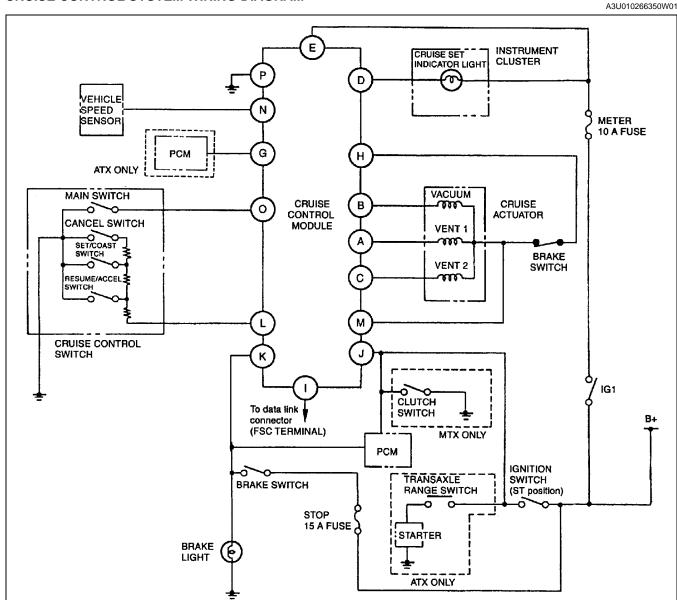
01-02C

01-02C ON-BOARD DIAGNOSTIC [CRUISE CONTROL SYSTEM]

CRUISE CONTROL SYSTEM WIRING DIAGRAM	DTC 3701-02C-7 INSPECTION OF DTCS FOR CONDITION
FOREWORD	DETECTION MODE01–02C–8
Outline	Using The Cruise Set Indicator Light01–02C–8
Inspection Order	Using The SST (WDS or equivalent)01-02C-8
INSPECTION OF DTCS FOR OPERATION	Condition Code List01–02C–8
MODE 01-02C-2	DTC 0101-02C-9
Using The Cruise Set Indicator Light 01–02C–2	DTC 05
Using The SST (WDS or equivalent) 01-02C-3	DTC 0701-02C-10
Operation Code List	DTC 11
DTC 21 01-02C-4	DTC 12
DTC 22 01-02C-4	DTC 13
DTC 31 01-02C-4	DTC 15
DTC 35 01-02C-6	

CRUISE CONTROL SYSTEM WIRING DIAGRAM



A3U102WY01

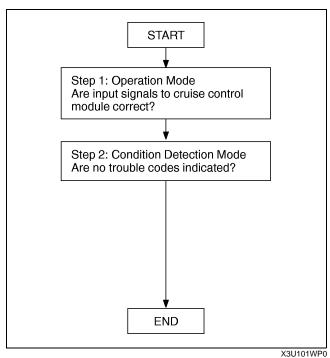
FOREWORD A3U010266350W02

 There are two on-board diagnostic functions: Operation Mode, which inspects for and indicates correct operation of the input signals to the control module, and Condition Detection Mode, which indicates troubles in the system.

- The two functions can be done by using either of the following methods:
 - 1. Verifying the flashing pattern of the cruise set indicator light in the instrument cluster.
 - 2. Verifying the output of the data link connector using the **SST** (WDS or equivalent).

Inspection Order

Outline



INSPECTION OF DTCS FOR OPERATION MODE

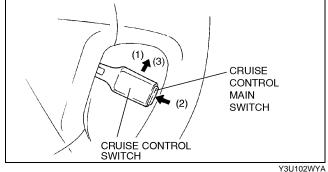
A3U010266350W03

Note

- If an Operation Mode is not indicated, the following may be the cause of the malfunction.
 - 1. Cruise control switch (RESUME/ACCEL switch)
 - 2. Cruise control main switch
 - 3. Cruise control module
 - 4. Open or short circuit in wiring harness

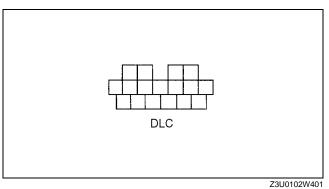
Using The Cruise Set Indicator Light

- 1. Turn the ignition switch to the ON position.
- 2. Verify that the cruise control main switch is off.
- 3. Perform the following steps to activate the operation mode.
 - (1) Push up the cruise control switch and hold it in the RESUME/ACCEL position.
 - (2) Turn on the cruise control main switch.
 - (3) Hold the cruise control switch in the RESUME/ACCEL position for at least 3 seconds. (The cruise set indicator light will illuminate for 3 seconds.)
- 4. Operate each switch as described in the operation code list and note the operation code list pattern.
 - If the cruise set indicator light does not flash, inspect the corresponding system area.
- 5. The operation mode is canceled by turning the ignition switch to LOCK position or turning off the cruise control main switch.



