

# ECS TUNING®

ECS  
TUNING®

VW MKV Golf/GTI  
rear view

# CAMERA

Installation  
Instructions



**ES1905735**

*best viewed in Acrobat® Reader®*

This tutorial is provided as a courtesy by ECS Tuning.

Proper service and repair procedures are vital to the safe, reliable operation of all engine 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.

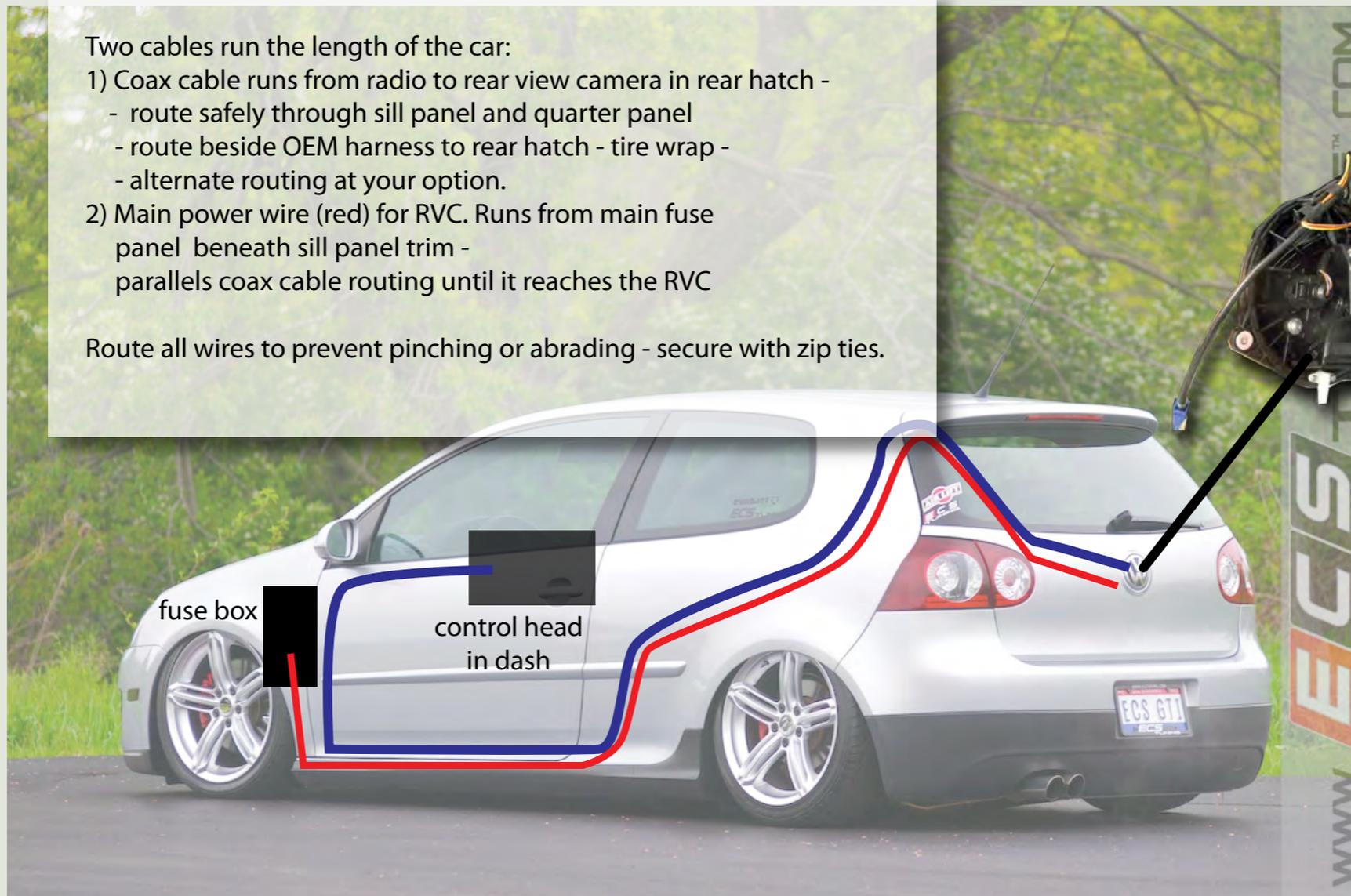
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MKV RVC Wiring Schematic

The illustrations on this and the next page provide an overview of component general locations, and show how the power and coax cables are routed and connected.

Please refer back to these illustrations as we highlight individual steps in this installation.



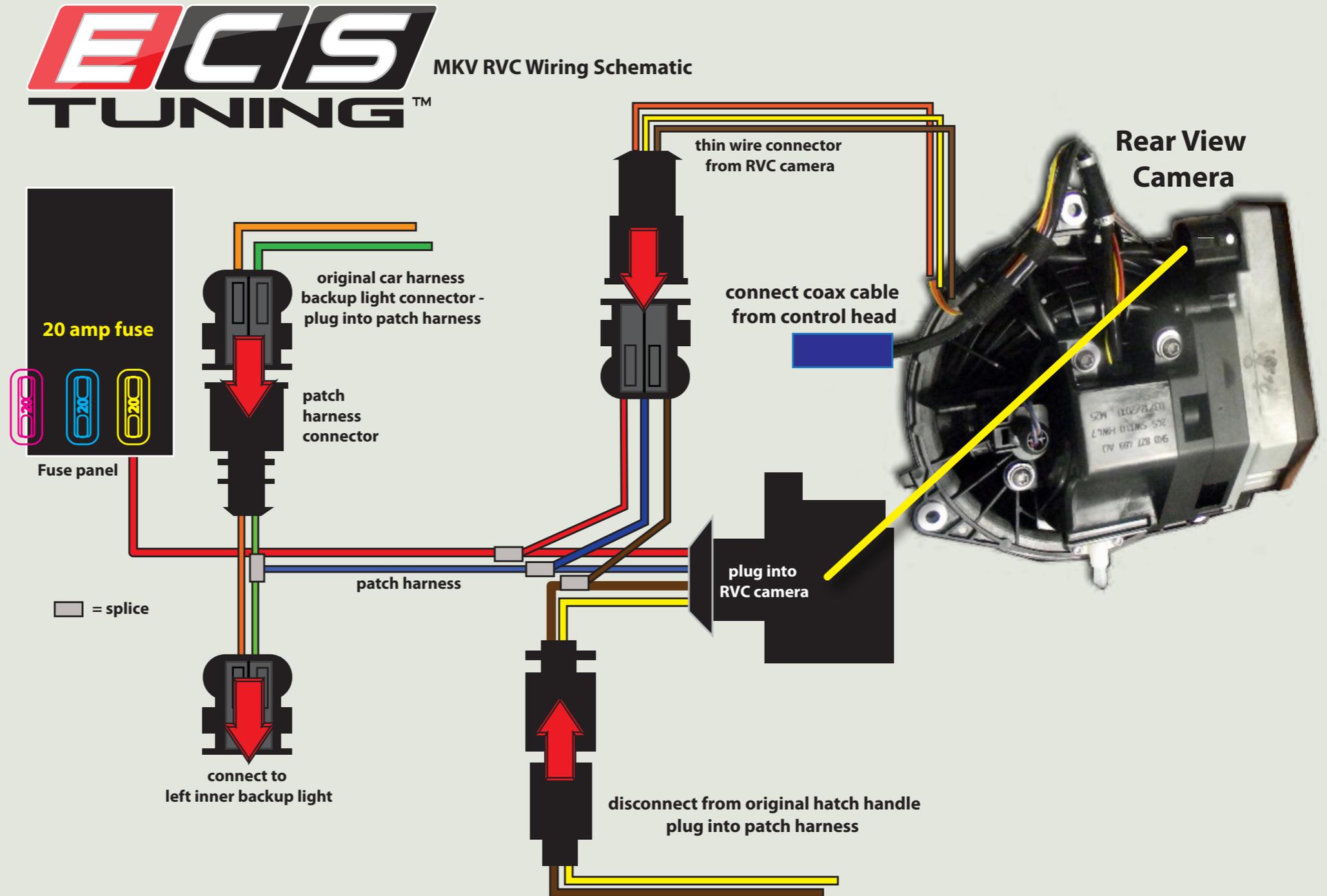
- coax cable
- power lead from Rear View Camera to vehicle fuse panel

