



Technical Service Bulletin

SUBJECT: SERVICE PROCEDURE CHANGES AND CORRECTIONS – SERVICE MANUAL REVISION		No: TSB-24-42-001
		DATE: April 2024
		MODEL: Outlander
CIRCULATE TO:	<input type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
	<input checked="" type="checkbox"/> WARRANTY PROCESSOR	<input type="checkbox"/> SALES MANAGER

PURPOSE

This TSB provides changes and corrections for the service procedures in the applicable Service Manual sections.

- (1) DRIVER INFORMATION & MULTIMEDIA:
 - Deletion of description for the 12 sensor model
 - Deletion of description for "Front Sonar Sensor (RH/LH side)", "Rear Sonar Sensor (LH/RH side)"
- (2) CRUISE CONTROL & DRIVER ASSISTANCE
 - Addition of diagnosis codes DTC U1B26-11, U1B26-15, U1B46-11, U1B46-15
- (3) BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY
 - Addition of description for the removal and installation procedure "LOOSE PANEL"
- (4) ELECTRICAL & POWER CONTROL
 - Addition of description for "Remove the battery cable"
 - Change of Work Flow for measuring the battery voltage

Removed content areas have a "<deleted>" notation.

AFFECTED VEHICLES

2022-2024 Outlander

AFFECTED SERVICE MANUAL

2022-2024 Outlander Service Manual

PROCEDURE

Please use the chart below to replace the pages in the affected 2022-2024 Outlander Service Manuals, Group 42/54, Driver Information & Multimedia, Cruise Control & Driver Assistance, Body Exterior, Doors, Roof & Vehicle Security, and Electrical & Power Control sections.



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OUTLANDER

Applicable Manual	Pub.No.	Applicable Title	Contents
2022 OUTLANDER Service Manual	MSCD-030B-2022	DRIVER INFORMATION & MULTIMEDIA └ SONAR SYSTEM └ SYSTEM DESCRIPTION └ COMPONENT PARTS └ Component Parts Location	Attached sheet 2
2023 OUTLANDER Service Manual	MSCD-030B-2023		
2024 OUTLANDER Service Manual	MSCD-030B-2024	DRIVER INFORMATION & MULTIMEDIA └ SONAR SYSTEM └ SYSTEM DESCRIPTION └ SYSTEM └ SONAR SYSTEM └ System Description	Attached sheet 3
		DRIVER INFORMATION & MULTIMEDIA └ SONAR SYSTEM └ SYSTEM DESCRIPTION └ SYSTEM └ INFORMATION DISPLAY (COMBINATION METER) └ Sonar Indicator	Attached sheet 3 (4/4)
		DRIVER INFORMATION & MULTIMEDIA └ SONAR SYSTEM └ ECU DIAGNOSIS INFORMATION └ SONAR CONTROL UNIT └ Reference Value	Attached sheet 4
		DRIVER INFORMATION & MULTIMEDIA └ SONAR SYSTEM └ DTC/CIRCUIT DIAGNOSIS └ SONAR (SONAR CONTROL UNIT) └ B2738-11 FRONT SENSOR POWER SUPPLY └ Diagnosis Procedure	Attached sheet 5
		DRIVER INFORMATION & MULTIMEDIA └ SONAR SYSTEM └ DTC/CIRCUIT DIAGNOSIS └ SONAR (SONAR CONTROL UNIT) └ B2738-12 FRONT SENSOR POWER SUPPLY └ Diagnosis Procedure	Attached sheet 6
		DRIVER INFORMATION & MULTIMEDIA └ SONAR SYSTEM └ DTC/CIRCUIT DIAGNOSIS └ SONAR (SONAR CONTROL UNIT) └ B2738-87 FRONT SENSOR POWER SUPPLY └ Diagnosis Procedure	Attached sheet 7
		DRIVER INFORMATION & MULTIMEDIA └ SONAR SYSTEM └ DTC/CIRCUIT DIAGNOSIS └ SONAR (SONAR CONTROL UNIT) └ B273B-11 REAR SENSOR POWER SUPPLY └ Diagnosis Procedure	Attached sheet 8
		DRIVER INFORMATION & MULTIMEDIA └ SONAR SYSTEM └ DTC/CIRCUIT DIAGNOSIS └ SONAR (SONAR CONTROL UNIT) └ B273B-12 REAR SENSOR POWER SUPPLY └ Diagnosis Procedure	Attached sheet 9
		DRIVER INFORMATION & MULTIMEDIA └ SONAR SYSTEM └ DTC/CIRCUIT DIAGNOSIS └ SONAR (SONAR CONTROL UNIT) └ B273B-87 REAR SENSOR POWER SUPPLY └ Diagnosis Procedure	Attached sheet 10
		CRUISE CONTROL & DRIVER ASSISTANCE └ DRIVER ASSISTANCE SYSTEM └ DRIVER ASSISTANCE SYSTEM └ ECU DIAGNOSIS INFORMATION └ SIDE RADAR LH └ DTC Inspection Priority Chart	Attached sheet 11

