

2. Compression

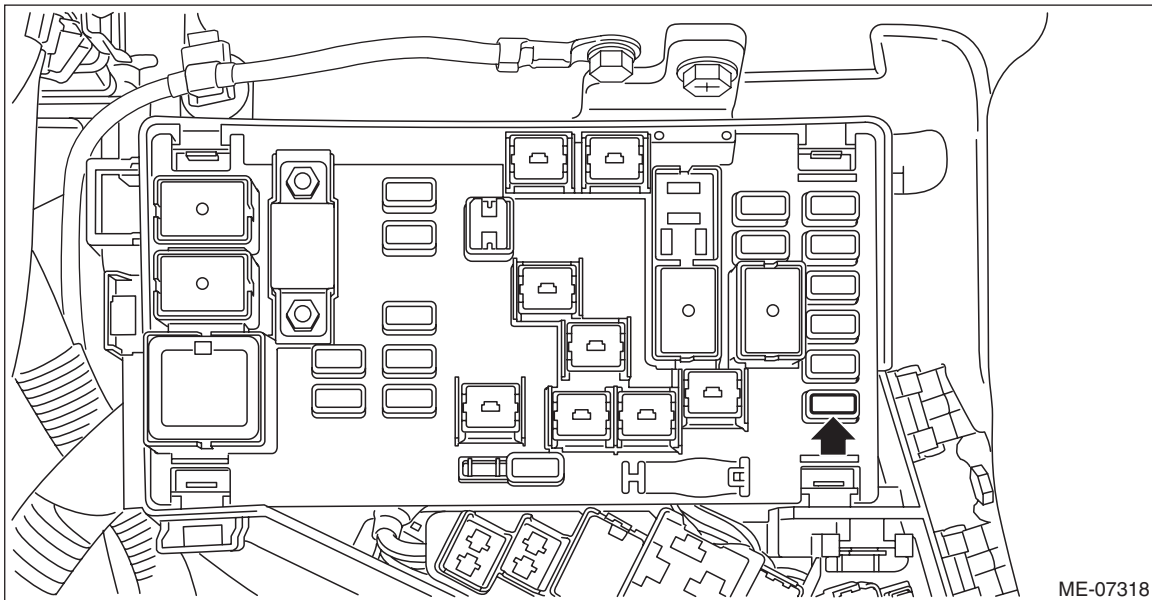
A: INSPECTION

CAUTION:

After warming-up, engine becomes very hot. Be careful not to burn yourself during measurement.

NOTE:

- Before checking the compression pressure, the compression condition of each cylinder can be confirmed as a guide by using the compression measurement mode in Subaru Select Monitor. <Ref. to EN(w/o STI)(diag)-62, OPERATION, System Operation Check Mode.>
 - In the compression measurement mode, the compression condition is judged by each cylinder speed. The high speed cylinder has low compression pressure and low speed cylinder has high compression pressure.
- 1) After warming-up the engine, turn the ignition switch to OFF.
 - 2) Make sure that the battery is fully charged.
 - 3) Check the starter motor for satisfactory performance and operation.
 - 4) Remove the fuse of fuel pump from main fuse box.



- 5) Start the engine and run it until it stalls.
- 6) After the engine stalls, crank it for five more seconds.
- 7) Turn the ignition switch to OFF.
- 8) Remove all spark plugs. <Ref. to IG(w/o STI)-4, REMOVAL, Spark Plug.>

