

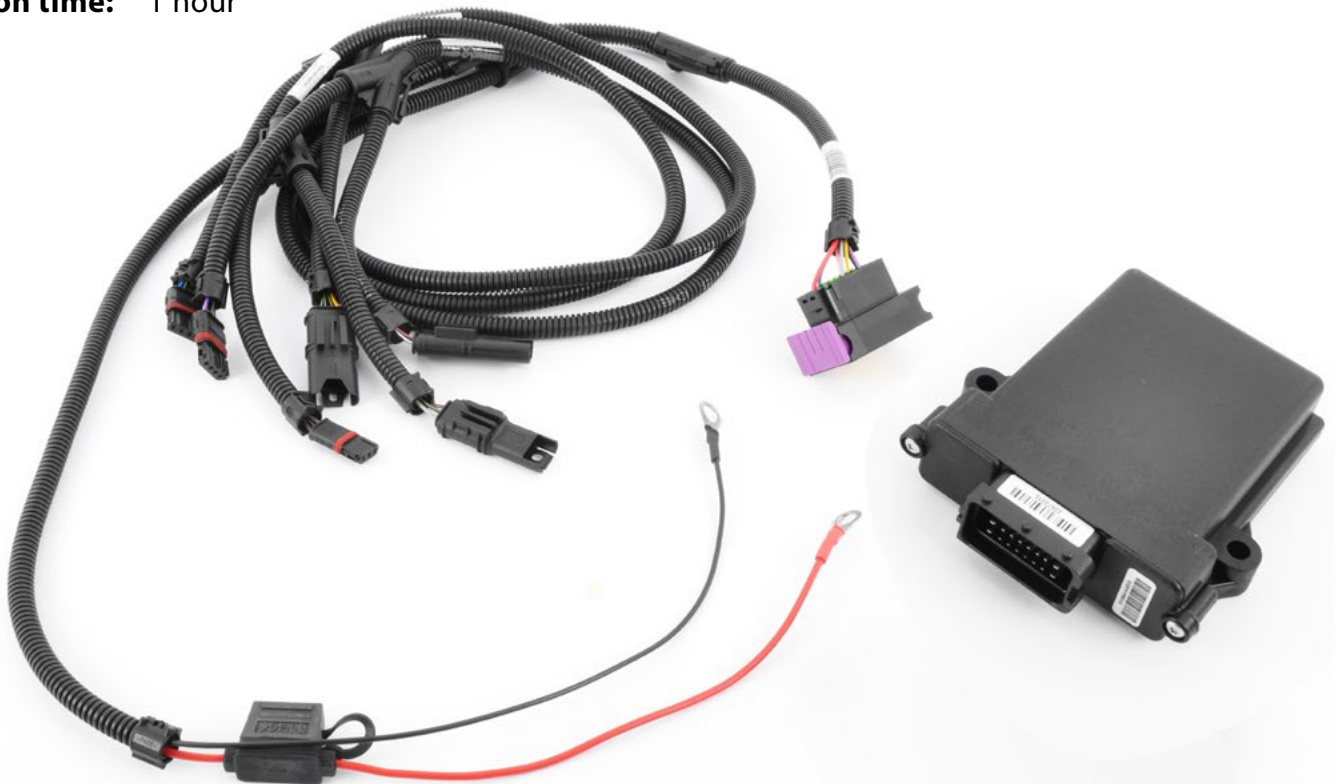


BMW N63 Performance Module Installation Instructions

Introducing the Turner Performance Module! This tuning module plugs in ahead of the engine computer on the wiring harness. It's not the run-of-the-mill 'piggy-back' style upgrades you find for less. Inside our module is a sophisticated control unit that is designed to complement and work with the factory ECU. This unit intercepts the signals from the boost pressure sensors and the camshaft position sensor to alter the ECU perception of load. The ECU then adjusts parameters such as fueling, ignition, and others to reach the desired load levels, resulting in more horsepower and torque. The harness has factory-style weather-proof plugs to connect in-line with each boost pressure sensor and the camshaft position sensor on the engine. All of the factory safeguards remain in place, including overload protection and warm-up protocols to preserve longevity and factory driveability, and this type of system is unaffected by factory BMW updates and service.