OUTLANDER

Applicable Manual	Pub.No.	Applicable Title	Contents
2024 OUTLANDER Service Manual	MSCD-030B-2024	CRUISE CONTROL & DRIVER ASSISTANCE <ul style="list-style-type: none"> └ DRIVER ASSISTANCE SYSTEM <ul style="list-style-type: none"> └ DRIVER ASSISTANCE SYSTEM <ul style="list-style-type: none"> └ ECU DIAGNOSIS INFORMATION <ul style="list-style-type: none"> └ SIDE RADAR LH <ul style="list-style-type: none"> └ DTC Index 	Attached sheet 12
		CRUISE CONTROL & DRIVER ASSISTANCE <ul style="list-style-type: none"> └ DRIVER ASSISTANCE SYSTEM <ul style="list-style-type: none"> └ DRIVER ASSISTANCE SYSTEM <ul style="list-style-type: none"> └ ECU DIAGNOSIS INFORMATION <ul style="list-style-type: none"> └ SIDE RADAR RH <ul style="list-style-type: none"> └ DTC Inspection Priority Chart 	Attached sheet 13
		CRUISE CONTROL & DRIVER ASSISTANCE <ul style="list-style-type: none"> └ DRIVER ASSISTANCE SYSTEM <ul style="list-style-type: none"> └ DRIVER ASSISTANCE SYSTEM <ul style="list-style-type: none"> └ ECU DIAGNOSIS INFORMATION <ul style="list-style-type: none"> └ SIDE RADAR RH <ul style="list-style-type: none"> └ DTC Index 	Attached sheet 14
		CRUISE CONTROL & DRIVER ASSISTANCE <ul style="list-style-type: none"> └ DRIVER ASSISTANCE SYSTEM <ul style="list-style-type: none"> └ DRIVER ASSISTANCE SYSTEM <ul style="list-style-type: none"> └ DTC/CIRCUIT DIAGNOSIS <ul style="list-style-type: none"> └ SIDE RADAR LEFT (SIDE RADAR LH) <ul style="list-style-type: none"> └ Added below "C1E13-55 CONFIGURATION - Diagnosis Procedure" 	Attached sheet 15
		CRUISE CONTROL & DRIVER ASSISTANCE <ul style="list-style-type: none"> └ DRIVER ASSISTANCE SYSTEM <ul style="list-style-type: none"> └ DRIVER ASSISTANCE SYSTEM <ul style="list-style-type: none"> └ SIDE RADAR RIGHT (SIDE RADAR RH) <ul style="list-style-type: none"> └ Added below "C1E93-55 CONFIGURATION - Diagnosis Procedure" 	Attached sheet 16
		BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY <ul style="list-style-type: none"> └ EXTERIOR <ul style="list-style-type: none"> └ REMOVAL AND INSTALLATION <ul style="list-style-type: none"> └ Added below "EMBLEM - REMOVAL AND INSTALLATION" 	Attached sheet 17
		ELECTRICAL & POWER CONTROL <ul style="list-style-type: none"> └ POWER SUPPLY, GROUND & CIRCUIT ELEMENTS <ul style="list-style-type: none"> └ BASIC INSPECTION <ul style="list-style-type: none"> └ BATTERY INSPECTION <ul style="list-style-type: none"> └ Work Flow 	Attached sheet 18
		BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY <ul style="list-style-type: none"> └ DOOR & LOCK <ul style="list-style-type: none"> └ DTC/CIRCUIT DIAGNOSIS <ul style="list-style-type: none"> └ B2010-1C BATTERY VOLTAGE <ul style="list-style-type: none"> └ Diagnosis Procedure 	Attached sheet 19

