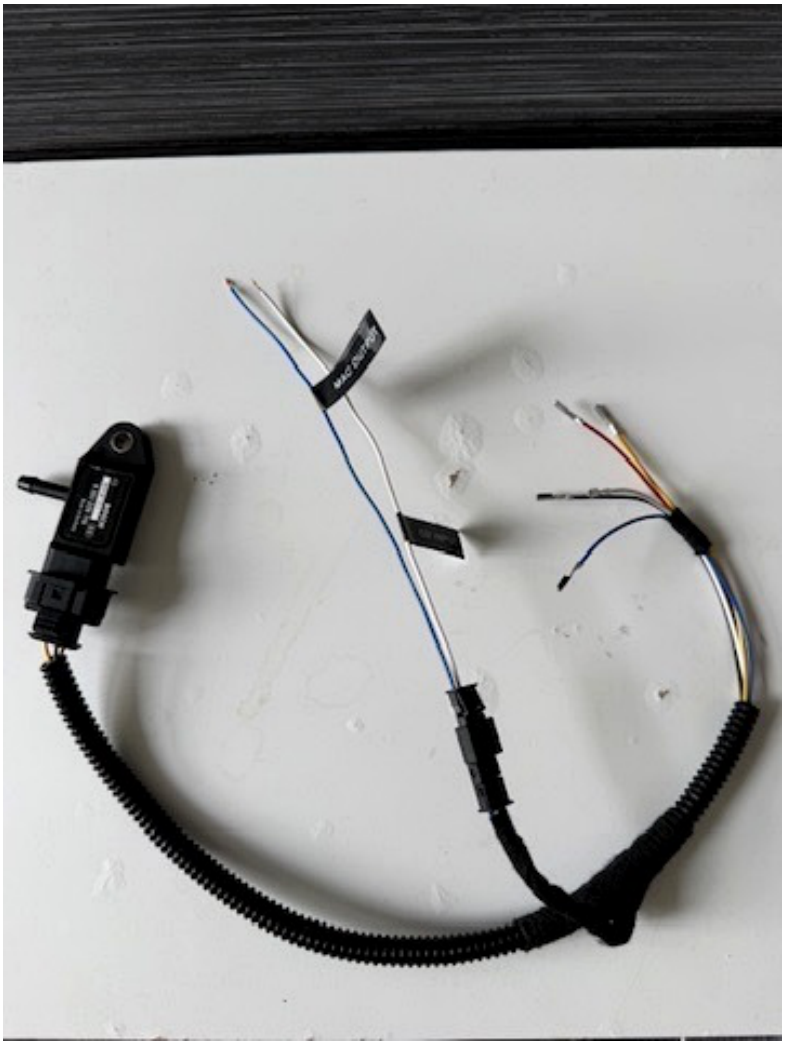
BMWTuning.info MS43 MAP Sensor Adapter Harness Installation Guide

Siemens MS43 ECU • Bosch MAP Sensor 0 261 230 119

Designed for use with the bmwtuning.info MS43 MAP-enabled calibration.



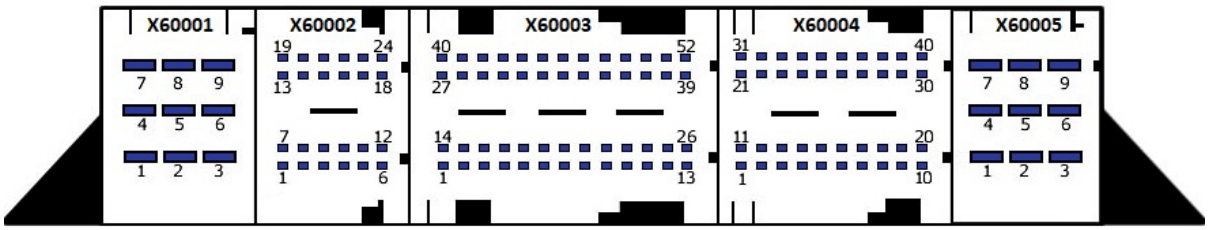
Supplied adapter harness shown with Bosch MAP sensor connected.

Before You Start

- Disconnect the vehicle battery before unplugging or repinning the ECU connectors.
- Do not force any terminal into a connector. Each terminal should slide into place and positively latch.
- Check the connector number and pin number carefully before making each connection.

IMPORTANT: Double-check every pin position before reconnecting the battery or powering the ECU.

