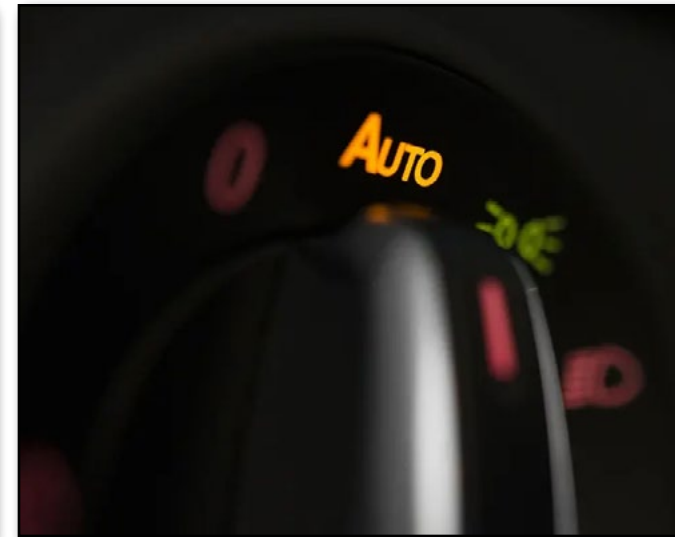




Volkswagen MK5/MK6 Bremmen Automatic Headlight Conversion Kit Installation



Skill Level
1 - Easy
Basic Skills & Experience Required



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

Installing the Bremen Automatic Headlight Conversion Kit is an enjoyable project that can be completed in a short couple of hours. Electrical work can be intimidating at times, but these easy to follow instructions will make this installation a breeze. Before you begin, read and familiarize yourself with these instructions and make sure you have all the required tools on hand. Thank you for purchasing the Bremen Automatic Headlight Conversion Kit, we appreciate your business!

MK5 Installation Notes:

Installing this kit will convert your MK5 immediately to automatic operation of the parking lights, dash lights, and taillights. The DRLs (Daytime Running Lights) however will still be functional. The DRLs must be turned off using VW Diagnostic software (VAG-COM). MK5 installation requires less steps. Look for the **GREEN** indicators in these instructions to proceed with the proper steps.

MK6 Installation Notes:

On MK6 Volkswagens, installing this kit will convert your car immediately to fully automatic light operation. No coding or reprogramming is required. Follow these instructions in their entirety for kit installation.

REQUIRED TOOLS



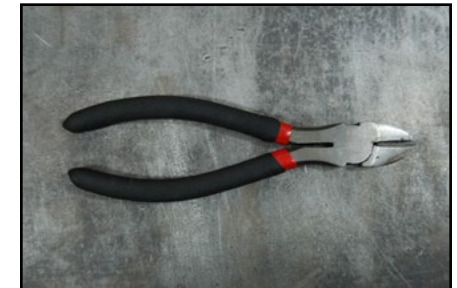
Non Marring Trim Tool
[ES#517779](#)



T20 Torx Driver
[ES#14117](#)



Straight and Angled Pick
[ES#2778980](#)



Side Cutters
[ES#2804496](#)

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KIT CONTENTS



Headlight Switch (QTY 1)



Light Sensor Module (QTY 1)



Pre-Cut Wire w/Terminal Ends* (QTY 1)

*For MK6 GTI installs only.

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.
- Whether lifting a vehicle using an automotive lift or a hydraulic jack, be sure and 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.

INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

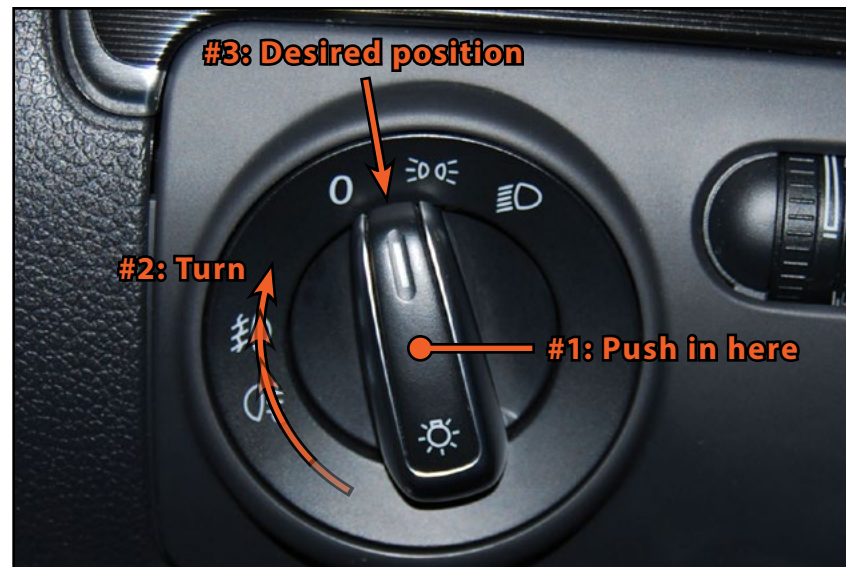
Step 1:

Make sure the headlight switch is in the "off" position.