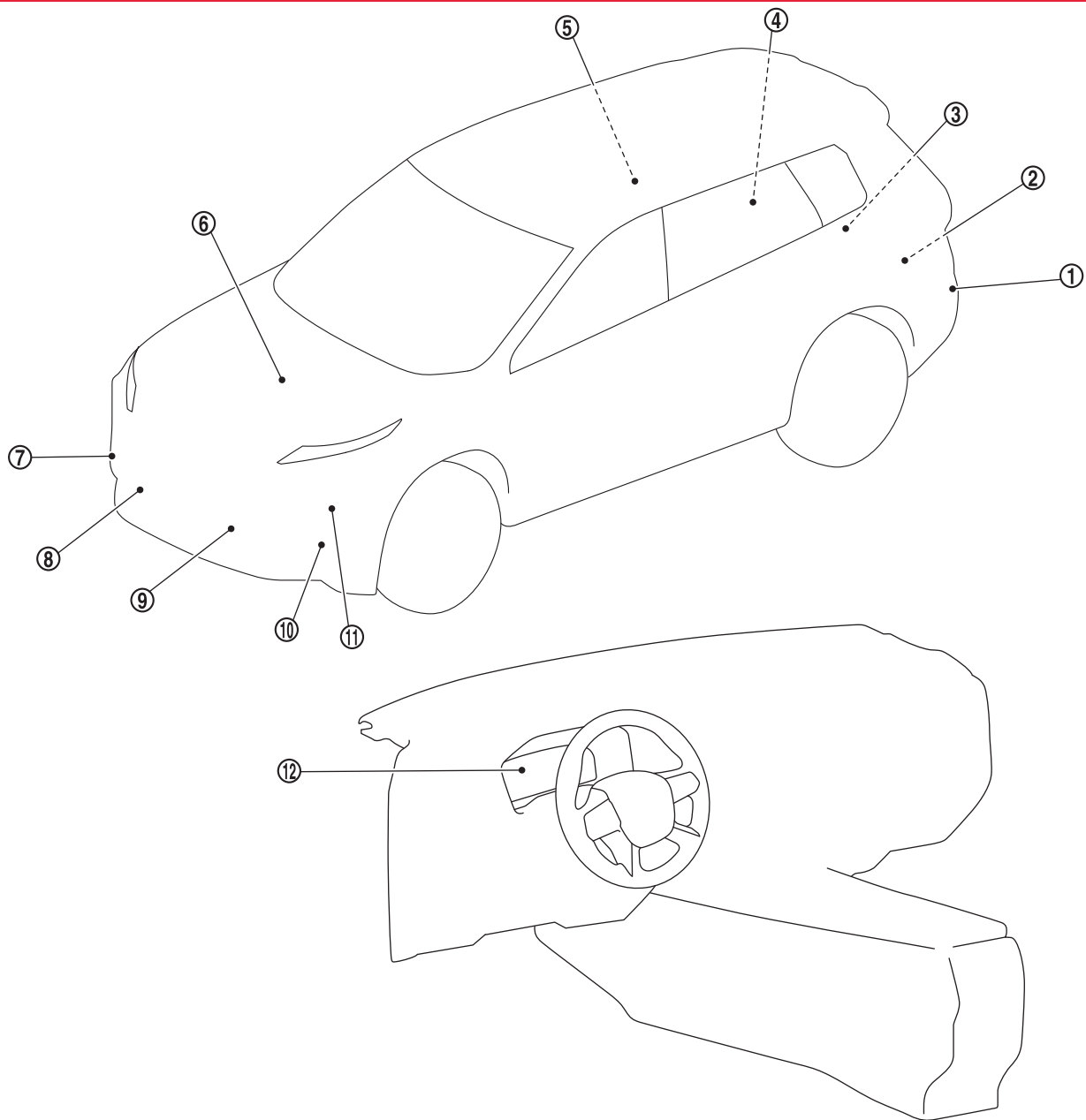
SONAR SYSTEM

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

<Corrected>



DF100C9JAF00USA

①	Rear sonar sensor LH outer	②	Rear sonar sensor LH inner	③	Rear sonar sensor RH inner
④	Rear sonar sensor RH outer	⑤	Sonar control unit	⑥	ABS actuator electric unit (control unit) Refer to Component Parts Location, for detailed installation location.
⑦	Front sonar sensor RH outer	⑧	Front sonar sensor RH inner	⑨	Front sonar sensor LH inner
⑩	Front sonar sensor LH outer	⑪	TCM Refer to Component Parts Location, for detailed installation location.	⑫	Combination meter

Sonar Control Unit Input Signal (CAN Communication)

Transmit unit	Signal name
Combination meter	System setting signal
ABS actuator and electric unit (control unit)	Vehicle speed signal
TCM	Shift position signal

Sonar Control Unit Output Signal (CAN Communication)

Transmit unit	Signal name
Combination meter	<ul style="list-style-type: none"> Sonar indicator signal Parking sensor error signal Buzzer output signal
Around view monitor control unit*	Sonar indicator signal

*: With around view monitor

DESCRIPTION

- The sonar sensor installed to the front bumper and the rear bumper detects obstacles around the bumper.
- The sonar control unit changes the buzzer cycle and the warning of the sonar indicator (combination meter and around view monitor control unit), according to a distance from an obstacle detected by the sonar sensor.
- The sonar control unit controls the buzzer cycle according to a buzzer output signal transmitted to the combination meter and the around view monitor control unit via CAN communication.