## Radio Connections

Your RVC installation kit comes with a “patch harness.” This specially made harness provides all electrical connections needed to power your RVC and provide a switch trigger from the backup lights that turns the camera on when backing.

**Note:** The red wire to the fuse panel is much longer than the one shown in our schematic, since it must reach from the fuse panel to the rear hatch. We do not recommend connecting the power wire to the battery terminal for reasons we’ll describe later.

Ready? Let’s dive in and install the RVC.



## Install the Camera

### Step 1-1

Open the rear hatch.

Remove the two Philips head screws inside the the trunk lid handles.



### Step 1-2

Remove both taillight bulb covers.



## Install the Camera

### Step 1-3

Pry the rear hatch trim panel away from the hatch using a plastic, non-marring trim removal tool.

Pop the plastic trim panel retaining clips loose, one at a time. With all clips loosened, remove the inner trim panel and lay it aside.



### Step 1-4

- Remove the wiper arm pivot cover
- Loosen and remove the 13mm retaining nut.
- Remove the wiper arm and lay it aside.



## Install the Camera

### Step 1-5

Remove the three T25 Torx fasteners holding the wiper motor in place.

Remove the wiper motor and lay it aside.

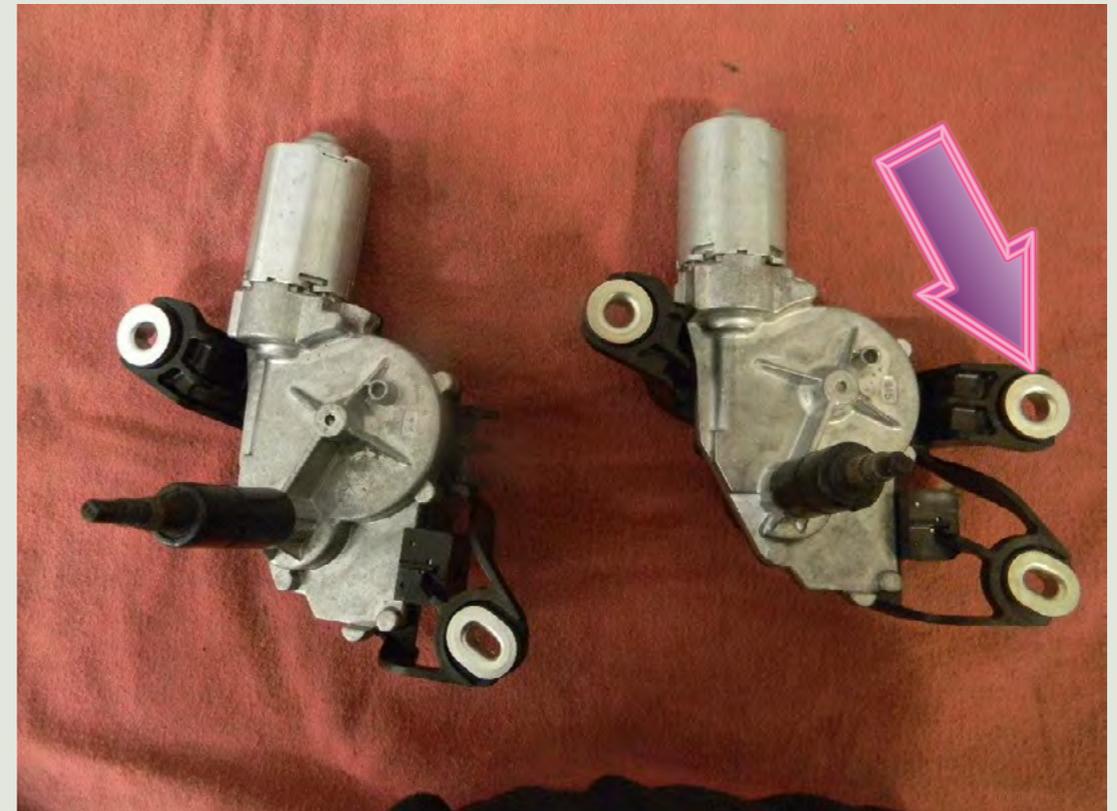


### Step 1-6

With the motor removed, use an appropriate cutting tool to remove the third wiper motor mount arm (arrow).

Your revised motor should look like the one on the left when you're done.

Cutting away the mount makes room to install the new Rear View Camera (RVC) motor.



## Install the Camera

### Step 1-7

Remove three T25 Torx handle retainer screws in the stock handle.

Turn the handle assembly clockwise to release it from the hatch.



### Step 1-8

With a felt tip pen, mark off a section of hatch sheet metal, as we have done here. This area must be removed with a cutting tool to make room for the RVC (Rear View Camera). Sand or file to remove burrs from the metal edge after making your cut.

Seal bare metal with paint stick touch up paint to prevent rust.



## Install the Camera

### Step 1-9

To make a clean installation, slit a length of rubber vacuum hose, and glue it in place over the cut edge of the new opening.