Step 2:

Push in on the center of the switch knob, turn it slightly to the right, and release it. The switch knob will stay in this position as shown in the picture.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

Step 3:

Pull the headlight switch out of the dash.



Step 4:

Depress the locking tab with your thumb (arrow & **GREEN** highlight in the photo on the right), then pull the connector out of the back of the headlight switch.



If you are installing this kit onto a MK5:

- Please skip ahead to step 10.

All other models:

- Continue to the next page.



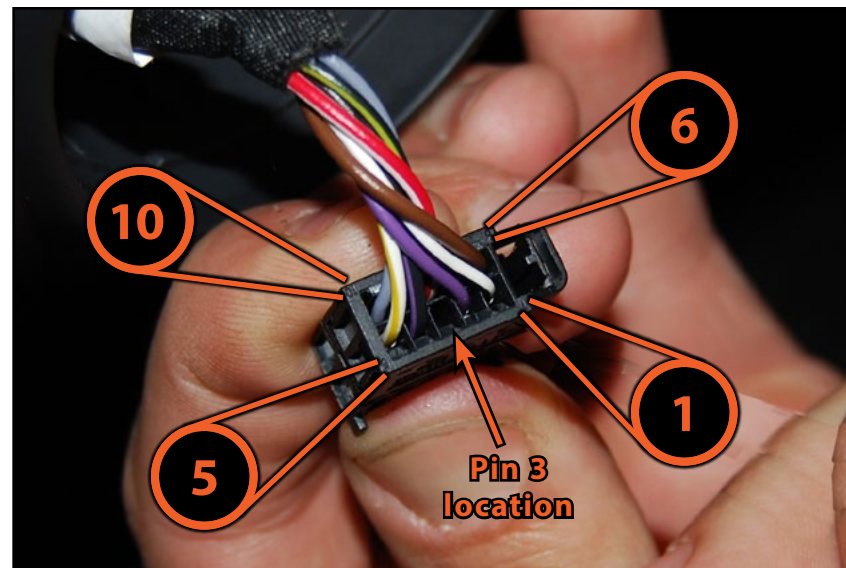
INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

Step 5:

Locate the empty headlight switch connector pin location number three. It is located between pin two (purple wire) and pin four (black wire with a purple tracer).

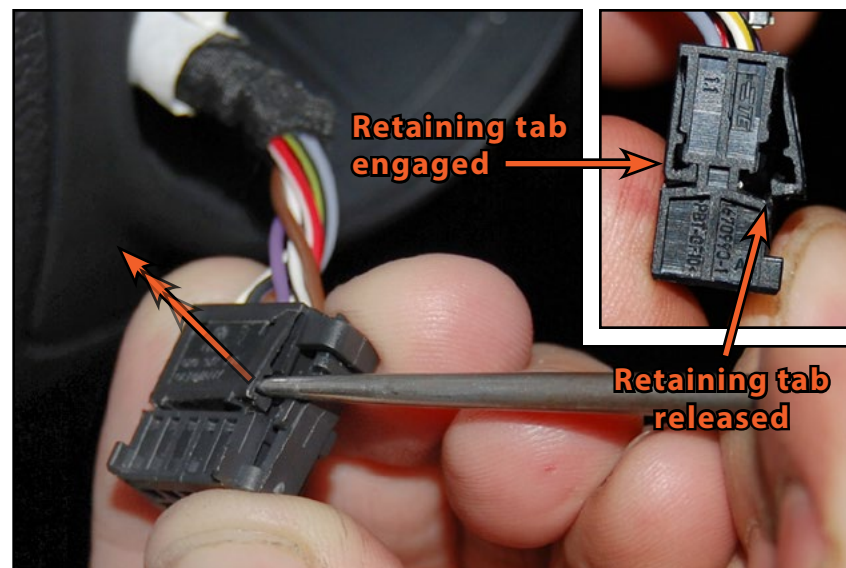


The headlight switch connector is a ten pin connector. Each of the pin locations is assigned a number one through ten. Look closely at the back of the connector and you will see a reference number at each corner that will allow you to identify the specific pins in between. Wire color may vary depending on vehicle options and year, but the pin location will be the same.



