



# INSTALLATION INSTRUCTIONS

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**CARBAHN MAP SENSOR**

**CARBAHN PART #:  
CBF9X-2039**



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**These instructions assume that the person installing these parts is a BMW CERTIFIED MECHANIC and are NOT step by step instructions on how to disassemble and reassemble the car!**

## **MAP Sensor Installation (All Models except X5M/X6M)**

Replacing the MAP sensors is a little difficult so we have included these tips to make it a bit easier.

1. Remove passenger side and driver side air boxes.
2. Remove driver side DME.
3. Remove driver side DME bracket.
4. Unplug electrical connector for passenger side Valve-Tronic motor.
5. Replace the stock BMW MAP sensors with the supplied MAP sensors. MAP sensors are located on top of the driver side and passenger side intake manifolds on the side of the engine.

NOTE: these are NOT the MAP sensors located on the intercoolers

6. Re-assemble the electrical connector and re-install the driver side DME and DME bracket.
7. Re-assemble the passenger side and driver side airboxes.

Kit Contains:

QTY 2 - CBF9X-2039 - MAP  
Sensor

### **\*MAP Sensor Instruction for X5M / X6M**

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To begin installing the new MAP sensors you will need to remove both the driver side and passenger side airbox and intake tubes. This will allow access to the driver and passenger side intake manifold where the MAP sensors are located. Starting on the passenger side using a 90° pick you can remove the connector that is on the factory MAP sensor.



Using the correct size torx bit you can remove the two torx screws that hold the MAP sensor to the manifold (See figure 2). Note: A wobble adapter may be necessary to achieve proper angle when removing screws as seen in figure 1.

With the MAP sensor screws removed you can now remove it from the manifold. Note: There is a plastic tab that is on the top of the sensor that may need to be lightly pried out of the way to remove.

Now that the sensor has been removed you can repeat these steps in reverse installing the new sensor supplied in the kit.



Now that the passenger side is complete you can start on the driver's side. The driver's side is a little bit more difficult and will require some patience. You can start by unclipping the harness from the MAP sensor located on the manifold like you did on the passenger side using a 90° pick.

Removing the screws from the MAP sensor is the next task at hand. You can use a long extension and a wobble adapter with the same torx as before.

Note: The A/C lines that run between the engine and the strut tower may make getting the right angle to remove the MAP sensor screws difficult, you can slightly flex the lines out of your way to make the screws more accessible. Make sure to not apply too much pressure that would cause any form of damage to the A/C lines.

With the MAP sensor screws removed you can now work on removing the MAP sensor itself. The easiest way to do this is by using flexible mechanical fingers. With a good grip of the mechanical fingers, you can remove the sensor back towards the fire wall and around the steering column.

Using the same method as removing the sensor, you can load the new MAP sensor into the mechanical fingers and install the sensor. Once the sensor is in place you can move forward with installing the bolts that hold the sensor to the manifold with a telescoping magnet.

Make sure all the hardware is torqued to BMW spec and you reinstall the intake tubes and air boxes along with anything else you may have removed in the process.