- The sonar control unit controls the sonar indicator according to a sonar indicator display signal transmitted to the combination meter and the around view monitor control unit via CAN communication.

SONAR SYSTEM ACTIVATION CONDITION

The sonar system warns the driver of the presence or absence of obstacles by buzzer and the sonar indicator when the following conditions are satisfied while the ignition switch is turned ON.

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×: Activation

Shift position	Vehicle speed (Approx.)	Obstacle detecting sensor	Buzzer	Sonar indicator
R	10 km/h (6.21MPH) or less	Front sensor	×	×
		Rear sensor	×	×
D	10 km/h (6.21MPH) or less	Front sensor	×	×
		Rear sensor	—	—

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NOTE:

The following items can be set for the sonar system on the settings screen of the combination meter.

- Moving Object: ON/OFF
- Auto Show Sonar: ON/OFF
- Front: ON/OFF
- Rear: ON/OFF
- Distance
- Volume

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SONAR SYSTEM

OBSTACLE DETECTION DISTANCE

The sonar control unit changes a buzzer cycle and a sonar indicator indication according to a distance from an obstacle.

Warning Buzzer Frequency

- The warning buzzer output frequency changes 4 levels according to the detection distance.
- As the vehicle approaches an obstacle, the buzzer-sounding cycle becomes shorter.
- The nearest sensor from the detected obstacle applies the buzzer output frequency if plural sensors detect any obstacle simultaneously.

