



Introduction

Thank you for purchasing this Unichip Plug-n-Play (PnP) kit. The Unichip system differs from run-of-the-mill “reflash” tuning products because it’s a fully functional programmable tuning computer integrated into the vehicle’s stock management system via the PnP harness.

The concept of a “piggy-back” tuning computer such as our legendary Unichip is that it intercepts signals from engine sensors, changes these signals according to timing and fuelling algorithms formulated by our tuners and then feeding the modified signals back to the vehicle’s stock Engine Control Unit (ECU) to create the desired changes such as timing advancement and fueling manipulation.

The PnP harness connects between the stock vehicle sensor male and female connectors: we disconnect a stock connector, plug our connector into the sensor, then plug the stock connector into the back of our connector. Our highly dependable PnP harnesses comprise predominantly Original Equipment (OE) terminals and connectors and only the finest SAE specification wiring. Coated fiberglass heat shielding is used in heat sensitive areas.

In this Jeep Wrangler 3.6 kit, the PnP harness ties into three engine sensors, namely the Throttle Body, the MAP sensor, and the Crank sensor, so in each instance you will disconnect the factory connectors from its sensor, plug the Unichip PnP harness male connectors into the sensors, then plug the stock connectors into the PnP harness female connectors.

The Unichip is powered from the vehicle’s battery and “wakes up” and “falls asleep” according to the stock ECU cycle, which is not necessarily the same time as when the ignition key is turned on or off. At first glance the installation may seem daunting, but if you carefully follow the instructions you will find it straight forward. Installation time should be about 25 minutes with approximately an extra 15 minutes if you choose to install the Flux2 Display as well.

Please carefully read the instructions completely before commencing the installation. Familiarize yourself with the relevant sensors according to the pictures and pay special attention to the correct routing of the PnP harness. Also pay careful attention to how the connectors are “unlocked” before they can be removed as none of the connectors are designed to merely “pull-off:” each one has a button or two which needs to be depressed before the connector will disconnect.

Application

Note that the battery on right hand drive vehicles is located on the opposite side of the engine bay and this kit is not designed for those vehicles. Owners who choose to modify a harness to work on right had drive Jeeps do so at their own risk and UNA assumes no responsibility for modified harnesses.

Mapping

Each kit is pre-programmed at the factory to suit specific bolt-on part configurations. Our tuners optimize tuning parameters carefully to maximize engine performance based on the various bolt-on parts. So if you select a map for instance for your Volant Cold Air Intake, rest assured that we have spent hours perfecting mapping for that exact intake. You will notice that we do not need to know by brand which cat back exhaust you have, nor are we concerned with things that do not affect engine tuning such as throttle body spacers or larger tires.

When you order your PnP kit without the Flux2 Display, the kit will be programmed with two maps, usually a regular gas map and a premium map, both maps being optimized for the specific bolt on parts on your Jeep. You may switch between maps by means of our 2-way switch which is connected to the PnP harness' COMM port. The switch may be stowed in the engine compartment or you may route it into the cabin for ease of access. The position of the map switch relative to which map the particular position selects is discussed later on in the instructions. Should you upgrade the kit to our Flux2 Display, the Unichip in the kit will be programmed with 5 maps to suit bolt-on parts, typically: a low octane map, a mid-octane map, a premium map, a premium no-tow map, and a valet map. The Flux2 display shows which map is selected and displays a brief description of the map.

Since the Unichip is a self-contained computer, it can be re-programmed an infinite amount of times. So should you add parts to your Jeep in the future, we can provide maps to suit. Should you decide to ever sell your Unichip PnP kit, it can be re-programmed to suit a new owner's specific vehicle.

Warnings and Cautions

Please pay very special attention to warnings, cautions & tips printed in red in these instructions. Even experienced mechanics occasionally "forget" to secure a wiring harness with a cable tie, or inadvertently leave a wrench or two under the hood after work has been completed!

Thanks again for purchasing the kit, we are sure that you will enjoy the benefits!