Step 6: Small Pick

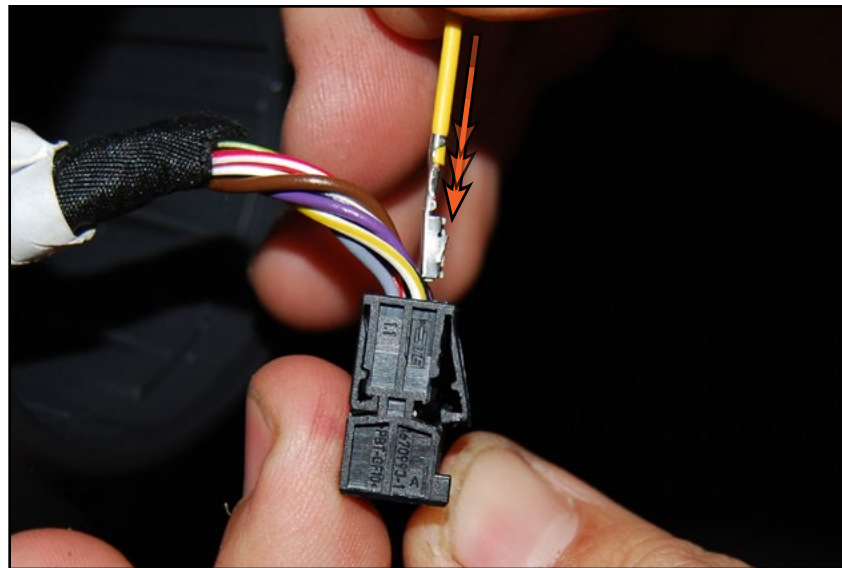
Using a pick, carefully release the terminal retaining tab on same side as the empty cavity. The inset photo shows a side view of the connector.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

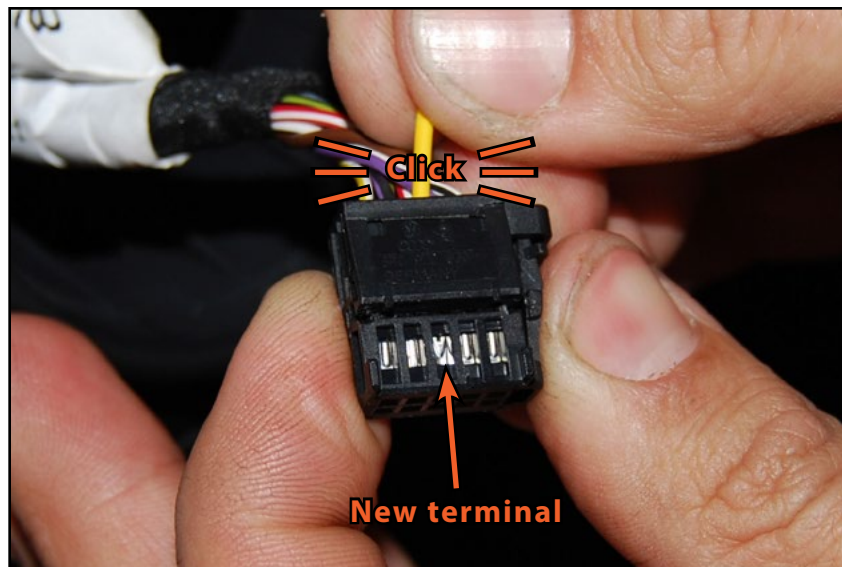
Step 7:

Insert one of the terminals into the connector (both terminals and wire ends are the same). The terminal has an indexing tab that will only allow it to fit into the connector one way.



Step 8:

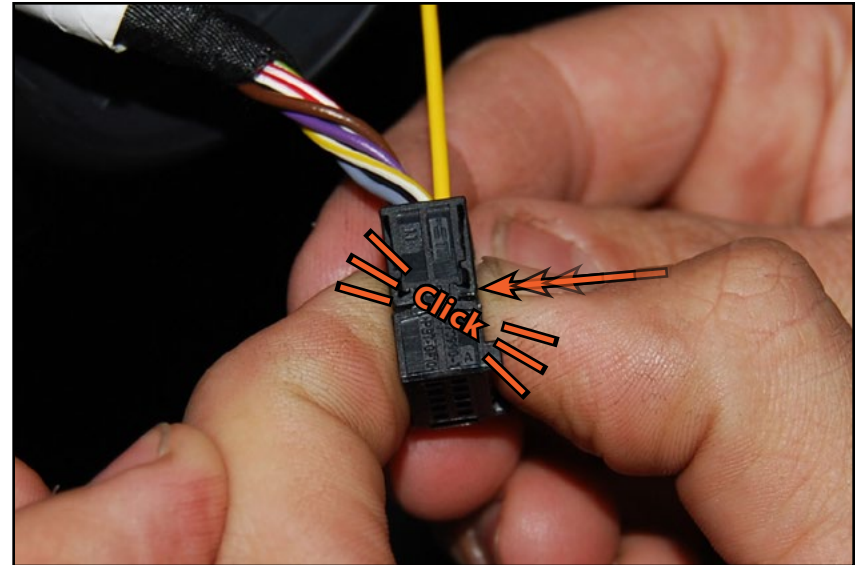
Push the terminal all the way into the connector until you hear it "click" in place. You will also be able to see that it is lined up and positioned the same as the other terminals.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