### Step 1-10

Insert the new latch and turn it counterclockwise to lock it into place.

Reinstall the three T25 latch retainer screws.



## Run the Wire and Cable

MKV Golf/GTI Rear View Camera  
ES1905735

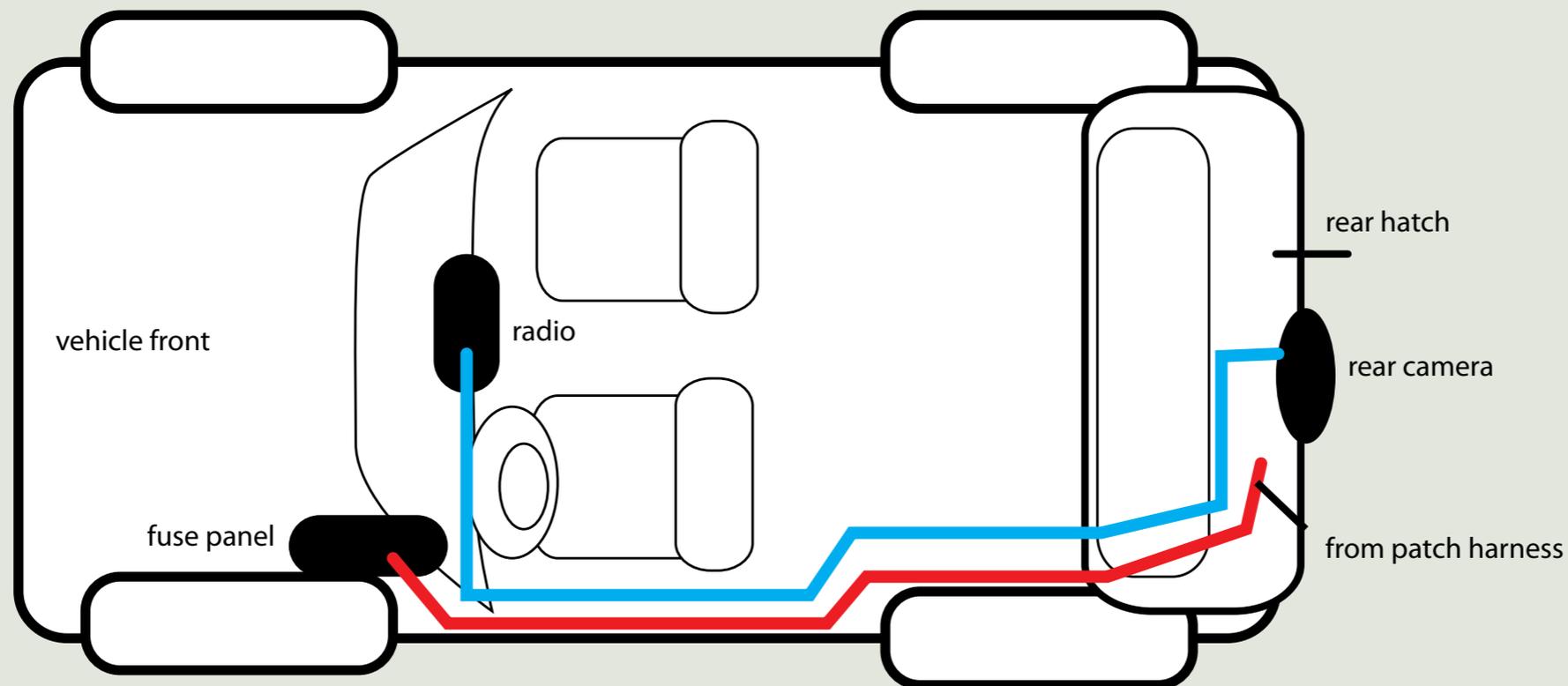


This is a good time to route the coaxial cable and patch harness. Connect the coax cable to the camera we just mounted. Route the coax cable and red patch harness power lead from the rear hatch forward, as shown in our illustration below. For a side view, see Page 2.

Route your wires parallel to the hatch vehicle harness where possible, and secure all wires.

The two wires run parallel through the left quarter panel and door sill, until they split at the front door jamb. At that point, the power lead goes to fuse panel; the coax cable make a right turn toward the radio in the center of the dash.

Route the wire and cable at your discretion; there is no absolute right or wrong way to do it as long as both are secured and safe from harm.



## Radio Connections

### Step 2-1

Remove the rubber lining from the center storage area on top of the dash.



### Step 2-2

Removing the tray liner.

Remove the two T25 Torx screws beneath the liner.



## Radio Connections

### Step 2-3

Use a pry tool to pop up the plastic tray. Pry evenly around the entire perimeter until the piece pops out.



### Step 2-4

Remove the upper part of the console to expose two T25 Torx screws.