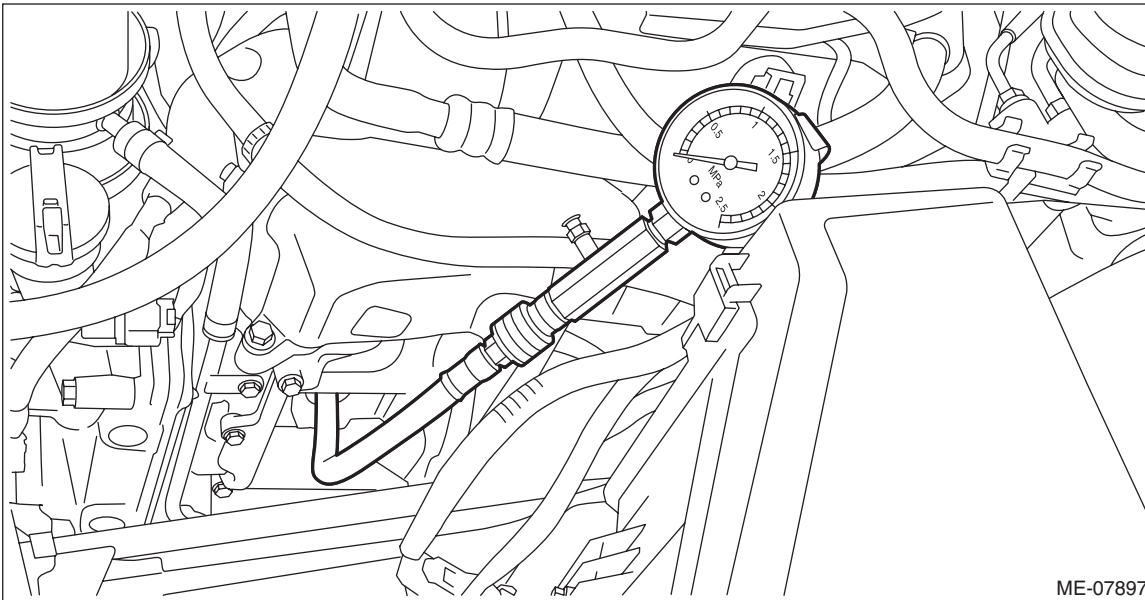
Compression

MECHANICAL

9) Install the compression gauge to the spark plug hole.

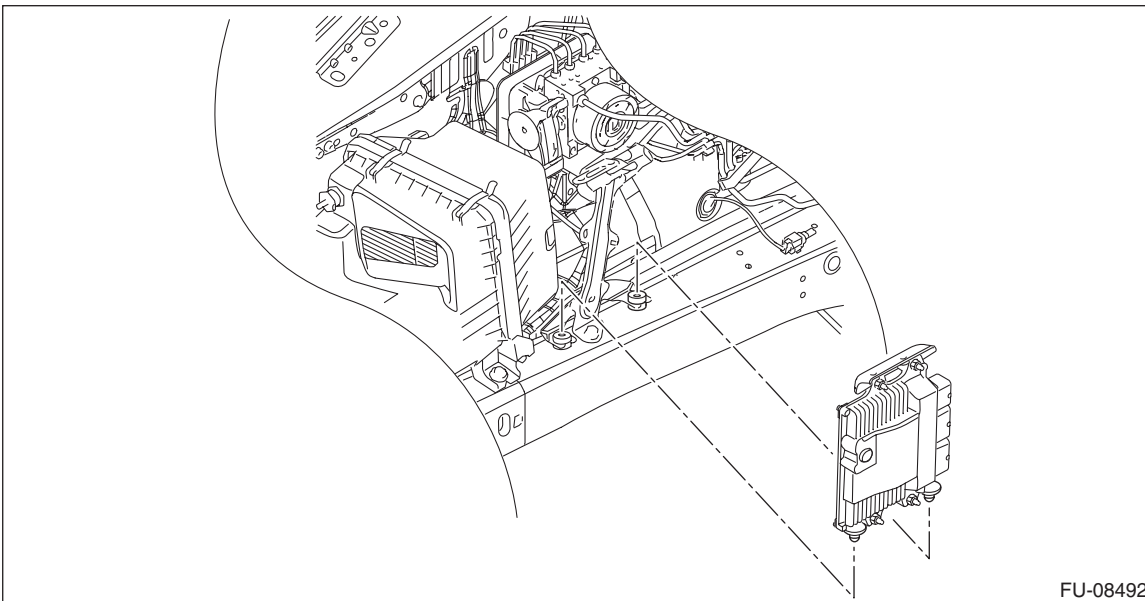
NOTE:

When using a screw-in type compression gauge, the screw should be less than 25 mm (0.98 in) long.