Step 9:

Fold the terminal retaining tab back down and using your thumb and forefinger, squeeze the connector until you hear the retaining tab "click" securely into place.

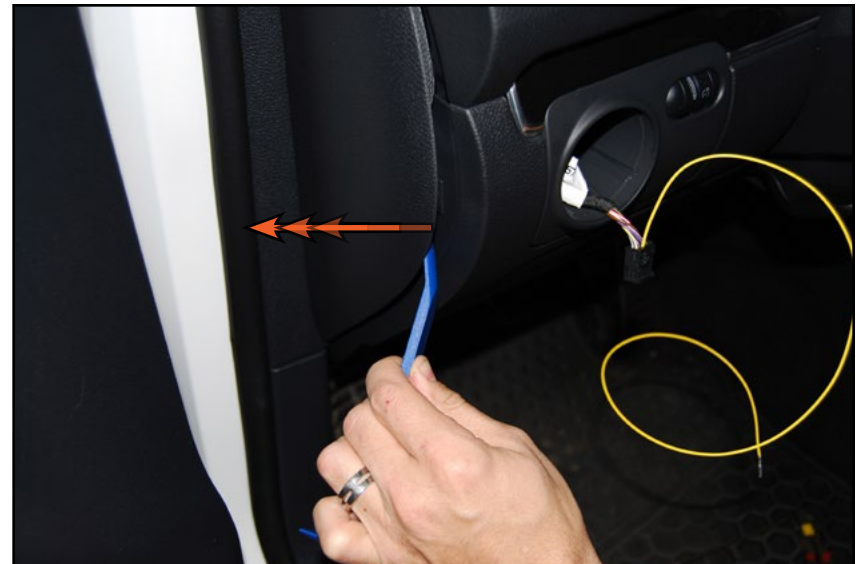


Step 10: Trim Removal Tool

Using a non-marring trim tool, remove the fuse panel cover on the LH side of the dash.



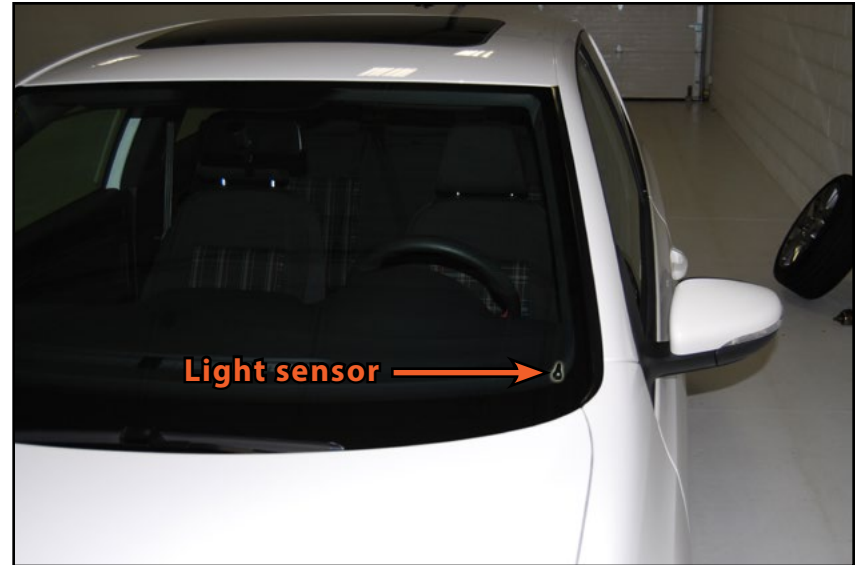
If you are installing this kit on a MK5, ignore the yellow wire in the photos.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

Step 11:

Use the picture on the right as a frame of reference for the installation location of the light sensor, then proceed to step 12. The LH side of the dash near the base of the "A" pillar is an ideal location.



Step 12:

Clean the mounting location on the dash thoroughly to remove any grease or oil. Remove the backing from the adhesive tape on the sensor and press it into place.



Sensor operation is not affected by the partial tinting at the base of the windshield.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

Step 13: Trim Removal Tool

Beginning near the sensor, gently press the wire for the sensor down in between the LH side of the dash and the "A" pillar trim.