If you're looking for a substantial bump in power output, with minimal downtime for installation, full serviceability, and easy conversion back to stock, then the Turner Performance Module is unbeatable!

Installation time: 1 hour

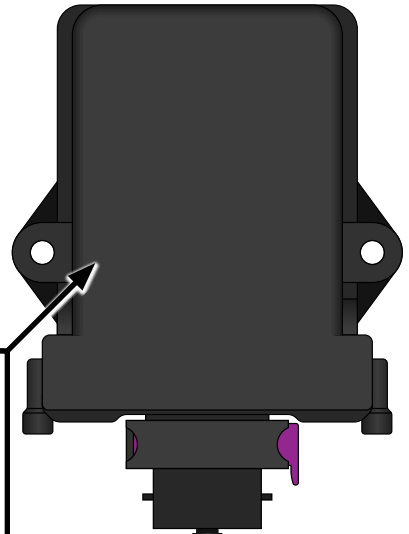


These installation instructions have been broken up into several sections:

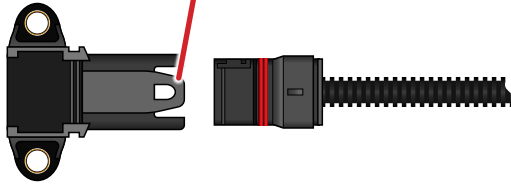
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|---|--------------------------|
| 1) TPM Harness Types (Early vs. Late Production N63) | (Page 2) |
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Section 1: TPM Harness Types (Early-Production N63 Engines)

- The Turner Performance Module has been loaded with model-specific calibrations and must be installed properly to avoid damage to the components or to the vehicle.
- This harness has been designed for several engines, including the late-production N63. This means that the labeled harness leads might not match up to the sensors you will be plugging them into, so please be sure to read all of these instructions as well as the **RED** note boxes below before installing the kit onto your vehicle.
- The wiring harness has been designed to be connected between the OEM engine wiring harness and both boost pressure sensors, and any **ONE** of the camshaft position sensors.
- No permanent modifications to the vehicle are required.
- Do not modify the kit or harness in any way.



NOTE: Boost pressure sensors on early-production N63 engines utilize a lock on the **SENSOR**, not on the harness



NOTE: This end of the Turner harness may be marked: **"Boost Pressure Sensor"**

Connects to engine wiring harness



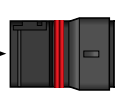
Connects to boost pressure sensor #1 (located on the RH bank intercooler)



Connects to engine wiring harness

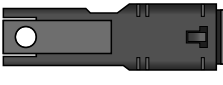


Connects to boost pressure sensor #2 (located on the LH bank intercooler)



NOTE: This end of the Turner harness may be marked: **"Manifold Air Pressure"**

Connects to engine wiring harness

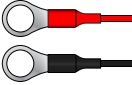


Connects to camshaft position sensor (located on top of each valve cover near the front)