Before you begin

Please pull the packing checklist out of the kit's Welcome Pack and inventory and review the parts before starting to work. If you discover any missing parts, please contact UNA before installing the kit.



Jeep Wrangler JK, MY12+, 3.6L, LHD vehicles Unichip PnP Installation Instructions and Warranty Information

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Tools required

Medium sized flat-tip screwdriver, Phillips screwdriver, small side cutters, 10mm wrench, 10mm socket, ratchet and long extension, small box cutter, workshop creeper or something soft to lie on when working under vehicle

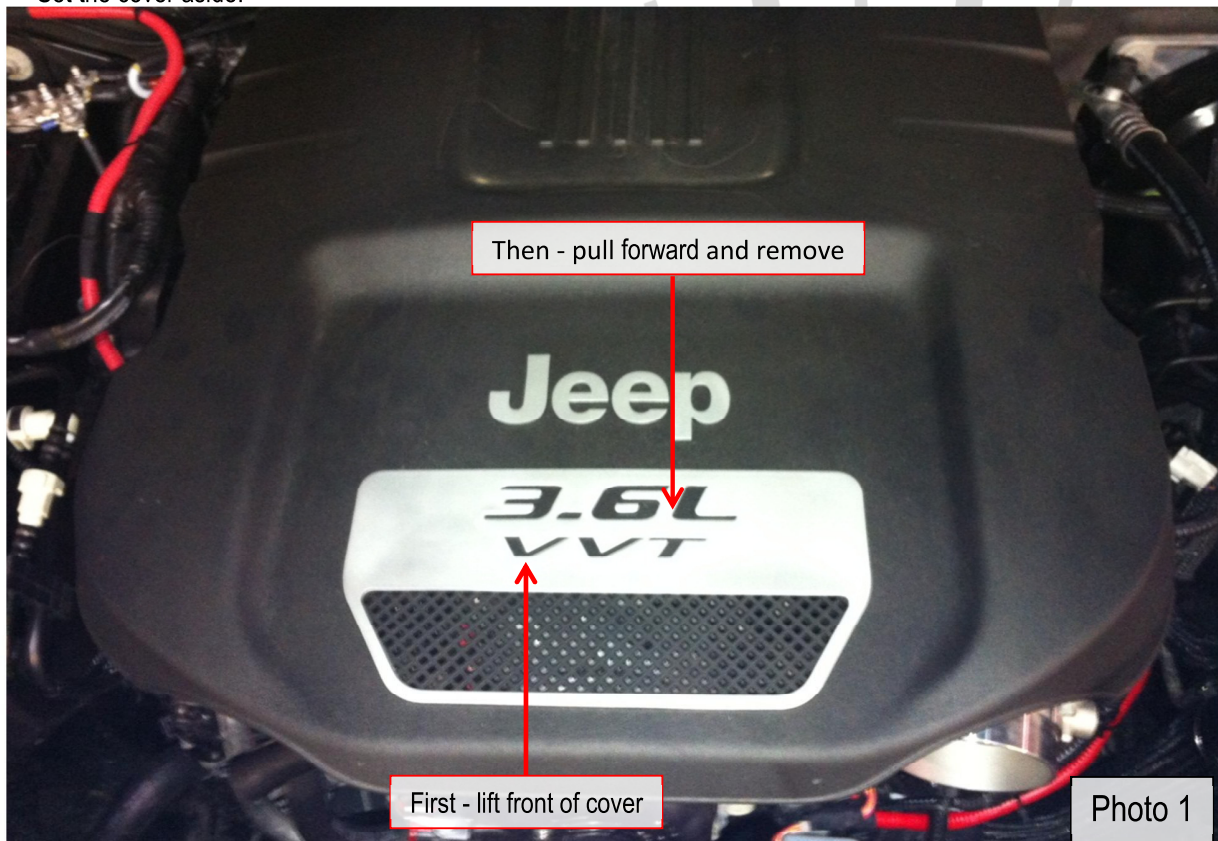
Cautions

1. Do not work on a warm vehicle! You may be severely burnt on hot engine components, especially exhaust and cooling system components! Allow the vehicle at least an hour to cool down before beginning work.
