

ACCESSORIES - Installation Instructions



Engine block heater

For MINI cast iron block 4 cylinder engines: W10 / W11

INSTALLATION TIME: Approx. 1 hour (not including cooling time)

PARTS: block heater kit part number 12 81 0 306 612 consisting of:
Block heater
Cord set
Installation instructions
Tie wraps (5)

TOOLS REQUIRED: Large flat head screwdriver
Silicone paste (such as 3M™)
Torque wrench (for 4.5Nm)
Long extension and universal
8mm drive socket
Utility knife

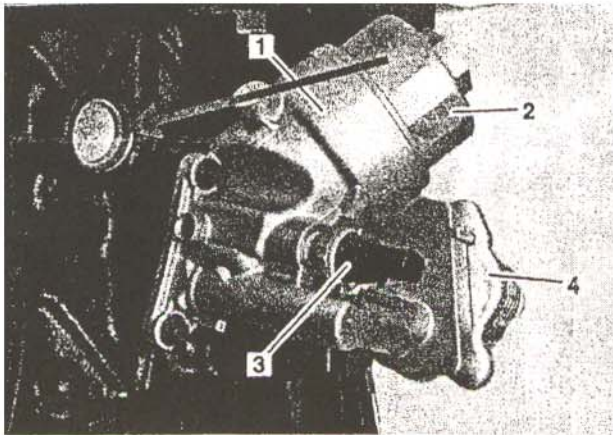


Fig. 1

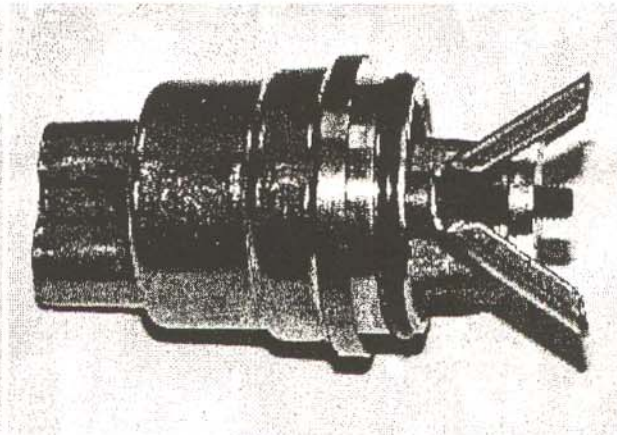


Fig. 2

CAUTION: Avoid routing cord set by hot/moving components. Allow slack for engine movement.

1. Ensure engine and coolant temperature are cool.
2. Remove front under body plastic guard.
3. Drain engine coolant (**note:** some coolant will still come out of frost plug hole when plug is removed).
4. Remove power steering fan.
5. Remove heat shielding from starter peg and push upwards for better access to frost plug.
6. Use screwdriver to remove frost plug at back of engine block (left of oil filter housing, fig. 1).
7. Lubricate block heater o-ring with a small amount of silicone paste, such as 3M™.
8. Install block heater into frost plug hole. Use swivel adapter, long extension, and torque wrench to tighten screw to **4.5 Nm / 40 in·lb max** (screw will break at 6 Nm), see fig. 2.
9. Plug cord set into heater. Route cord down to power steering harness (stay above EHPS fan), attach a strap and follow p/s harness to right (passenger) side.
10. Attach two more straps around cord and p/s harness, approx. 4 inches apart (leave slack for engine movement).

Engine block heater

MINI Cooper, W10 engine
MINI Cooper S, W11 engine

11. DO NOT FOLLOW THE P/S HARNESS ABOVE THE IDLER PULLEY, OR THE BRAKE LINES. Continue to route cord under front engine mount (see fig. 3) and attach fourth tie around cord and subframe.
12. Route cord between wheel housing cover and front engine mount (see fig. 4) and up to top of mount.
13. Finally, route cord set through bottom left side hole in the passenger side turn indicator assembly housing.
14. Use utility knife to cut a small notch (slightly wider than cord) into top lip of bottom bumper so that cord will not be pinched when hood is closed (see fig. 5). Remove sharp edges.
15. Relocate heat shield and reinstall p/s fan.
16. Refill coolant and verify block heater seal tightness by warming up engine and then test-driving. After test drive, check for leaks and that block heater has not backed out at all.

