

ECS TUNING

VW MK7 Golf Power Folding Mirror Kit Installation Instructions



Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

INTRODUCTION

The Project:

Today we are going to install our ECS Tuning Power Folding Mirror Kit into our VW MK7 Golf R, but keep in mind the installation process is the same for all MK7s. This kit includes both power folding mirror assemblies, as well as the folding mirror switch for the door panel. You can easily swap out the pre-painted White mirror housing caps and the included non-tinted blind spot mirrors with the parts already on your MK7. This kit is a great way to add some premium luxury and convenience to your MK7 without breaking the bank. And best of all, it's easy to install, only requiring a few basic tools. If you don't have a lot of "wrench time" under your belt, rest assured because we are going to walk you through the installation step by step, and once you're done you'll be able to just sit back and admire your work.

ECS Difficulty Gauge



1 - Easy

2 - Moderate

Pro - 4

Advanced - 3

Take your time and enjoy the project, but be prepared so spend a couple of hours to install and code the system. Read these instructions completely first, and with the project overview under your belt, you'll breeze right through it. Just to make sure you have everything you need, reference the required tool list on [Page 5](#) before you begin, including a VCDS scan tool. Thank you for looking to ECS Tuning for all your performance and repair needs, we appreciate your business!

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This installation requires VCDS coding and adaptation in order to activate the power folding and reverse mirror dip functions. If you do not have the necessary equipment or you are not familiar with what is involved with VCDS coding, please consult with a professional **BEFORE** beginning this install.

KIT CONTENTS



Power Folding Mirrors



Power Folding Mirror Control Assembly

REQUIRED TOOLS

Note: The tools required for each step will be listed by the step number throughout these instructions.

Standard Automotive Tools

Required For This Install

Available On Our Website

- Protecta-Sockets (for lug nuts)..... [ES#2221243](#)
- **3/8" Drive Ratchet**..... [ES#2765902](#)
- 3/8" Drive Torque Wrench..... [ES#2221245](#)
- **3/8" Drive Deep and Shallow Sockets**..... [ES#2763772](#)
- **3/8" Drive Extensions**..... [ES#2804822](#)
- Hydraulic Floor Jack..... [ES#240941](#)
- **Torx Drivers and Sockets**..... [ES#11417/8](#)
- 1/2" Drive Deep and Shallow Sockets..... [ES#2839106](#)
- 1/2" Drive Ratchet
- 1/2" Drive Extensions
- 1/2" Drive Torque Wrench..... [ES#2221244](#)
- 1/2" Drive Breaker Bar..... [ES#2776653](#)
- Bench Mounted Vise
- **Trim Removal Tool Set**..... [ES#517779](#)
- Hook and Pick Tool Set..... [ES#2778980](#)

- **1/4" Drive Ratchet**..... [ES#2823235](#)
- **1/4" Drive Deep and Shallow Sockets**..... [ES#2823235](#)
- **1/4" Drive Extensions**..... [ES#2823235](#)
- **Plier and Cutter Set**..... [ES#2804496](#)
- Flat and Phillips Screwdrivers..... [ES#2225921](#)
- Jack Stands..... [ES#2763355](#)
- Ball Pein Hammers
- Pry Bar Set..... [ES#1899378](#)
- Electric/Cordless Drill
- Wire Strippers/Crimpers
- Drill Bits
- Punch and Chisel Set
- Hex Bit (Allen) Wrenches and Sockets..... [ES#11420](#)
- Thread Repair Tools..... [ES#1306824](#)
- **Open/Boxed End Wrench Set**..... [ES#2765907](#)

Specialty Tools

- **Flexible Retrieval Tool**..... [ES#2944495](#)
- **VCDS Scan Tool**..... [ES#3143002](#)

SHOP SUPPLIES AND MATERIALS

Standard Shop Supply Recommendations: We recommend that you have a standard inventory of automotive shop supplies before beginning this or any automotive repair procedure. The following list outlines the basic shop supplies that we like to keep on hand. Shop supplies with a hyperlink are available on our website.

- Hand Cleaner/Degreaser - [Click Here](#)
- Pig Mats - for protecting your garage floor and work area from spills and stains - [Click Here](#)
- Spray detailer - for rapid cleaning of anything that comes into contact with your paint such as brake fluid - [Click Here](#)
- Micro Fiber Towels - for cleaning the paint on your car - [Click Here](#)
- Latex Gloves - for the extra oily and dirty jobs - [Click Here](#)
- Medium and High Strength Loctite Thread lock compound - to prevent bolts from backing out - [Click Here](#)
- Anti-Seize Compound - to prevent seizing, galling, and corrosion of fasteners - [Click Here](#)
- Aerosol Brake/Parts Cleaner - for cleaning and degreasing parts
- Shop Rags - used for wiping hands, tools, and parts
- Penetrating oil - for helping to free rusted or stuck bolts and nuts
- Mechanics wire - for securing components out of the way
- Silicone spray lube - for rubber components such as exhaust hangers
- Paint Marker - for marking installation positions or bolts during a torquing sequence
- Plastic Wire Ties/Zip Ties - for routing and securing wiring harnesses or vacuum hoses
- Electrical tape - for wrapping wiring harnesses or temporary securing of small components

INSTALLATION NOTES

- **RH** refers to the *passenger side* of the vehicle.
- **LH** refers to the *driver side* of the vehicle.
- Always use the proper torque specifications.
- If applicable to this installation, torque specifications will be listed throughout the document and at the end as well.
- Please read all of these instructions and familiarize yourself with the complete process **BEFORE** you begin.

GENERAL PREPARATION AND SAFETY INFORMATION

ECS Tuning cares about your health and safety. Please read the following safety information. This information pertains to automotive service in general, and while it may not pertain to every job you do, please remember and share these important safety tips.

- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- **ALWAYS** wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- If using an automotive lift, be sure and utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear.
- When lifting a vehicle using a jack, always utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear. **ALWAYS** support the vehicle with jack stands.
- Always read and follow all safety information and warnings for the equipment you are using.



NEVER get underneath a vehicle that is supported only by a jack, and ALWAYS make sure that the vehicle is securely supported on jack stands.

REMOVING THE ORIGINAL MIRRORS

Step 1: Trim Removal Tool Set

Remove the interior door pull cover by inserting a thin Trim Removal Tool into the slot as shown in the LH photo, then gently pry the cover away from the door pull as you work your way down with the tool. Pivot the cover outwards and remove it.



Step 2: T30 Torx

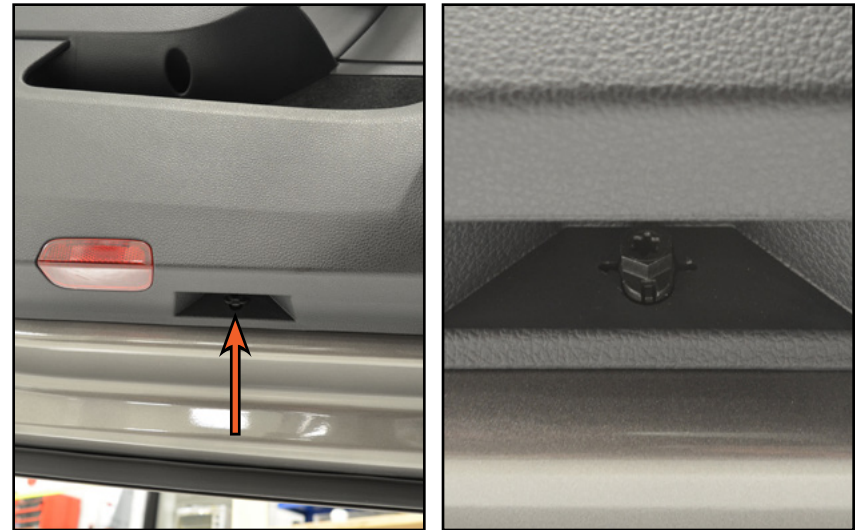
Remove the two door panel screws (arrows).



REMOVING THE ORIGINAL MIRRORS

Step 3: 10mm Wrench

Locate the lower door panel retainer along the bottom side of the door panel (shown with an arrow in the LH photo), this retainer needs to be rotated 90° as shown in the RH photo so the door panel can be removed.



Step 4: Trim Removal Tool Set

Now we need to remove the door panel, but there are a few things we need to review before we can do that. Please continue to the next page for detailed instructions.



