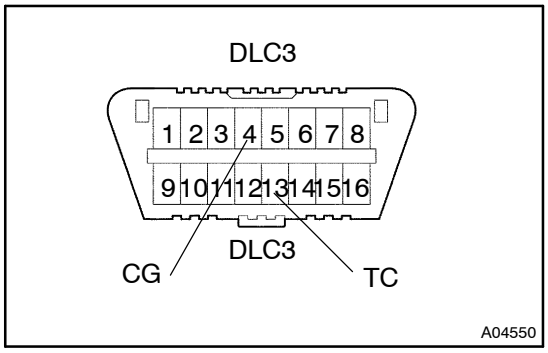
05BBH–01

PRE–CHECK

1. DIAGNOSTIC SYSTEM

(a) Cheek the DTC.

(1) Turn the ignition switch ON and then turn the ES start main switch ON.

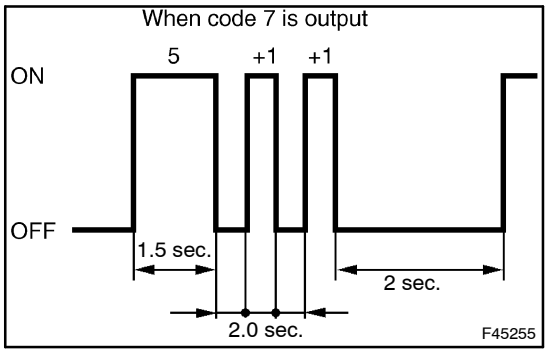


(2) Using SST, connect terminals TC and CG of the DLC3.

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NOTICE:

- **Connecting the wrong terminals will result in damage to the system. Be sure to connect the right terminals.**
- **The vehicle should be stationary at this time.**



(3) Read the DTC from the ES start indicator lamp on the combination meter.

HINT:

- DTC will be output by the ES start indicator lamp and buzzer in approx. 1 second.
- If no code appears, inspect the diagnostic circuit or ES start indicator lamp circuit.
- As an example, the blinking pattern for code 7 is shown on the left
- Codes are listed in the code table on page 05–276.
- If trouble exists, repair it and then clear the DTC stored. Then check for the DTC again.

(b) Method to clear the DTC.

Remove the SST from the terminals of the DLC3 while the DTC is being output.

(c) Method to save the DTC.

Turn the ignition switch OFF while the DTC is being output. Or turn the ES start main switch OFF and then remove the SST from the terminals of the DLC3.

2. CHECKING WARNING FUNCTIONS

(a) If trouble occurs, the type of trouble is notified by means of alarms, as shown in the following table.

(b) If a trouble is notified, troubleshoot using DTC.

Indicator lamp	Buzzer	Type	Warning contents	Countermeasures
Flashing	No signal	Unperformed adjustment warning	Initial settings have not been performed	Execute initial settings
Flashing	2 consecutive beeps	Trouble warning	Switch or sensor trouble	• Deactivate ES start system by moving operation cancel switch to the cancel position • Troubleshoot using diagnosis trouble codes
ON	3 consecutive beeps	Driver's seat vacant warning	• Door is opened while ES start system is activated • Ignition switch is turned off with the shift lever in neutral position while ES start system is activated	Securely engage parking brake
ON	4 consecutive beeps	Vehicle moving warning	Vehicle moves when shift lever is in neutral position while ES start system is activated	• Securely engage parking brake • Increase foot pressure applied to brake pedal
ON	Elapsed time signal	Operating time information	ES start operating time is announced every minute After 1 minute: 1 beep After 2 minutes: 2 beeps After 10 minutes and thereafter: series of beeps repeated 5 times	• Securely engage parking brake •Increase foot pressure applied to brake pedal (Alarm is reset after foot pressure applied to brake pedal is increased, and it will start again with the one–minute signal.)

3. CANCEL TIMING ADJUSTMENT

(a) Turn the ignition switch ON and then turn the ES start main switch ON.
(b) Press either the ”fast” or ”slow” of the ES start timing switch for at least 0.5 seconds.
(c) If the brakes are dragged, fast the timing; if the vehicle lags behind, slow the timing.
(d) The fast timing can be adjusted up to 8 and the slow timing up to 5, and the settings are indicated by buzzer signals as follows.

