

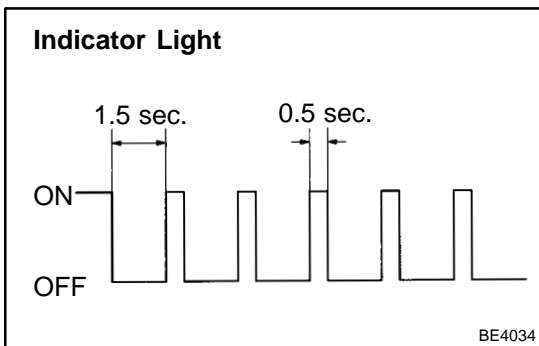
## PRE-CHECK

### 1. DIAGNOSIS SYSTEM

- (a) Check the indicator.
  - (1) Turn the ignition switch ON.
  - (2) Check that the CRUISE MAIN indicator light comes on when the cruise control main switch is turned on, and that the indicator light goes off when the main switch is turned OFF.

#### HINT:

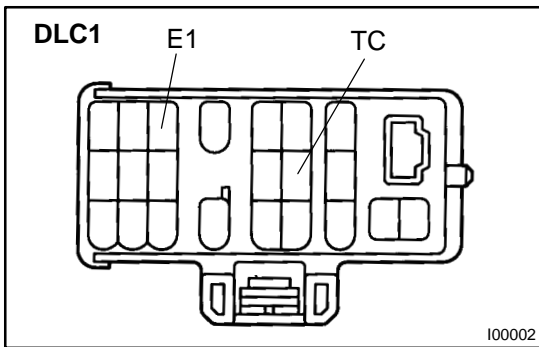
If the indicator check result is not normal, proceed to troubleshooting (See page [BE-2](#)) for the combination meter section.



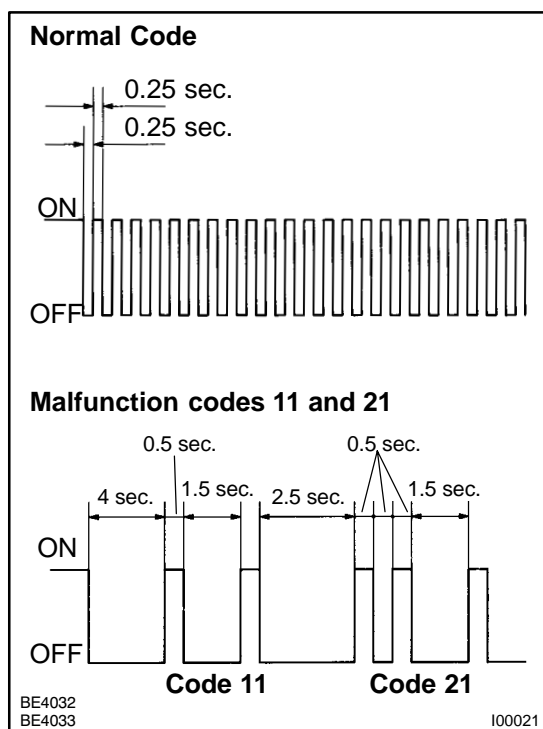
- (b) Check the DTC.

#### HINT:

If a malfunction occurs in the No. 1 vehicle speed sensor or actuator, etc. during cruise control driving, the ECU actuates AUTO CANCEL of the cruise control and turns ON and OFF the CRUISE MAIN indicator light to inform the driver of a malfunction. At the same time, the malfunction is stored in memory as a diagnostic trouble code.

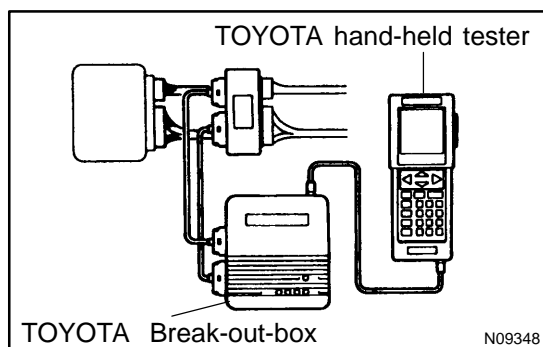


- (c) Using diagnosis check wire, check the output of DTC.
  - (1) Turn the ignition switch ON.
  - (2) Using SST, connect terminals Tc and E<sub>1</sub> of DLC1.  
SST 09843-18020
  - (3) Read the DTC on the CRUISE MAIN indicator light.

**HINT:**

If the DTC is not output, inspect the diagnosis circuit.

As an example, the blinking patterns for codes; normal 11 and 21 are shown in the illustration.



