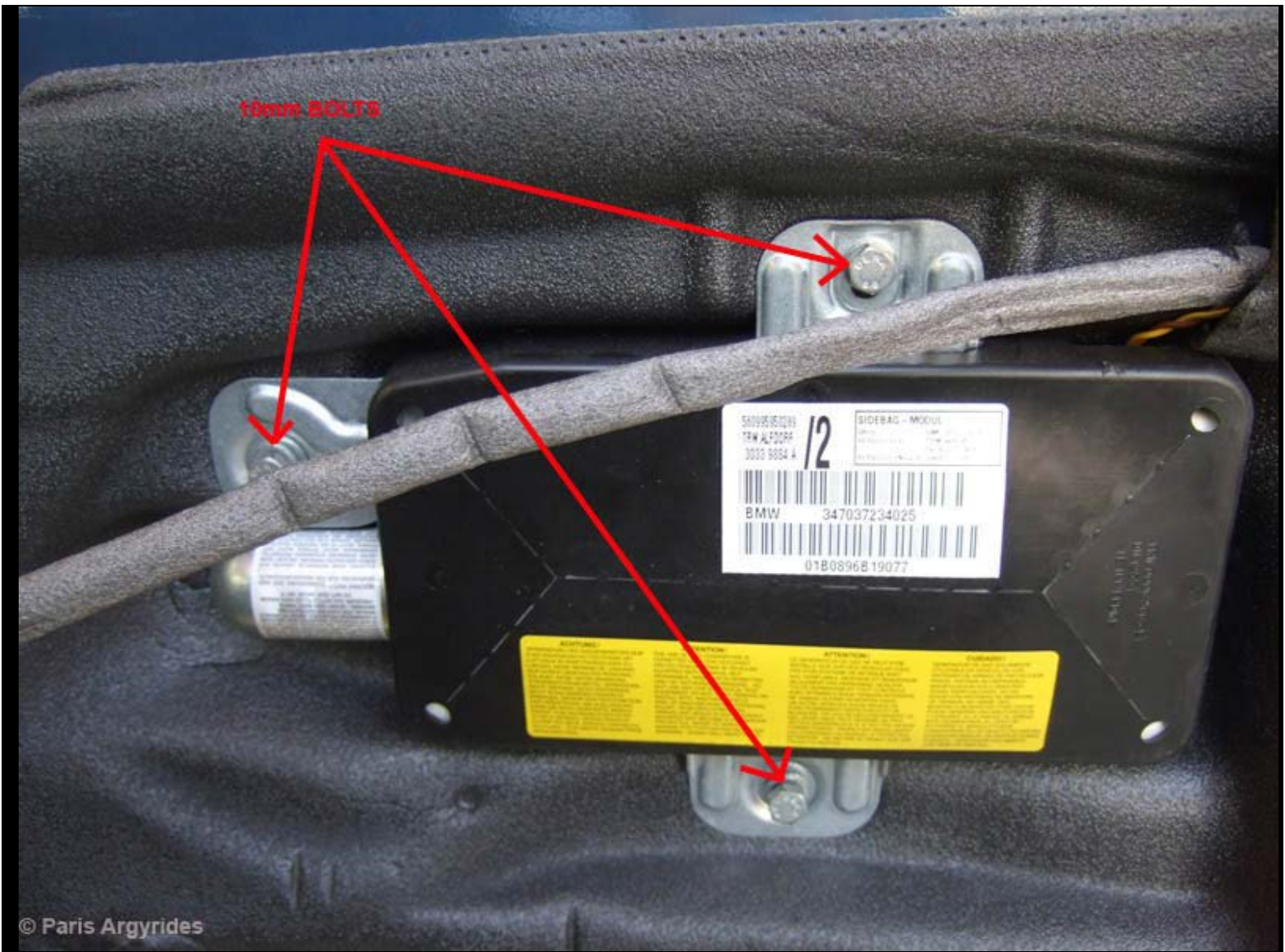
The window glass was held in place by a FEMALE Torx T30 bolt which is REVERSE THREADED. Bolt is aluminum and will strip in no time if you turn it the other way around.



To be safe, this DIY is meant to be done with the battery disconnected beforehand, to prevent airbag warning lights triggering and any electricity related accidents. But, because I had to move the window up/down several times, I decided to keep the battery connected (AT MY OWN RISK) and work with the airbag continuously connected. To remove the door card insulation, I temporarily unbolted the airbag and a friend of mine was holding it until I removed the insulation. After the insulation was removed, we re-bolted the airbag in place and left it there connected during the course of the repair.