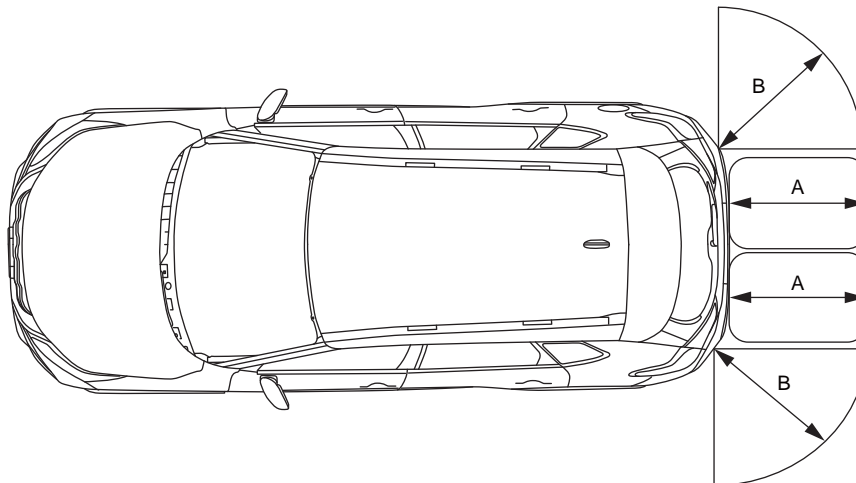


NOTE:

Buzzer stops when the vehicle moves away from an obstacle and the warning level decreases.

- 4 Sensor Models

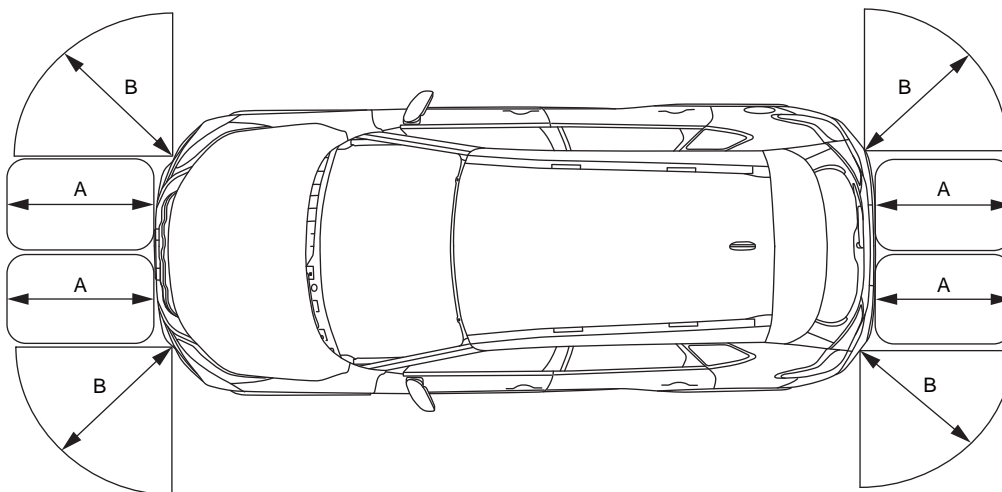
Obstacle detection range image



A.	Approx. 150 cm (59.06 in) (default value)	B.	Approx. 60 cm (23.62 in) (default value)
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- 8 Sensor Models

Obstacle detection range image



A.	Approx. 120 cm (47.24 in) (default value)	B.	Approx. 60 cm (23.62 in) (default value)
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Detection distance (default value)

Detection distance	Warning buzzer frequency
30 - 35 cm (11.81 - 13.78 in)	10.0 Hz
35 - 50 cm (13.78 - 19.69 in)	9.0 Hz
50 - 70 cm (19.69 - 27.56 in)	6.66 Hz
70 - 90 cm (27.56 - 35.43 in)	5.0 Hz
90 - 120 cm (35.43 - 47.24 in)	4.0 Hz
120 - 150 cm (47.24 - 59.06 in)	3.0 Hz
150 - 180 cm (59.06 - 70.87 in)	2.5 Hz
180 cm or more (70.87 in or more)	2.0 Hz

- Detection distance of an obstacle changes, as shown in the table below, when the detection sensitivity is changed on the settings screen of the information display of the combination meter.