2. Never lean over a running engine, even "just to have a look!"
3. Be extremely careful when working underneath a vehicle especially when it has been raised by a jack. Never work under a raised vehicle without correctly installed axle stands. Jacked up vehicles must be rested on sturdy axle stands placed correctly on the chassis.
4. Always work on a level, safe surface.
5. Carefully follow all instructions and heed all cautions and warnings contained in these instructions. If anything is unclear or if you need any help whatsoever, contact Unichip of North America.

1. Park vehicle in a safe, level area. Apply park brake.
2. Turn off ignition and wait ten minutes.

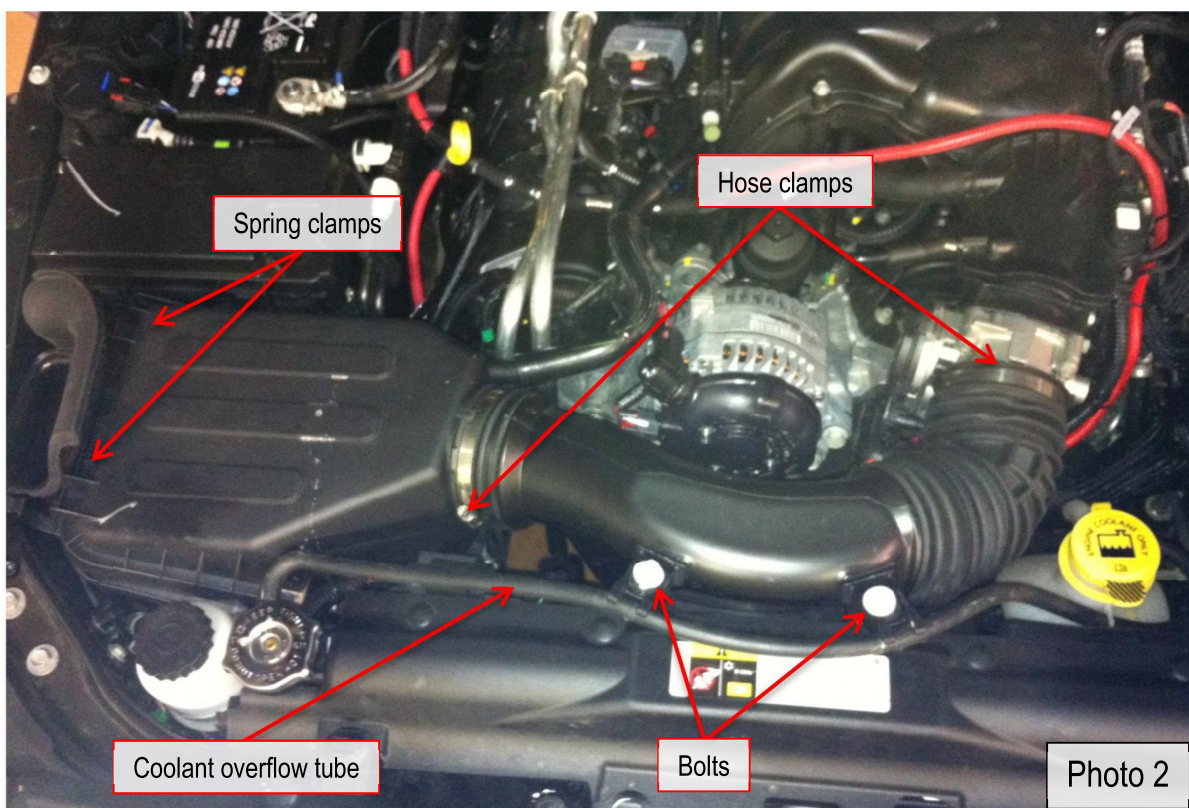
Caution: If the engine is warm, wait at least one hour before commencing any work.

