

4. Ignition Timing

A: INSPECTION

CAUTION:

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

1. METHOD WITH SUBARU SELECT MONITOR

1) Before checking the ignition timing, check the following item:

- (1) Check the air cleaner element is free from clogging, spark plugs are in good condition, and hoses are connected properly.
- (2) Check the malfunction indicator light does not illuminate.

2) Warm up the engine.

3) Read the ignition timing using Subaru Select Monitor. <Ref. to EN(H4DOTC)(diag)-37, READ CURRENT DATA FOR ENGINE (NORMAL MODE), OPERATION, Subaru Select Monitor.>?

Ignition timing [BTDC/rpm]:

$17^{\circ} \pm 10^{\circ} / 700$ (AT model)

$12^{\circ} \pm 10^{\circ} / 700$ (MT model)

If the timing is not correct, check the ignition control system. Refer to "Engine Control System". <Ref. to EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.>

2. METHOD WITH TIMING LIGHT

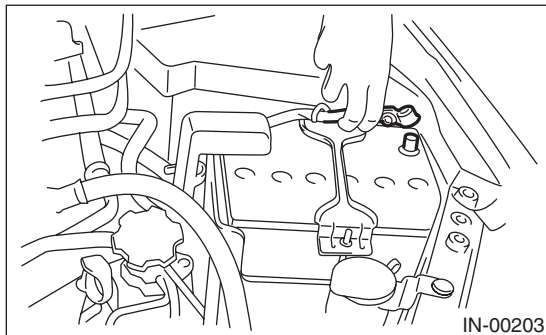
1) Before checking the ignition timing, check the following item:

- (1) Check the air cleaner element is free from clogging, spark plugs are in good condition, and hoses are connected properly.
- (2) Check the malfunction indicator light does not illuminate.

2) Warm up the engine.

3) Stop the engine, and turn the ignition switch to OFF.

4) Disconnect the ground cable from battery.



5) Remove the air intake duct. <Ref. to IN(H4DOTC)-11, REMOVAL, Air Intake Duct.>

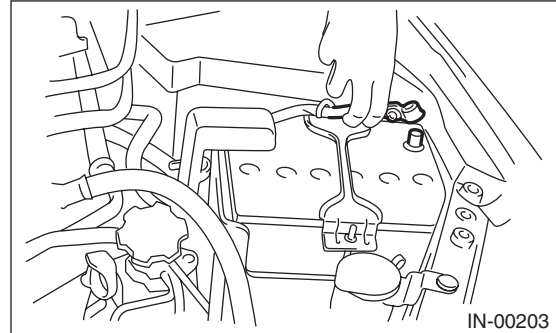
6) Disconnect the connector from mass air flow and intake air temperature sensor.

7) Remove the air cleaner case and element.

8) Connect the timing light to the power wire of #1 ignition coil.

9) Install the connectors of air cleaner case, element, and the mass air flow and intake air temperature sensor.

10) Connect the ground cable to battery.



11) Start the engine, turn the timing light to the crank pulley, and check the ignition timing by means of crank pulley indicator.

Ignition timing [BTDC/rpm]:

$17^{\circ} \pm 10^{\circ} / 700$ (AT model)

$12^{\circ} \pm 10^{\circ} / 700$ (MT model)

If the timing is not correct, check the ignition control system. Refer to "Engine Control System". <Ref. to EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.>