REMOVING THE ORIGINAL MIRRORS

Step 5:

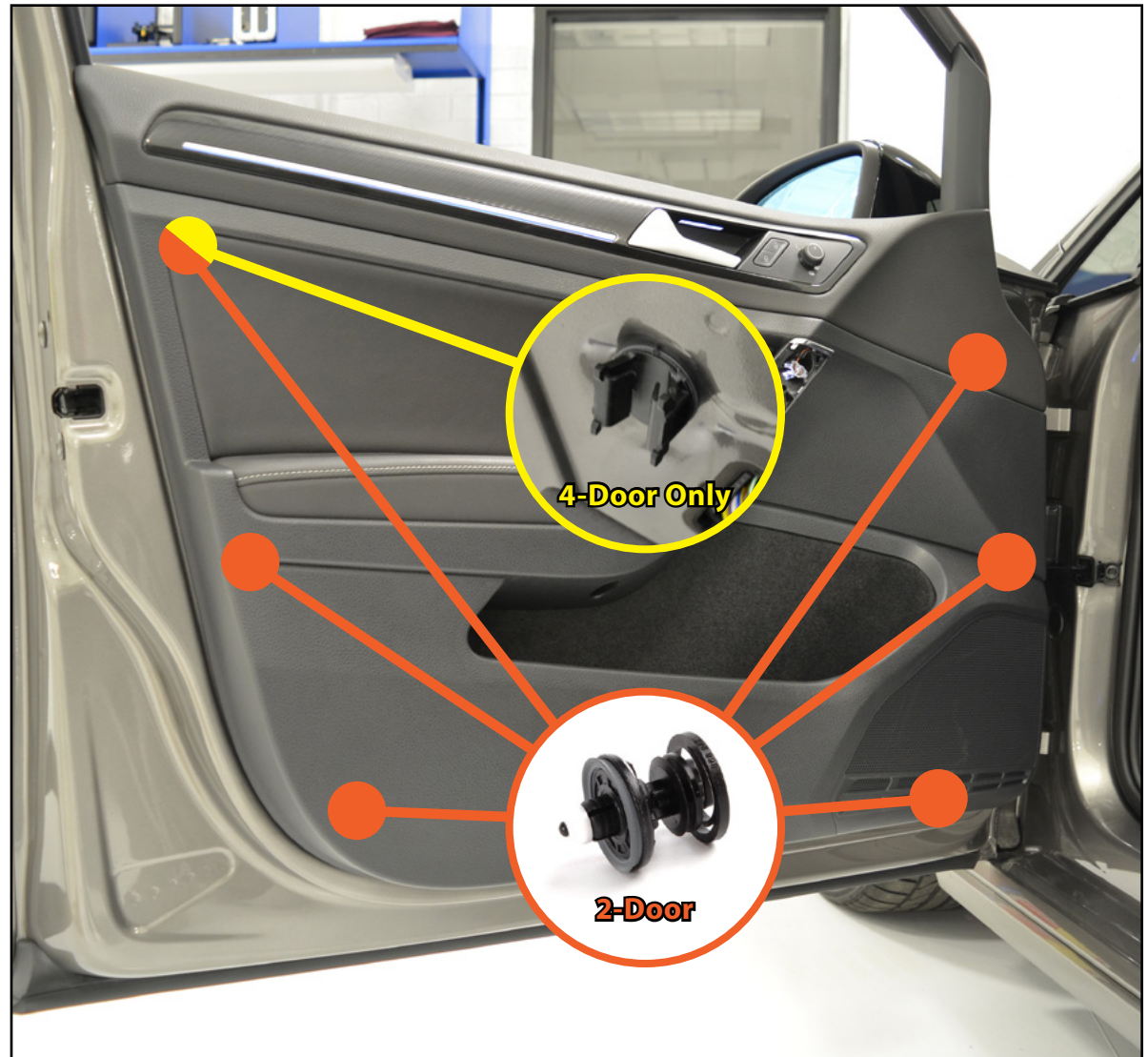
There are some very specific differences between the door panels in 2-door and 4-door vehicles. Both door panels use push clips (**ORANGE** circles), which are removed by pulling the door panel straight out. The only difference is with a 4-door panel, there is a different style clip in the upper left corner, which **CANNOT** be removed by pulling the door panel straight out. The 4-door panel has a "T" clip which is built into the panel, this "T" clip needs to **SLIDE** vertically into the corresponding clip in the door (**YELLOW** circle).

What this means for you is if you have a 2-door Golf, you will release all six push clips by pulling the panel straight out, but if you have a 4-door Golf you will only release five push clips, then you will have to lift the door panel **UPWARDS** to slide the "T" clip out of the door in a later step.

Now, release all of the push clips and continue to the next page.



If any of your push clips break during removal, replacements can be found on our website by clicking [HERE](#).



REMOVING THE ORIGINAL MIRRORS

Step 6:

Now we need to lift the panel upwards to release it from the door. You will need to start with the top rear corner of the door panel (circled in the photo), and continue to keep that corner lifted slightly higher than the front corner in order to release the panel.

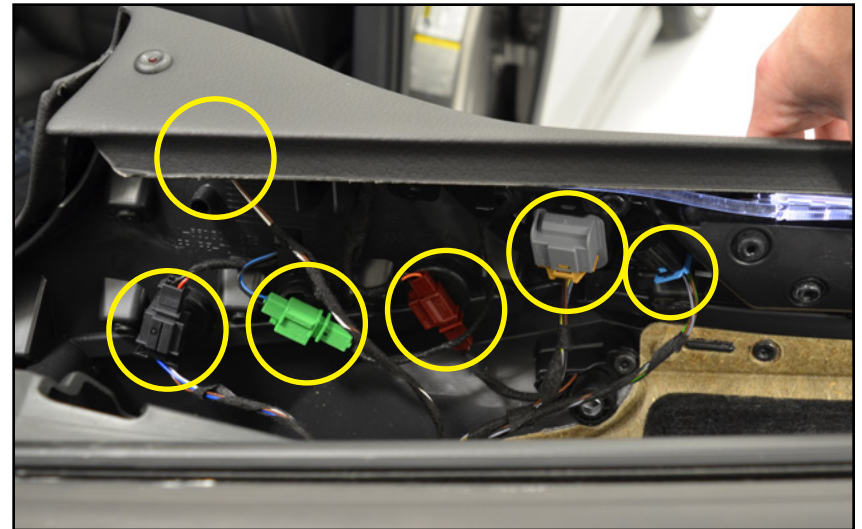
Remember that if you have a 4-door, you will not be able to pull the door panel away from the door until after you slide the "T" clip out as reviewed on [Page 10](#).



REMOVING THE ORIGINAL MIRRORS

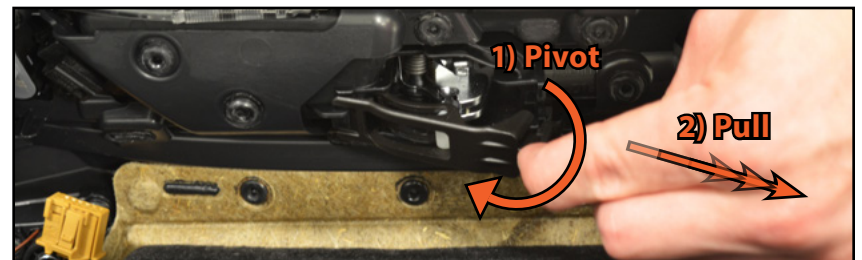
Step 7:

Disconnect all of the electrical connectors shown in the photo by pushing in the release tabs while sliding the connectors apart.



Step 8:

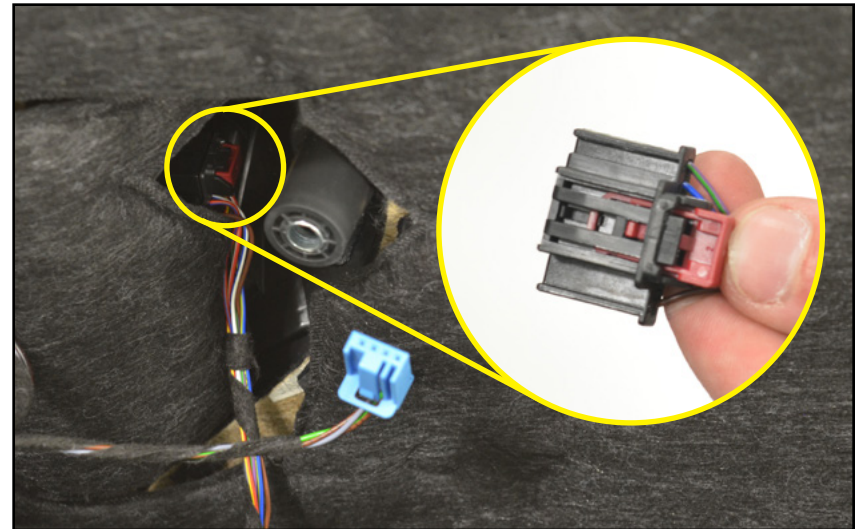
Release the door handle cable from the door panel by first pulling back on the release tab (top photo), then pivoting and pulling the cable retainer out of the panel (bottom photo).



