

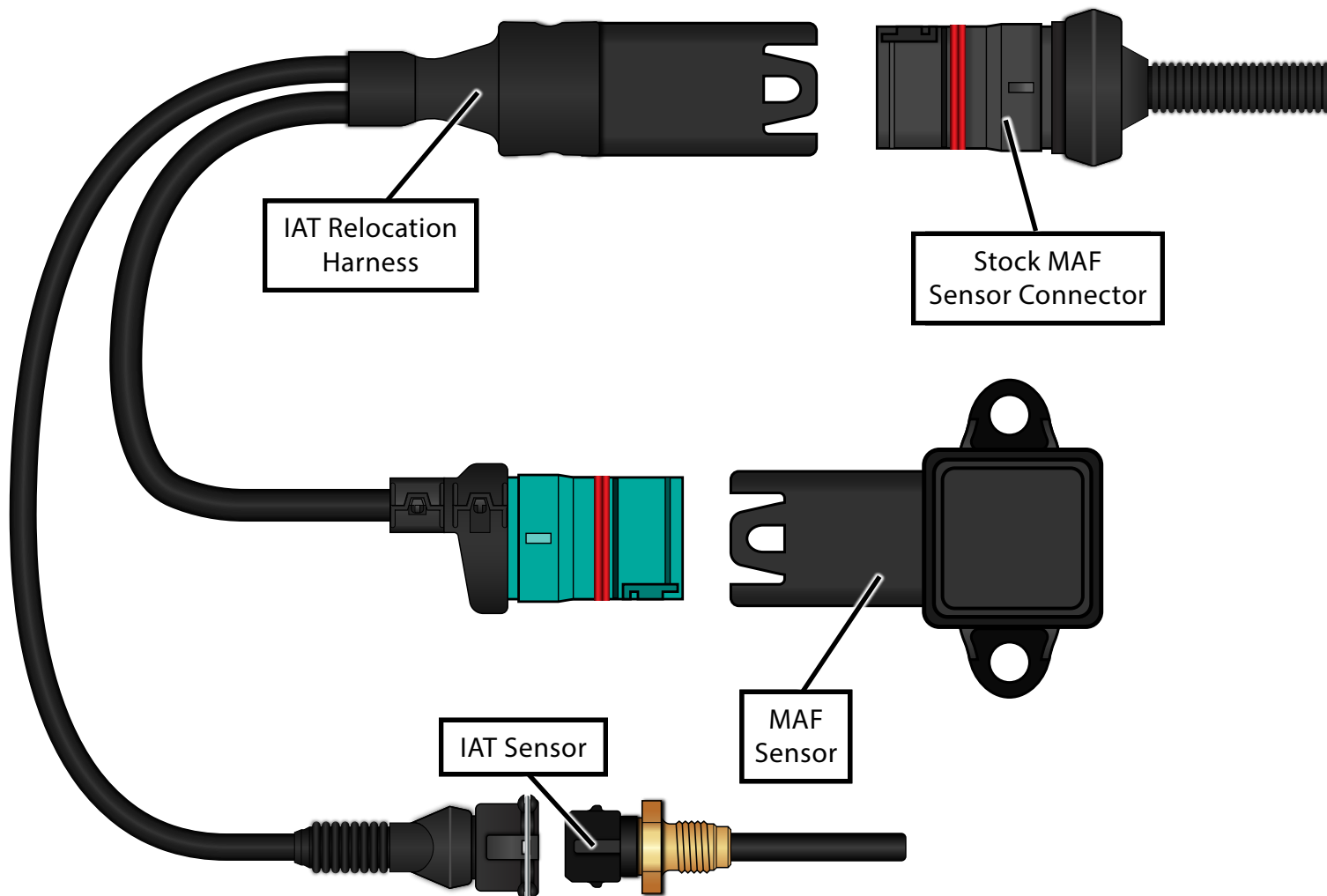


BMW N52 IAT Relocation Harness Installation Instructions

BMW integrated the intake air temperature (IAT) sensor in the mass air flow housing on N52 engines. When this sensor is located in the MAF housing it is constantly absorbing excess heat from its hot surroundings. This is where the problem arises; The MAF can't shed the heat fast enough, and the ECU reads an inaccurately high intake air temperature resulting in "heat soak". Compensating for this false hot air measurement, the ECU will pull timing and unnecessarily adjust the fuel mixture, resulting in a significant loss of torque.

