



## VW MK6 2.0T Ignition Wiring Harness Kit Installation Guide - [Click HERE to Shop](#)



**Skill Level**  
**2 - Moderate**  
**Some Experience**  
**Recommended**



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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## 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.

## REMOVING THE FACTORY IGNITION WIRING HARNESS

### Step 1: 10mm Socket & Ratchet

Disconnect the negative terminal (arrow) from the battery.



### Step 2: Hose Clamp Pliers, T30 Torx Socket & Ratchet

Remove the engine cover and the intake system.





## REMOVING THE FACTORY IGNITION WIRING HARNESS

### Step 3:

Disconnect the connectors (highlighted in **RED**) from the ignition coils.



### Step 4: Angled Pick Tool

Release the retaining tabs and remove the wiring harness channel (highlighted in **RED**).



## REMOVING THE FACTORY IGNITION WIRING HARNESS

### Step 5:

Pull the vacuum lines (highlighted in **RED**) free from the fitting on the vacuum pump on the LH side of the engine.



### Step 6: Razer Blade

Carefully cut back the protective wrap/tape on the factory ignition wiring harness (highlighted in **RED**), freeing the ignition coils connector wires from the rest of the harness.





## REMOVING THE FACTORY IGNITION WIRING HARNESS

### Step 7: Razor Blade

Carefully cut away the wire loom (highlighted in **RED**) to be flush with the plastic elbow (arrow).

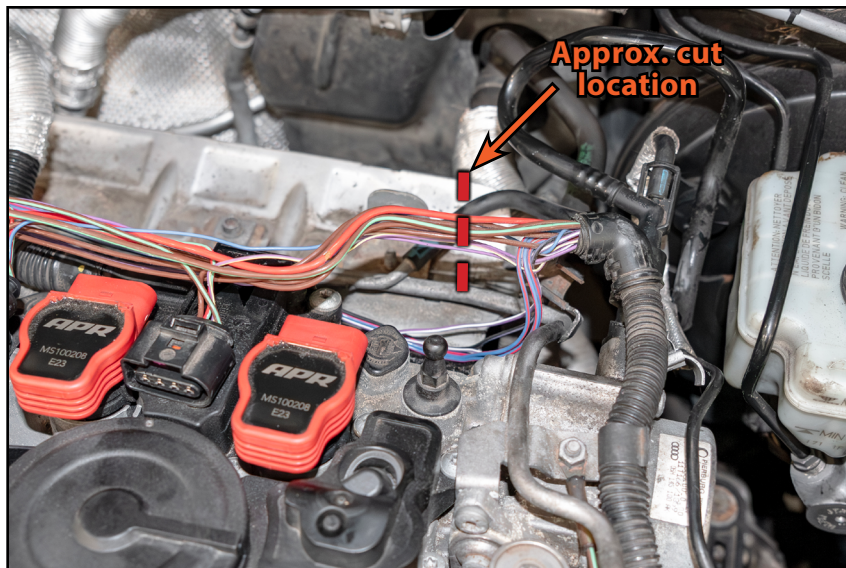


### Step 8: Wire Cutter



**STOP!** You are ready to remove the original harness, all you have to do is cut the wires, however once you do your vehicle will be inoperable until you complete the installation. Please read the **ENTIRE** installation procedure and make sure you have all of the required tools before cutting any wires.

Separate the ten OE ignition coil wires from the rest of the wiring harness and carefully cut the OE ignition coil wires in the location shown (**RED** lines), being sure to leave a small length of wire on either side.



## PROPER TERMINAL CRIMPING TECHNIQUE

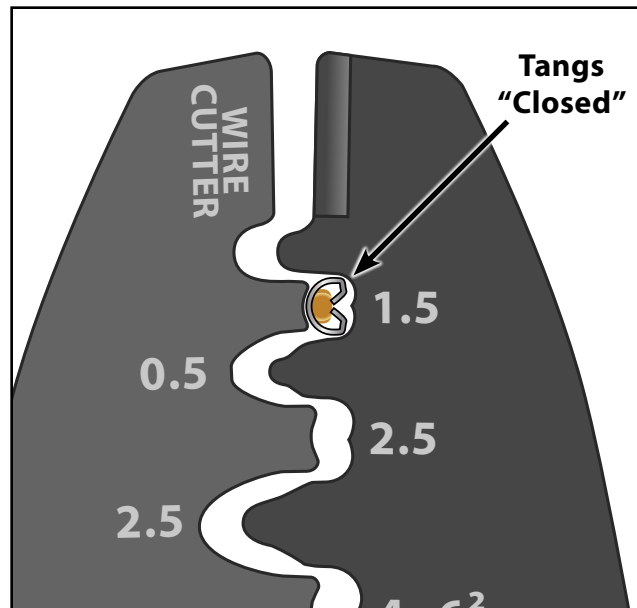
### Step 1: Wire Stripper/Terminal Crimper Pliers

Now let's take a moment and look at how the terminals need to be crimped. A proper pair of wiring terminal crimpers will take the "tangs" on the terminal and roll them down and in, this makes for a solid and strong connection. Make sure that the "tangs" are completely pressed down into the wire, and give the wire a quick tug to make sure it is secure.