REMOVING THE ORIGINAL MIRRORS

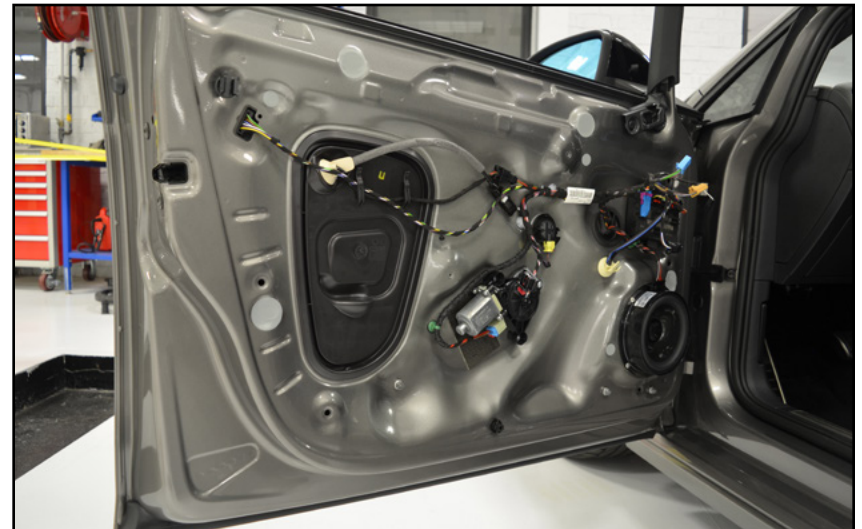
Step 9:

Finally, disconnect the electrical connector on the power window switch which is shown in the photo. This connector is not very easy to see, but it can be disconnected by pulling the **RED** lock tab outward, then squeezing the **BLACK** release tab in the connector while sliding the connector apart.



Step 10:

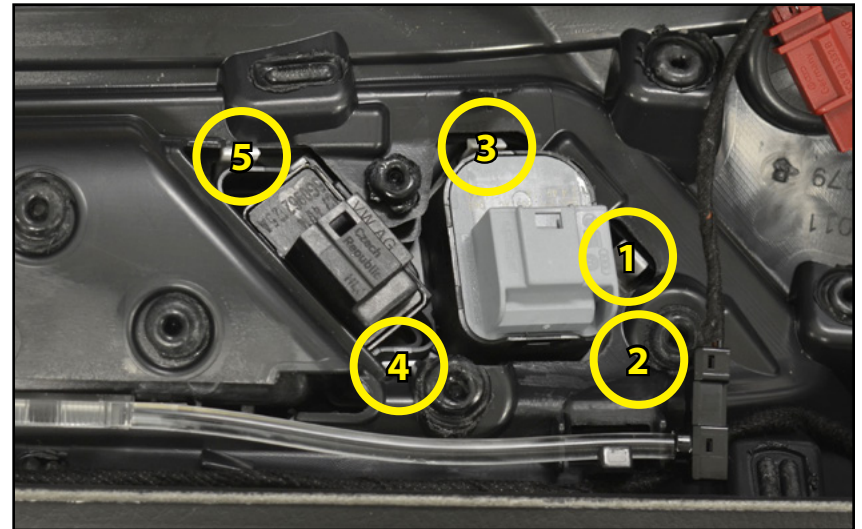
Now that all of the electrical connectors and cables have been released, you can remove the door panel.



REMOVING THE ORIGINAL MIRRORS

Step 11:

Set the door panel facedown on a soft, clean work surface, then observe and locate the five clips which secure the mirror control assembly to the door panel (circled in the photo). These clips need to be gently pried inward to release them from the door panel, and this should be done in the order shown by the numbers inside the circles.



Step 12: Trim Removal Tool Set

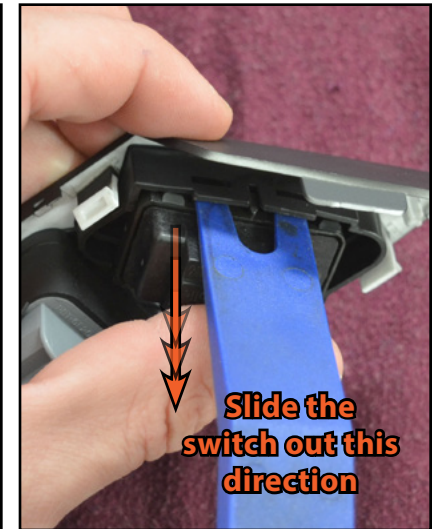
Gently pry the clips inward one at a time while pushing the mirror control assembly out of the door panel.



REMOVING THE ORIGINAL MIRRORS

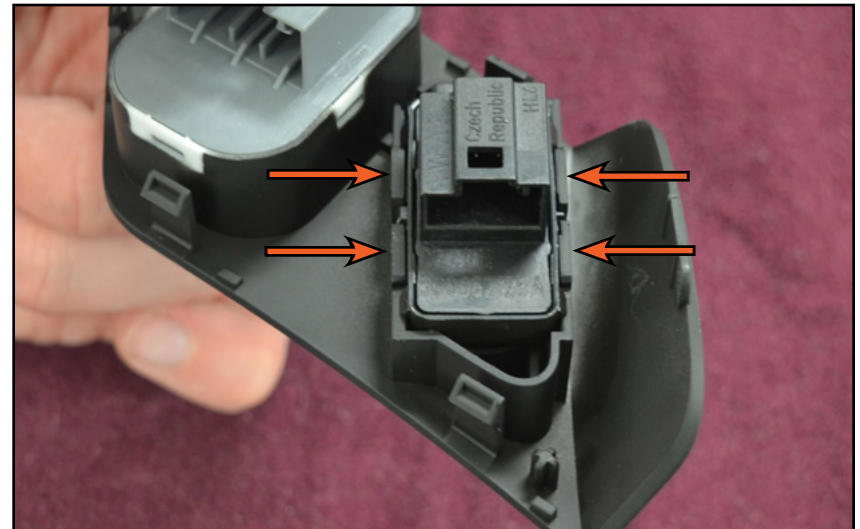
Step 13: Trim Removal Tool Set

The door lock switch is secured into place inside the mirror control assembly with four small plastic tabs, these tabs need to be **GENTLY** pried back in order to release them. Once all four of these tabs have been released the switch will slide out. Set the original mirror control assembly aside, it is no longer needed for this install.



Step 14:

Install the door lock switch into the new power folding mirror control assembly in the reverse order of removal, making sure that all four of the tabs are completely seated into place (arrows).



REMOVING THE ORIGINAL MIRRORS

Step 15:

Insert the mirror control assembly into the door panel, beginning with the side closest to the door handle.



Step 16:

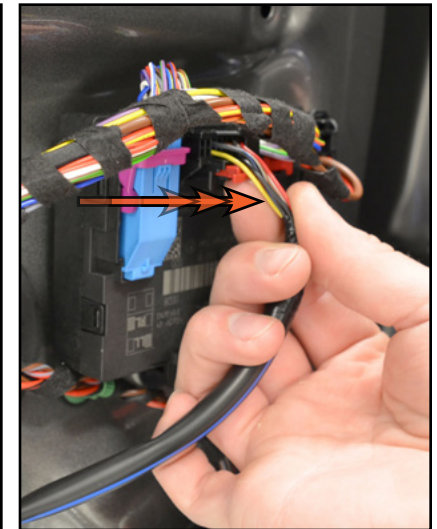
Work your way forward along the control assembly as you snap the remaining clips into place.



REMOVING THE ORIGINAL MIRRORS

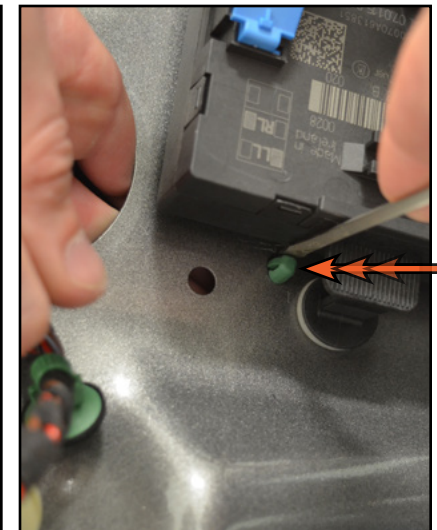
Step 17:

Moving back to the vehicle, disconnect the mirror harness from the door control module by pulling the **RED** lock tab outward (LH photo), then squeezing the **BLACK** release tab in the connector while sliding the connector out (RH photo).