Step 14: Trim Removal Tool

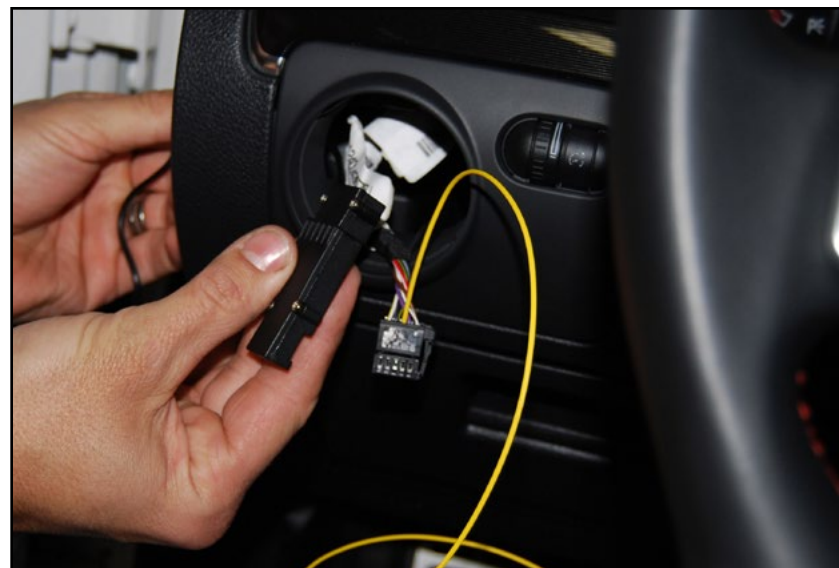
Continue around the "A" pillar until the wire is completely hidden and exits into the opening in the LH side of the dash.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

Step 15:

Insert the light sensor module into the left side of the dash and pull it out the opening for the headlight switch.



Step 16:

Plug the headlight switch connector with the new terminal installed (MK6 only) into the light sensor module. You should hear a “click” when the connector is fully seated. You will also hear a series of beeps from the car to signify that it has recognized the new sensor.



If you are installing this kit onto a MK5:

- Please skip ahead to step 20.

All other models:

- Continue to the next page.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

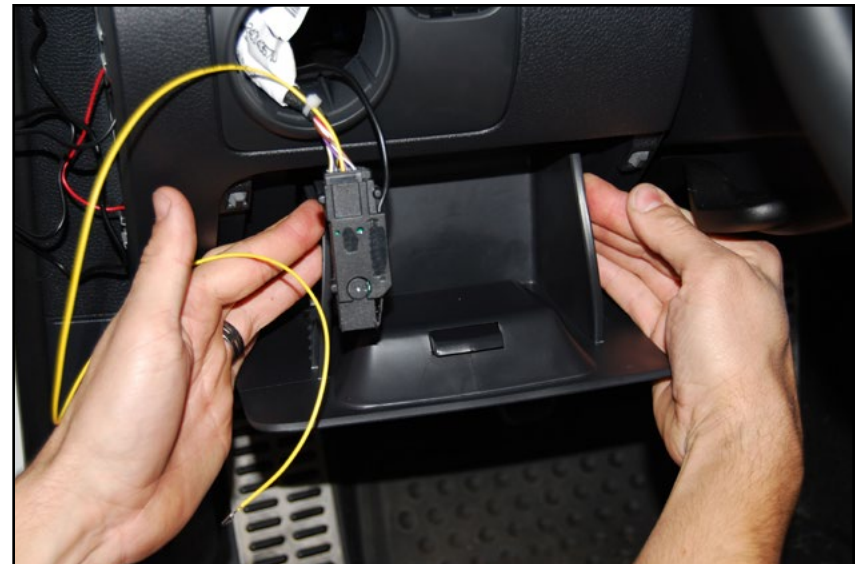
Step 17:

Secure the new wire to the original harness using a wire tie as shown, then trim the excess from the wire tie.



Step 18:

If equipped, remove the storage bin from the LH side of the dash by opening it fully, pressing in on both sides to release the catches, then pulling it the rest of the way out. This makes it easier to run the new wire, but if your vehicle does not have this, the wire can still be accessed from under the dash.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

Step 19:

Route the new wire through the opening for headlight switch, down through the dash and into the driver's footwell.



Step 20:

Bundle the extra wire for the light sensor and secure it together with a wire tie, trim the excess from the wire tie, then re-install the storage bin (MK6 only) and the fuse panel cover on the end of the dash.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

Step 21:

Connect the light sensor module to the new headlight switch. You will hear a “click” when the module is fully seated in the switch.



Step 22:

Push the new headlight switch into the dash until you hear a “click” indicating that it is fully seated.