3. Using a 10mm wrench, disconnect battery negative terminal.
4. (Photo 1) Remove the plastic engine cover by lifting the front edge up then pulling it forward to clear the engine. Set the cover aside.



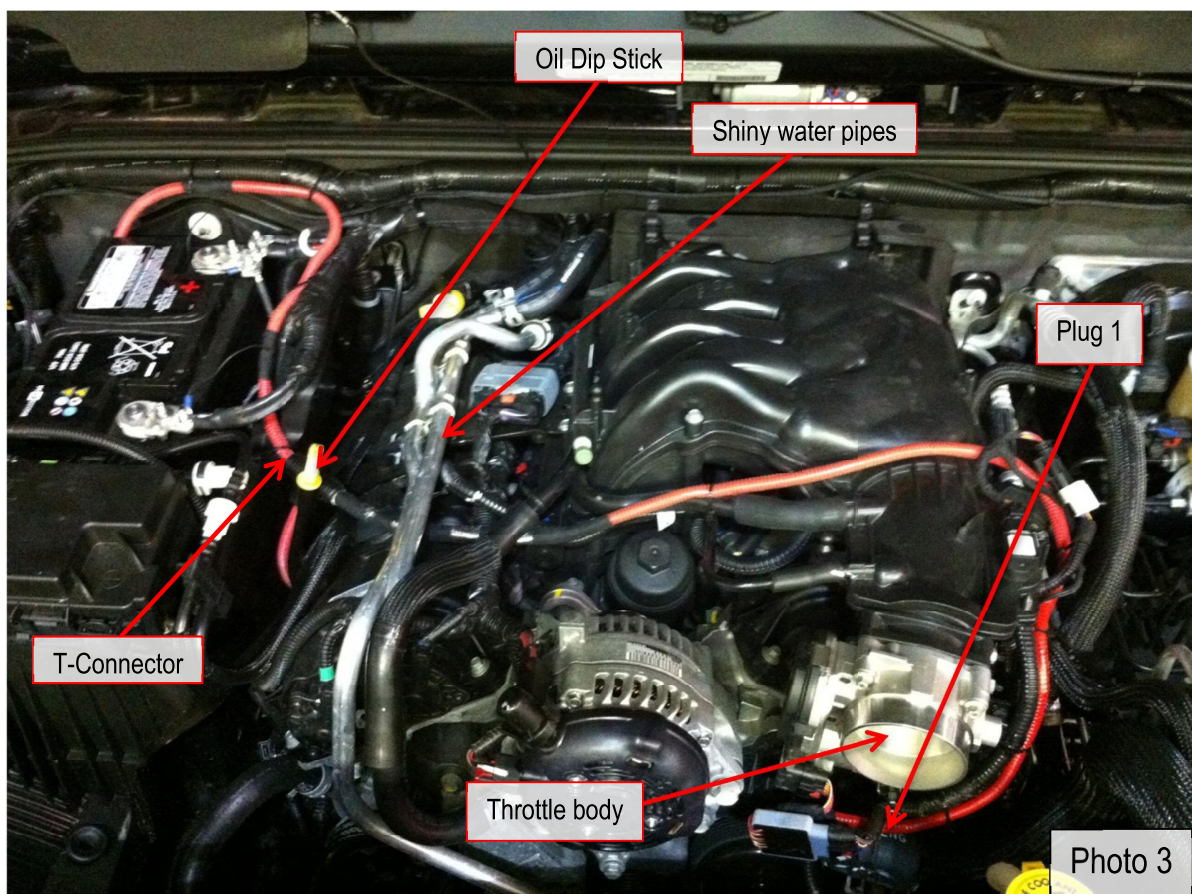
5. (Photo 2) Remove the complete air box and intake tube.

