

6. Diagnostics Chart for On-board Diagnosis System

A: BASIC DIAGNOSTIC PROCEDURE

6A1 : CHECK CRUISE CONTROL MAIN SWITCH.

- 1) Trouble occurs.
- 2) Perform pre-inspection. <Ref. to 6-2a [T200].>
- 3) Check cruise control main switch.

CHECK : **Does cruise control main switch turn ON?**

YES : Go to step **6A2**.

NO : Go to "Diagnostics Chart for Power Line". <Ref. to 6-2a [T700].>

6A2 : CHECK CRUISE SPEED IS SET.

CHECK : **Does cruise speed properly set while driving at minimum of 40 km/h (25 MPH)?**

YES : Go to step **6A3**.

NO : Go to "Diagnostics Chart with Trouble Code". <Ref. to 6-2a [T800].>

6A3 : CHECK CRUISE CONTROL IS RELEASED.

CHECK : **Does cruise control properly release during operation?**

YES : Go to step **6A4**.

NO : Go to "Diagnostics Chart with Trouble Code". <Ref. to 6-2a [T800].>

6A4 : CHECK CRUISE SPEED IS HELD WITHIN SET SPEED.

CHECK : **Does cruise speed hold within set speed ± 3 km/h (2 MPH)?**

YES : Go to step **6A5**.

NO : Go to "Diagnostics Chart with Trouble Code". <Ref. to 6-2a [T800].>

6A5 : CHECK RESUME/ACCEL SWITCH.

CHECK : **Does RESUME/ACCEL switch function properly?**

YES : Go to step **6A6**.

NO : Go to "Diagnostics Chart with Trouble Code". <Ref. to 6-2a [T800].>

6A6 : CHECK SET/COAST SWITCH.

CHECK : **Does SET/COAST switch function properly?**

YES : Go to step **6A7**.

NO : Go to "Diagnostics Chart with Trouble Code". <Ref. to 6-2a [T800].>

6A7 : CHECK CANCEL SWITCH.

CHECK : **Does CANCEL switch function properly?**

YES : Go to step **6A8**.

NO : Go to "Diagnostics Chart with Trouble Code". <Ref. to 6-2a [T800].>

6A8 : CHECK CRUISE SPEED IS RELEASED.

CHECK : **Does cruise speed release when brake pedal is depressed?**

YES : Go to step **6A9**.

NO : Go to "Diagnostics Chart with Trouble Code". <Ref. to 6-2a [T800].>

6A9 : CHECK CRUISE SPEED IS RELEASED.

CHECK : **Does cruise speed release when clutch pedal is depressed?**

YES : Cruise control system is in correct order.

NO : Go to "Diagnostics Chart with Trouble Code". <Ref. to 6-2a [T800].>

B: ON-BOARD DIAGNOSIS WITH SELECT MONITOR

1. GENERAL

The on-board diagnosis function of the cruise control system uses an external select monitor.

The on-board diagnosis function operates in two categories, which are used depending on the type of problems;

NOTE:

Select monitor cartridge:

No. 24082AA130

1) Cruise cancel conditions diagnosis

(1) This category of diagnosis requires actual vehicle driving in order to determine the cause, (as when cruise speed is cancelled during driving although cruise cancel condition is not entered).

(2) Cruise control module memory stores the cancel condition (Code No.) which occurred during driving. When there are plural cancel conditions (Code No.), they are shown on the select monitor.

CAUTION:

● **The cruise control memory stores not only the cruise “cancel” which occurred (although “cancel” operation is not entered by the driver), but also the “cancel” condition input by the driver.**

● **The content of memory is cleared when ignition switch or cruise main switch is turned OFF.**

2) Real-time diagnosis

The real-time diagnosis function is used to determine whether or not the input signal system is in good order, according to signal emitted from switches, sensors, etc.

(1) Vehicle cannot be driven at cruise speed because problem occurs in the cruise control system or its associated circuits.

(2) Monitor the signal conditions from switches and sensors.

2. CRUISE CANCEL CONDITIONS DIAGNOSIS

1) Connect select monitor.

2) Start the engine and turn cruise control main switch to ON.

3) Set select monitor in “All System Diagnosis” mode.

NOTE:

The diagnostic trouble code is also shown in the “Each System Check” mode. This mode is called up on the “Cruise Control Diagnosis” screen by selecting the item “Cancel Code(s) Display”.

4) Drive vehicle at least 30 km/h (19 MPH) with cruise speed set.

5) If cruise speed is canceled itself (without doing any cancel operations), a diagnostic trouble code will appear on select monitor display.

CAUTION:

● **A diagnostic trouble code will also appear when cruise cancel is effected by driver. Do not confuse.**

● **Have a co-worker ride in vehicle to assist in diagnosis during driving.**

NOTE:

Diagnostic trouble code will be cleared by turning ignition switch or cruise control main switch to OFF.

3. REAL-TIME DIAGNOSIS

1) Connect select monitor.

2) Turn ignition switch and cruise control main switch to ON.

3) Select the “Current Data Display & Save” mode on the select monitor “Cruise Control Diagnosis” screen.

4) Ensure that normal indication is displayed when controls are operated as indicated below:

● Depress/release the brake pedal. (Stop light switch and brake switch turn ON.)

● Turn ON the “SET/COAST” switch.

● Turn ON the “RESUME/ACCEL” switch.

● Depress/release the clutch pedal. (MT)

● Set the selector lever to P or N. (AT)