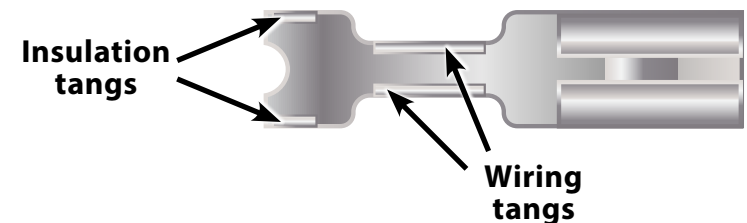
The diagram on the right shows the tangs and how they "roll" inwards and down onto the wire/insulation, the "wiring tangs" are meant to crimp onto the exposed wire, and the "insulation tangs" are meant to crimp onto the wire seal.

This diagram shows a terminal being crimped inside the wiring terminal crimpers, notice how the tangs roll back towards the wire and secure it in place.

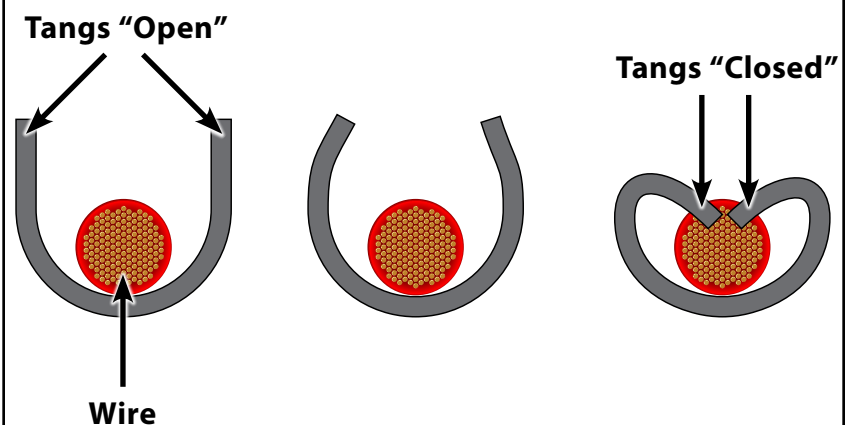
**Please note:** This style of crimp is for newer terminals, many old style crimpers WILL NOT have the correct crimp dies and WILL NOT work for this install.