## Radio Connections

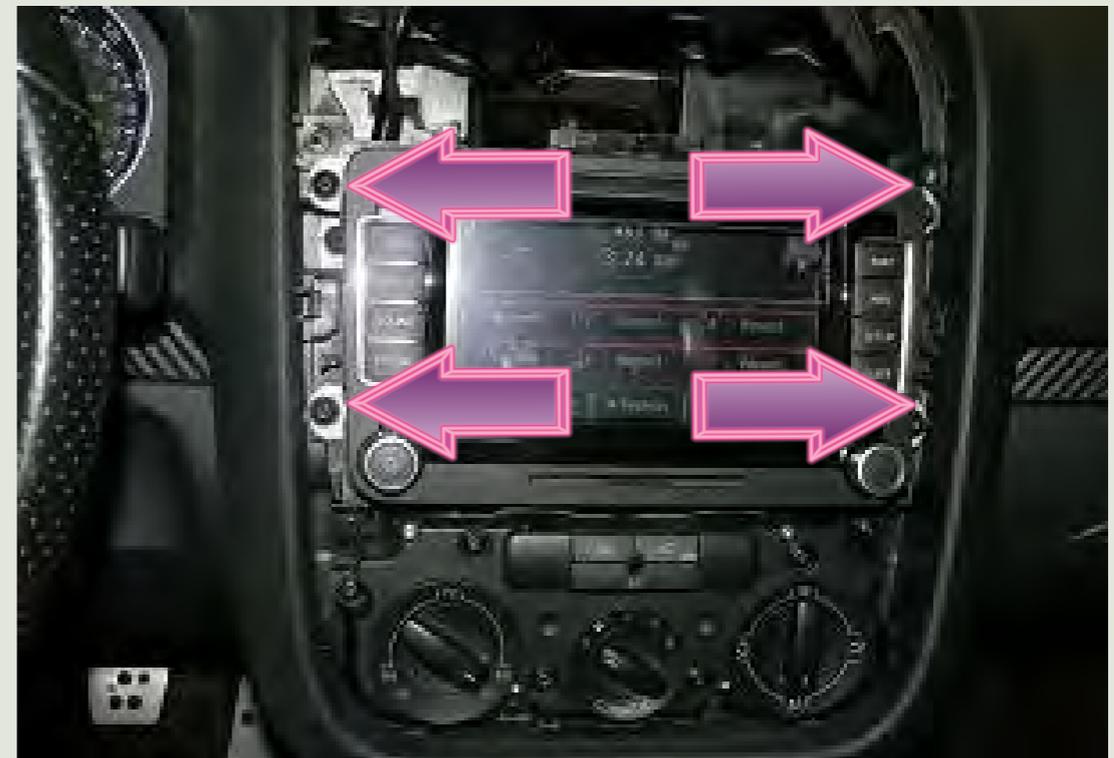
### Step 2-5

Remove the screws and the lower face plate.



### Step 2-6

Remove the four T25 Torx screws around the radio to remove it.



## Radio Connections

### Step 2-7

Remove the radio from the dash.



### Step 2-8

Route and connect the coaxial cable to the back of the radio (blue connector).

Reinstall the radio and all trim pieces removed previously.



## Wire Harness Connections

### Step 3-1

Make sure the blue coax cable is connected to the RVC (Rear View Camera).



### Step 3-2

Disconnect the backup light harness and plug it into the patch harness.



## Wire Harness Connections

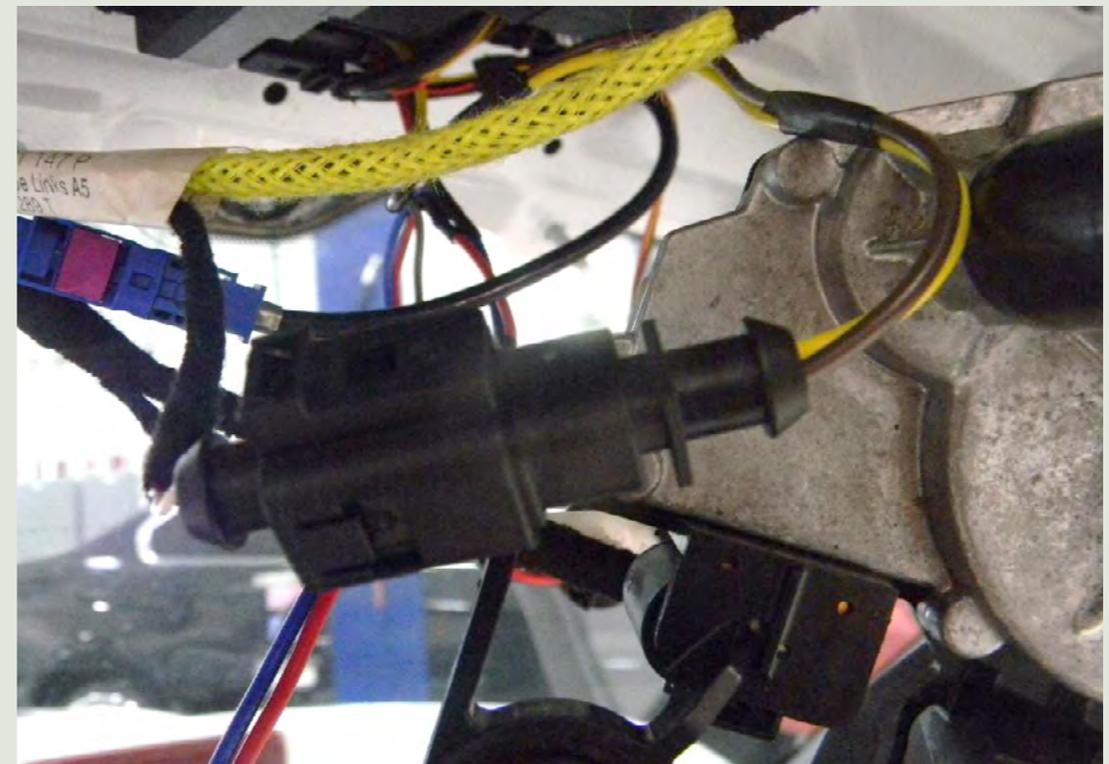
### Step 3-3

Plug the female end of the patch harness connector into the OEM taillight wiring harness.



### Step 3-4

Plug the 2-pin wire latch wiring harness into the connector in the patch harness (brown and yellow wires).