If you are installing this kit onto a MK5:

- Please skip ahead to step 34.

All other models:

- Continue to the next page.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

Step 23: T20 Torx

Remove the OBDII connector screw.

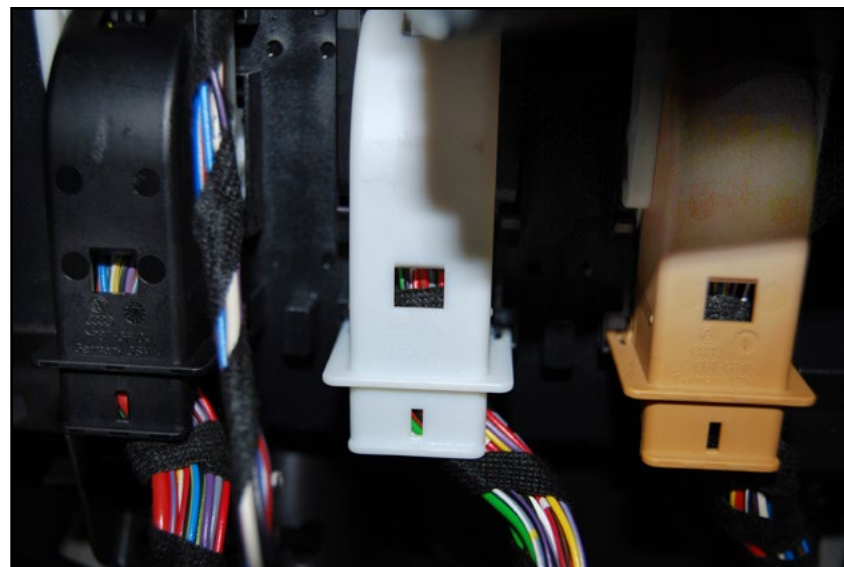


If your car is not equipped with knee air bags, you do not need to remove the OBDII connector.



Step 24:

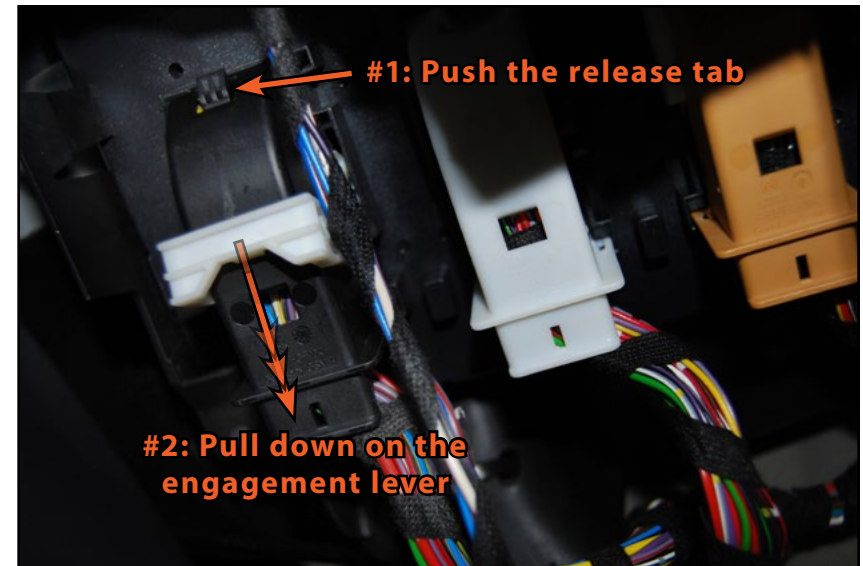
Holding the OBDII connector out of the way, look up under the dash and you will see three connectors on the bottom of the fuse panel/ electrical junction box: black, white, and tan.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

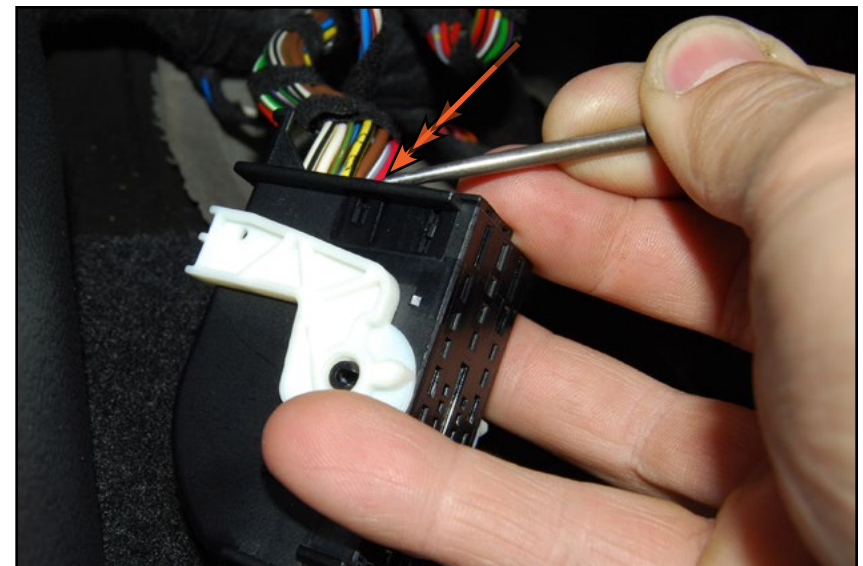
Step 25:

Disconnect the black connector by pushing in on the release tab and pulling down on the white engagement lever. As you pull down on the white lever, the connector will push out of the electrical junction box.



Step 26: Small Pick

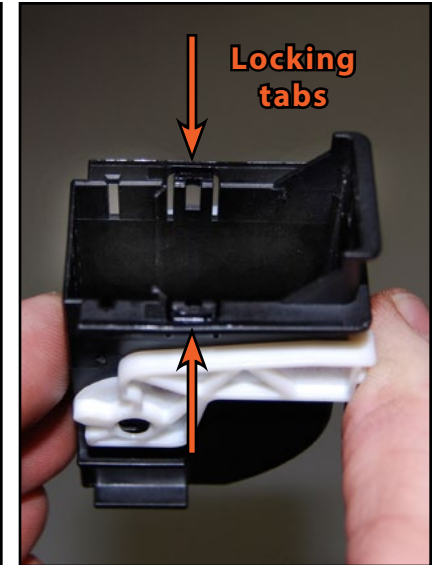
Using a pick, release the small locking tabs on the connector housing and slide the housing off the connector body. Reference step 27 for additional connector detail.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

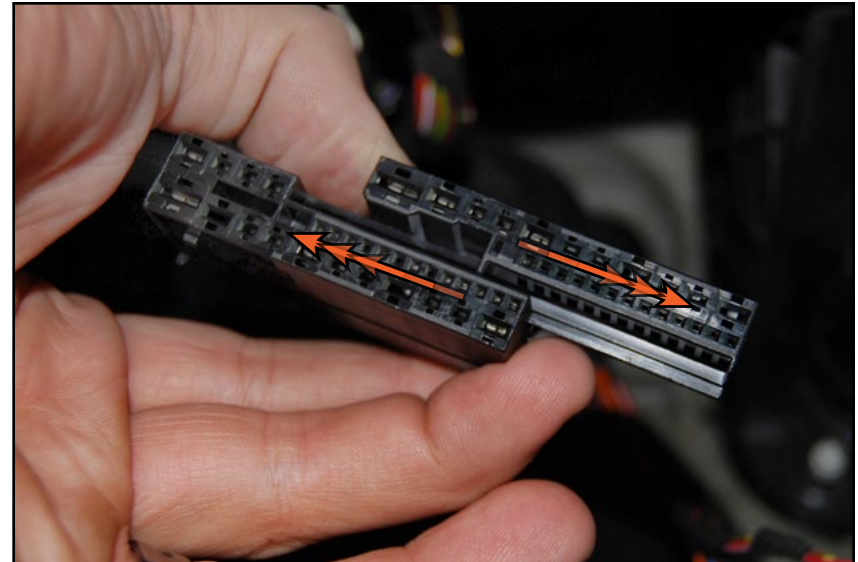
Step 27:

The picture on the left shows the housing as it slides off the connector body. The picture on the right shows the inside of the housing and the locking tabs that must be released.



Step 28:

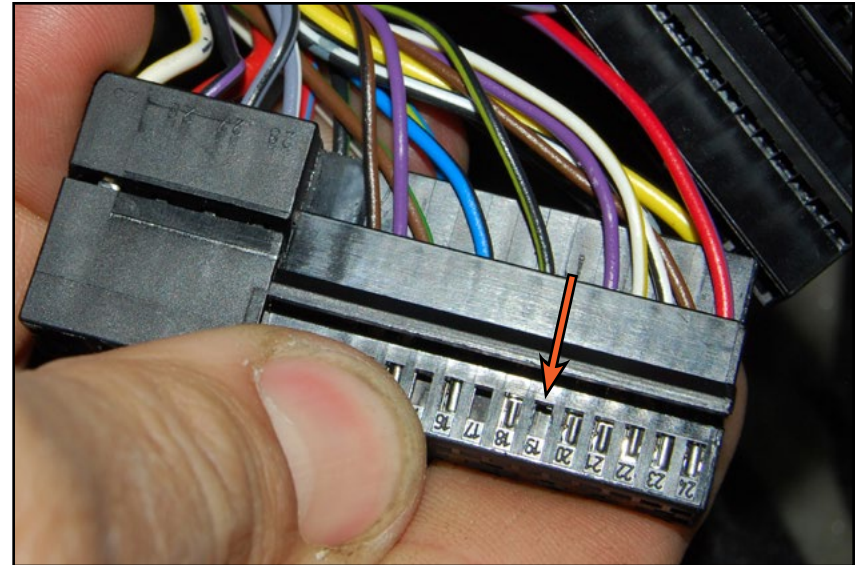
Slide the two halves of the connector body apart as shown in the picture.