When the cord set is not in use, it can be wrapped and stored inside the turn indicator assembly housing.



Rear right hand side of engine block showing installation location of block heater (frost plug shown – bottom view).

Cooper shown. Cooper S similar.

Figure 3

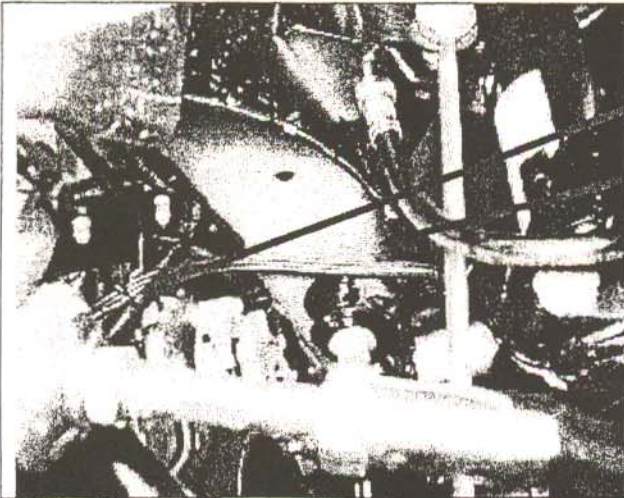
Tighten block heater screw using torque wrench, long extension and universal, and 8mm drive socket.

Figure 4

Engine block heater

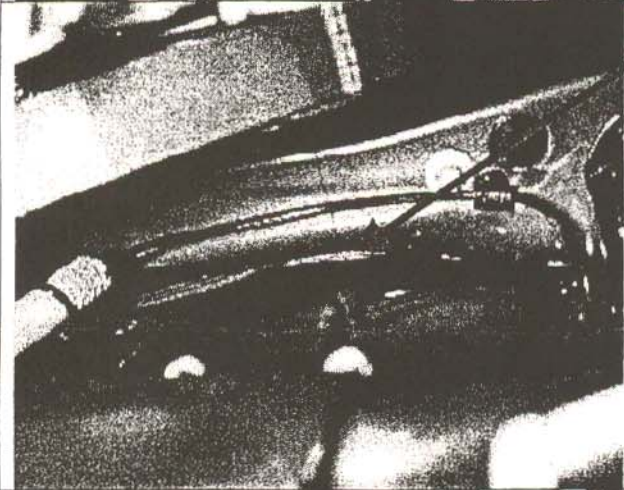
MINI Cooper, W10 engine

MINI Cooper S, W11 engine



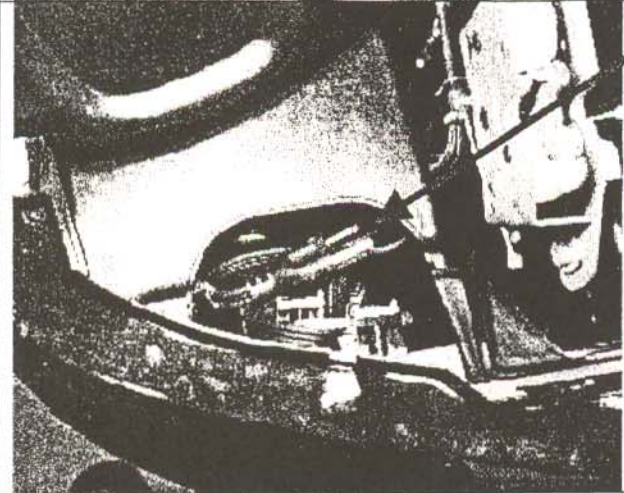
Block heater cord shown tie wrapped (3rd tie shown) to power steering harness underneath the drive belt, and routed under the front engine support.

Figure 5



Block heater cord shown routed between wheel housing cover and front engine support.

Figure 6



Block heater cord set shown bundled up in turn light indicator housing. Note location of notch in front bumper required for hood clearance when cord overhangs bumper.

Figure 7