Adjustment setting	Buzzer signal
Intermediate setting	Long beep
Slow setting	Short beep
Fast setting	2 short beeps

(e) If the ES start timing switch is not operated for 5 seconds or more, the buzzer will signal once (short beep) and cancel timing adjustment mode will be terminated.

NOTICE:

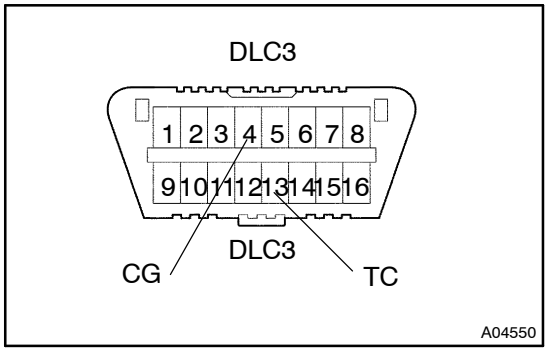
Cancel timing adjustment mode cannot be activated under the following conditions: if trouble is detected by the self–diagnosis function, if the vehicle speed is 0.5 km/h or more, if the ES Start switch is OFF, or if alarm is activated.

4. CANCEL POSITION INITIAL SETTING

NOTICE:

- **The clutch pedal play must first be properly adjusted before setting the initial cancel position.**
- **Operating the ES Start system without first adjusting the clutch pedal play may result in premature wear of brakes and clutch, or it may cause the vehicle to move on a downhill grade.**

(a) Setting the initial cancel position (models equipped with electric governor)
(1) Turn the ES start main switch OFF and start the engine with the parking brake engaged.



(2) Using SST, connect terminals TC and CG of the DLC3.
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(3) Make sure that the clutch pedal has fully returned to its released position, and then press the ”fast” of the ES start timing switch for 3 seconds.

HINT:
The buzzer will sound and the indicator lamp will flash at the same time.

(4) Depress the clutch pedal.
(5) Shift the shift lever into the 2nd gear and slowly engage the clutch.
(6) The engine speed will drop slightly and then be restored after about 1 second. When this happens, press the ”fast” of the ES start timing switch again.

HINT:
The buzzer will sound once and the indicator lamp will go off.

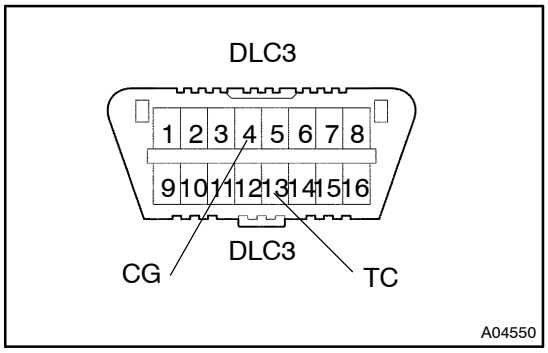
(7) Remove the SST from the terminals of the DLC3 and turn the ignition switch OFF to terminate the initial setting mode.
(8) After setting the cancel position, operate the ES start system and make sure that the cancel position is suitable.

NOTICE:

- **Initial setting mode cannot be activated under the following conditions: if trouble is detected by the self–diagnosis function, if the vehicle speed is 0.5 km/h or more and the ES start system is in operation, if the parking brake is not engaged, or if of the DLC3 terminals TC and CG of the DLC3 are not connected.**

(b) Setting the initial cancel position (models equipped with mechanical governor)

(1) Turn the ES start main switch OFF and start the engine with the parking brake engaged.



(2) Using SST, connect terminals TC and CG of the DLC3.

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(3) Make sure that the clutch pedal has fully returned to its released position, and then press the ”fast” of the ES start timing switch for 3 seconds.

HINT:

The buzzer will sound and the indicator lamp will flash at the same time.

(4) Depress the clutch pedal.

(5) Shift the shift lever into the 2nd gear and slowly engage the clutch.

(6) When the engine speed indicated on the speedometer drops about 50 rpm, press the ”fast” of the ES start timing switch again.

HINT:

The buzzer will sound once and the indicator lamp will go off.

(7) Remove the SST from the terminals of the DLC3 and turn the ignition switch OFF to terminate the initial setting mode.

(8) After setting the cancel position, operate the ES start system and make sure that the cancel position is suitable.