### Terminal Top View:



### Terminal Back View:



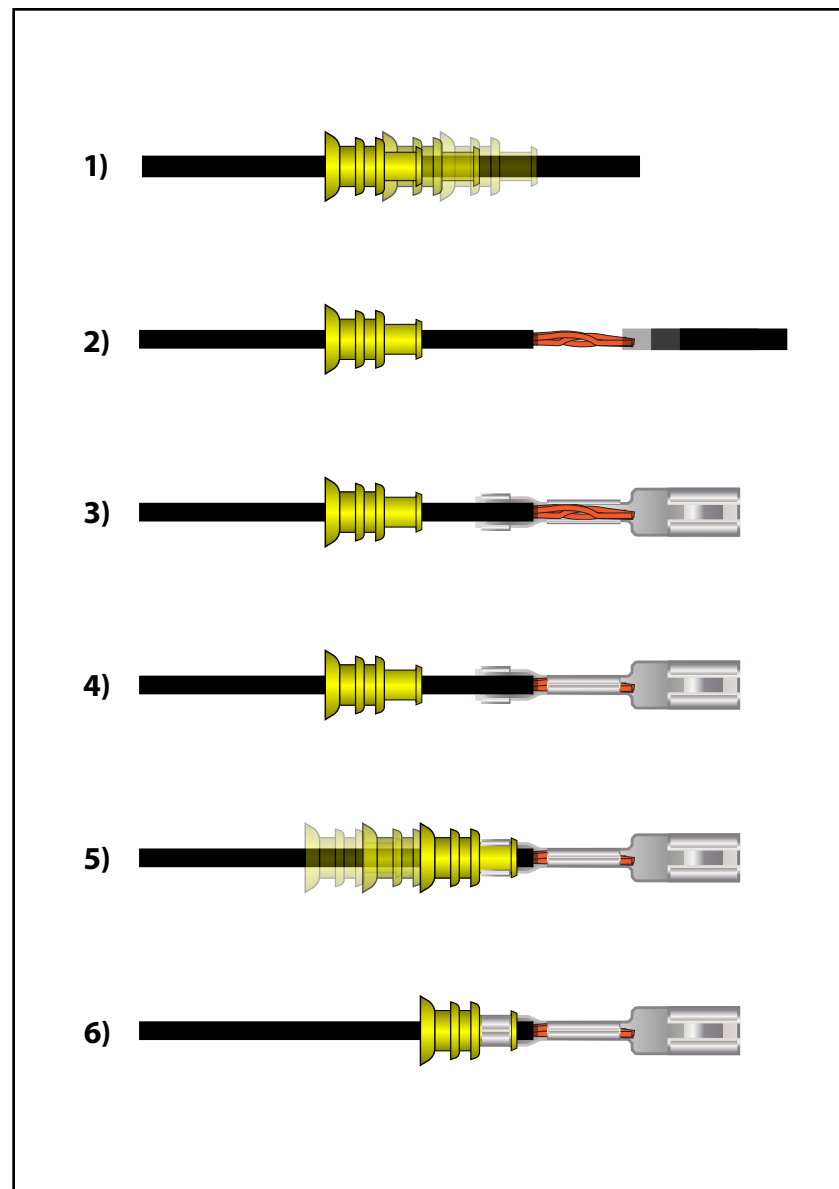
## PROPER TERMINAL CRIMPING TECHNIQUE

### Step 2: Wire Stripper/Terminal Crimper Pliers

Please take a moment to familiarize yourself with the correct procedure for crimping a wiring terminal.

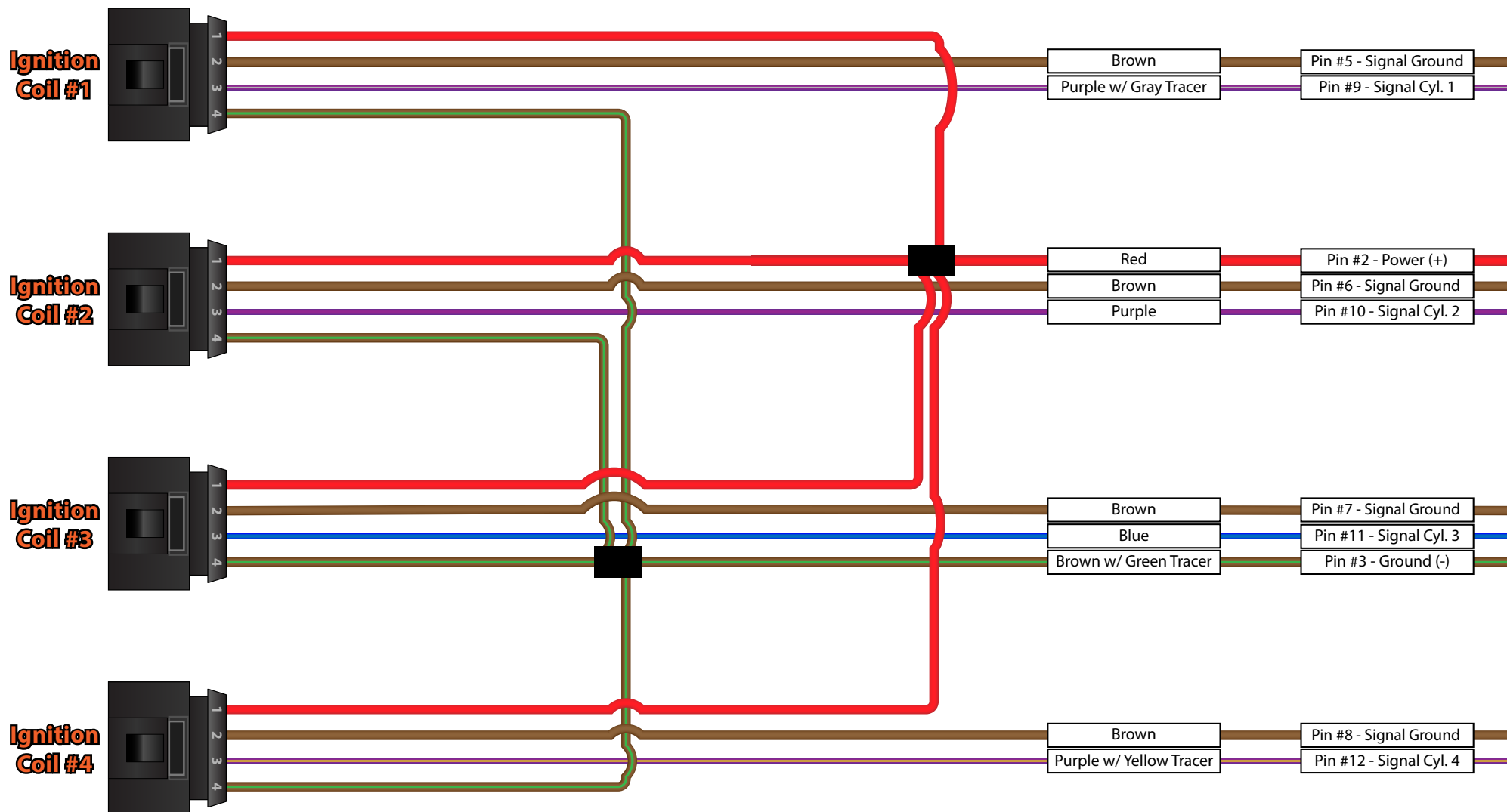
Terminal crimper pliers are used to close the “tangs” on the terminal onto the wire and insulation, creating a firm and solid electrical connection.