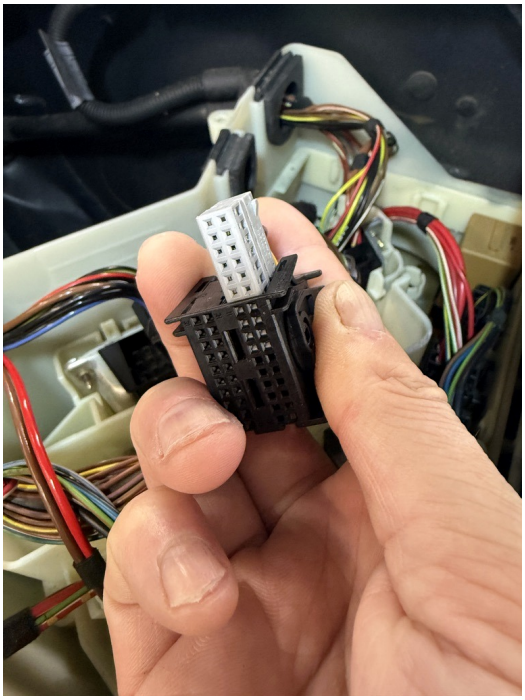
1. Access Connector X60004



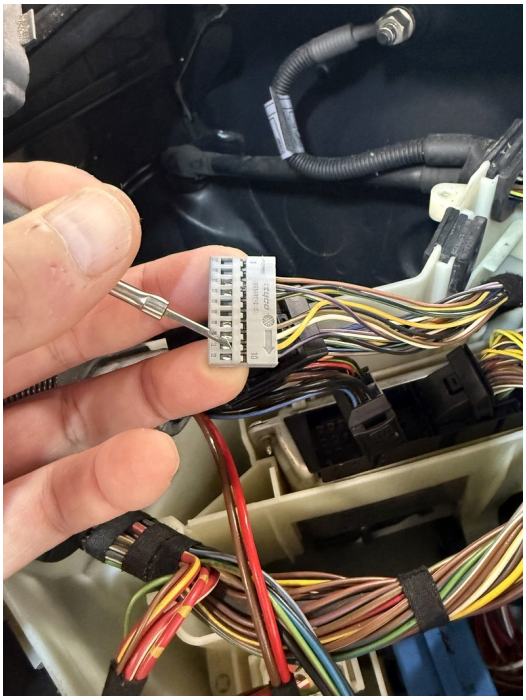
MS43 ECU connector pin reference. Always verify the connector number and pin number before inserting a terminal.

1. Unplug X60004: Disconnect the X60004 connector from the MS43 control module. If you are connecting the boost-controller output or wideband input, also disconnect X60003.

2. Remove the outer connector housing: Gently lift the retaining latches on each side and remove the housing from the grey pins 1–20 and black pins 21–40 carriers.



The grey pin carrier slides out of the black outer connector housing once the retaining features are released.



Use the moulded pin numbering on the carrier to identify the correct terminal position.

3. Locate the factory yellow wire at pin 9: On X60004, find the existing yellow wire fitted to pin 9. This is the +5 V power supply used for the sensor.

4. Unpin the factory wire: Press the small retaining latch on the terminal while gently pulling the wire backwards. Do not pull hard; the terminal should release once the latch is depressed.

2. Fit the MAP Sensor Harness

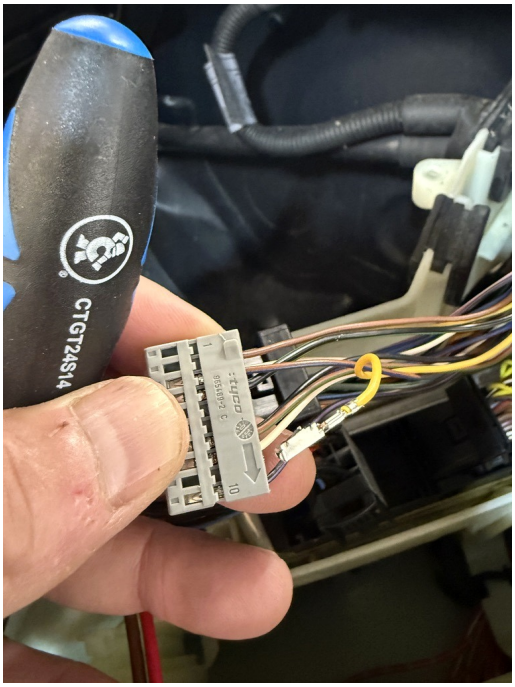
Harness wire	ECU connector	Pin	Function
RED	X60004	Pin 9	+5 V power
BLACK	X60004	Pin 5	MAP sensor ground
YELLOW	X60004	Pin 15	MAP sensor signal