## Wire Harness Connections

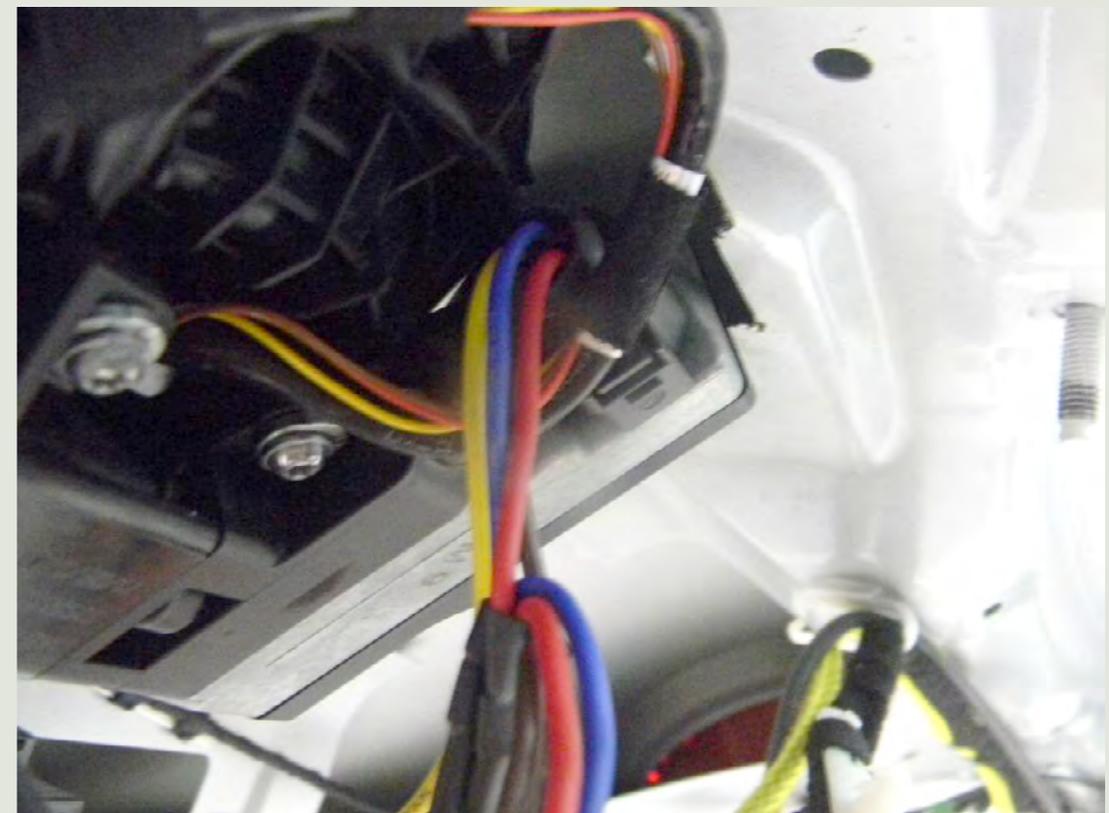
### Step 3-5

Connect the 3-pin connector (red, brown and blue) from the RVC to the 3-pin connector in the patch harness (yellow, red, and brown wires).



### Step 3-6

Connect the 4-pin connector to the RVC.



## Connect to Voltage

### Step 4-1

Almost done. All we need now is power!

We do **not** recommend connecting the RVC power lead to the vehicle battery post for several reasons:

- 1) **Battery vapors are acidic** and will corrode small wire connections and the inline fuse connector.
- 2) **The underhood environment is wet and hot, and wiring is exposed to road salts.**

While it takes slightly longer to do it, we recommend picking up ignition power at the vehicle fuse box. The connection will be dry and protected.



### Step 4-2

Remove the light switch from the dash:

- Turn the switch to the off position.
- Push the headlight switch in and twist the switch clockwise to the first stop and pull the switch out.

Let it hang.



## Connect to Voltage

### Step 4-3

Remove the Torx screw behind the light switch.



### Step 4-4

Remove the three additional Torx screws at the bottom of the dash trim panel.



## Connect to Voltage

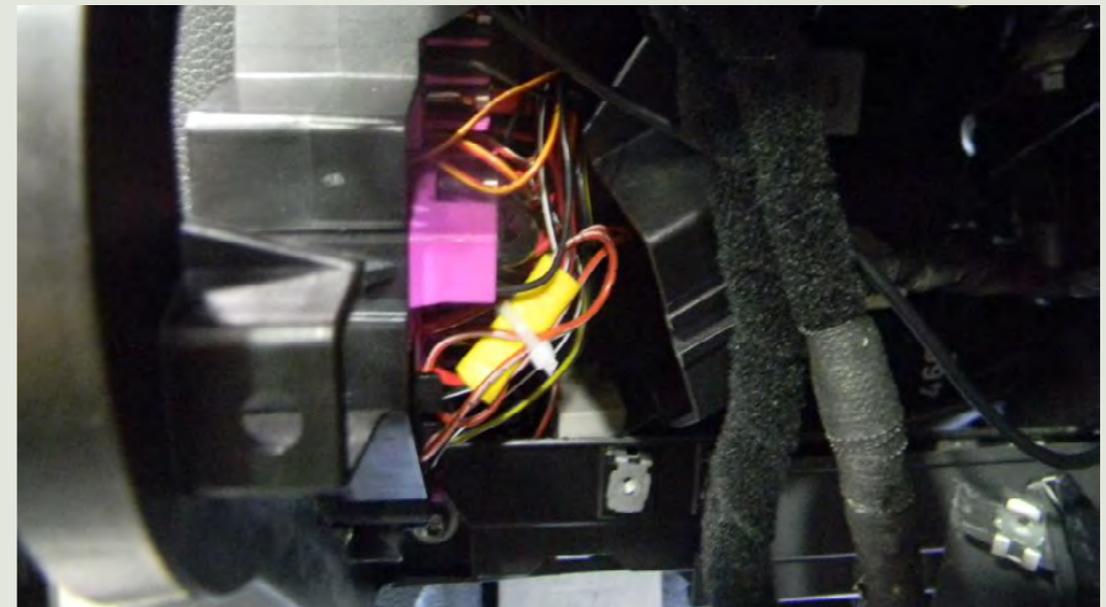
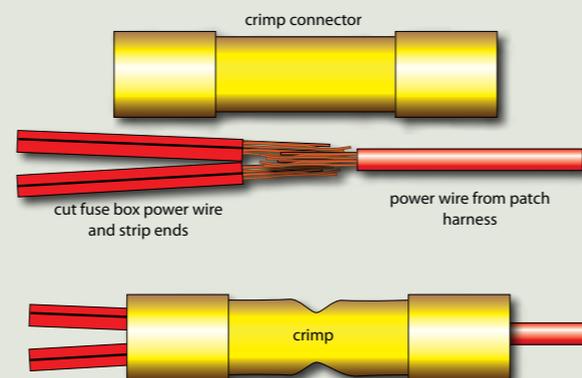
### Step 4-5

Slide the trim panel out and remove it from the dash.



### Step 4-6

- With the dash panel removed, we can see the backside of the fuse panel.
- Remove the fuse panel rear cover to expose the fuse panel wires.
- Find the 12 gauge red wire with a black tracer connected to the fuse #28 (20 amp fuse). This is a keyed hot wire.
- Cut the power wire at the fuse box; strip back the insulation on both leads 1/4-3/8 inch.



Use a crimp-style butt splicer to connect the power wire from the camera to the power wires at the fuse block. Crimp the wires securely. Give them a tug to make sure they are well connected.

Reinstall the dash trim panel and light switch.

## Coding

### Step 1

With the camera installed and connected, it's time to code the radio to recognize the camera.