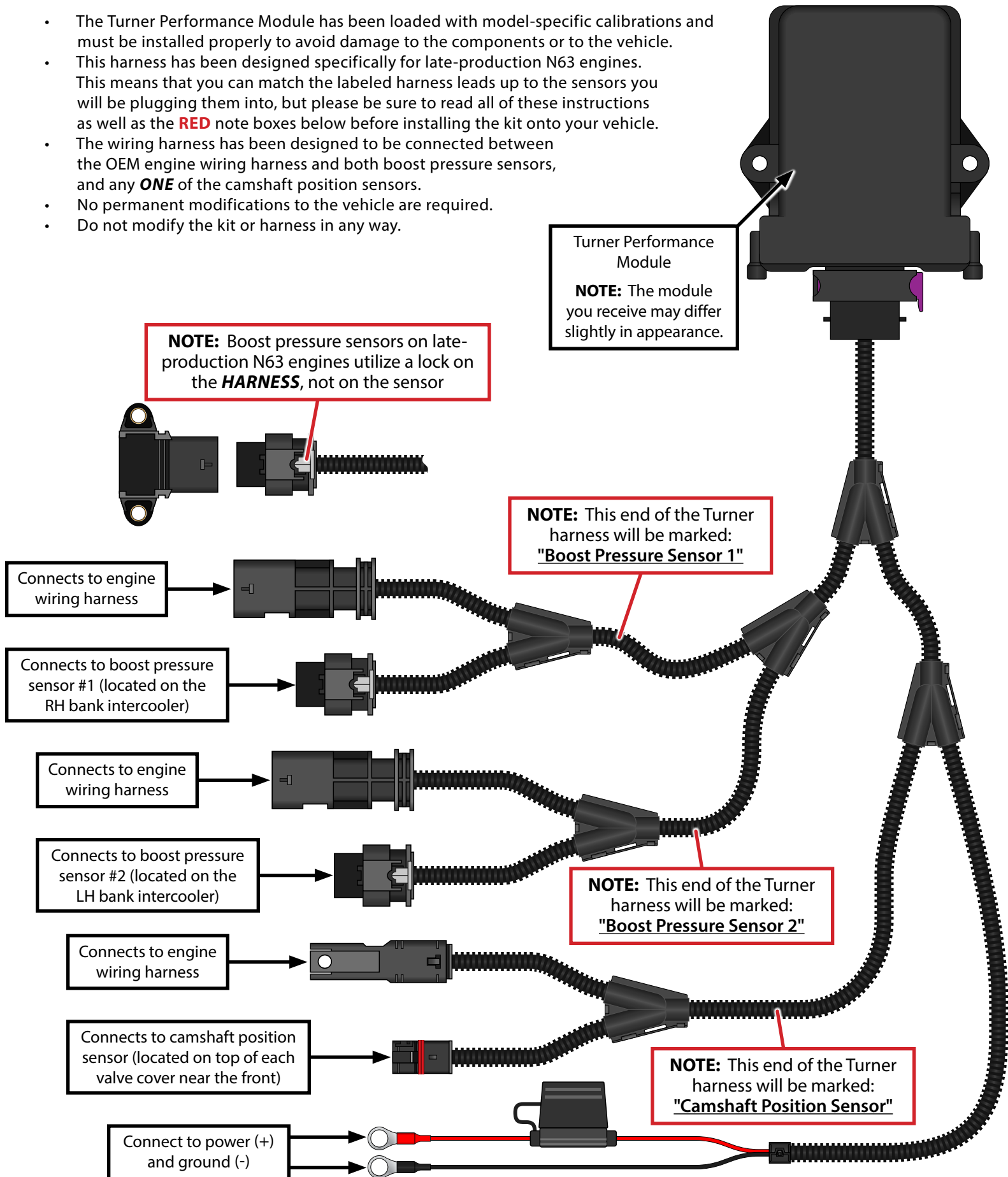
NOTE: This end of the Turner harness may be marked: **"Camshaft Position Sensor"**

Connect to power (+) and ground (-)