- a. Release the spring clips securing the air box lid.
- b. Using a screwdriver, remove the hose clamp securing the intake tube to the air box.
- c. Using a screwdriver, remove the hose clamp securing the intake tube elbow to the throttle body.
- d. Using a 10mm wrench or socket, remove the two bolts securing the intake tube to the top of the radiator.
- e. Unclip the radiator overflow hose from the air tube.
- f. Remove the air box lid and intake tube from the engine bay and set them aside.
- g. Lift out the bottom of the air box and set it aside.



6. Install the PnP Harness

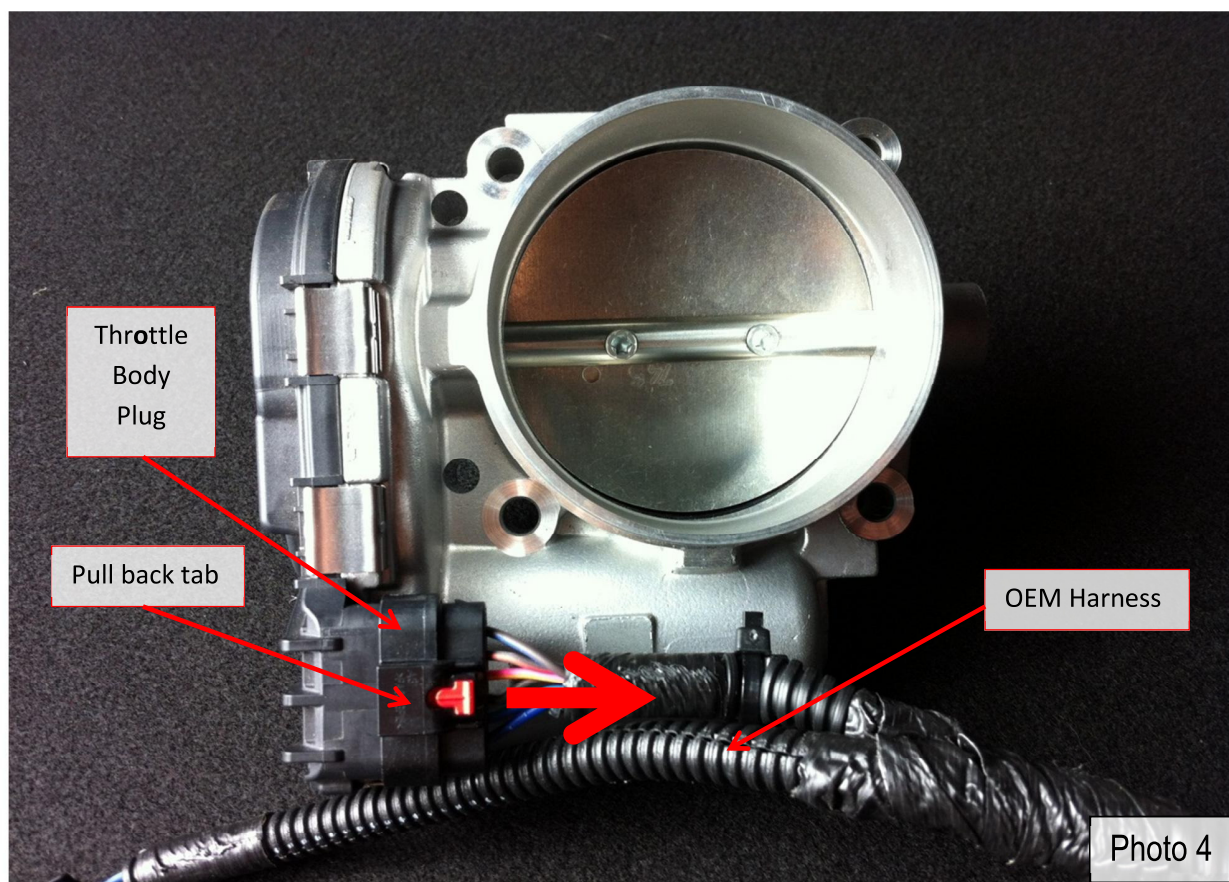
- a. (Photo 3) Locate the throttle body on the front of the engine.
- b. Locate PnP Harness's **Plug 1** and black plastic T-Connector.
- c. Standing beside the passenger side of the engine compartment, lay the PnP Harness loosely on the engine, close to the battery.
- d. Route PnP Harness **Plug 1** underneath the two shiny water pipes running over the top of the engine and position the black plastic T-Connector next to the dipstick tube.
- e. Pull PnP Harness Plug 1 across the engine and around the throttle body.