Step 18: Small Flat Blade Screwdriver or Needle Nose Pliers

Push the large rubber grommet into the door (LH photo), then locate the small green retainer which secures the mirror harness to the door (RH photo). Squeeze the two small clips together to release it and push it into the door.



The wiring harness for the door speaker has been removed in the RH photo for better visibility, and you may notice it will be missing in several photos to come, but it is not necessary to remove the speaker harness for this install.

REMOVING THE ORIGINAL MIRRORS

Step 19:

Push the small rubber grommet into the door, then feed the harness through.



Step 20:

Pull the mirror harness through the large grommet hole in the door (this will make it easier to feed the harness through the door later).



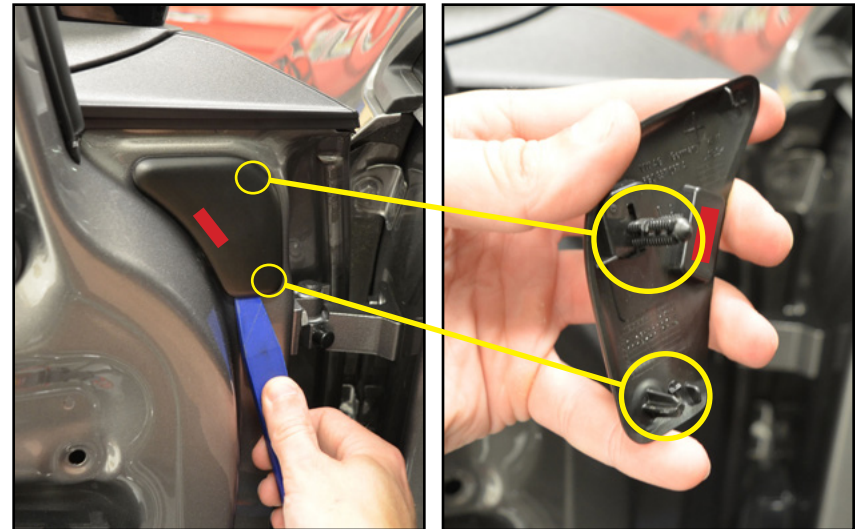
REMOVING THE ORIGINAL MIRRORS

Step 21: Trim Removal Tool Set

Remove the mirror screw cover by gently prying it away from the door.

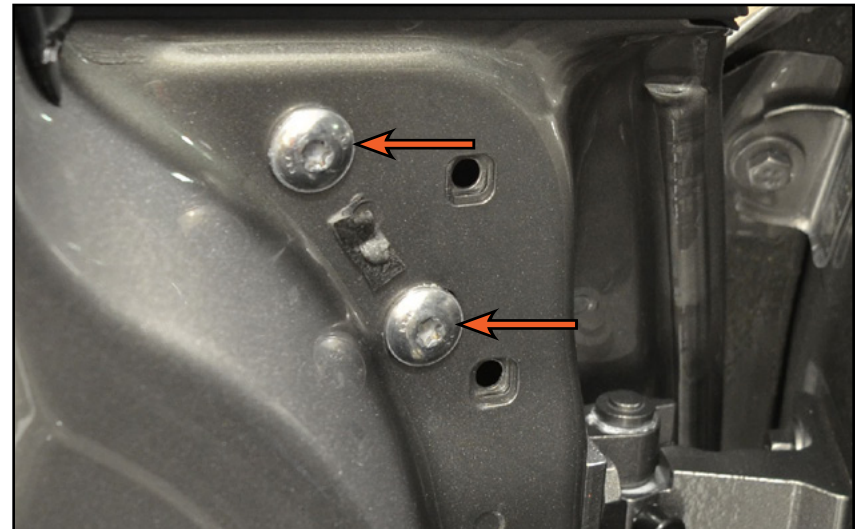


There are two clips which secure the screw cover to the door (**YELLOW** circles in the photos), as well as a small strip of double sided tape (highlighted in **RED**).



Step 22: T30 Torx

Remove the two mirror screws.



REMOVING THE ORIGINAL MIRRORS

Step 23:

Lift the mirror assembly out of the door as you carefully guide the mirror harness out.



Step 24:



If you need to transfer the mirror cap or mirror glass to the new mirror housing, continue to [Page 21](#).



If you do not need to transfer the mirror cap or mirror glass to the new mirror housing, you can skip to [Page 25](#).



TRANSFERRING THE MIRROR CAP AND GLASS

Step 1:

Remove the mirror glass from the new power folding mirror assembly by first pivoting the glass inward (shown in the LH photo), then pulling the glass out of the housing starting from the outside edge and working your way around (shown in the RH photo).



CAUTION: Be sure to get your fingers in behind the mirror glass as far as you can reach before you try to release it from the housing, this will greatly reduce the risk of cracking the mirror.

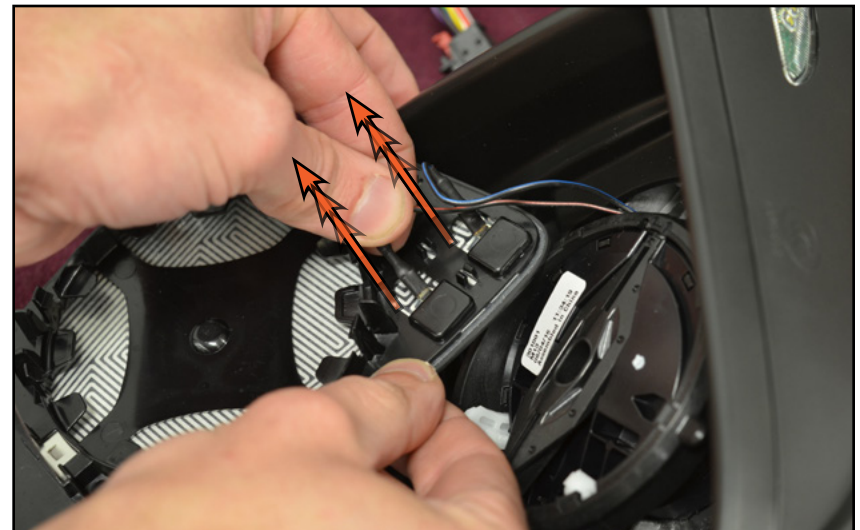


Step 2:

Remove the two electrical connectors for the mirror heater.



If you only need to transfer the mirror glass, repeat steps 1 & 2 to remove the mirror glass from the original mirror assembly, then install the glass in the reverse order or removal and continue to [Page 25](#).



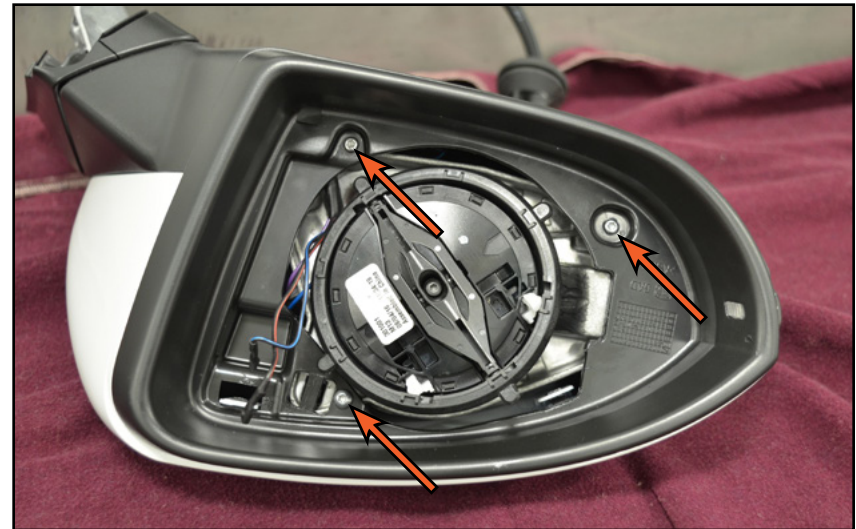
TRANSFERRING THE MIRROR CAP AND GLASS

Step 3: T10 Torx

Remove the screws from the housing. These screws do not actually secure the mirror cap to the housing, but removing them will make it easier to wiggle the mirror cap off.



The original mirror assembly will only have two screws here.



Step 4: Trim Removal Tool Set

Let's take a moment and look at how the mirror cap is secured into the housing. There are two clips which are shown in the photo with arrows, these must both be **GENTLY** pried upwards to release them. Now that we know this, continue to Step 5 to remove the cap.



TRANSFERRING THE MIRROR CAP AND GLASS

Step 5:

While you are releasing the two clips shown in Step 4, gently slide the mirror cap off of the housing as shown in the photo. This will take a little bit of wiggling and manipulation, and a second set of hands can make this step significantly easier.