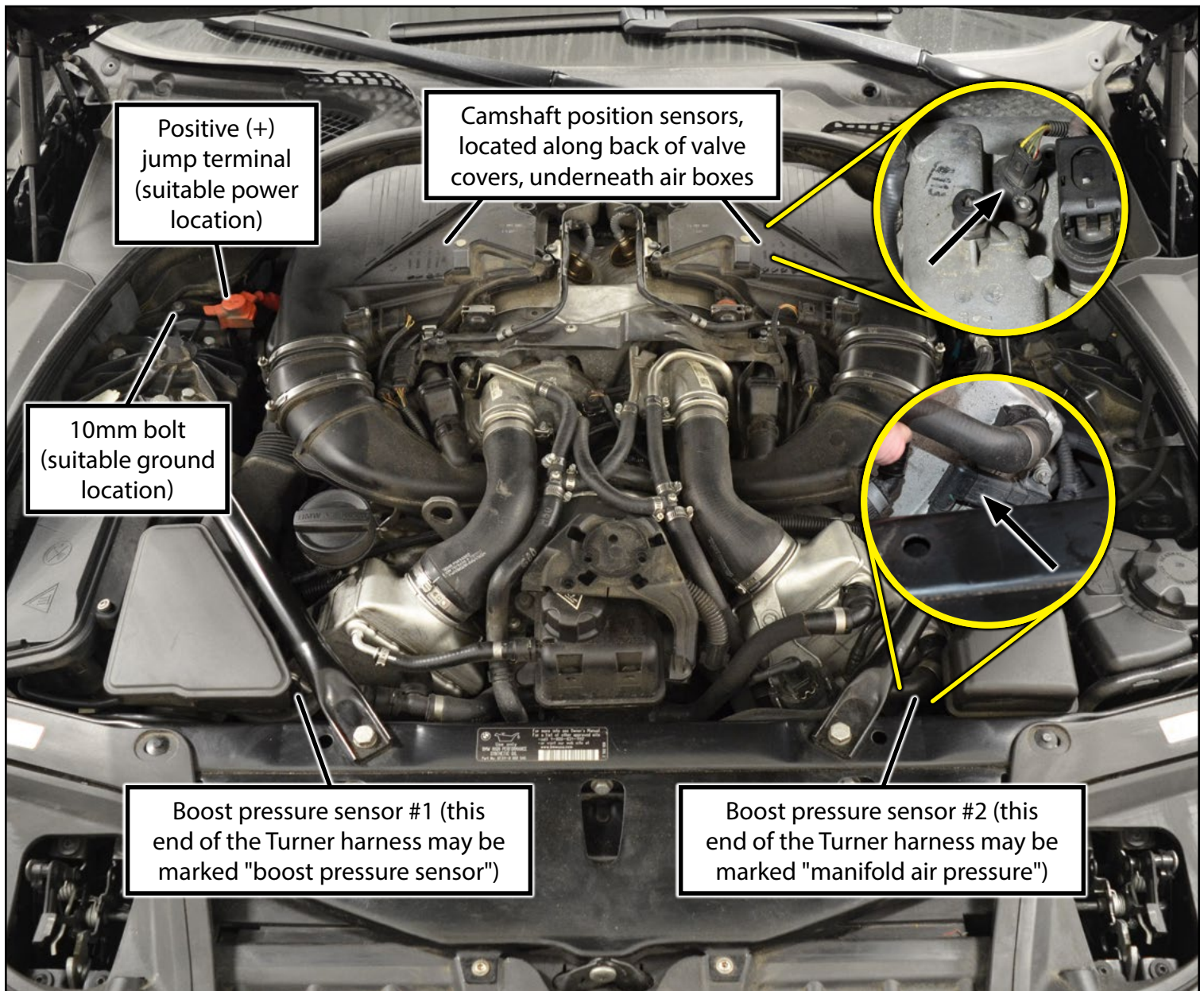
Section 1: TPM Harness Types (Late-Production N63 Engines)

- The Turner Performance Module has been loaded with model-specific calibrations and must be installed properly to avoid damage to the components or to the vehicle.
- This harness has been designed specifically for late-production N63 engines. This means that you can match the labeled harness leads up to the sensors you will be plugging them into, but please be sure to read all of these instructions as well as the **RED** note boxes below before installing the kit onto your vehicle.
- The wiring harness has been designed to be connected between the OEM engine wiring harness and both boost pressure sensors, and any **ONE** of the camshaft position sensors.
- No permanent modifications to the vehicle are required.
- Do not modify the kit or harness in any way.