7. (Photo 4) Install **Plug 1**

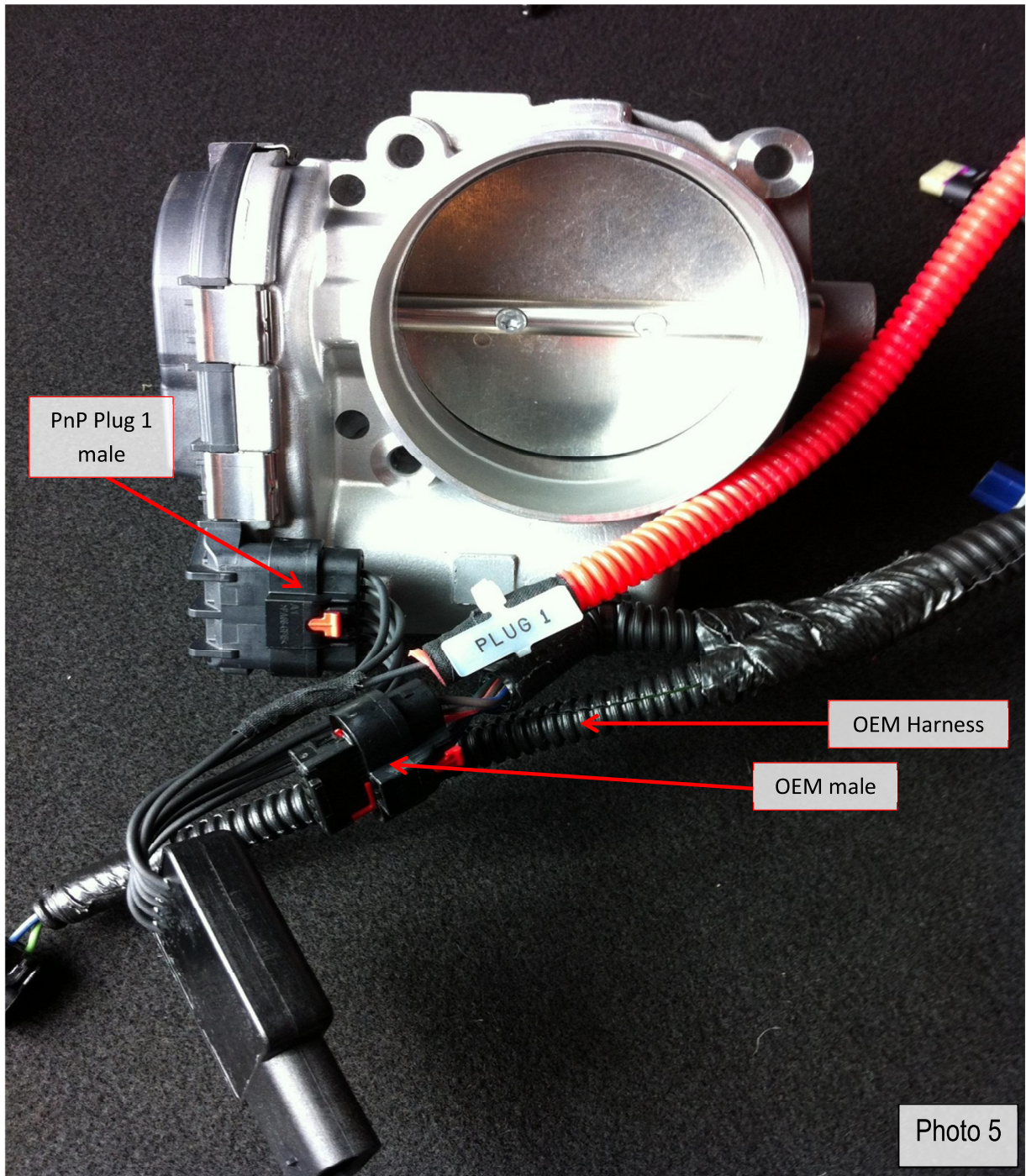
- a. Locate the OEM connector below the throttle body.
- b. Pull back the red locking tab to release the plug
- c. Remove the plug by pressing down the red tab and the black tab underneath it and pulling the plug straight out.