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

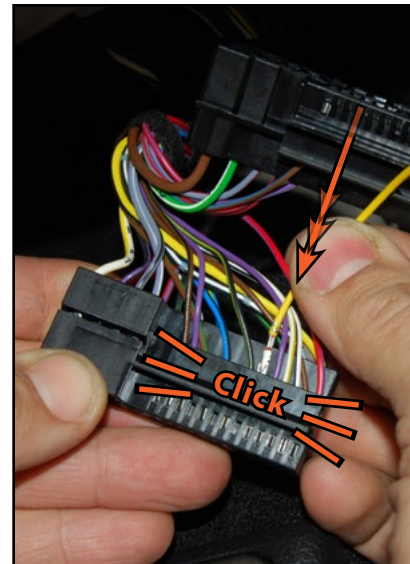
Step 29:

On the lower connector half, locate empty pin location 19 (sixth from the right) between pin 18 (black/green wire) and pin 20 (purple wire).



Step 30:

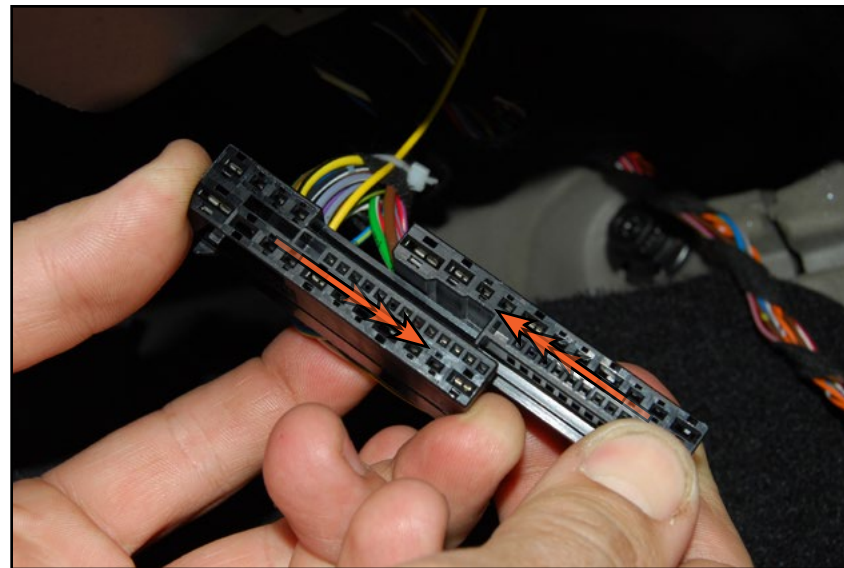
Push the new wire into cavity 19 until you hear a “click” indicating that it is fully seated (LH photo). Secure the new wire with a wire tie as shown, then trim the excess from the wire tie (RH photo).



INSTALLING THE AUTOMATIC HEADLIGHT CONVERSION KIT

Step 31:

Slide the connector halves back together.



Step 32:

Slide the connector housing back on, then reconnect the black connector and the OBDII connector.



LIGHT SENSOR CONFIGURATION

Step 1:

Make sure the headlight switch is in the "OFF" position, then turn the key to the "ON" position.

Partially block the light sensor to simulate a low light situation. The amount of light entering the sensor during configuration will represent the light level at which the headlights are automatically turned on. It is best to simulate an early dusk type of lighting. Configuring the sensor "too dark" may cause the lights to turn off underneath bright street lights.

Turn the light switch to the "AUTO" position, then the "Headlight" position, then back to the "AUTO" position.

Three beeps will indicate the configuration is complete.



You can reconfigure the light sensor at any time using this same procedure if the sensitivity level needs to be adjusted.

VAG-COM CODING (MK5)

Step 1:

09 Central Electronics

07 Long Coding Helper

Long Coding Helper

Uncheck Bit 4 "Daytime Running Lights (North America)"

Save new coding

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Your Automatic Headlight Conversion Kit installation is complete!



These instructions are provided as a courtesy by ECS Tuning

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.

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