Using The SST (WDS or equivalent) DTCs retrieving procedure

- 1. Hook-up the **SST** to the vehicle. Make sure that ignition key is at LOCK and all accessories are ŎFF.
- 2. Turn the ignition key to ON (engine OFF).
- 3. Retrieve any DTCs by WDS or equivalent.



01-02C

Operation Code List

Ope	ration	DTC	Output pattern	Diagnos	ed circuit		
Turn SET/CO	DAST switch	21		Cruise control switch (SET/COAST switch)			
Turn RESUME/ACCEL switch on				Cruise control switch (RESUME/ACCEL switch)			
Depress bral	ke pedal	31		Brake switch			
ATX	Shift selector lever to P or N range	35		ATX	Transaxle range switch		
MTX	Depress clutch pedal			MTX	Clutch switch		
Drive vehicle above 40 km/ h {25 mph}		37		Vehicle speed sensor			

DTC 21 A3U010266350W04

DTC 21	Cruise control switch (set/coast switch)
DETECTION CONDITION	Resistance detected between terminal L and ground is other than approximately 198 ohms.
POSSIBLE CAUSE	 Cruise control module malfunction Cruise control switch malfunction
	CLOCK SPRING CONNECTOR D C B A
	HARNESS SIDE CONNECTOR (VIEW FROM HARNESS SIDE)

Diagnostic procedure

INSPECTION	ACTION				
INSPECT SIGNAL LINE OF CRUISE CONTROL SWITCH POSITION • Remove column cover.	Yes	Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION)			
 Turn ignition switch to ON position. Turn cruise control main switch on. Turn SET/COAST switch on. Is voltage at terminal C of clock spring connector approximately 2 V? 	No	Replace cruise control switch. (See 01–20–7 CRUISE CONTROL SWITCH REMOVAL/ INSTALLATION)			

DTC 22

A3U010266350W05

DTC 22	Cruise control switch (resume/accel switch)
DETECTION CONDITION	Resistance detected between terminal L and ground is other than 68 ohms.
POSSIBLE CAUSE	Cruise control module malfunction

Diagnostic procedure

ACTION
Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION)

DTC 31

		A3U010266350W06									
DTC 31	Brake switch										
DETECTION CONDITION	 Voltage detected at terminal K is not apaproximately 0 V. 	pproximately 12 V or voltage detected at terminal M is not									
POSSIBLE CAUSE	 Burnt STOP 15 A fuse Cruise control module malfunction Brake switch malfunction Open circuit in wiring harness between STOP 15 A fuse and brake switch Open circuit in wiring harness between brake switch and cruise control module 										
	PAKE SWITCH CONNECTOR 1A 1B 1B 1B 2B 2A 1HARNESS SIDE CONNECTOR (VIEW FROM HARNESS SIDE)	CRUISE CONTROL MODULE CONNECTOR O M K I G E C A P N L J H F D B HARNESS SIDE CONNECTOR (VIEW FROM HARNESS SIDE)									