1. Slide the rubber seal onto the wire (**DO NOT** forget to do this **BEFORE** you crimp the terminal onto the wire).
2. Strip the wire back approximately  $\frac{1}{4}$ ”.
3. Line up the wire in the terminal so that the exposed wire is lined up with the wiring tangs, and the insulation tangs are lined up with the wire insulation.
4. Insert the terminal into the appropriately sized crimping die, then squeeze the crimper until the wiring tangs are seated down onto the wire. #4 in the illustration shows us what the first crimp should look like, notice how the tangs are wrapped around the exposed wire. Gently tug on the wire to make sure the crimp is secure, if the wire pops out it may be possible to spread the tangs slightly with a small pick and then crimp the connection again.
5. Slide the rubber seal up the wire until the front of the seal is aligned with the insulation tangs on the terminal (see #5 in the illustration on the right).
6. Insert the terminal into the appropriately sized crimping die, then squeeze the crimper until the insulation tangs are seated down onto the seal. #6 in the illustration shows us what the finished crimp should look like, notice how the insulation tangs are wrapped around the wire insulation. This terminal is now ready to be inserted into the connector.





## IGNITION WIRING HARNESS DIAGRAM



# INSTALLING THE NEW IGNITION WIRING HARNESS KIT

## Step 1: Wire Stripper/Terminal Crimper Pliers

Using the process we reviewed on the last 3 pages, install seals and terminals onto each of the ten ignition coil harness wires. There are four smaller terminals for the 18awg signal wires, and six larger terminals for the 14awg wires. Be sure to give each wire a small "tug" to check that the terminal is firmly crimped into place.

Using the chart below, insert all ten wires into the slots in the included 12-pin connector as shown in the photo, ensuring that each of the locking tabs in the connector snap into the matching slot in the terminals (see illustrations below). Install the provided blank seal plug into the unused slots.

**Blank Seal Plug -> Slot 1**

**14awg Red Wire -> Slot 2**

**14awg Brown w/ Green Tracer Wire -> Slot 3**

**Blank Seal Plug -> Slot 4**

**14awg Brown Wires -> Slot 5, 6, 7 & 8**

**18awg Purple w/ Gray Tracer Wire -> Slot 9**

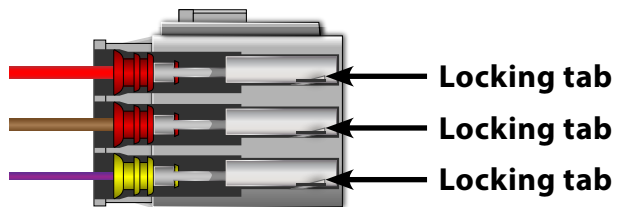
**18awg Purple Wire -> Slot 10**

**18awg Blue Wire -> Slot 11**

**18awg Purple w/ Yellow Tracer Wire -> Slot 12**



**12-pin connector (as viewed from behind)**



**12-pin connector (as viewed from side)**



Wrap the exposed wires on the rest of the OE wiring harness (highlighted in **GREEN**) using the provided fabric wiring harness tape. Reconnect vacuum lines to the vacuum pump.



Connect the new ignition wiring harness (highlighted in **GREEN**) to the newly pinned connector, ensuring the retaining tab clicks into place. Connect the ignition coil connectors as shown.

- ☐ Reinstall the intake system and engine cover.
- ☐ Reconnect the negative battery terminal.
- ☐ Start the engine and make sure that it runs smoothly.
  - This indicates that all of the wires have been properly connected.



***Congratulations, your installation is complete!***



## Your Ignition Wiring Harness installation is complete!



### These instructions are provided as a courtesy by ECS Tuning

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