

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

4) Connect the Subaru Select Monitor to the data link connector.

5) Turn the ignition switch to ON and run the Subaru Select Monitor.

6) Select {Each System Check} in Main Menu.

7) Select {Engine Control System} in Selection Menu.

8) Select {Current Data Display & Save} in Engine Control System Diagnosis.

9) Select {Data Display} in Data Display Menu.

10) Start the engine and check the ignition timing at idle speed.

Ignition timing [BTDC/rpm]:

$12^{\circ} \pm 10^{\circ} / 750$ (MT Model)

$17^{\circ} \pm 10^{\circ} / 750$ (AT 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) Remove the air intake duct.

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

6) Remove the air cleaner cover and element.

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

8) Install the air cleaner cover, element and mass air flow and intake air temperature sensor.

9) 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]:

$12^{\circ} \pm 10^{\circ} / 750$ (MT Model)

$17^{\circ} \pm 10^{\circ} / 750$ (AT 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.>