Diagnostic procedure

STEP	Stic procedure INSPECTION		ACTION
1	VERIFY WHICH MALFUNCTION IS, ONE BRAKE SWITCH CIRCUIT OR ANOTHER • Does brake light illuminate when brake pedal depressed?	Yes No	Go to Step 6. Go to next step.
2	INSPECT STOP 15 A FUSE FOR FUSIONIs STOP 15 A fuse okay?	Yes No	Go to next step. Replace fuse after inspecting and repairing wiring harness.
3	INSPECT WIRING HARNESS BETWEEN STOP 15 A FUSE AND BRAKE SWITCH FOR CONTINUITY Depress brake pedal. Is voltage at terminal 1B of brake switch connector approximately 12 V?	Yes No	Go to Step 5. Go to next step.
4	INSPECT WIRING HARNESS BETWEEN STOP 15 A FUSE AND BRAKE SWITCH FOR CONTINUITY Is voltage at terminal 1A of brake switch connector approximately 12 V?	Yes No	Replace brake switch. (See 04–11–5 BRAKE PEDAL REMOVAL/INSTALLATION) Repair wiring harness. (STOP 15 A fuse—Brake switch)
5	INSPECT WIRING HARNESS BETWEEN BRAKE SWITCH AND CRUISE CONTROL MODULE FOR CONTINUITY Remove passenger-side front side trim. (See 09–17–13 FRONT SIDE TRIM REMOVAL/INSTALLATION) Depress brake pedal. Is voltage at terminal K of cruise control module connector approximately 12 V?	Yes No	Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION) Repair wiring harness. (Cruise control module—Brake switch)
6	INSPECT WIRING HARNESS BETWEEN BRAKE SWITCH AND CRUISE CONTROL MODULE FOR CONTINUITY • Remove passenger-side front side trim. (See 09–17–13 FRONT SIDE TRIM REMOVAL/INSTALLATION) • Depress brake pedal. • Is voltage at terminal K of cruise control module connector approximately 12 V?	Yes No	Go to next step. Repair wiring harness. (Cruise control module—Brake switch)
7	 INSPECT BRAKE SWITCH Turn ignition switch to ON position. Turn cruise control main switch on. Depress brake pedal. Is voltage at terminal M of cruise control module connector approximately 0 V? 	Yes No	Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION) Replace brake switch. (See 04–11–5 BRAKE PEDAL REMOVAL/INSTALLATION)

01-02C

DTC 35

A3U010266350W07

DTC 35	Clutch switch (ATX: transaxle range switch)													
DETECTION CONDITION	Voltage deter	g													
POSSIBLE CAUSE	Clutch switchOpen circuit	Clutch switch malfunction (ATX: transaxle range switch) Open circuit in wiring harness between clutch switch (ATX: transaxle range switch) and ground Open circuit in wiring harness between clutch switch (ATX: transaxle range switch) and cruise control													
	CH SWITCH ECTOR	TRANSAXLE RANGE SWITCH CONNECTOR	CRUISE CONTROL MODULE CONNECTOR												
E	A B C D D	I G E C A H F D B	O M K I G E C A P N L J H F D B												

HARNESS SIDE CONNECTOR (VIEW FROM HARNESS SIDE)

HARNESS SIDE CONNECTOR (VIEW FROM HARNESS SIDE)

HARNESS SIDE CONNECTOR (VIEW FROM HARNESS SIDE)

STEP	INSPECTION		ACTION
1	Does vehicle has MTX?	Yes	Go to next step.
		No	Go to Step 6.
2	Inspect clutch switch.	Yes	Go to next step.
	(See 01–40A–41 CLUTCH SWITCH INSPECTION [ZM]) (See 01–40B–42 CLUTCH SWITCH INSPECTION [FS]) Is clutch switch okay?	No	Replace clutch switch. (See 05–10–5 CLUTCH PEDAL REMOVAL/ INSTALLATION)
3	INSPECT WIRING HARNESS BETWEEN	Yes	Go to next step.
	CLUTCH SWITCH AND GROUND FOR CONTINUITY Disconnect clutch switch connector. Is there continuity between terminal E of clutch switch connector and ground?	No	Repair wiring harness. (Clutch switch—GND)
4	INSPECT WIRING HARNESS BETWEEN CLUTCH SWITCH AND CRUISE CONTROL MODULE FOR CONTINUITY		Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION)
	 Turn ignition switch to ON position. Turn cruise control main switch on. Keep clutch pedal released. Is voltage at terminal C of clutch switch connector approximately 12 V? 	No	Go to next step.
5	 INSPECT CRUISE CONTROL MODULE Remove passenger-side front side trim. 		Repair wiring harness. (Cruise control module—Clutch switch)
	(See 09–17–13 FRONT SIDE TRIM REMOVAL/INSTALLATION) Is voltage at terminal J of cruise control module connector approximately 12 V?	No	Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/ INSTALLATION)
6	Inspect transaxle range switch.	Yes	Go to next step.
	(See 05–17–20 TRANSAXLE RANGE (TR) SWITCH INSPECTION) Is transaxle range switch okay?		Replace transaxle range switch. (See 05–17–20 TRANSAXLE RANGE (TR) SWITCH REMOVAL/INSTALLATION)
7			Go to next step.
	 TRANSAXLE RANGE SWITCH AND GROUND FOR CONTINUITY Disconnect transaxle range switch connector. Is there continuity between terminal B of transaxle range switch connector and ground? 	No	Repair wiring harness. (Transaxle range switch—GND)

