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.
Installing the Bremmen 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 Bremmen Automatic Headlight Conversion Kit. We appreciate your business!

**INTRODUCTION**

**Bremmen Automatic Headlight Conversion Kit ES#2771293 ES#2771360**

The Bremmen Automatic Headlight Conversion Kit features the following:
- Converts your VW to automatic headlight operation, an option that is normally only available on top of the line models.
- Comes complete with a new headlight switch and light sensor.
- Simple installation

**MKV Installation:** On MKV Volkswagens, installing this kit will convert your car immediately to automatic operation of the parking lights, dash lights, and taillights. The Daytime Running Lights (DRL's) however will still be functional. For the automatic headlight function to be operable, the DRL's must be turned off using Volkswagen Diagnostic software (VAG-COM). MKV installation requires less steps. Look for the green indicators in these instructions to proceed with the proper steps.

**MKVI Installation:** On MKVI 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.

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REQUIRED TOOLS

Non Marring Trim Tool  
ES#517779

T20 Torx Driver  
ES#11417

Straight and Angled Pick

Side Cutters
BREMMEN AUTOMATIC HEADLIGHT CONVERSION KIT CONTENTS

Headlight Switch
Precut Wire with Terminal Ends - MKVI Only
Light Sensor Module

SHOP SUPPLIES AND MATERIALS

• Hand Cleaner/Degreaser ................................................................. Available at ecstuning.com ................................................................. ES#2167336
• Plastic Wire Ties ................................................................................. Available at ecstuning.com ......................................................... ES#5839
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. Always make sure that the vehicle is securely supported on jack stands.
INSTALLING THE 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.
Pull the headlight switch out of the dash.

Step 4:
Depress the locking tab with your thumb (arrow/highlighted), and pull the connector out of the back of the headlight switch.

MKV Volkswagen only: Skip to step 10.
INSTALLING THE 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:

Using a pick, carefully release the terminal retaining tab on same side as the empty cavity. The inset shows a side view of the connector.
INSTALLING THE 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 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:
Using a non-marring trim tool, remove the fuse panel cover on the LH side of the dash.

NOTE: If you are installing this kit on a MKV, ignore the yellow wire in the pictures.
IN INSTALLING THE 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.

**NOTE**

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

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 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 (MKVI 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.

*MKV Volkswagen only: Skip to step 20.*
INSTALLING THE HEADLIGHT CONVERSION KIT

Step 17:
Secure the new wire to the original harness using a wire tire 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.
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 (MKVI only) and the fuse panel cover on the end of the dash.
 INSTALLING THE 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.

MKV Volkswagen only: Skip to step 34.
Step 23: Using a T20 Torx bit, remove the OBD connector screw.

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

Step 24: Holding the OBD 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 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:
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 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 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).

The pin locations are numbered clearly as shown in the picture. Wire colors may vary depending on options and model year, but the pin location will remain the same.

Step 30:

Push the new wire into cavity 19 until you hear a “click” indicating that it is fully seated.
INSTALLING THE HEADLIGHT CONVERSION KIT

Step 31:
Secure the new wire with a wire tie as shown, then trim the excess from the wire tie.

Step 32:
Slide the connector halves back together.
INSTALLING THE HEADLIGHT CONVERSION KIT

Step 33:
Slide the connector housing back on, then complete the final installation with these steps:

☐ Reconnect the black connector
☐ Re-install the OBD connector

Step 34: Light Sensor Configuration
Perform the following steps to configure the light sensor:

☐ Make sure the headlight switch is in the “OFF” position.
☐ 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.
☐ Turn the light switch to the “Headlight” Position.
☐ Turn the light switch 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 adjustment.

MKV VAG-COM Coding

☐ 09 Central Electronics
☐ 07 Long Coding Helper
☐ Long Coding Helper
☐ Uncheck Bit 4 “Daytime Running Lights (North America)”
☐ Save new coding
Your Bremmen Automatic Headlight Conversion is complete!

These instructions are provided as a courtesy by ECS Tuning.

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