Section 2: Overview

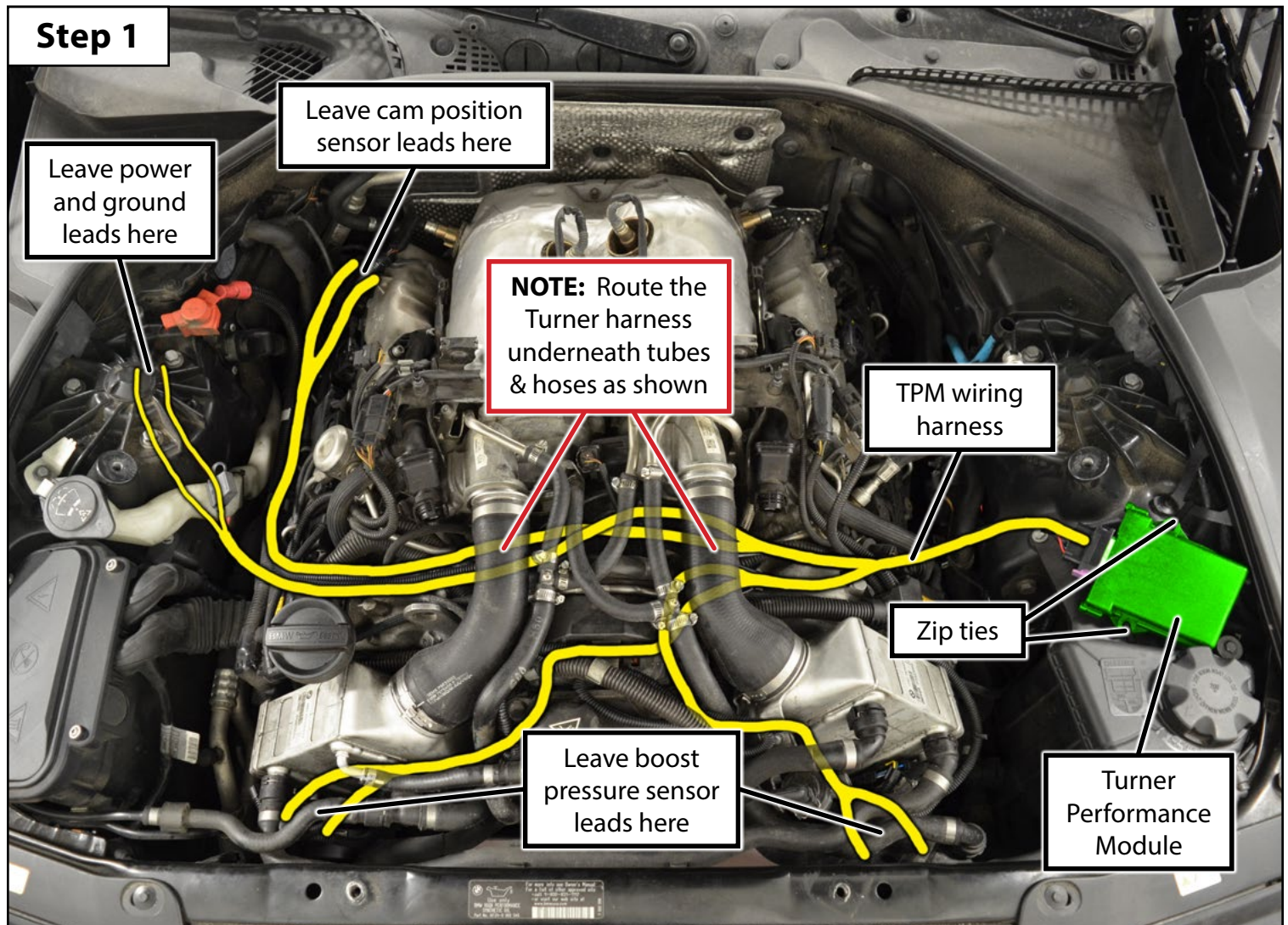
- We will be showing you one specific mounting location for the Turner Performance Module in these instructions, but you can choose another suitable location if so desired (one such alternative location would be in the empty space underneath the rain tray cover).
- When selecting a mounting location for the module, be sure that the answers to the following questions are **YES**:
 - Will the module be easily accessible if you want to install the valet plug and bypass the module?
 - More information on the valet plug can be found on Page 8.
 - Will the module be adequately protected from water, surrounding components, or anything else which could damage it?
 - Can the wiring harness be safely routed to this location without stretching it, or modifying it in any way?
- Reference the photos below for component locations, then proceed to the next page for installation instructions.