01-02C

ON-BOARD DIAGNOSTIC [CRUISE CONTROL SYSTEM]

STEP	INSPECTION		ACTION
8	INSPECT WIRING HARNESS BETWEEN TRANSAXLE RANGE SWITCH AND CRUISE CONTROL MODULE FOR CONTINUITY	Yes	Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/ INSTALLATION)
	 Turn ignition switch to ON position. Turn cruise control main switch on. Shift selector lever to D or R range. Is voltage at terminal H of transaxle range switch connector approximately 12 V? 	No	Go to next step.
9	INSPECT CRUISE CONTROL MODULE Remove passenger-side front side trim. (See 09–17–13 FRONT SIDE TRIM REMOVAL/INSTALLATION) Is voltage at terminal J of cruise control module connector approximately 12 V?		Repair wiring harness. (Cruise control module—Transaxle range switch)
			Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/ INSTALLATION)

DTC 37

A3U010266350W08

DTC 3	7	Veh	Vehicle speed sensor																
DETECT CONDIT		• '																	
POSSIE CAUS		•	Cruise control module malfunction Instrument cluster malfunction Open circuit in wiring harness between instrument cluster and cruise control module																
INSTRUMENT CLUSTER CONNECTOR CRUISE CONTROL MODULE CONNECTOR																			
_ا	· · · · · · · · · · · · · · · · · · ·			\geq	\leq						Ŋ				\leq			N	
s	Q	0	М	Κ	Ι	G	Е	С	Α		0	М	К	I	G	Е	С	Α	
T	R	Р	P N L J H F D B										L	J	Н	F	D	В	
	HARNESS SIDE CONNECTOR (VIEW FROM HARNESS SIDE)														CON				

STEP	INSPECTION		ACTION
1	INSPECT WIRING HARNESS BETWEEN		Go to next step.
	INSTRUMENT CLUSTER AND CRUISE CONTROL MODULE FOR CONTINUITY Remove instrument cluster. (See 09–22–3 INSTRUMENT CLUSTER REMOVAL/INSTALLATION) Remove passenger-side front side trim. (See 09–17–13 FRONT SIDE TRIM REMOVAL/INSTALLATION) Disconnect cruise control module connector. Is there continuity between terminal N of cruise control module connector and terminal 3T of instrument cluster connector?	No	Repair wiring harness. (Cruise control module—instrument cluster)
2	 INSPECT VEHICLE SPEED SIGNAL Turn ignition switch to ON position. Turn cruise control main switch on. 	Yes	Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION)
	 Rotate front tires. Does voltage at terminal 3T of instrument cluster connector alternate between 0 V and 5 V? 	No	Replace instrument cluster. (See 09–22–3 INSTRUMENT CLUSTER REMOVAL/ INSTALLATION)

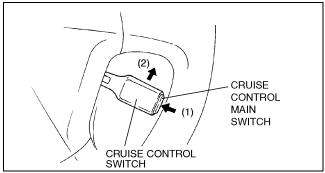
INSPECTION OF DTCS FOR CONDITION DETECTION MODE

Using The Cruise Set Indicator Light

A3U010266350W09

Note

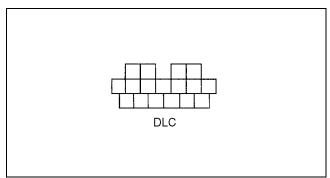
- If the RESUME/ACCEL switch on the cruise control switch is malfunctioning, the cruise set indicator light will not give a correct indication when you inspect the system. Use the **SST** (WDS or equivalent) to determine the cause of the malfunction.
- 1. Drive the vehicle at over 16 km/h {10 mph}.
- 2. Operate each of the cruise control switches.
- 3. Stop the vehicle and let it idle.
- 4. The following steps to activate the detection mode.
 - (1) Turn on the cruise control main switch.
 - (2) Push up the cruise control switch and hold it in the RESUME/ACCEL position for at least 3 seconds. (The cruise set indicator light will illuminate for 3 seconds.)
 - If a DTC is indicated, inspect the corresponding system area.
- 5. The condition detection mode is canceled by turning the ignition switch to LOCK position or turning off the cruise control main switch.