Step 6:

Repeat steps 1-5 to remove the mirror cap from the original mirror assembly.



TRANSFERRING THE MIRROR CAP AND GLASS

Step 7:

Install the original mirror cap onto the new power folding mirror assembly in the reverse order of removal.



Step 8: T10 Torx

Reinstall the three screws into the mirror housing and tighten them until they make contact + 1/8 turn.

Reconnect the mirror heater electrical connectors and reinstall the mirror glass in the reverse order of removal.



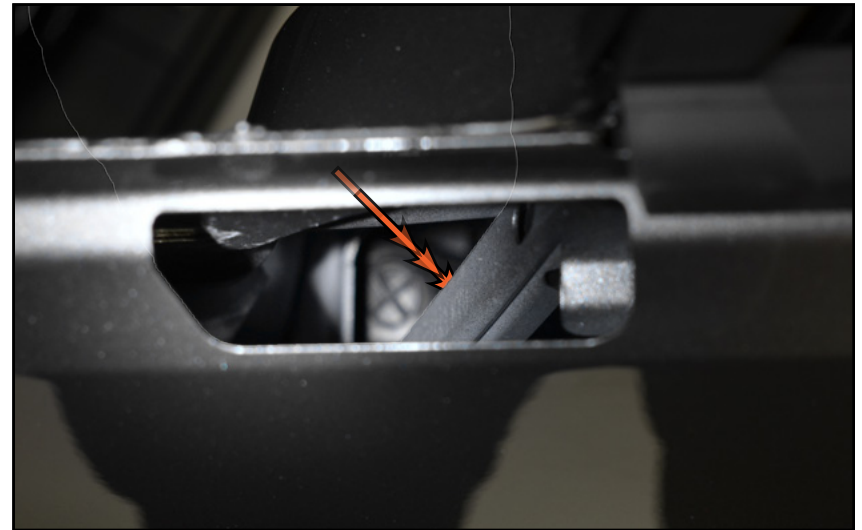
INSTALLING THE NEW POWER FOLDING MIRROR KIT

Step 1:

This photo shows the inside of the door as viewed through the mirror mounting hole. When installing the mirror into the door it is **VERY** important that you feed the mirror harness on the **INSIDE** of the window track as illustrated with the arrows. If the harness is not routed correctly, you will not be able to reach it because it will be on the wrong side of the window glass.

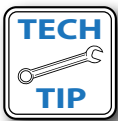


This step can be done with the window up or down, but it will be easier to correctly route the harness if the window is down for the next few steps.



Step 2:

Begin by feeding the mirror harness into the door as outlined in Step 1, then place the mirror all the way into its mounting hole.



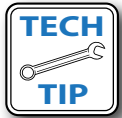
Once the mirror has been completely inserted into the door you can thread in one of the mirror screws by hand to keep it from accidentally getting knocked out.



INSTALLING THE NEW POWER FOLDING MIRROR KIT

Step 3:

Retrieve the mirror harness from inside the door and feed it through the small grommet hole as shown in the photo.



A flexible retrieval tool can be very helpful for this step such as [ES2944495](#).



Step 4:

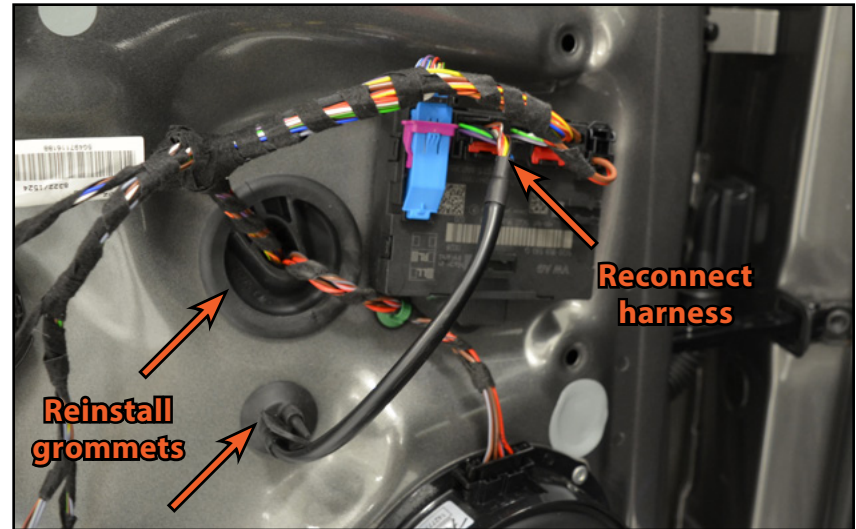
Reach in through the large grommet hole and push the mirror harness clip through its hole the door (circled in **YELLOW**).



INSTALLING THE NEW POWER FOLDING MIRROR KIT

Step 5:

Reinstall the large and small grommets into the door, then connect the mirror harness into the door control module.

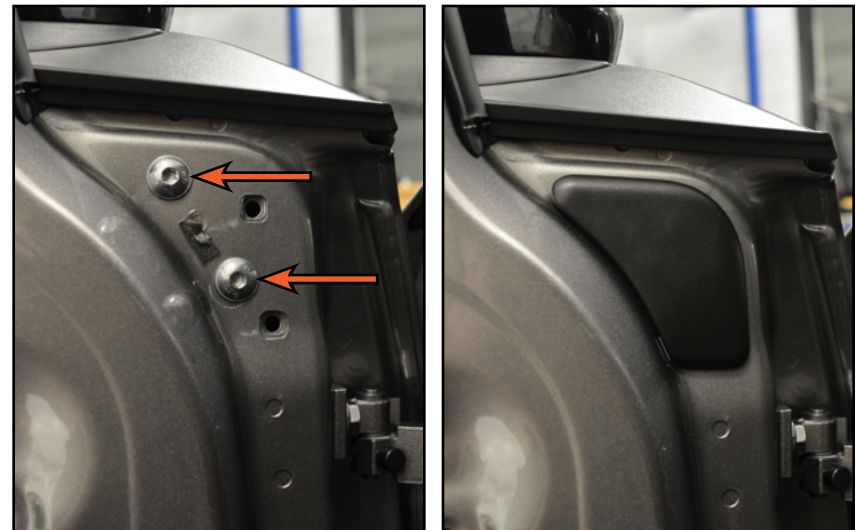


Step 6: T30 Torx

Install the mirror screws and tighten them until they make contact + 1/8 turn, then reinstall the mirror screw cover.



If the double sided tape doesn't hold the screw cover securely anymore, new double sided tape can be found at any local hardware or automotive parts store.



INSTALLING THE NEW POWER FOLDING MIRROR KIT

Step 7: T30 Torx

Reconnect all of the electrical connectors and the door handle cable. Reinstall the door panel, then reinstall the two screws located in the handle (arrows), then tighten them until they make contact + 1/8 turn.



Step 8:

Reinstall the interior door pull cover in the reverse order of removal, being sure to first align the tabs, then pivot the cover as shown in the photo.

Repeat this entire process to install the RH Power Folding Mirror.

Proceed to the next page for VCDS coding and adaptation instructions.

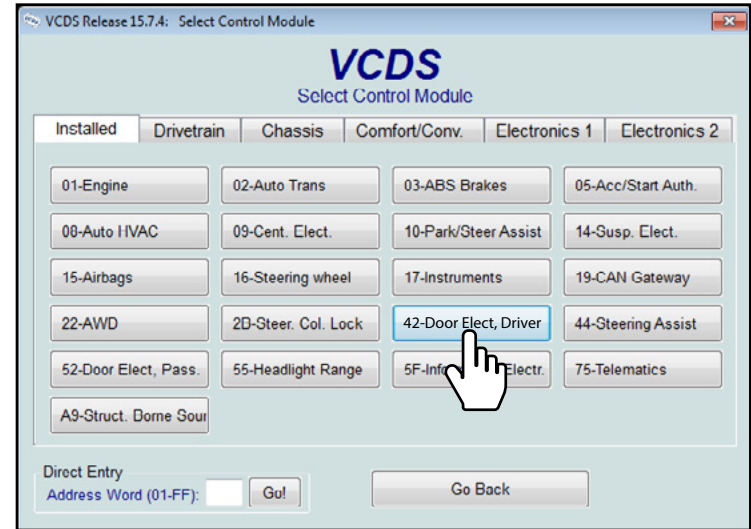


VCDS CODING

Step 1: VCDS Scan Tool

Now we need to use a VCDS scan tool to change the coding in the two door control modules and the BCM to activate the new features in your power folding mirror kit. Start by connecting the VCDS scan tool and selecting:

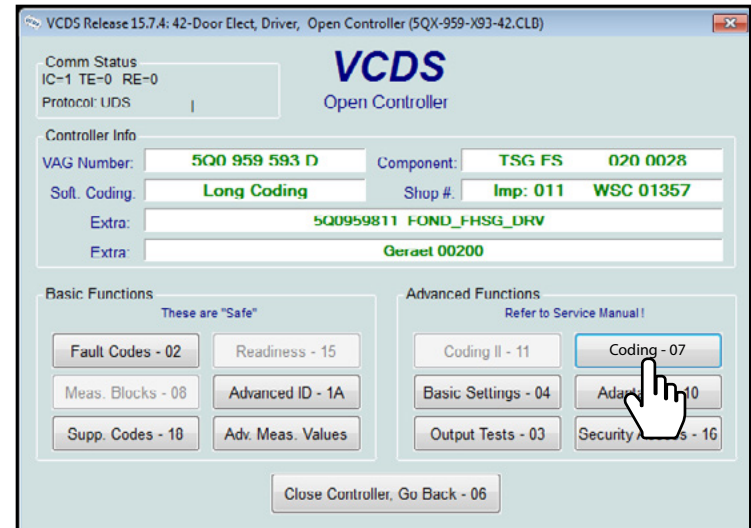
42-Door Elect, Driver



Step 2:

Once the controller opens on the screen, select:

Coding - 07



VCDS CODING

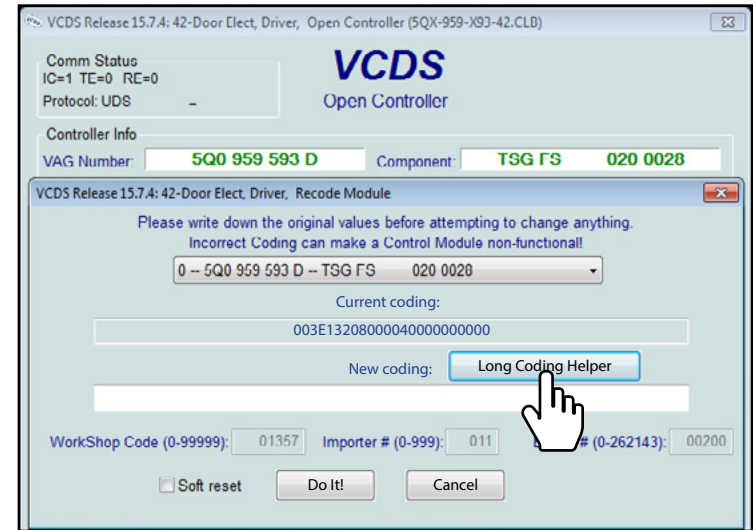
Step 3:

Write down or save your Current Coding for reference, then select:

Long Coding Helper

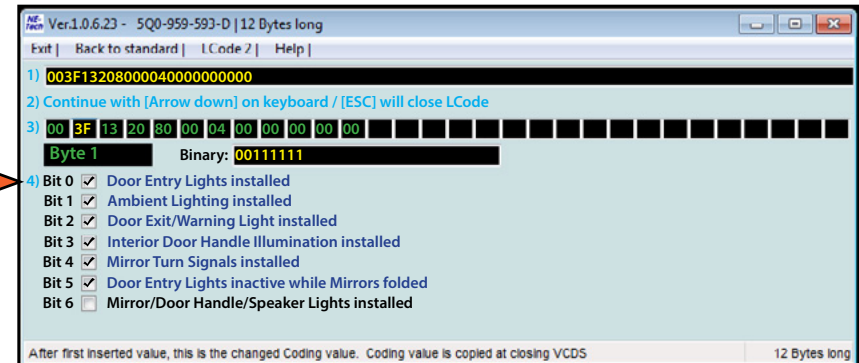


CAUTION: Store the Current Coding somewhere safe, without it you will not be able to easily revert to factory coding.



Step 4:

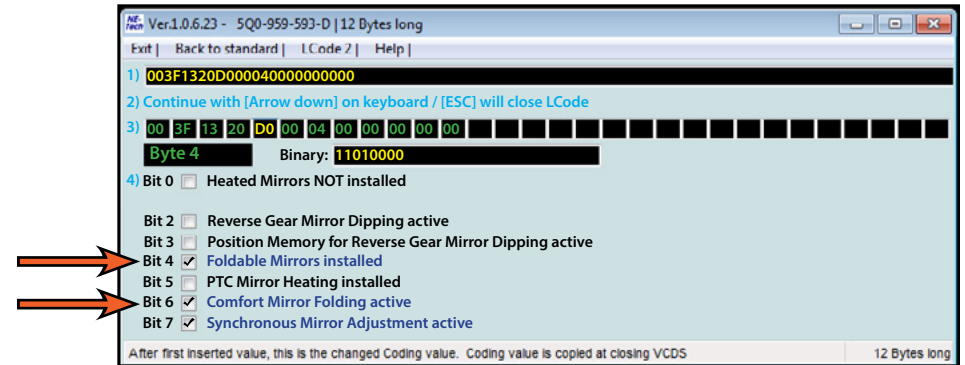
Select the second box in the #3 row to open **BYTE 1**, then check **Bit 0**.



VCDS CODING

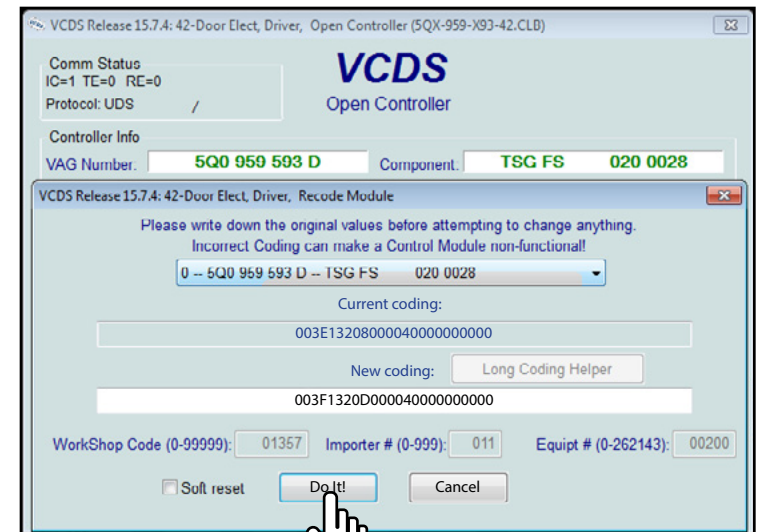
Step 5:

Select the fifth box in the #3 row to open **BYTE 4**, then check **Bit 4 & 6**.



Step 6:

Close the Long Coding Helper and click **Do It!** Another screen should pop up saying the coding was accepted, click **OK** and close the controller.



VCDS CODING

Step 7:

Next, select:

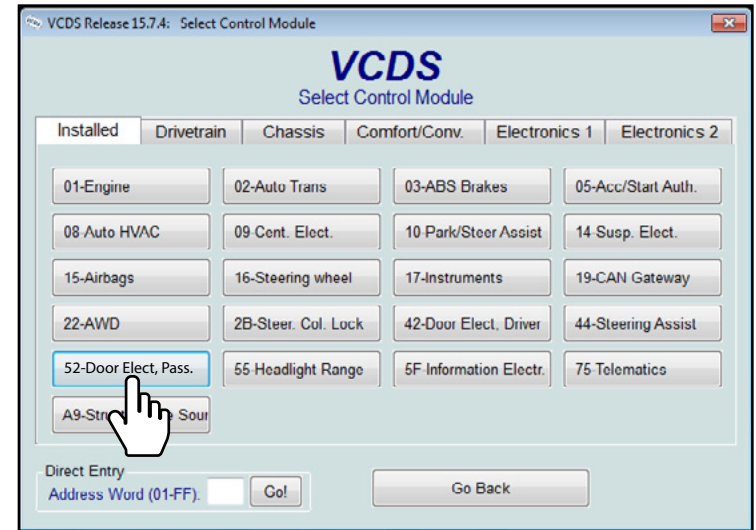
52-Door Elect, Pass

Write down or save your Current Coding for reference, then select:

Long Coding Helper

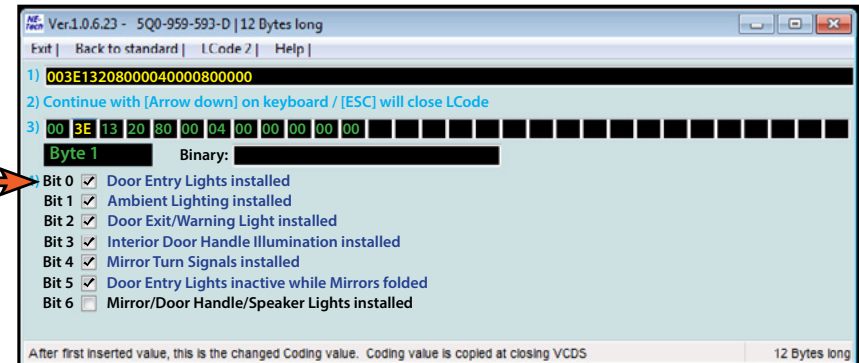


CAUTION: Store the Current Coding somewhere safe, without it you will not be able to easily revert to factory coding.