Door card removal has been described a million times so I'm not going to get into that procedure. It's a 5 minute job to remove 5 torx T20 screws and then just pull the card. 3 screws on armrest, 1 behind airbag plastic logo, 1 in inner door handle. Also disconnect the mirror switch, door handle and the speakers. Put the door card somewhere safe and out of the way.

Remove 3 bolts holding the airbag and then slowly peel the rubbery insulation from behind.





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Airbag removed, insulation removed, airbag inserted back.

**Important part:**

Lower the window around 100mm until the Female Torx bolt is shown, right below the upper arrow on the following picture. You can access the bolt through a round hole on the door. Pretty intuitive. Remove the bolt by turning it clockwise. This will allow the window rail to move left and right later on.

2 window guide nuts (10mm) must be removed to allow the rail to move left and right.

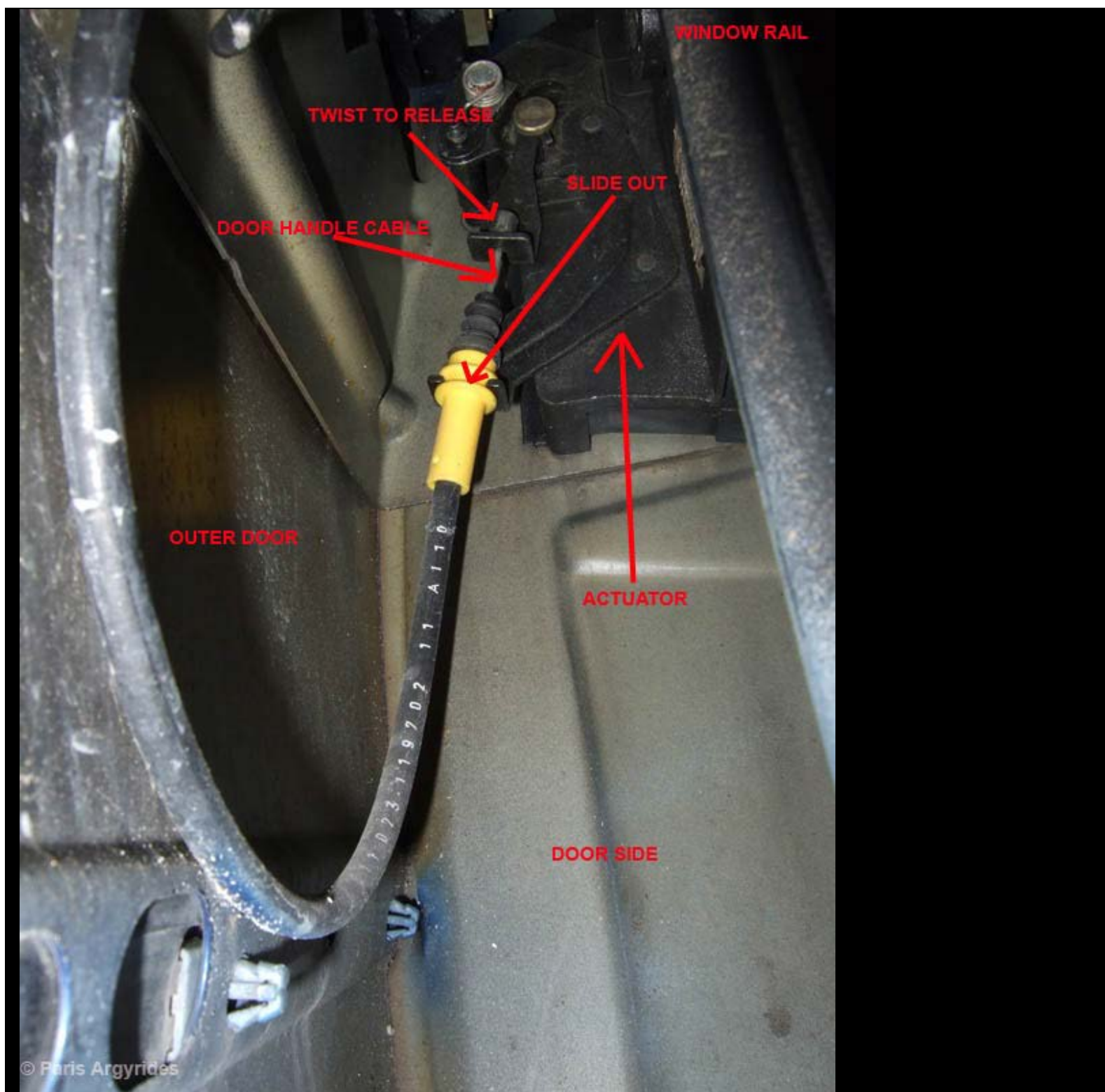


Now it's time to start disconnecting stuff...