Section 3: Installation Instructions

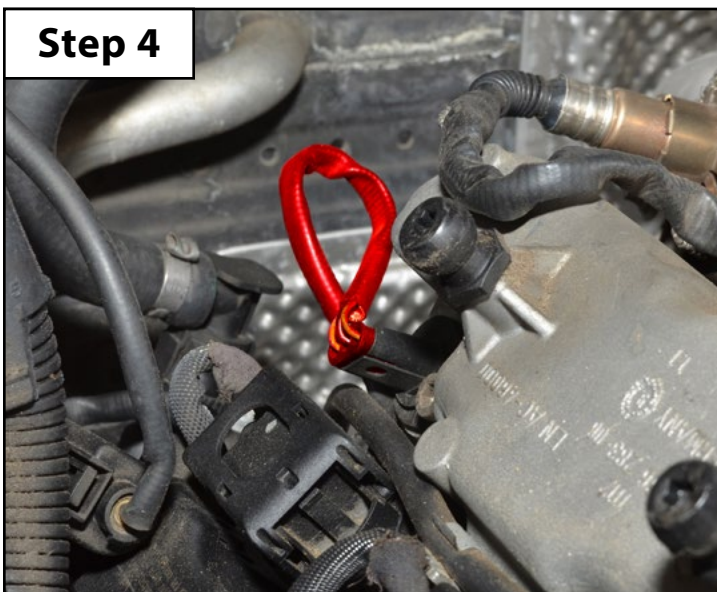
Step 1

- Turn the ignition off and remove the key from the dash.
- **Disconnect the negative (-) battery terminal.**
- Wait for the engine to cool down.
- Remove the engine cover and the intake duct.
- Select a mounting location for the Turner Performance Module (highlighted in **GREEN**).
 - **NOTE:** Discharge any static electricity by grounding yourself on a large metal object (tool chest, engine lift, etc.) **BEFORE** handling the Turner Performance Module.
- For photographic purposes we have removed several intake ducts and tubes. While it's not necessary, removing these tubes does make routing the wiring harness much easier, the decision is yours.
 - The photo below shows the module mounted just in front of the LH shock tower. This location offers protection from the elements, and provides a very clean overall install. You are free to choose any location which suits your needs as outlined on the previous page.
- Ensure that the wiring harness will reach all applicable sensors **BEFORE** continuing, keep in mind that you can select any of the four camshaft position sensors, but the power, ground, and boost pressure sensor leads have no alternative locations.
- Route a zip tie through the holes in the Turner Performance Module and secure it into place in your selected location.