Detection distance

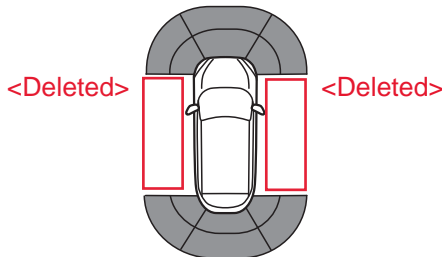
Item (detection range)	Corner sensor	Front center sensor	Rear center sensor
FAR	Approx. 66 cm (25.98 in)	Approx. 110 cm (43.31 in)	Approx. 165 cm (64.96 in)
NORMAL (default value)	Approx. 60 cm (23.62 in)	Approx. 100 cm (39.37 in)	Approx. 150 cm (59.06 in)
NEAR	Approx. 54 cm (21.26 in)	Approx. 90 cm (35.43 in)	Approx. 135 cm (53.51 in)

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SONAR SYSTEM

Sonar Indicator

- The sonar control unit displays a warning on sonar indicator in three stages (green, yellow, and red), according to a distance from an obstacle.



DF100C9SAE00USA



NOTE:

- A distance from an obstacle is also displayed on the information display of the combination meter.
 - Sonar indicator is displayed also on Bird-Eye view and front-side view screen of around view monitor.
-
- Warning displayed on the sonar indicator and a distance change according to a distance between an obstacle and sensor as shown in the following table.

Status of warning	Detection distance		
	Corner sensor	Front center sensor	Rear center sensor
Red	0 - 30 cm (0 - 11.81 in)	0 - 30 cm (0 - 11.81 in)	0 - 30 cm (0 - 11.81 in)
Yellow	31 - 50 cm (12.2 - 19.69 in)	31 - 50 cm (12.2 - 19.69 in)	31 - 60 cm (12.2 - 23.62 in)
Green	51 - 60 cm (20.08 - 23.62 in)	51 - 80 cm (20.08 - 31.49 in)	61 - 130 cm (24.02 - 51.18 in)

MAC (Message Authentication Code)

MAC (Message Authentication Code) is a function that prevents unauthorized communication from other than the ECU with MAC function by secure authentication communication. Sonar control unit can write a MAC key required for communication between the ECUs and perform MAC diagnosis.

Fail-Safe

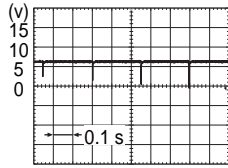
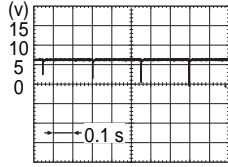
Obstacle detection function is deactivated when a sensor system error is detected.

INFORMATION DISPLAY (COMBINATION METER)

Sonar Indicator

Name	Design	Function
Sonar indicator	<p>Parking Sensor</p> <p>DF100C9TAE00USA</p>	<p>System Description</p>

SONAR SYSTEM

Terminal		Description		Condition	Standard	Reference value (Approx.)
+	-	Signal name	Input/Output			
12	15	ACC power supply	Input	[Ignition switch ACC]	9.0 - 16.0 V	Battery voltage
13	Ground	Front sensor ground	—	—	—	0 V
14	Ground	Rear sensor ground	—	—	—	0 V
15	Ground	Ground	—	—	—	0 V
21	14	Rear sonar sensor signal LH inner	Input	[Ignition switch ON] • Shift position is in R position.	Waveform according to sensor signal is input	 <p style="text-align: right;">CF100C9XAA00USA</p>
22	14	Rear sonar sensor signal LH outer	Input	[Ignition switch ON] • Shift position is in R position.	Waveform according to sensor signal is input	 <p style="text-align: right;">CF100C9XAA00USA</p>
23	14	Rear sensor power supply	Output	—	—	8.0 V
26	—	CAN-L	Input/Output	—	—	—
<Deleted> 28	—	CAN-H	Input/Output	—	—	—

Fail-Safe

Refer to [Fail-Safe](#).