Twist to release the outer door handle cable as seen below, then slide it out of the holder (yellow part on U shaped metal bracket)

Disconnect the wiring harness from the lower right part (not seen in picture)

Disconnect the inner door handle as well (not shown too due to lack of space) although you can leave it on until the actuator is nearly out.



Remove the key lock by lifting the rubber cover above the 3 bolts shown below and then removing the Allen bolt that appears underneath. I forgot the exact size of the bolt, I think it's 5mm. Carefully slide the key lock out and put it in a safe place.

By now you must have done the following things:

1. Removed door card (5 T20 + push/lock clips)
2. Removed insulation behind door card (slow, cut butyl glue with utility knife)
3. Removed female torx screw holding window glass (T30 female, reverse threaded bolt)
4. Removed 2 nuts holding window guide (10mm nuts)
5. Disconnected outer door handle cable (twist & pull)

6. Disconnected inner door handle cable (twist & pull)
7. Disconnected actuator wire plug (push sides & pull)
8. Removed key lock (5mm Allen key)

Now it's time to take the actuator out:

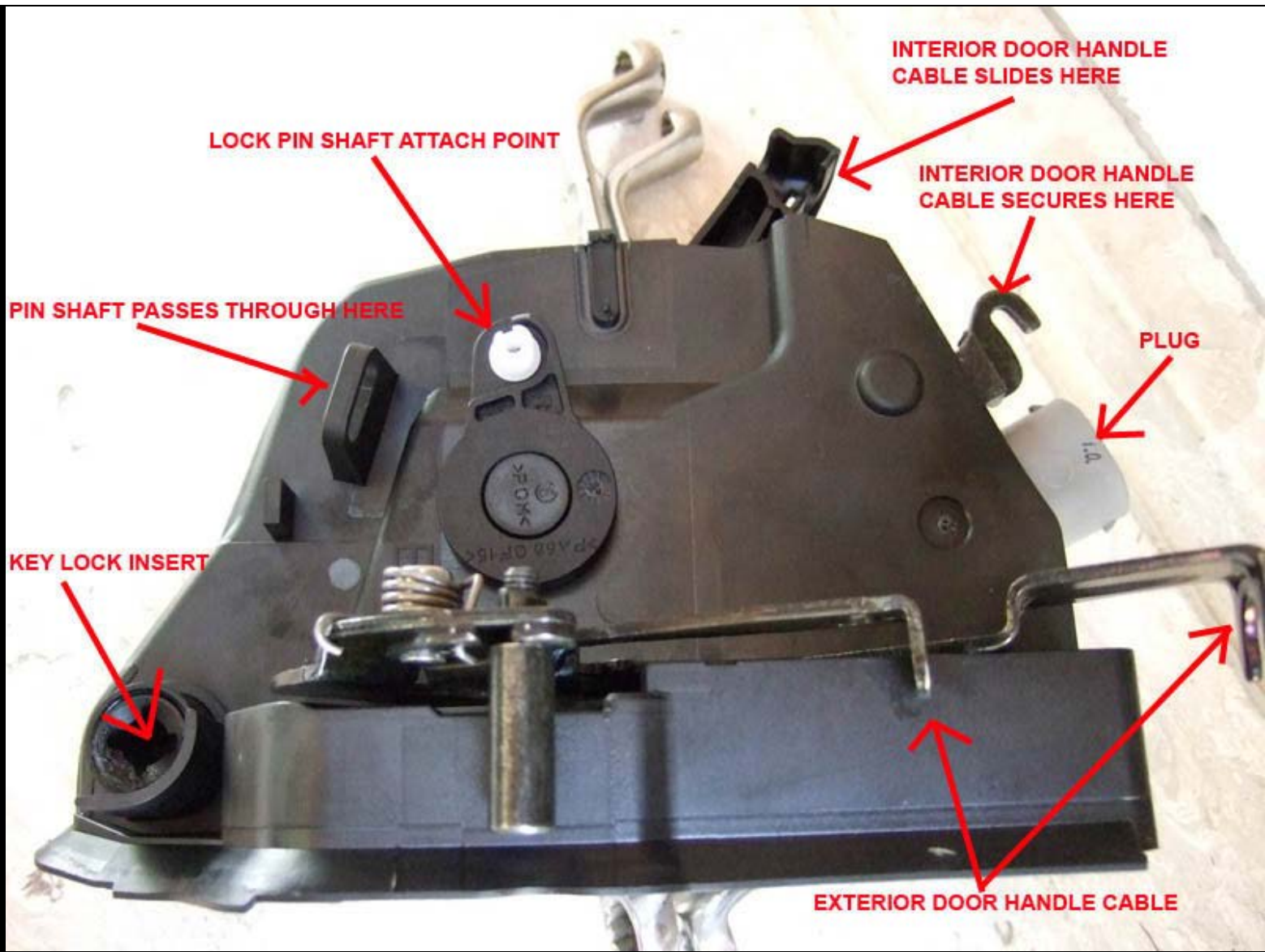




The actuator/lock will fall now and you can remove it from inside the door slowly & carefully by pushing to the left the window rail, to make space. This point I felt that I would break the glass but it managed to survive. You need to push the window guide to the left just as much to allow some space for the actuator to be removed.

If you need to be 100% that the window glass will survive, you can take the glass out by loosening the window glass bolt on the other side of the door as well, and then pulling the glass upwards (I'm not responsible if you shatter the glass!!!!).

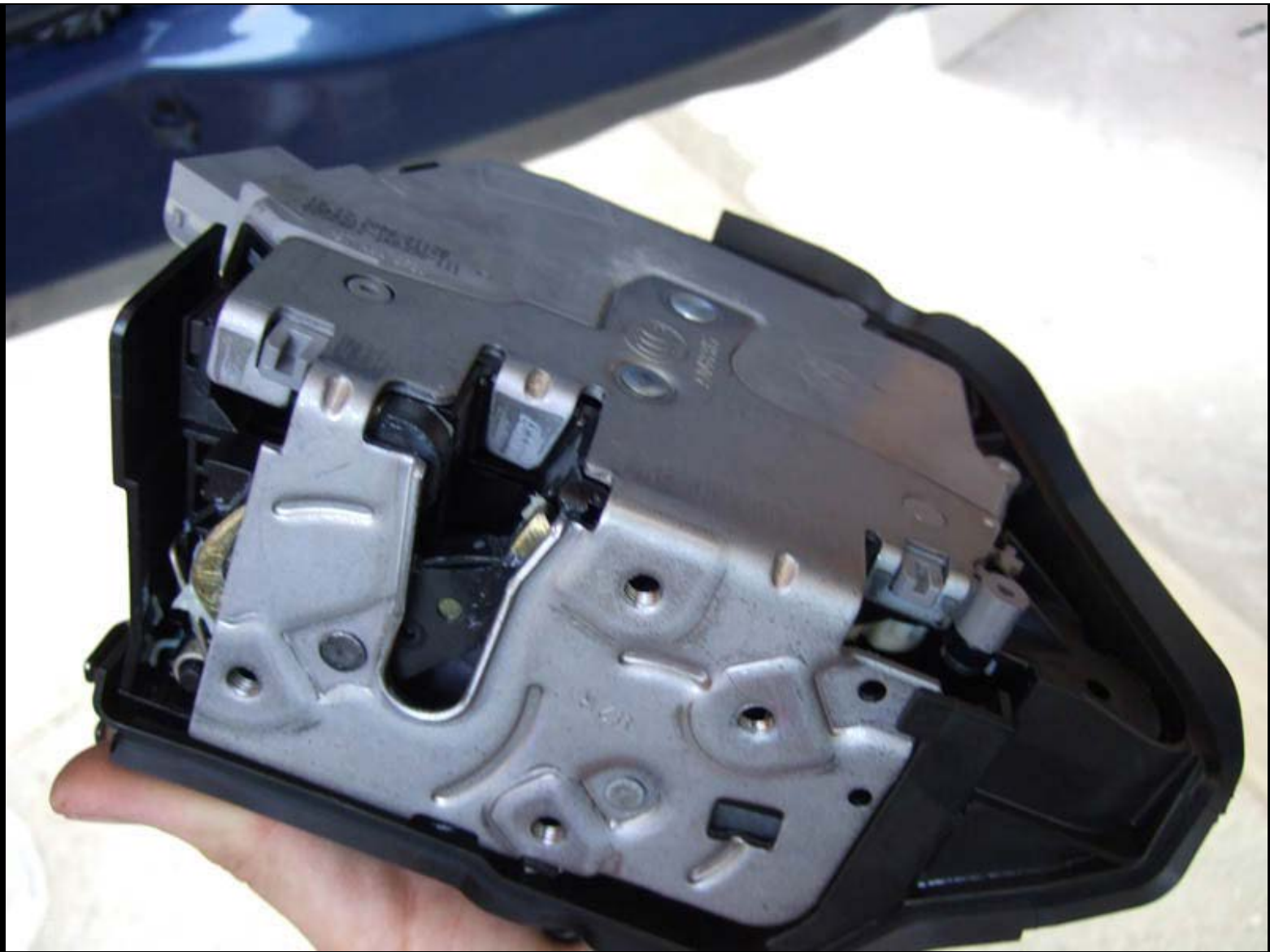
Here's the new unit:





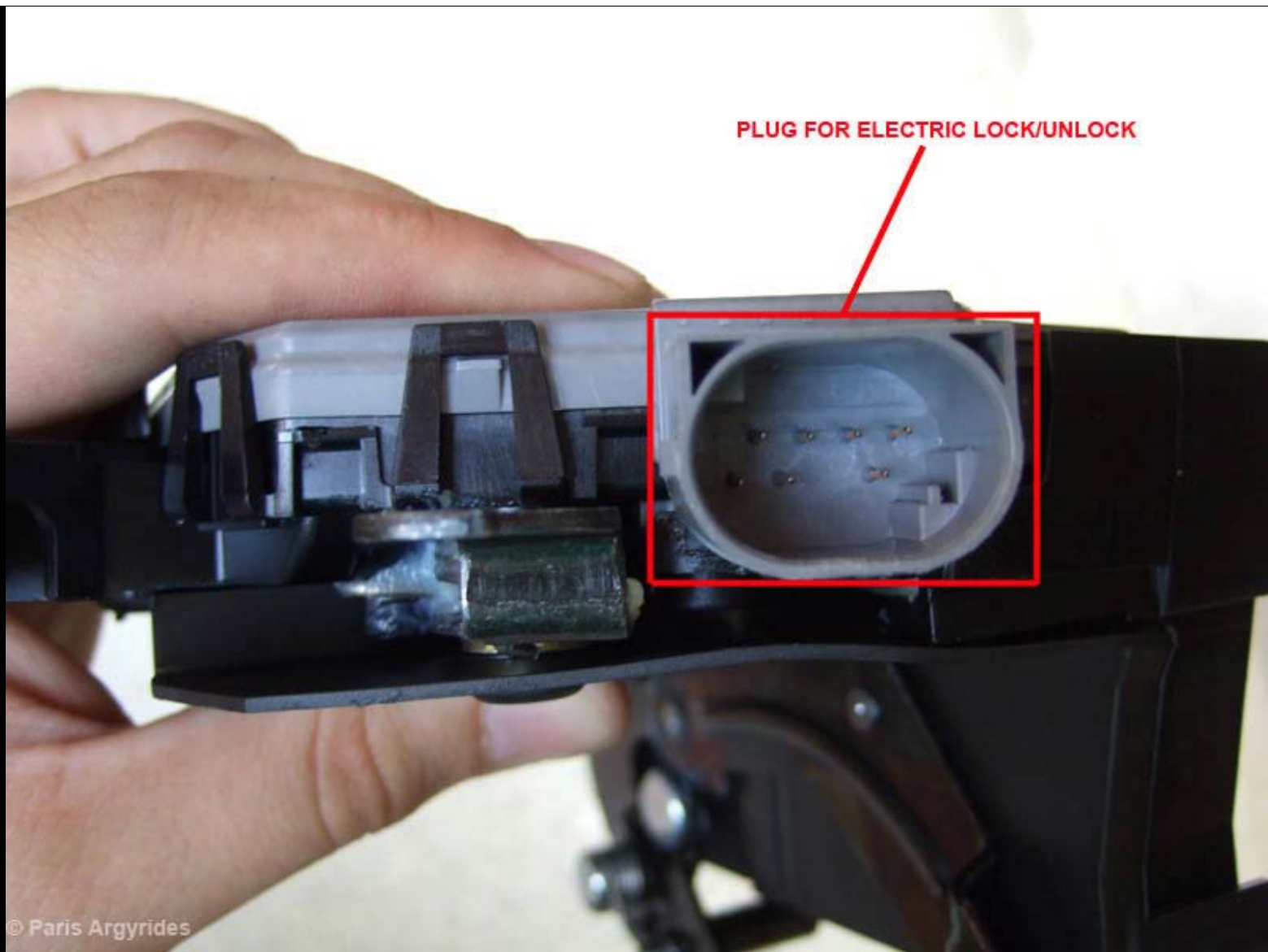


**DOOR HANDLE CABLE ATTACH POINT**





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As you can see, all attachments are different so you can't go wrong. For the installation, I chose to connect the door pin shaft only outside the door, then I placed the actuator inside the door, connected the 2 cables (inner + outer handle), screwed it back in place and finally inserted the key lock. After these, I plugged the wire harness back, screwed all the window bolts/nuts.

Reverse procedure to put the remaining stuff on.