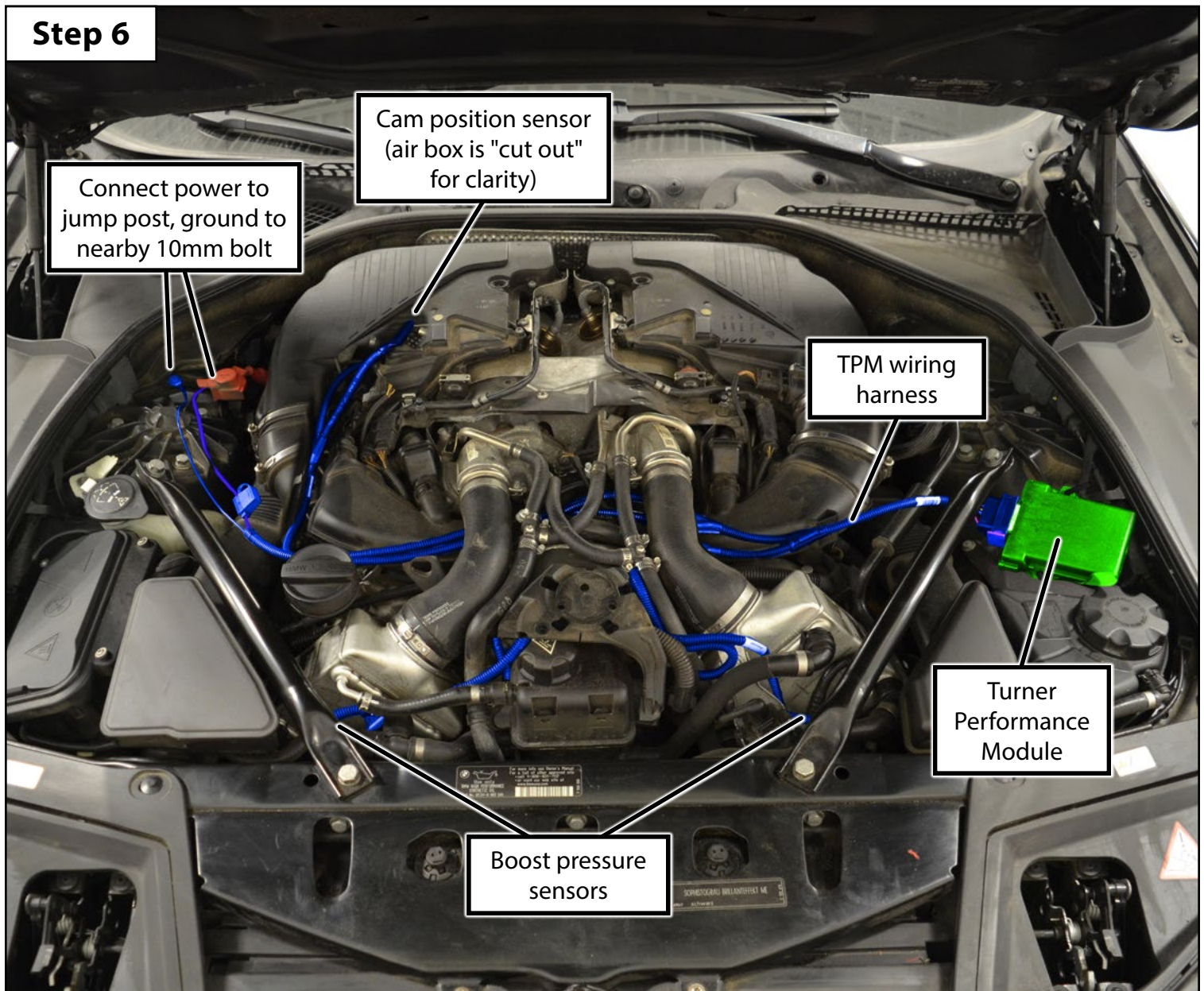
Section 3: Installation Instructions

- Step 2**
- Locate boost pressure sensor #2 on the LH bank intercooler.
 - There isn't a lot of room to work with the coolant pipes routed directly in front of the sensors.
 - Release and disconnect the OEM wiring harness plug from boost pressure sensor #2 (highlighted in **RED**) from the sensor.
- Step 3**
- Connect the OEM wiring harness plug (**RED**) to the Turner harness (**BLUE**).
 - The wire loom on the Turner harness may be marked "manifold air pressure" or "boost pressure sensor #2"
 - Connect the Turner harness (**BLUE**) to boost pressure sensor #2.
 - **Repeat steps 2 & 3 to connect boost pressure sensor #1 on the RH bank intercooler**
 - The wire loom on the Turner harness may be marked "boost pressure sensor" or "boost pressure sensor #1"
- Step 4**
- Locate and select one of the camshaft position sensors along the rear of each valve cover, then release and disconnect the OEM wiring harness plug (highlighted in **RED**) from the sensor.
- Step 5**
- Connect the OEM wiring harness plug (**RED**) to the Turner harness (**BLUE**).
 - Connect the Turner harness (**BLUE**) to the cam position sensor.