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10) Insert the engine control module (ECM) to the bracket.

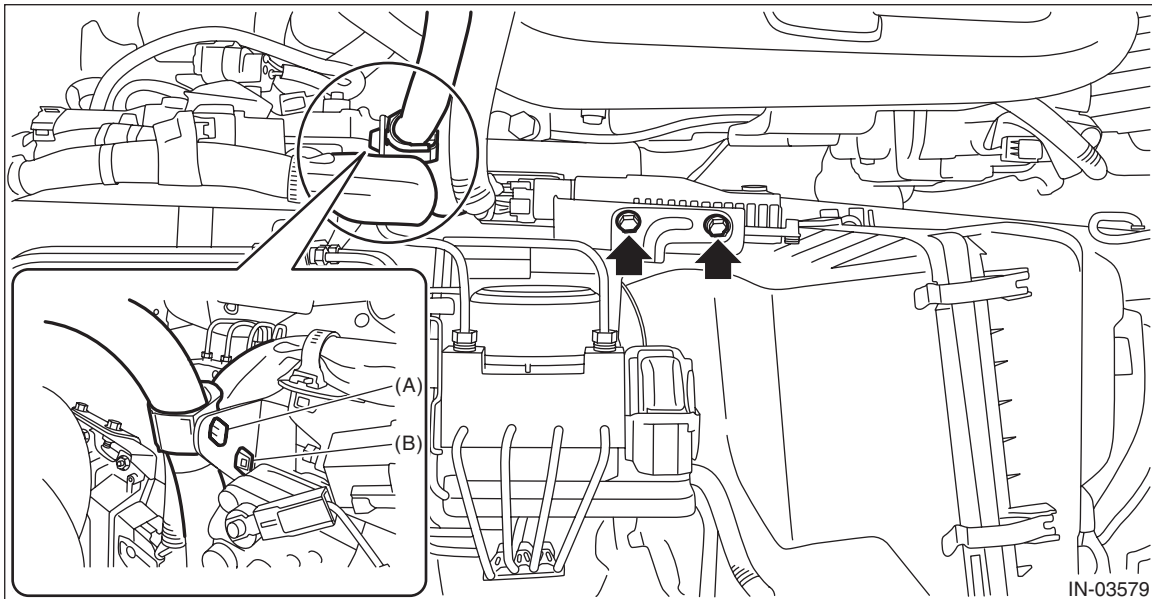


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11) Install the bolt which secures the engine control module (ECM) to the bracket, and then secure the engine harness and bulkhead harness to the bracket with clips (A) and (B).

Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)



12) Install the battery. <Ref. to SC(w/o STI)-50, INSTALLATION, Battery.>

13) Turn the ignition switch to ON.

14) Depress the accelerator pedal to full throttle.

15) Crank the engine by starter motor and read the value when the needle of the compression gauge becomes stable.

NOTE:

- Perform at least two measurements per cylinder, and make sure that the values are correct.
- If the compression pressure is out of standard, check or adjust the pistons, valves and cylinders.

Compression (fully open throttle):

Standard

1,350 — 1,750 kPa (14 — 18 kg/cm², 196 — 254 psi)

Difference between cylinders

100 kPa (1 kg/cm², 14 psi), or less

16) After inspection, install the related parts in the reverse order of removal.

NOTE:

When compression pressure is checked, the malfunction indicator light illuminates and DTC (P0087) may be stored in ECM. When the malfunction indicator light has illuminated, perform the Clear Memory Mode. <Ref. to EN(w/o STI)(diag)-61, Clear Memory Mode.>