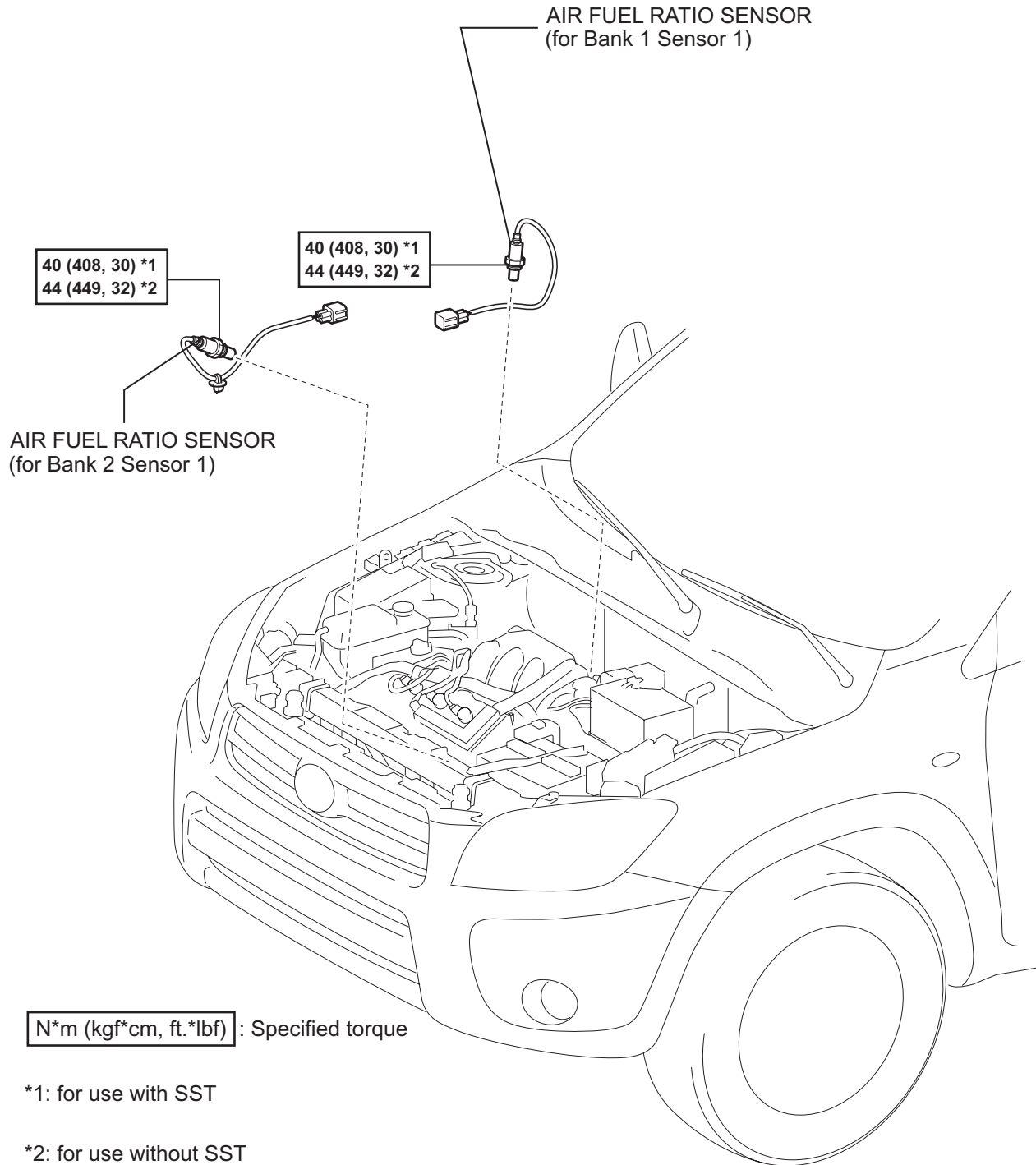


AIR FUEL RATIO SENSOR

COMPONENTS



N*m (kgf*cm, ft.*lbf) : Specified torque

*1: for use with SST

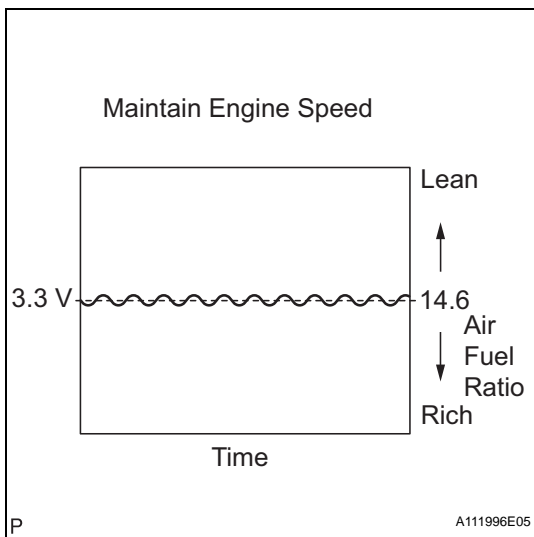
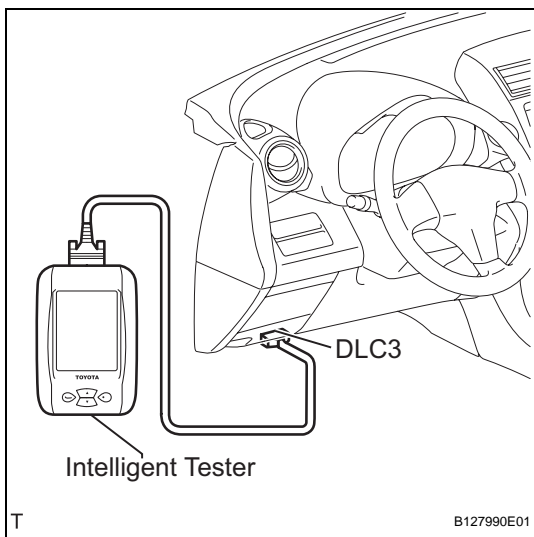
*2: for use without SST

EC

ON-VEHICLE INSPECTION

1. CHECK AIR FUEL RATIO COMPENSATION SYSTEM

- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch ON.
- (c) Select the following menu items: Data List / A/FS B1 S1, A/FS B2 S1, O2S B1 S2 and O2S B2 S2.
- (d) Warm up the A/F sensor with the engine speed at 2,500 rpm for approximately 2 minutes.



- (e) Maintain the engine speed at 2,500 rpm and confirm that the display of "A/FS B1 S1" and "A/FS B2 S1" is as shown in the illustration.

HINT:

- The illustration may slightly differ from the display on the intelligent tester.
- Only the intelligent tester displays the waveform of the A/F sensor.

- (f) Confirm that the display of "O2S B1 S2" and "O2S B2 S2" changes between 0 to 1 V with the engine speed at 2,500 rpm.

OK:

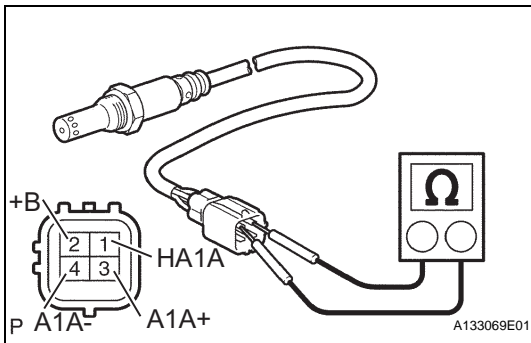
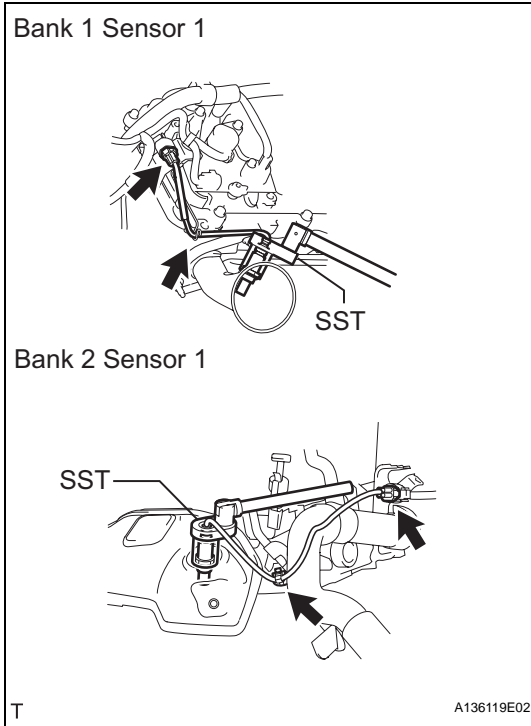
The voltage output oscillates more than 8 times in 10 seconds.

NOTICE:

- Perform the check immediately after warming the engine up.
- If the voltage variation could not be verified, warm up the A/F sensor again. If it could not be verified even after warming up the sensor again, check for DTCs (see page [ES-334](#)).

REMOVAL

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
CAUTION:
 Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
2. **REMOVE AIR FUEL RATIO SENSOR (for Sensor 1)**
 - (a) Disconnect the sensor connector.
 - (b) Using SST, remove the sensor from the exhaust manifold.
SST 09224-00010



INSPECTION

1. **INSPECT AIR FUEL RATIO SENSOR (for Sensor 1)**
 - (a) Measure the resistance of the sensor.
Standard resistance

Tester Connection	Condition	Specified Condition
1 (HA1A) - 2 (+B)	20°C (68°F)	1.8 to 3.4 Ω
1 (HA1A) - 4 (A1A-)	-	10 kΩ or higher

If the resistance is not as specified, replace the sensor.