DTC Inspection Priority Chart

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

Priority	Detected items (DTC)		
1	B273A	55	ECU Configuration
	B2724	04/16/17/44/45/46/47/48/49/55	SONAR CONTROL UNIT
2	U1327	54	MAC Key update
3	U1327	52	MAC Key update
4	U2140	57	CAN comm err (ECM)
	U2141	57	CAN comm err (TCM)
	U2148	57	CAN comm err (brake control unit)
	U214E	57	CAN comm err (combination meter)
	U214F	57	CAN comm err (BCM)
	U2152	57	CAN comm err (ADAS control unit)
	U2156	57	CAN comm err (steering angel sensor)
	U2159	57	CAN comm err (steering control unit)
	U215B	57	CAN comm err (IPDM E/R)
	U2175	57	CAN comm err (Multi Around Monitor)
U2176	57	CAN comm err (CCM)	

POSSIBLE CAUSE


Harness or connector (Front sensor power supply circuit is short to ground)

FAIL-SAFE

Stop the obstacle detection function

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

 With M.U.T.-III SE

1. Turn ignition switch ON.
2. Turn ignition switch OFF and wait at least 30 seconds.
3. Turn ignition switch ON and wait at least 30 seconds or more.
4. Select "Self Diagnostic Result" mode of "SONAR" using M.U.T.-III SE.
5. Check the DTC.

Is DTC "B2738-11" detected?

YES >>

Refer to [Diagnosis Procedure](#).

NO-1 >>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2 >>

Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. CHECK FRONT SENSOR POWER SUPPLY CIRCUIT (SHORT)

1. Turn ignition switch OFF. <Deleted>
2. Disconnect sonar control unit connector, front sonar sensor LH/RH outer connector, front sonar sensor LH/RH inner connector.
3. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		Not existed
B20	11		

Is the inspection result normal?

YES >>

Replace the sonar control unit. Refer to [Removal and Installation](#).

NO >>

Repair the harness or connector.

B2738-12 FRONT SENSOR POWER SUPPLY

DTC Description

DTC DETECTION LOGIC

DTC	M.U.T.-III SE screen items (Trouble diagnosis content)	DTC detection condition	
B2738-12	FRONT SENSOR POWER (Front sensor power)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	Front sensor power supply
		Threshold	Short circuit to power supply
		Diagnosis delay time	4 seconds or more

POSSIBLE CAUSE

Harness or connector (Front sensor power supply circuit is short circuit to power supply)

FAIL-SAFE

Stop the obstacle detection function

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

 With M.U.T.-III SE

1. Turn ignition switch ON.
2. Turn ignition switch OFF and wait at least 30 seconds.
3. Turn ignition switch ON and wait at least 30 seconds or more.
4. Select "Self Diagnostic Result" mode of "SONAR" using M.U.T.-III SE.
5. Check the DTC.

Is DTC "B2738-12" detected?

YES >>

Refer to [Diagnosis Procedure](#).

NO-1 >>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2 >>

Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. CHECK FRONT SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector, front sonar sensor LH/RH outer connector, front sonar sensor LH/RH inner connector. <Deleted>
3. Turn ignition switch ON.
4. Check voltage between sonar control unit harness connector and ground.

Sonar control unit		(-)	Voltage (Approx.)
Connector	Terminal		
B20	11	Ground	0 V

Is the inspection result normal?

YES >>

Replace the sonar control unit. Refer to [Removal and Installation](#).

NO >>

Repair harness or connector.