A. Red power wire — X60004 pin 9. Insert the red terminal from the supplied harness into the now-empty pin 9 position.

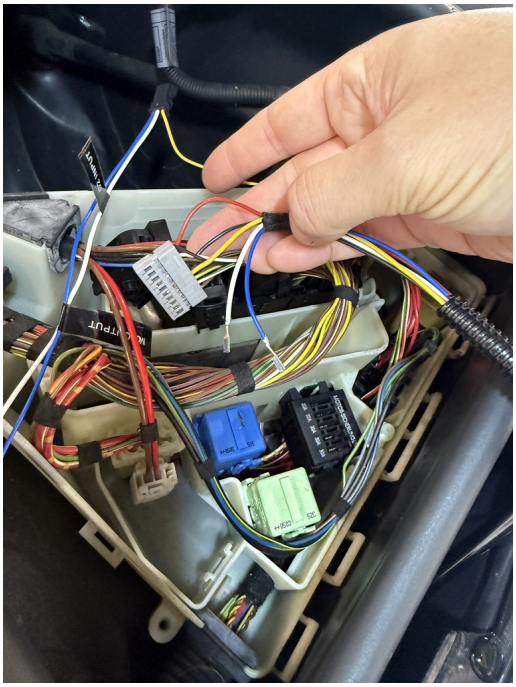
B. Reconnect the original factory pin 9 wire. Insert the factory yellow wire removed from pin 9 into the matching power position on the supplied 3-way connector. This allows the original circuit and the new MAP sensor to share the +5 V supply.

C. Black ground wire — X60004 pin 5. Insert the black terminal from the supplied harness into pin 5. This position should normally be unused.

D. Yellow signal wire — X60004 pin 15. Insert the yellow terminal from the supplied harness into pin 15. This carries the MAP sensor signal back to the ECU.



Close-up of the X60004 grey carrier during repinning.



Harness ECU-end wires positioned ready for connection. Check each colour and pin number before insertion.

E. Connect the MAP sensor. Plug the Bosch 0 261 230 119 MAP sensor into the sensor connector on the supplied harness.

Example of the adapter harness and MAP sensor positioned in the ECU/electronics box during installation.

3. Mounting & Vacuum Connection

Securely mount the MAP sensor using its built-in mounting eyelet / bolt hole. Choose a suitable location where the sensor cannot move around or come into contact with hot or moving components.

Connect the pressure nipple on the MAP sensor to the inlet manifold using suitable vacuum hose. The hose may be T-pieced into an existing inlet-manifold vacuum line, although a dedicated vacuum/boost take-off directly from the inlet manifold is preferred.

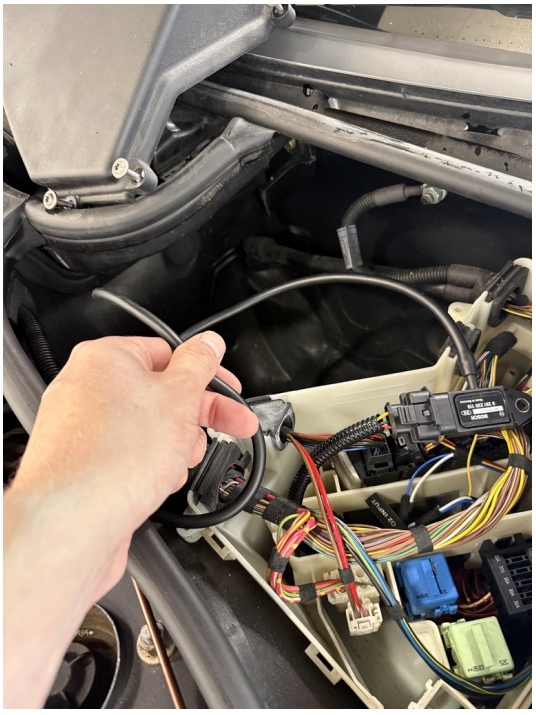
IMPORTANT: The MAP sensor is the ECU's main engine load signal. It MUST receive a reliable pressure signal directly from the inlet manifold, downstream of the throttle body. Do not connect it to intake pipework, charge/boost pipework before the throttle body, or any other pressure source.

Make sure the vacuum hose is secure, free from leaks, not kinked or crushed, and cannot become disconnected during use.

Recommended Vacuum Source

The rear of the inlet manifold has several vacuum take-offs. On many cars, one of these is unused and simply blanked off. Where available, this is an excellent place to connect the MAP sensor because it provides a dedicated inlet-manifold pressure source.

Example of a blanked-off vacuum take-off on the rear of the inlet manifold. Remove the blanking cap and connect suitable vacuum hose.



Route suitable vacuum hose from the MAP sensor to the selected inlet-manifold take-off.

4. Optional Connections

These connections are only required if you are using the relevant features. Otherwise leave the optional leads unused and safely secured.