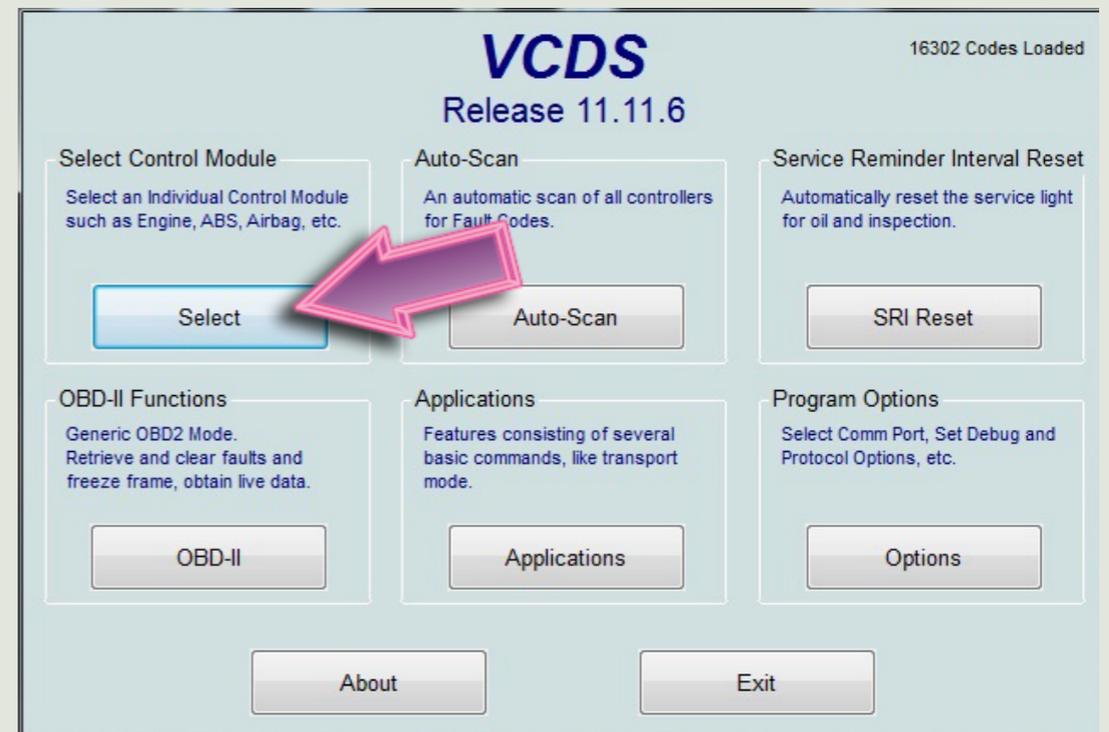
Connect your scan tool to the vehicle data link connector.

We're using the Ross-Tech **VCDS** (VAG-COM Diagnostic System).



### Step 2

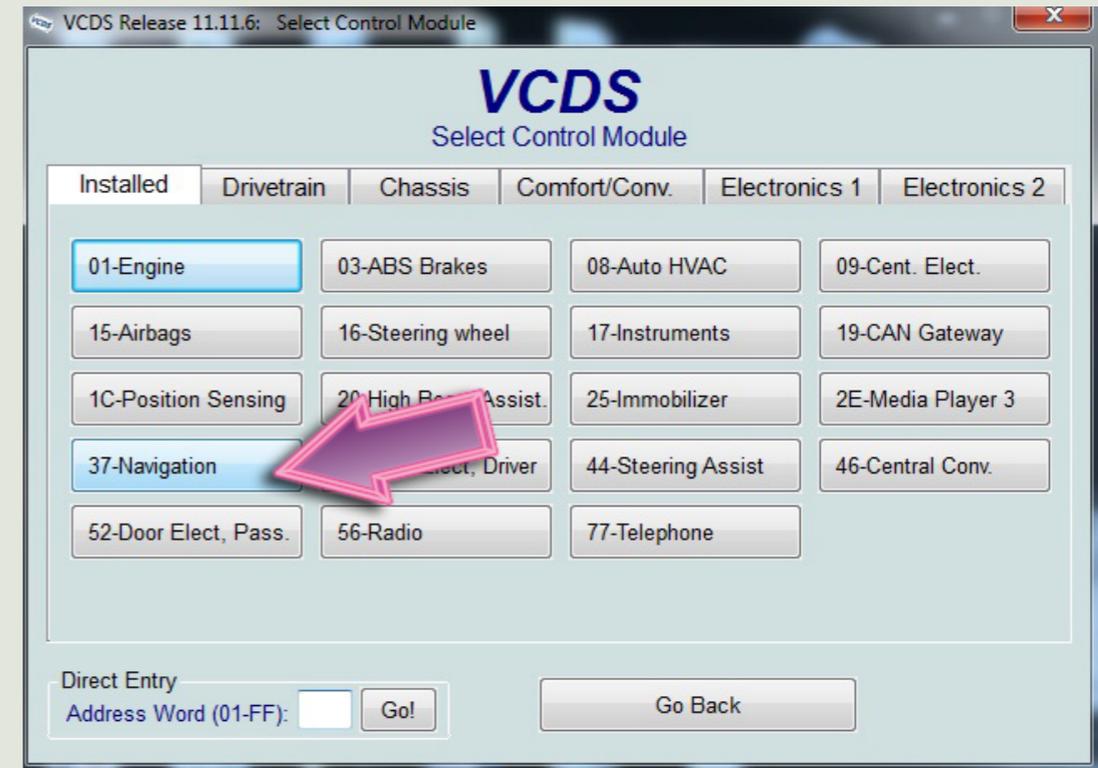
Click on the "Select" button to open the control module list.