Y3U102WYB

Using The SST (WDS or equivalent) DTCs retrieving procedure

- Hook-up the SST to the vehicle. Make sure that ignition key is at LOCK and all accessories are OFF.
- 2. Turn the ignition key to ON (engine OFF).
- 3. Retrieve any DTCs by WDS or equivalent.



Z3U0102W401

Condition Code List

DTC	Output pattern	Diagnosed circuit
01		Cruise actuator
05		Brake switch
07		Brake switch
11		Cruise control switch (SET/COAST switch)
12		Cruise control switch (RESUME/ACCEL switch)

DTC	Output pattern	Diagnosed circuit
13		Cruise control switch (Ground circuit)
15		Cruise control module

01-02C

Note

• When two or more DTCs are indicated, inspect the malfunction with the smallest number first.

DTC 01

A3U010266350W10

DTC 01	Cruise actuator					
DETECTION CONDITION	Voltages detected at terminal A, B or C are not approximately 12 V.					
POSSIBLE CAUSE	 Cruise control module malfunction Cruise actuator malfunction Open circuit in wiring harness between cruise control module and cruise actuator Open circuit in wiring harness between cruise actuator and brake switch Open circuit in wiring harness between cruise control module and brake switch 					
CRUISE ACTUATOR CONNECTOR CRUISE CONTROL MODULE CONNECTOR						
	DCBA	O M K I G E C A				
ŧ		P N L J H F D B				
	RNESS SIDE CONNECTOR EW FROM HARNESS SIDE)	HARNESS SIDE CONNECTOR (VIEW FROM HARNESS SIDE)				

STEP	INSPECTION		ACTION		
1	INSPECT WIRING HARNESS BETWEEN	Yes	Go to next step.		
	CRUISE CONTROL MODULE AND CRUISE ACTUATOR FOR CONTINUITY Are wiring harnesses between cruise control module and cruise actuator okay?		Repair wiring harness. (Cruise control module—Cruise actuator)		
2	INSPECT POWER SUPPLY LINE OF CRUISE	Yes	Go to Step 6.		
	 ACTUATOR Disconnect cruise actuator connector. Turn ignition switch to ON position. Turn cruise control main switch on. Is voltage at terminal B of cruise actuator connector approximately 12 V? 	No	Go to next step.		
3	DDAYE OWITCH AND ODINGE ACTUATOR		Repair wiring harness. (Cruise actuator—Brake switch)		
	BRAKE SWITCH AND CRUISE ACTUATOR FOR CONTINUITY Is voltage at terminal 2B of brake switch connector approximately 12 V?	No	Go to next step.		
4	INSPECT BRAKE SWITCH Is voltage at terminal 2A of brake switch	Yes	Replace brake switch. (See 04–11–5 BRAKE PEDAL REMOVAL/INSTALLATION)		
	connector approximately 12 V?	No	Go to next step.		
5	Remove passenger-side front side trim.		Repair wiring harness. (Cruise control module—Brake switch)		
	(See 09–17–13 FRONT SIDE TRIM REMOVAL/INSTALLATION) • Is voltage at terminal H of cruise control module connector approximately 12 V?	No	Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/ INSTALLATION)		

STEP	INSPECTION		ACTION
6	INSPECT CRUISE ACTUATOR Connect cruise actuator connector. Turn ignition switch to ON position. Turn cruise control main switch on. Is voltage at terminal D of cruise actuator connector approximately 12 V?		Go to next step.
			Replace cruise actuator. (See 01–20–4 CRUISE ACTUATOR REMOVAL/ INSTALLATION)
7	7 INSPECT CRUISE ACTUATOR • Is voltage at terminal A of cruise actuator connector approximately 12 V? N		Go to next step.
			Replace cruise actuator. (See 01–20–4 CRUISE ACTUATOR REMOVAL/ INSTALLATION)
8	 INSPECT CRUISE ACTUATOR Is voltage at terminal C of cruise actuator connector approximately 12 V? 		Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION)
		No	Replace cruise actuator. (See 01–20–4 CRUISE ACTUATOR REMOVAL/ INSTALLATION)