Step 8:

Select the second box in the #3 row to open **BYTE 1**, then check **Bit 0**.

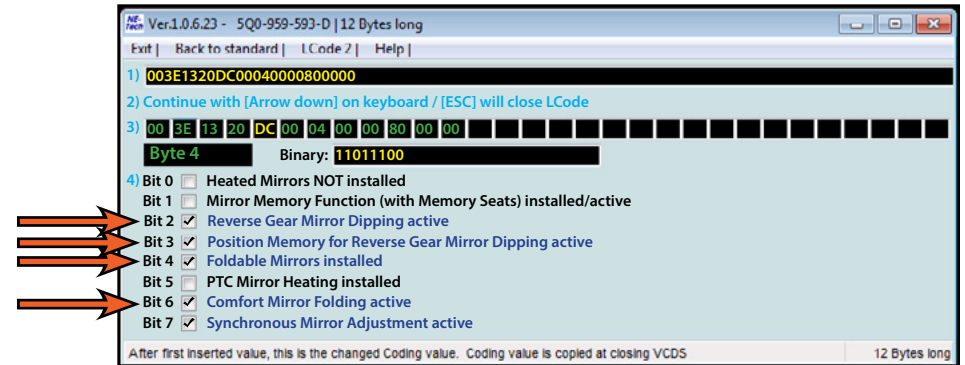


VCDS CODING

Step 9:

Select the fifth box in the #3 row to open **BYTE 4**, then check **Bit 2, 3, 4 & 6**.

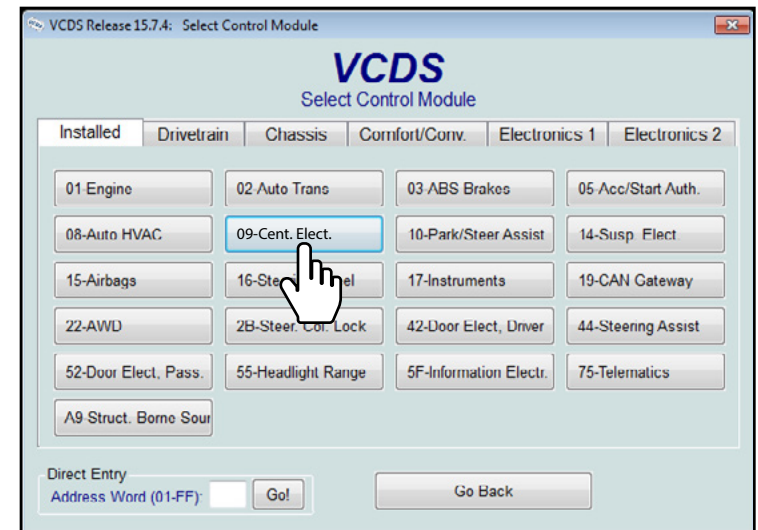
Close the Long Coding Helper and click **Do It!** Another screen should pop up saying the coding was accepted, click **OK** and close the controller.



Step 10:

Now that the coding has been changed, we need to change the adaptations inside the BCM. To do this, start by selecting:

09-Cent. Elect.

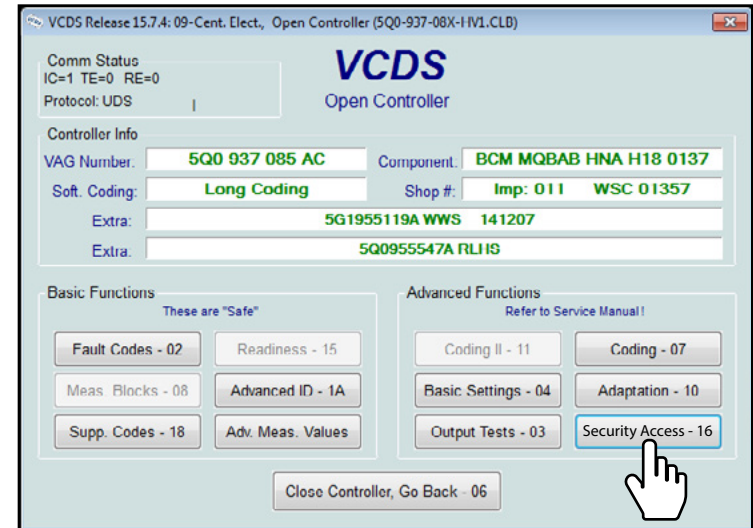


VCDS CODING

Step 11:

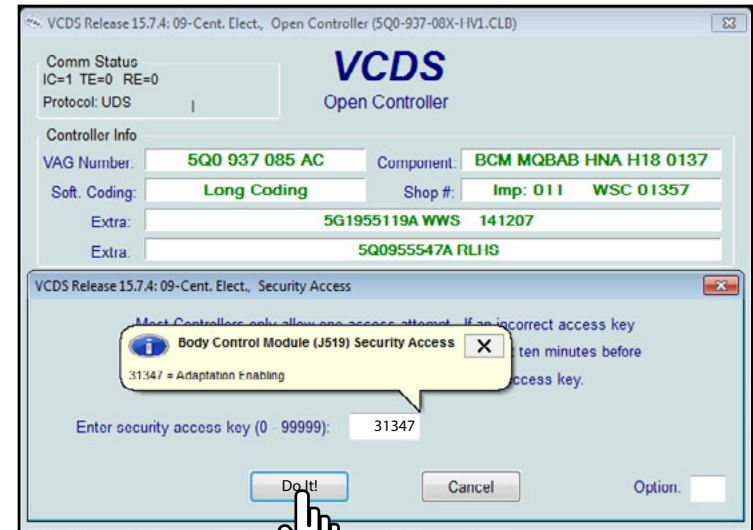
Next, select:

Security Access - 16



Step 12:

Enter **31347** into the security access key box, then click **Do It!**

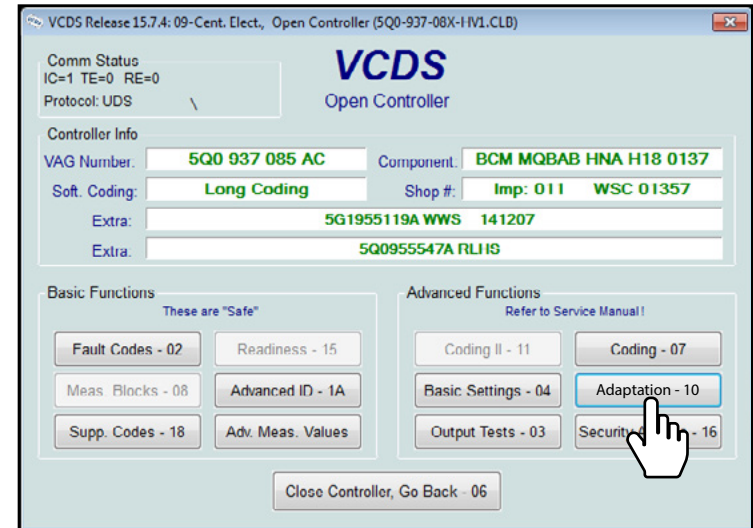


VCDS CODING

Step 13:

Select:

Adaptation - 10

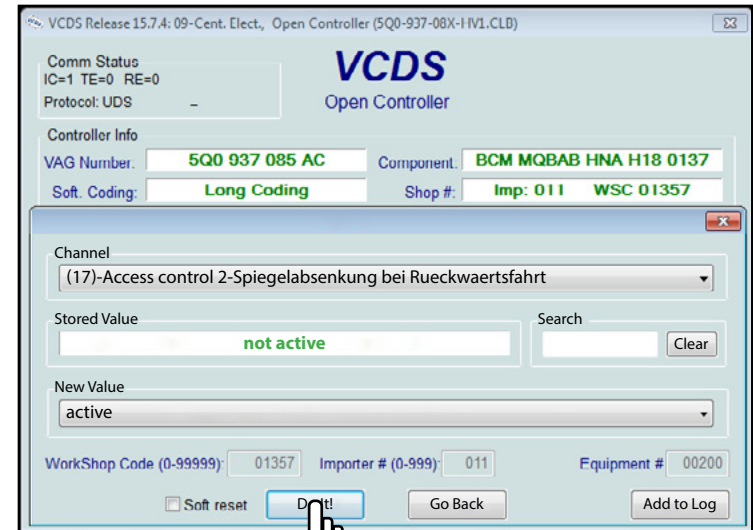


Step 14:

Select the following Channel from the first drop down menu:

(17)-Access control 2-Spiegelabsenkung bei Rueckwaertsfahrt

Change the **New Value** to "active", then click **Do It!**



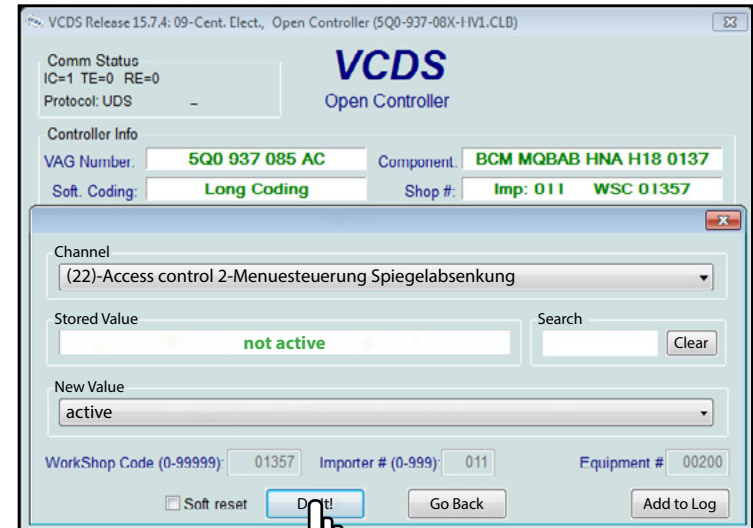
VCDS CODING

Step 15:

Select the following Channel from the first drop down menu:

(22)-Access control 2-Menuesteuerung Spiegelabsenkung

Change the **New Value** to “active”, then click **Do It!**

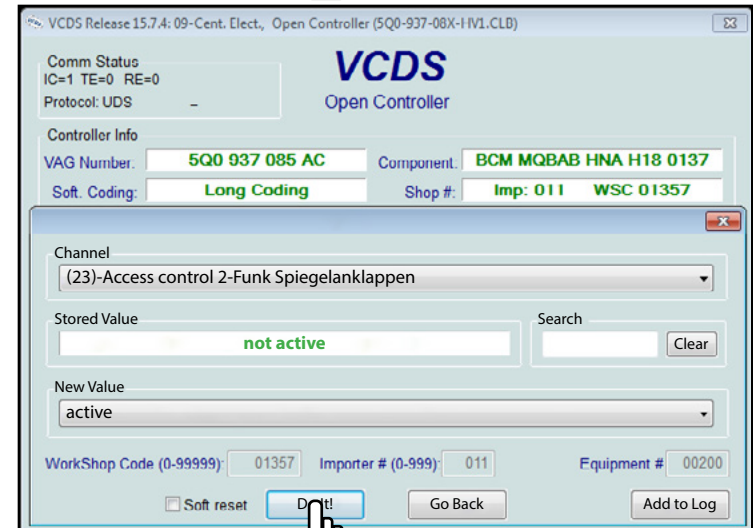


Step 16:

Select the following Channel from the first drop down menu:

(23)-Access control 2-Funk Spiegelanklappen

Change the **New Value** to “active”, then click **Do It!**



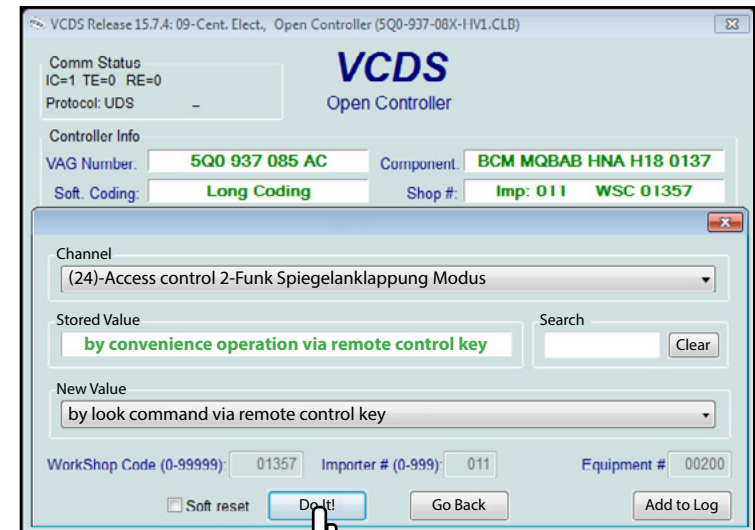
VCDS CODING

Step 17:

Select the following Channel from the first drop down menu:

(24)-Access control 2-Funk Spiegelanklappung Modus

Change the **New Value** to “by look command via remote control key”, then click **Do It!**

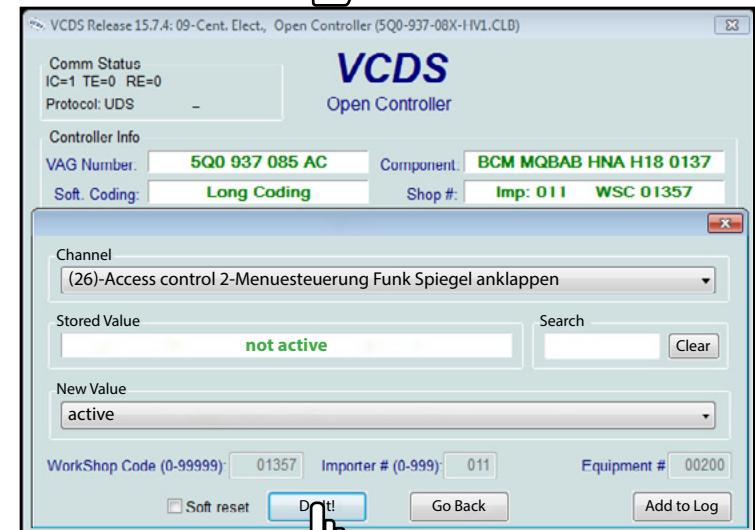


Step 18:

Select the following Channel from the first drop down menu:

(26)-Access control 2-Menuesteuerung Funk Spiegel anklappen

Change the **New Value** to “active”, then click **Do It!** and close the controller.



VCDS CODING

Step 19:

Disconnect the VCDS scan tool and turn the key to the "ON" position, then open up the "CAR" menu in the Multi Function Display. Click on the **SETTINGS** button in the lower right corner.



Step 20:

Click on the "Mirrors and wipers" icon.



VCDS CODING

Step 21:

Select the following options from the menu:

- Lowering in reverse**
- Fold away after parking**

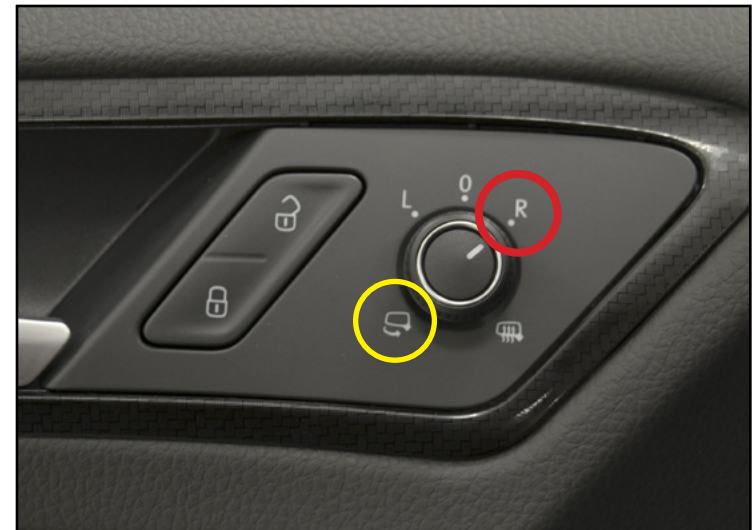


Step 22:

AND THAT'S IT!!!

All you have to do now is test the folding mirrors, simply close your door and hit the lock button on your remote and the mirrors should fold in. You can also fold the mirrors in from inside the vehicle by rotating the mirror switch to the **FOLD** icon (circled in **YELLOW**).

As for the mirror dip in reverse function, you have to select the RH mirror on the mirror switch in order for the dip function to activate (circled in **RED**). The mirror will dip when the vehicle is placed into reverse, and it will stay dipped until the vehicle starts traveling forward.



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Your Power Folding Mirror Kit Installation is complete!



These instructions are provided as a courtesy by ECS Tuning

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