## Coding

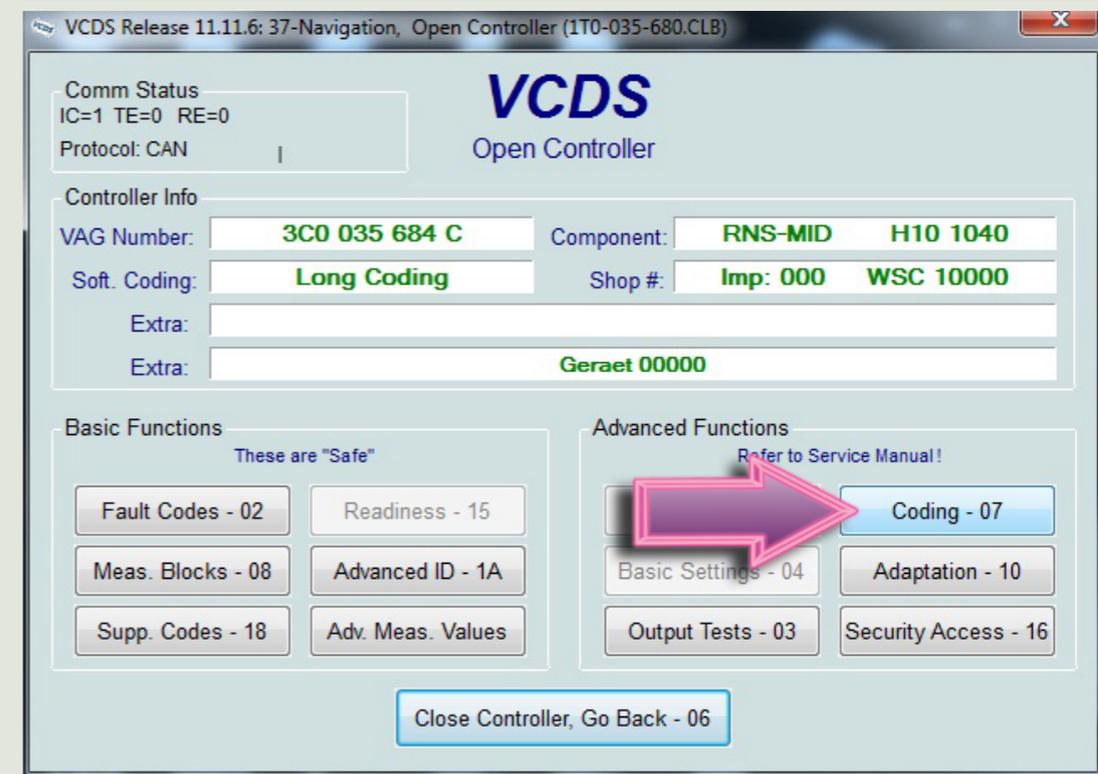
### Step 3

From the **Control Module** screen, select **37-Navigation**.



### Step 4

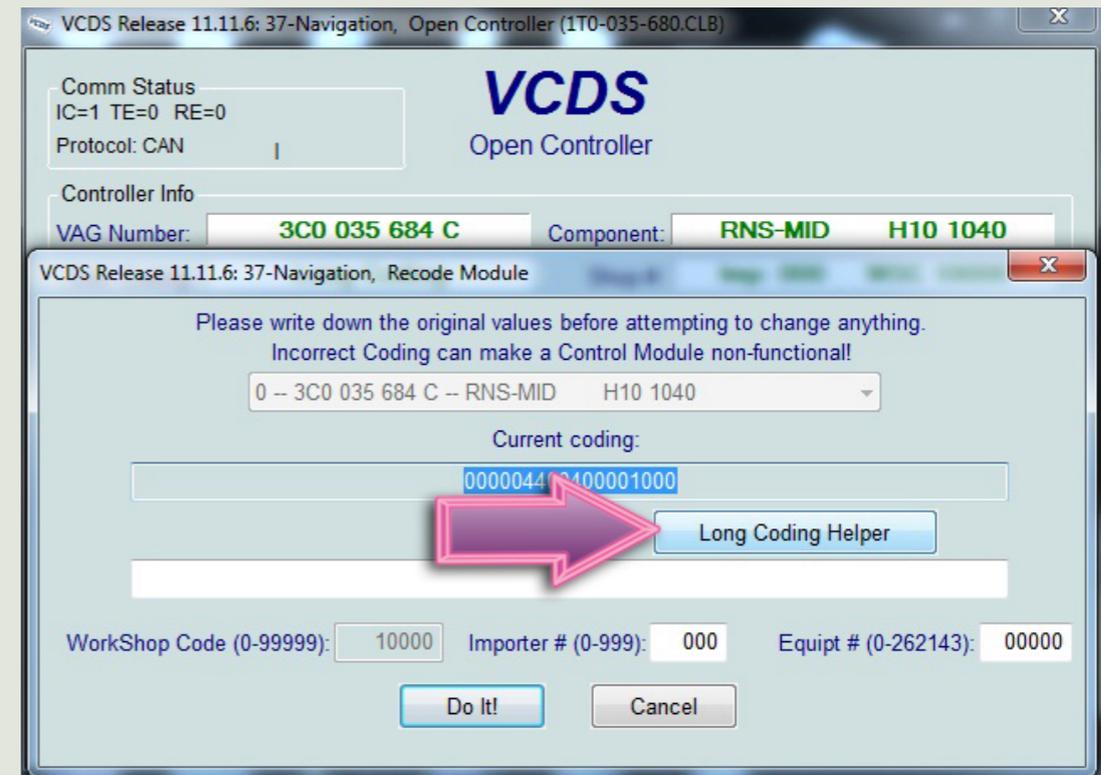
On the **Navigation** screen, select **Coding - 07**.



## Coding

### Step 5

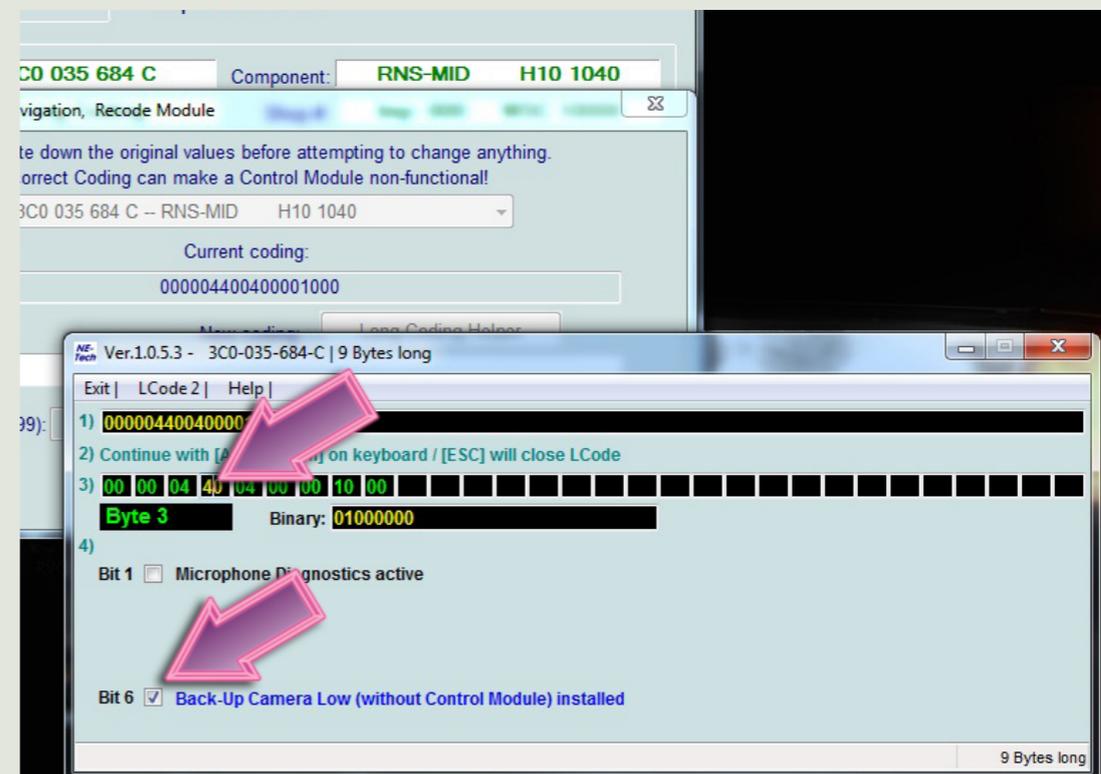
Select **Long Coding Helper**.