NOTICE:

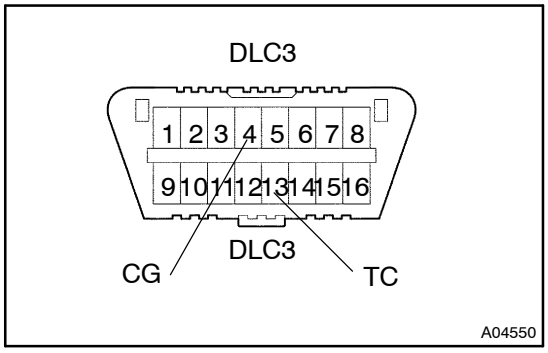
- **Initial setting mode cannot be activated under the following conditions: if trouble is detected by the self–diagnosis function, if the vehicle speed is 0.5 km/h or more and the ES start system is in operation, if the parking brake is not engaged, or if of the DLC3 terminals TC and CG of the DLC3 are not connected.**

5. GRADIENT SENSOR ZERO POINT ADJUSTMENT

NOTICE:

- **The zero point needs to be adjusted after the hill holder ECU has been replaced or mandatory inspection has been performed.**
- **Make the adjustment with the vehicle unladen on a level road surface.**

(a) Turn the ES start main switch OFF and start the engine with the parking brake engaged.



(b) Using SST, connect terminals TC and CG of the DLC3.
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(c) Press the ”slow” of the ES start timing switch for 3 seconds.

HINT:
The buzzer will sound and the indicator lamp will flash at the same time.

(d) Pressing the ”slow” of the ES start timing switch again will store the gradient sensor input value in the ECU memory.

HINT:
The buzzer will sound once and the indicator lamp will go off.

(e) Remove the SST from the terminals of the DLC3 and turn the ignition switch OFF to terminate the zero point adjustment mode.

NOTICE:

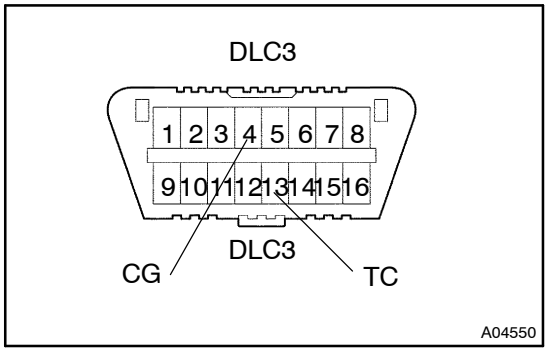
- **To terminate the zero point adjustment at any time, remove the SST from the terminals of the DLC3.**
- **Zero point adjustment mode cannot be activated under the following conditions: if trouble is detected by the self–diagnosis function, if the vehicle speed is 0.5 km/h or more and the ES start system is in operation, if the parking brake is not engaged, or if the vehicle is not level.**

6. CLUTCH STROKE SENSOR ADJUSTMENT

NOTICE:

Adjust the clutch stroke sensor after replacing the sensor.

(a) Turn the ES start main switch OFF and turn the ignition switch to the ON position with the parking brake engaged.



(b) Using SST, connect terminals TC and CG of the DLC3.
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(c) Press the ”fast” of the ES start timing switch 3 times.

HINT:
The buzzer will sound and the indicator lamp will flash twice at the same time.

(d) The clutch stroke sensor set point is determined according to the buzzer signal. Without depressing the clutch pedal, adjust the set point until a continuous buzzer signal is output.

Clutch stroke sensor position	Buzzer
Set point	Continuous beep
Vicinity of set point	Intermittent beep

(e) Depress the clutch pedal and check to see if the stroke sensor is correctly set.

(f) Press the ”fast” of the ES start timing switch to store the clutch stroke sensor position in the ECU memory.

HINT:
The buzzer will sound once and the indicator lamp will go off.

(g) Remove the SST from the terminals of the DLC3 and turn the ignition switch OFF to terminate the stroke sensor position adjustment mode.

(h) Set the initial cancel position.

NOTICE:

- **Always set the initial cancel position after adjusting the clutch stroke sensor position.**
- **The stroke sensor position cannot be adjusted if the vehicle speed is 0.5 km/h or more and the ES start system is in operation, or if of the DLC3 terminals TC and CG of the DLC3 are not connected.**