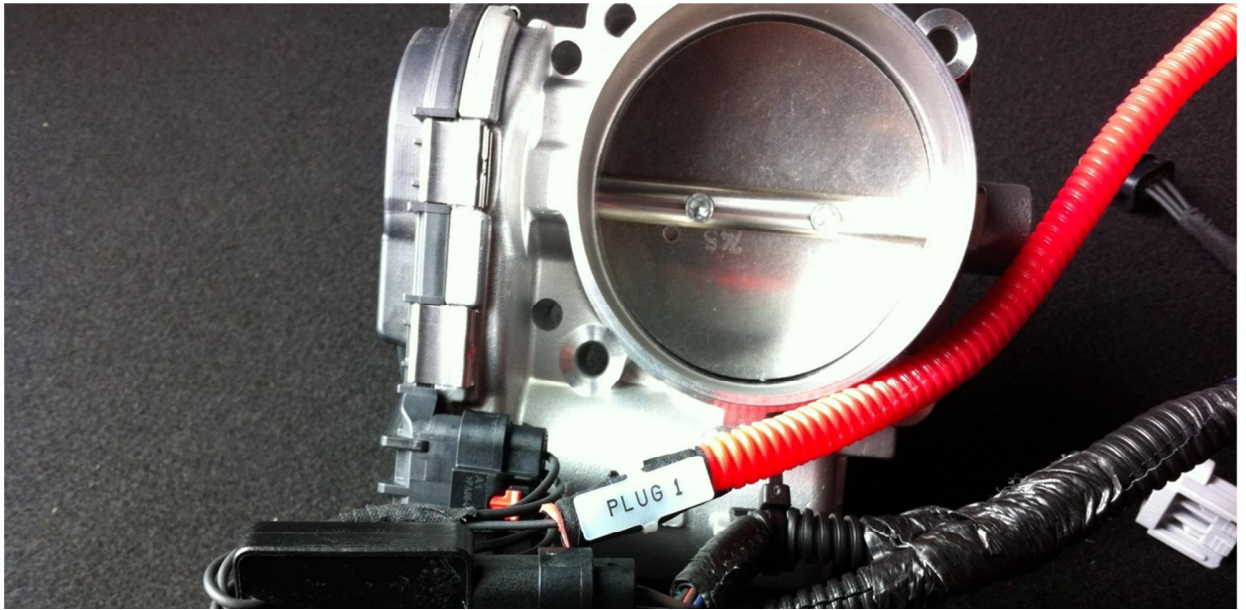
Note: (1) For simplicity, the throttle body is shown removed from the engine. (2) Do not force the plugs; if the plug does not want to pull out, either the red locking tab is not pulled all the way back or the red and black tabs are not being pushed down far enough. (3) Ensure to insert the plugs straight into the connector to avoid bending any pins.



8. (Photo 5) Now insert the PnP Harness's **Plug1** male into the throttle body connector. Ensure the connector "clicks" as it locks into place. Slide the red locking tab forward to lock the plug.

Note: (1) For simplicity, the throttle body is shown removed from the engine. (2) Do not force the plugs; if the plug does not want to pull out, either the red locking tab is not pulled all the way back or the red and black tabs are not being pushed down far enough. (3) Ensure to insert the plugs straight into the connector to avoid bending any pins.





ERROR: undefined
OFFENDING COMMAND: ~

STACK:

-savelevel-