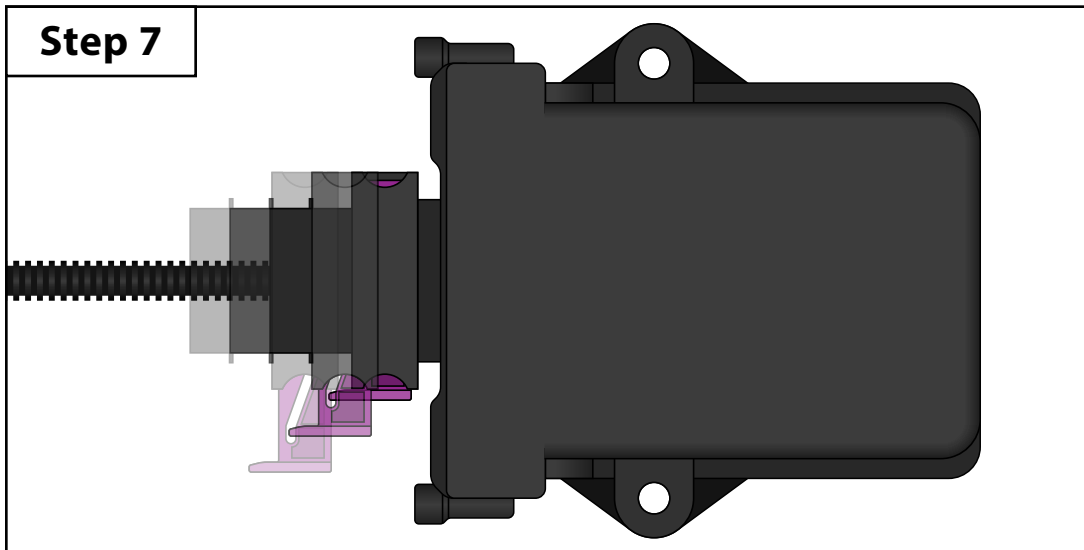
Section 3: Installation Instructions

- Step 6**
- Route the Turner harness in a manner similar to what is shown in the **Step 6** photo below.
 - The goal here is to route the harness away from any moving or hot components.
 - Use zip ties to secure the harness out of the way wherever necessary.
 - Be sure to route the harness underneath the intake tubes and coolant hoses and seal as shown below.
 - Route the power (+) wire up to the jump post located on the RH shock tower.
 - Install the power (+) wire underneath the jump post nut.
 - Route the negative (-) wire up to the 10mm bolt located next to the jump post located on the RH shock tower.
 - Install the negative (-) wire underneath the bolt.



Section 3: Installation Instructions

- Step 7**
- Extend the purple sliding lock on the large plug of the Turner harness, then connect it to the Module (the connector will only go in one way).
 - Next, push on the purple lock to secure the plug to the Module, once it is fully seated the plug should not come disconnected (test this by gently tugging on the black connector).
 - Double check all of your connections.
 - Reinstall any components that you removed or loosened in the reverse order of removal.
 - Check that the harness is secured out of the way of any moving or hot components.
 - Enjoy your new power responsibly.



Section 4: Valet Connector Operation

- Step 1**
- The Valet connector is used to bypass the tuning module and revert the tuning back to stock. With the Valet plug installed the ECU will use the stock maps instead of getting modified data from the Turner module.
 - To use the Valet connector, unplug the Turner module from the wiring harness by releasing the purple sliding lock, then plug in the Valet connector to the harness and secure with the sliding lock.