Harness wire	ECU connector	Pin	Function
BLUE	X60003	Pin 50	Boost control solenoid output
WHITE	X60004	Pin 20	Wideband input / data logging

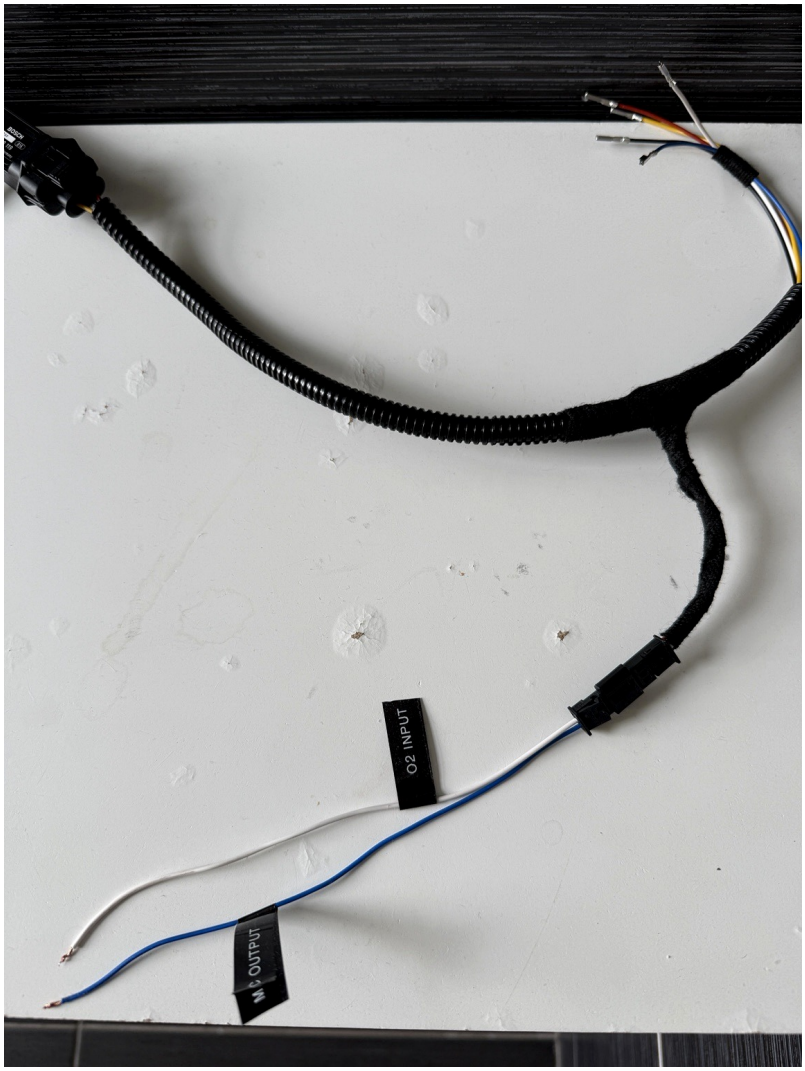
Boost control: Insert the blue pre-pinned wire into X60003 pin 50.

Wideband data logging: Insert the white pre-pinned wire into X60004 pin 20.

3-Way Connector Tails

WHITE tail — O2 / wideband input: Connect this to the 0–5 V linear analogue output from your wideband controller.

BLUE tail — MAC / boost-control output: This is a switched-ground output for your MAC valve / boost-control solenoid.



Optional tails are labelled on the harness: white = O2 INPUT; blue = MAC OUTPUT.

5. Final Checks

☐ Red wire is locked into X60004 pin 9.

☐ Original factory yellow wire from pin 9 is locked into the matching power position on the supplied 3-way connector.

☐ Black wire is locked into X60004 pin 5.

☐ Yellow MAP signal wire is locked into X60004 pin 15.

☐ Bosch MAP sensor is connected to the adapter harness.

☐ MAP sensor is securely mounted using its mounting eyelet / bolt hole.

☐ MAP sensor vacuum hose is securely connected to a suitable inlet-manifold source downstream of the throttle body.

☐ Vacuum hose is secure, leak-free, and not kinked or crushed.

☐ If used: blue boost-control wire is locked into X60003 pin 50.

☐ If used: white wideband-input wire is locked into X60004 pin 20.

☐ All terminals are fully seated and cannot be gently pulled back out.

☐ Connector carriers and outer housings are correctly reassembled.

☐ No wiring or vacuum hose can contact hot or moving components.

☐ Reconnect the ECU connectors and vehicle battery only after completing all checks.

IMPORTANT: Double-check every pin position and the MAP sensor vacuum connection before powering the ECU.

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