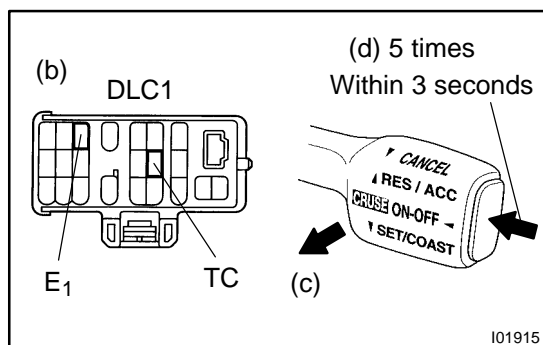
## 2. ECU TERMINAL VALUES MEASUREMENT BY USING TOYOTA BREAK-OUT-BOX AND TOYOTA HAND-HELD TESTER

- Hook up the TOYOTA break-out-box and TOYOTA hand-held tester to the vehicle.
- Read the ECU input/output values by following the prompts on the tester screen.

**HINT:**

TOYOTA hand-held tester has a "Snapshot" function. This records the measured values and is effective in the diagnosis of intermittent problems.

Please refer to the TOYOTA hand-held tester/TOYOTA break-out-box operator's manual for further details.

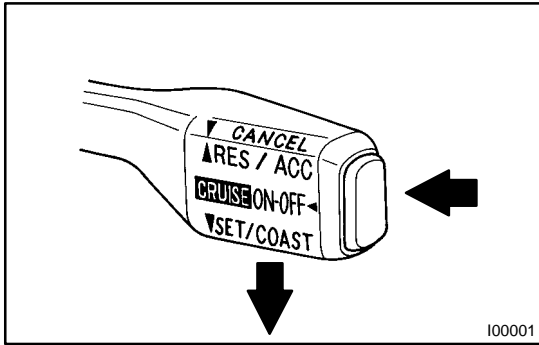


## 3. DTC CLEARANCE (ERASE MODE)

**HINT:**

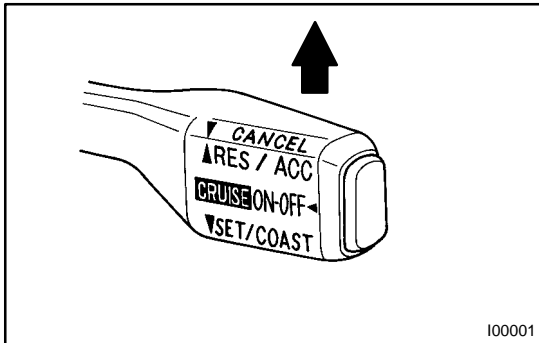
Under the erase mode, diag detection does not work.

- Drive at about 15 km/h or below.
- Using SST, connect terminals Tc and E<sub>1</sub> of DLC1.  
SST 09843-18020
- Pull the cruise control switch to CANCEL.
- On the above mentioned condition, turn on the cruise control main switch 5 times within 3 seconds.

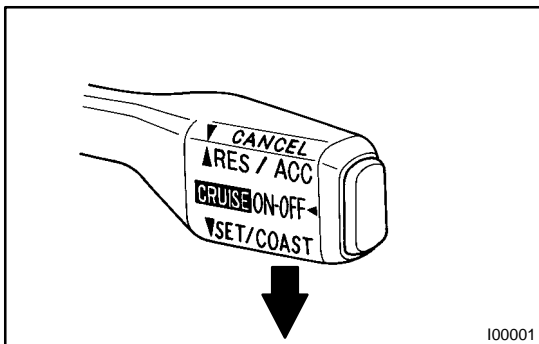


#### 4. PROBLEM SYMPTOM CONFIRMATION (ROAD TEST)

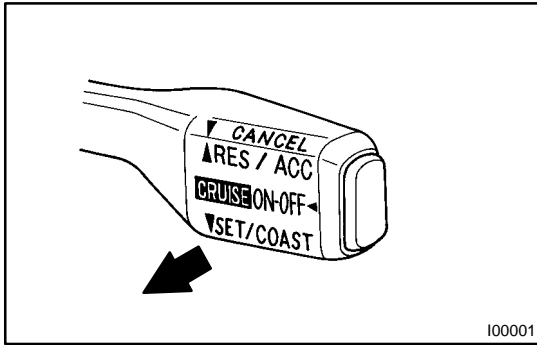
- (a) Inspect the SET switch.
- (1) Push the main switch ON.
  - (2) Drive at a desired speed (40 km/h (25 mph) or higher).
  - (3) Press the control switch to the SET/COAST.
  - (4) After releasing the switch, check that the vehicle cruises at the desired speed.