### Step 6

- Place your cursor in the **fourth** coding box from the left (top arrow).
- With Byte 3 selected, select the Bit 6 check box **Back-Up Camera Low (without Control Module) installed** (lower arrow).

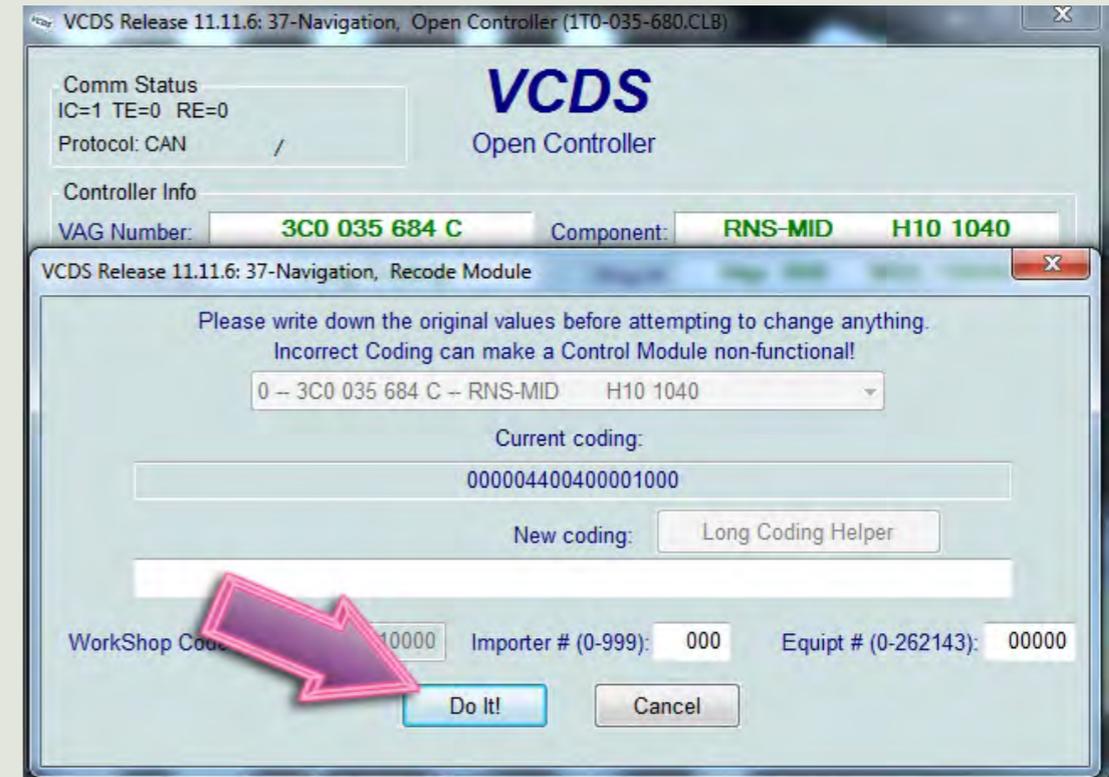
**Service Note:** Each of the black blocks in row 3 represents a Byte number. We want Byte 3, but since the Byte numbering starts with Byte 0, we need the **fourth** box from the left.



## Coding

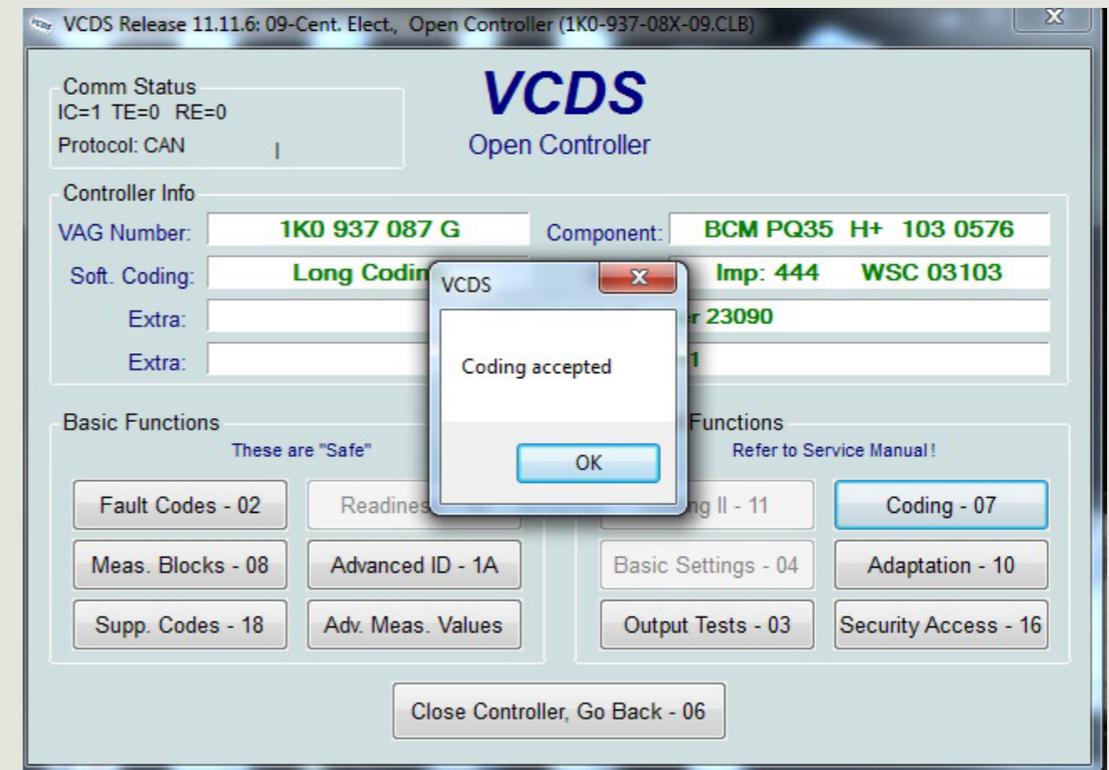
### Step 7

Select **Do It** to save your choice.



### Step 8

- The program will confirm your changes.
- Select **Close Controller, Go Back - 06**.
- Back out of this page and close out the scan interface.



## Coding

### Step 9

The camera is now coded and ready to test.

- Turn the ignition to the ON position.
- Select reverse gear to activate the rear view display.



Thanks for purchasing your Rear View Camera from ECS Tuning.

We appreciate your business, and hope this tutorial has been helpful and informative.