So what can you do to fix this? Install a separate intake air temp sensor in a location where it can properly measure the temperature of incoming air and avoid the problems associated with heat soak. The Turner engineering team has designed this kit to do just that. It is completely plug and play, completely reversible, and it offers a clean OE appearance when installed.

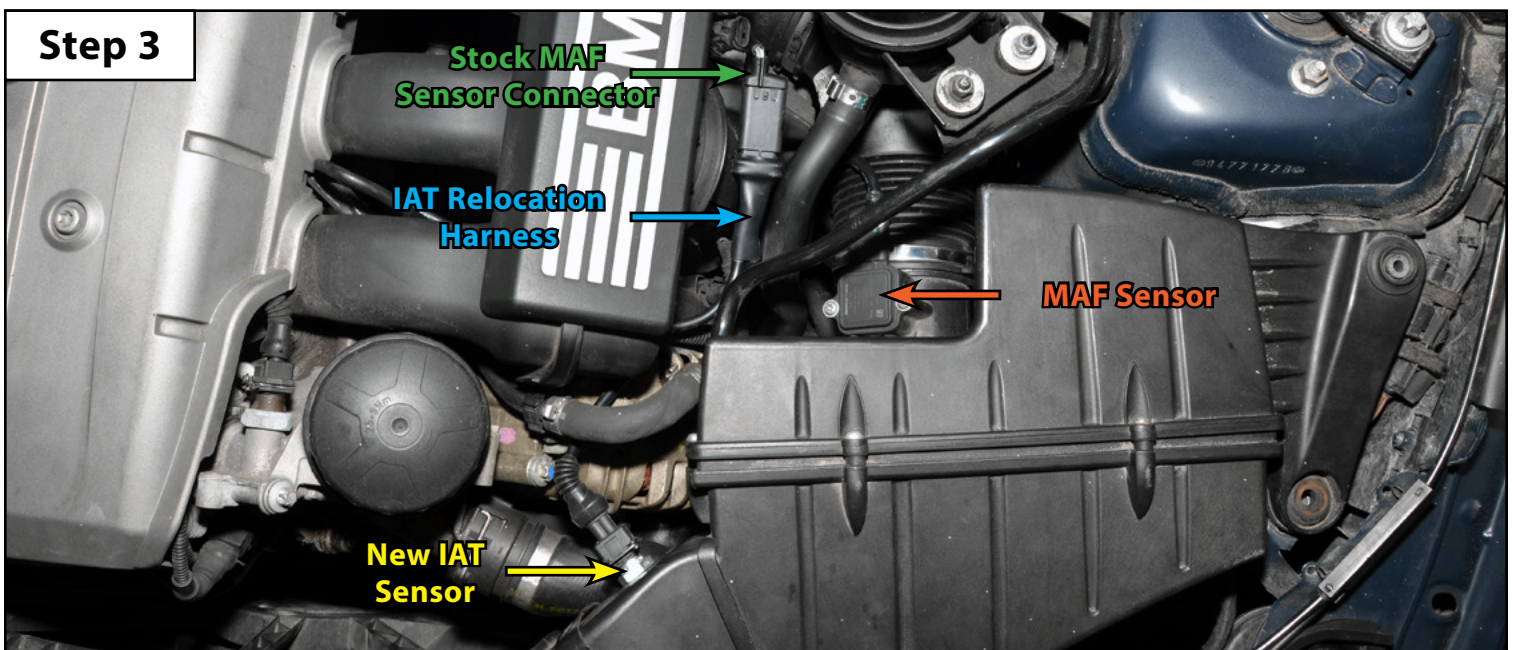
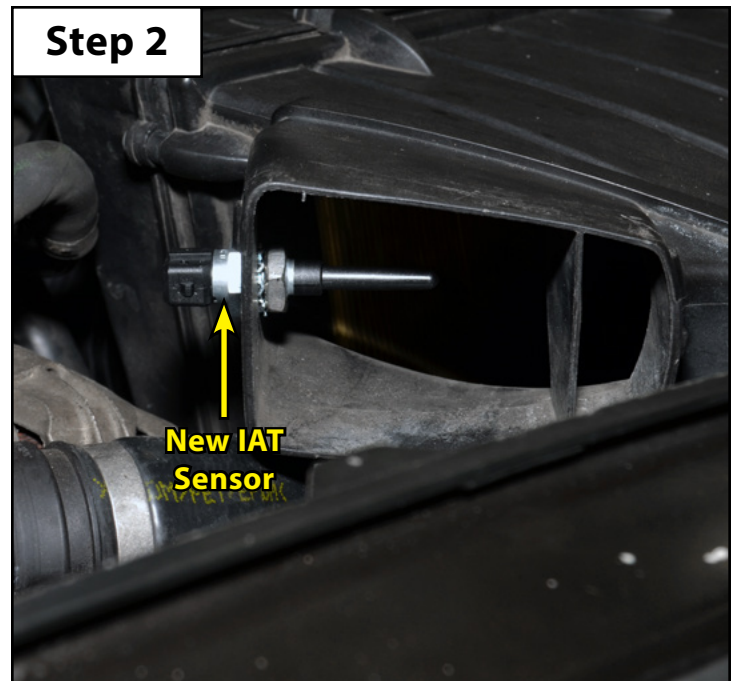
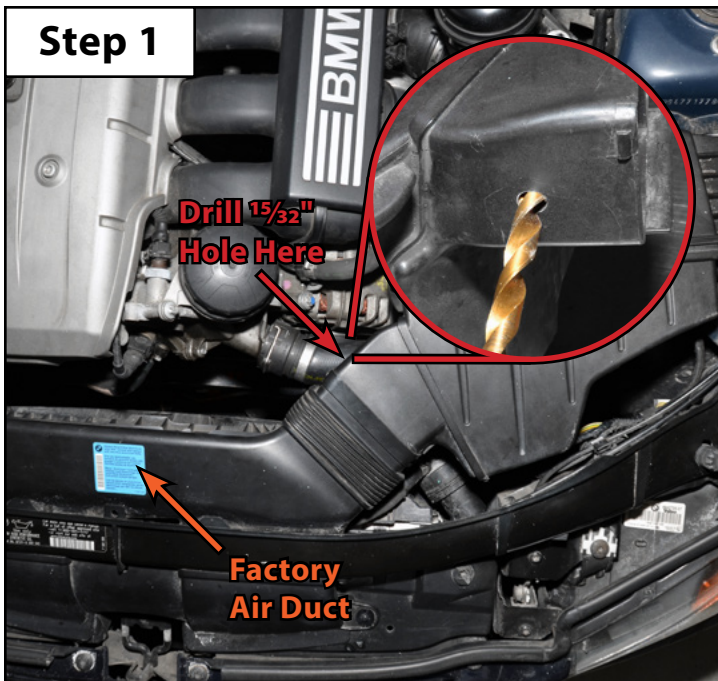
Installation time: ½ hour



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.

Section 1: Installation Instructions - Stock Intake System

- Step #1**
- Drill a $\frac{15}{32}$ " hole at the location shown to mount the new IAT sensor.
 - Loosen the two T20 screws which secure the factory air duct and remove it.
- Step #2**
- Secure the IAT sensor into place using the supplied lock washer and nut.
- Step #3**
- Connect the IAT relocation harness to the stock MAF sensor connector.
 - Route the IAT sensor end of the harness to the newly mounted IAT sensor and connect it.
 - Route the MAF sensor end of the harness to the MAF sensor and connect it.
 - Route the excess harness away from any moving or hot components, using zip ties to secure the harness out of the way wherever necessary.



Section 2: Installation Instructions - Turner Intake System

- Step #1** • Pop the rubber grommet free from the heat shield, exposing the mounting location for the new IAT sensor .
- Step #2** • Secure the IAT sensor into place using the supplied lock washer and nut.
- Step #3** • Connect the IAT relocation harness to the stock MAF sensor connector.
 • Route the IAT sensor end of the harness to the newly mounted IAT sensor and connect it.
 • Route the MAF sensor end of the harness to the MAF sensor and connect it.
 • Route the excess harness away from any moving or hot components, using zip ties to secure the harness out of the way wherever necessary.