DTC 05

A3U010266350W11

DTC 05	Brake switch	
DETECTION CONDITION	Voltage detected at terminal K is always approximately 0 V.	
POSSIBLE CAUSE	Cruise control module malfunction	

Diagnostic procedure

INSPECTION		ACTION
Was operation mode performed?	Yes	Perform operation mode on-board diagnostic again. Even if no malfunctions are detected in operation mode, if DTC 05 is indicated in condition detection mode on-board diagnostic, replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION)
	No	Perform operation mode.

DTC 07

	_						A3U0102	266350W12
DTC 07	Brake switch							
DETECTION CONDITION	 Voltage detected at terminal K or M is always approximately 12 V. Voltage detected at terminal M is always approximately 0 V. 							
POSSIBLE CAUSE	 Cruise control module malfunction Brake switch malfunction Open circuit in wiring harness between cruise control module and brake switch 							
	RAKE SWITCH CONNECTOR 1A 1B 1B 1B 1B 1B 1C 1B 1C 1C 1C	ISE CONTROL M K I N L J HARNESS SI (VIEW FROM	G H	E F NECT	C D OR	CTOR A B		

Diagnostic procedure

STEP	INSPECTION		ACTION	
1	Disconnect brake switch connector.Is there continuity between terminal 1A and	uity between terminal 1A and	Replace brake switch. (See 04–11–5 BRAKE PEDAL REMOVAL/INSTALLATION)	
	1B of brake switch?	No	Go to next step.	
2	Remove passenger-side front side trim. (See 09–17–13 FRONT SIDE TRIM	Yes	Repair wiring harness. (Cruise control module—Brake switch)	
	REMOVAL/INSTALLATION) Turn ignition switch to ON position. Turn cruise control main switch on. Depress brake pedal. Is voltage at terminal M of cruise control module connector approximately 0 V?	No	Replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/ INSTALLATION)	

01-02C

DTC 11

A3U010266350W13

DTC 11	Cruise control switch (set/coast switch)			
DETECTION CONDITION	Resistance detected between terminal L and ground is always approximately 198 ohms.			
POSSIBLE CAUSE	Cruise control module malfunction			

Diagnostic procedure

INSPECTION		ACTION	
Was operation mode performed?	Yes	Perform operation mode on-board diagnostic again. Even if no malfunctions are detected in operation mode, if DTC 11 is indicated in condition detection mode on-board diagnostic, replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION)	
	No	Perform operation mode.	

DTC 12

A3U010266350W14

DTC 12	Cruise control switch (resume/accel switch)
DETECTION CONDITION	Resistance detected between terminal L and ground is always approximately 68 ohms.
POSSIBLE CAUSE	Cruise control module malfunction

INSPECTION		ACTION	
Was operation mode performed?	Yes	Perform operation mode on-board diagnostic again. Even if no malfunctions are detected in operation mode, if DTC 12 is indicated in condition detection mode on-board diagnostic, replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION	
	No	Perform operation mode.	

DTC 13

A3U010266350W15

DTC 13	Cruise control switch (ground circuit)	
DETECTION CONDITION	I ● Resistance detected between terminal I and dround is always annroximately () ohm	
POSSIBLE CAUSE	Cruise control module malfunction	

Diagnostic procedure

INSPECTION		ACTION
Was operation mode performed?		Perform operation mode on-board diagnostic again. Even if no malfunctions are detected in operation mode, if DTC 13 is indicated in condition detection mode on-board diagnostic, replace cruise control module. (See 01–20–2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION)
	No	Perform operation mode.

DTC 15

A3U010266350W16

	DTC 15	Cruise control module
Ī	DETECTION CONDITION	Malfunction in cruise control module circuit
Ī	POSSIBLE CAUSE	Cruise control module malfunction

again and processing	
ACTION	
eplace cruise control module.	
ee 01-20-2 CRUISE CONTROL MODULE REMOVAL/INSTALLATION)	