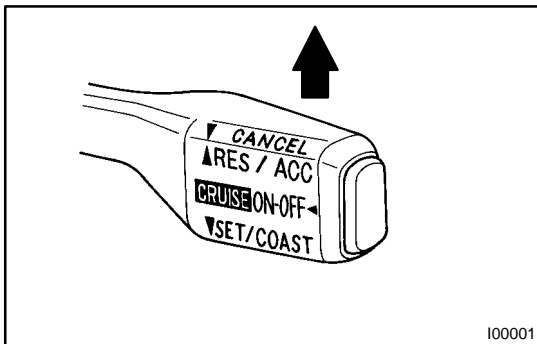
- (b) Inspect the ACCEL switch.
- (1) Push the main switch ON.
  - (2) Drive at a desired speed (40 km/h (25 mph) or higher).
  - (3) Press the control switch to the SET/COAST.
  - (4) Check that the vehicle speed increases while the control switch is turned to RES/ACC, and that the vehicle cruises at the set speed when the switch is released.
  - (5) Momentarily press the control switch upward to RES/ACC and then immediately release it. Check that the vehicle speed increases by about 1.6 km/h (1 mph) (Tap-up function).



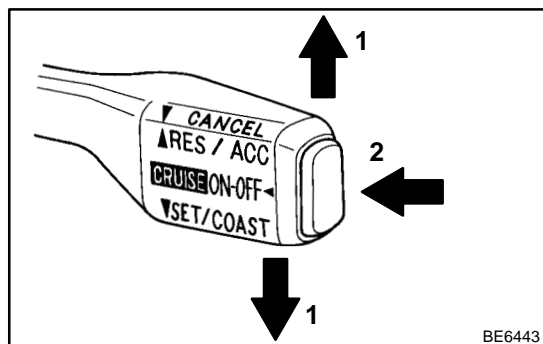
- (c) Inspect the COAST.
- (1) Push the main switch ON.
  - (2) Drive at a desired speed (40 km/h (25 mph) or higher).
  - (3) Press the control switch to the SET/COAST.
  - (4) Check that the vehicle speed decreases while the control switch is turned to SET/COAST, and the vehicle cruises at the set speed when the switch is released.
  - (5) Momentarily press the control switch downward to SET/COAST, and then immediately release it. Check that the vehicle speed decreases by about 1.6 km/h (1 mph) (Tap-down function).



- (d) Inspect the CANCEL switch.
- (1) Push the main switch ON.
  - (2) Drive at a desired speed (40 km/h (25 mph) or higher).
  - (3) Press the control switch to the SET/COAST.
  - (4) When operating one of the followings, check that the cruise control system is cancelled and that the normal driving mode is reset.
    - Depress the brake pedal
    - Depress the clutch pedal (M/T)
    - Shift to except D position (A/T)
    - Turn the main switch OFF
    - Pull the cruise control switch to CANCEL



- (e) Inspect the RESUME switch.
- (1) Push the main switch ON.
  - (2) Drive at a desired speed (40 km/h (25 mph) or higher).
  - (3) Press the control switch to the SET/COAST.
  - (4) When operating one of the followings, check that the cruise control system is cancelled and that the normal driving mode is reset.
    - Depress the brake pedal
    - Depress the clutch pedal (M/T)
    - Shift to except D position (A/T)
    - Pull the cruise control switch to CANCEL
  - (5) After the control switch is turned to RES/ACC at the driving speed of more than 40 km/h (25 mph), check that the vehicle restores the speed prior to the cancellation.



## 5. INPUT SIGNAL CHECK

### HINT:

- (1) For check No.1 ~ No.2
  - Turn the ignition switch ON.
- (2) For check No.3
  - Turn ignition switch ON.
  - Shift to D position.
- (3) For check No.4
  - Jack up the vehicle.
  - Start the engine.
  - Shift to D position.
- (a) Press the control switch to SET/COAST or RES/ACC position and hold it down or hold it up respectively (1)
- (b) Push the main switch ON (2).
- (c) Check that the CRUISE MAIN indicator light blinks twice or 3 times repeatedly after 3 seconds.
- (d) Turn the SET/COAST or RES/ACC switch OFF.
- (e) Operate each switch as listed in the table below.
- (f) Read the blinking pattern of the CRUISE MAIN indicator light.
- (g) After performing the check, turn the main switch OFF.

### HINT:

When 2 or more signals are input to the ECU, the lowest numbered code will be displayed first.

| No. | Operation Method  | CRUISE MAIN Indicator Light Blinking Pattern | Diagnosis                                      |
|-----|---|--|--|
| 1   | Turn SET/COAST switch ON  |  | SET/COAST switch circuit is normal             |
| 2   | Turn RES/ACC switch ON  |  | RES/ACC switch circuit is normal               |
| 3   | Turn CANCEL switch ON   |  | CANCEL switch circuit is normal                |
|     | Turn stop light switch ON<br>Depress brake pedal                      |  | Stop light switch circuit is normal            |
|     | Turn Park/Neutral Position switch OFF<br>(Shift to except D position) |  | Park/Neutral Position switch circuit is normal |
|     | Turn clutch switch OFF<br>(Depress clutch pedal)                      |  | Clutch switch circuit is normal                |
| 4   | Drive at about 40 km/h (25 mph) or higher                             |  | Vehicle Speed Sensor is normal                 |
|     | Drive at about 40 km/h (25 mph) or below                              |  |  |