

1H

Ignition Timing Inspection



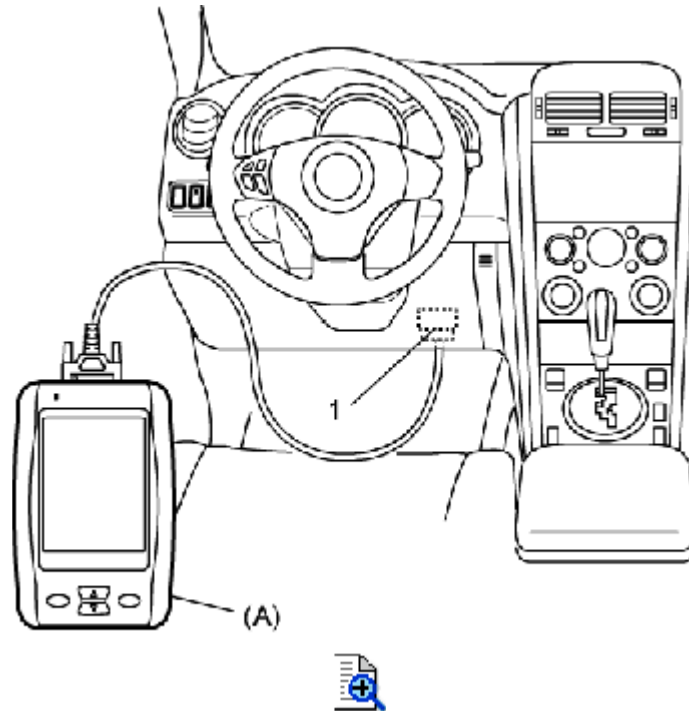
NOTE:

- Ignition timing is not adjustable. If ignition timing is out of specification, check system related parts.
- Before starting engine, place transmission gear shift lever in "Neutral" (shift selector lever to "P" range for A/T model), and set parking brake.

- 1) Connect scan tool to DLC (1) with ignition switch OFF.

Special Tool

(A): SUZUKI scan tool (SUZUKI-SDT)



- 2) Start engine and warm it up to normal operating temperature.
- 3) Make sure that all of electrical loads except ignition are switched off.
- 4) Check to be sure that idle speed is within specification referring to [Idle Speed and IAC Throttle Valve Opening Inspection:M16A and J20A](#).
- 5) Fix ignition timing by using "Fixed Spark" of "Active Test" mode on scan tool.
- 6) Set timing light (1) to high-tension cord (for M16A engine) or ignition coil harness (for J20A engine) for No.1 cylinder and check that ignition timing is within specification.

Initial ignition timing (M16A Engine)

Fixed with SUZUKI scan tool: 7° – 17° BTDC (at specified idle speed)

Initial ignition timing (J20A Engine)

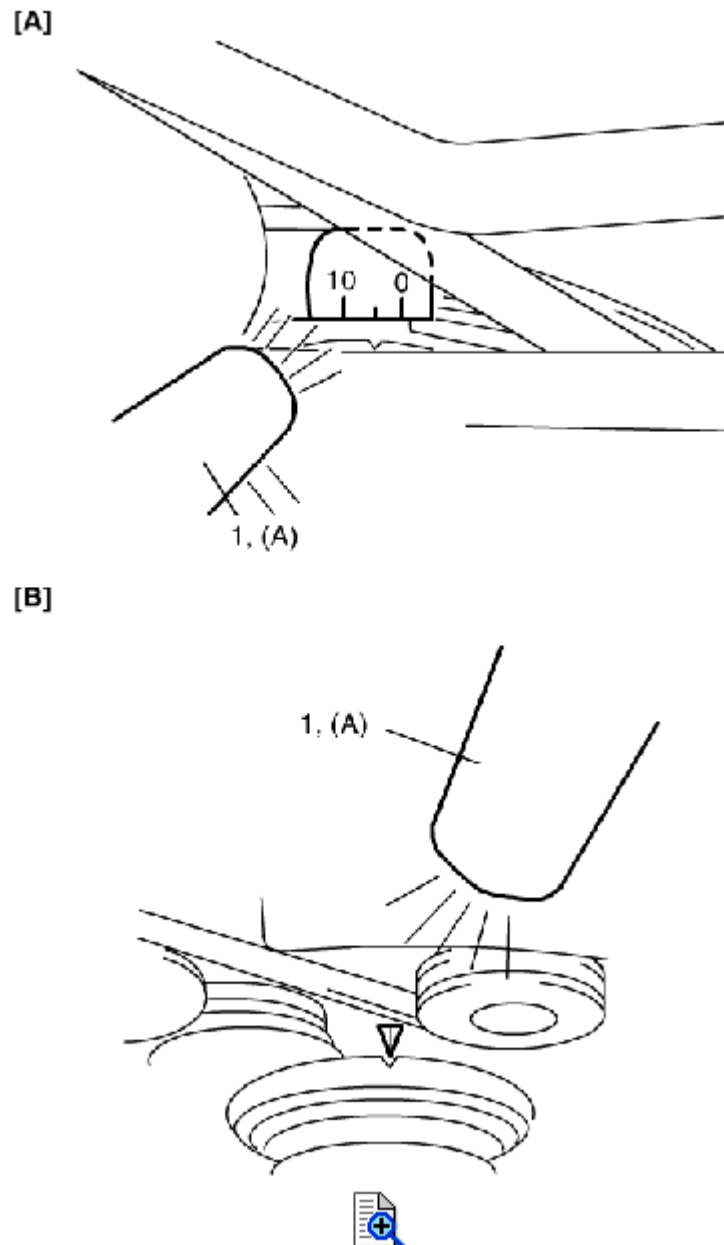
Fixed with SUZUKI scan tool: 5° – 15° BTDC (at specified idle speed)

Ignition order

1 – 3 – 4 – 2

Special Tool

(A): 09930-76420



[A]: For M16A engine
[B]: For J20A engine

7) If ignition timing is out of specification, check the followings.

- CKP sensor
- CKP sensor plate
- TP sensor
- CMP sensor
- CMP sensor rotor tooth of camshaft
- Wheel speed sensor (VSS)
- Knock sensor
- Timing chain cover installation

8) After checking initial ignition timing, release ignition timing fixation by using scan tool.

9) With engine idling (throttle opening at closed position and vehicle stopped), check that ignition timing is about 7° – 17° BTDC for M16A engine or 5° – 15° BTDC for J20A engine. (Constant variation within a few degrees from 7° – 17° BTDC for M16A engine or 5° – 15° BTDC for J20A engine indicates no abnormality but proves operation of

electronic timing control system.) Also, check that increasing engine speed advances ignition timing.

If the check results are not satisfactory, check CKP sensor and ECM.