B2738-87 FRONT SENSOR POWER SUPPLY

DTC Description

DTC DETECTION LOGIC

DTC	M.U.T.-III SE screen items (Trouble diagnosis content)	DTC detection condition	
B2738-87	FRONT SENSOR POWER (Front sensor power)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	Front sensor power supply
		Threshold	Connection error is detected between sonar control unit and each sonar sensor.
		Diagnosis delay time	4 seconds or more

2. CHECK OPEN CIRCUIT BETWEEN SONAR CONTROL UNIT AND SENSOR

- Turn ignition switch OFF.
- Disconnect sonar control unit connector and each front sonar sensor connector.
- Check continuity between sonar control unit harness connector and each front sonar sensor harness connector.

Sonar control unit		Each sonar sensor			Continuity
Connector	Terminal	Connector	Terminal	Terminal	
B20	11	Front sonar sensor LH outer	E304	1	Existed
		Front sonar sensor LH inner	E305	1	
		Front sonar sensor RH inner	E306	1	
		Front sonar sensor RH outer	E307	1	

Is the inspection result normal?

YES >>

[GO TO 3](#)

.

NO >>

Repair harness or connector.

<Deleted>

3. CHECK INTERMITTENT INCIDENT

Perform intermittent incident. Refer to Intermittent Incident.

Is the inspection result normal?

YES >>

Replace the sonar control unit. Refer to [Removal and Installation](#).

NO >>

Repair or replace the applicable malfunctioning parts.

B273A-55 CONFIGURATION

DTC Description

DTC DETECTION LOGIC

DTC	M.U.T.-III SE screen items (Trouble diagnosis content)	DTC detection condition	
		Diagnosis condition	Signal (terminal)
B273A-55	ECU Configuration (ECU Configuration)	When ignition switch is ON	—
		Configuration is incomplete	—
		4 seconds or more	—
		—	—

POSSIBLE CAUSE

Vehicle specifications for sonar control unit is incomplete

FAIL-SAFE


Stop the obstacle detection function

FAIL-SAFE

Stop the obstacle detection function

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

 With M.U.T.-III SE

1. Turn ignition switch ON.
2. Turn ignition switch OFF and wait at least 30 seconds.
3. Turn ignition switch ON and wait at least 30 seconds or more.
4. Select "Self Diagnostic Result" mode of "SONAR" using M.U.T.-III SE.
5. Check the DTC.

Is DTC "B273B-11" detected?

YES >>

Refer to [Diagnosis Procedure](#).

NO-1 >>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2 >>

Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. CHECK REAR SENSOR POWER SUPPLY CIRCUIT (SHORT)

1. Turn ignition switch OFF. <Deleted>
2. Disconnect sonar control unit connector, rear sonar sensor LH/RH outer connector, rear sonar sensor LH/RH inner connector.
3. Check continuity between sonar control unit harness connector and ground.

Sonar control unit		Ground	Continuity
Connector	Terminal		
B20	23		Not existed

Is the inspection result normal?

YES >>

Replace the sonar control unit. Refer to [Removal and Installation](#).

NO >>

Repair the harness or connector.

B273B-12 REAR SENSOR POWER SUPPLY

DTC Description

DTC DETECTION LOGIC

DTC	M.U.T.-III SE screen items (Trouble diagnosis content)	DTC detection condition	
		Diagnosis condition	When ignition switch is ON
B273B-12	REAR SENSOR POWER (Rear sensor power)	Signal (terminal)	Rear sensor power supply
		Threshold	Short circuit to power supply
		Diagnosis delay time	4 seconds or more


POSSIBLE CAUSE

Harness or connector (Rear sensor power supply circuit is short circuit to power supply)

FAIL-SAFE

Stop the obstacle detection function

CONFIRMATION PROCEDURE**1. PERFORM DTC CONFIRMATION PROCEDURE**

 With M.U.T.-III SE

1. Turn ignition switch ON.
2. Turn ignition switch OFF and wait at least 30 seconds.
3. Turn ignition switch ON and wait at least 30 seconds or more.
4. Select "Self Diagnostic Result" mode of "SONAR" using M.U.T.-III SE.
5. Check the DTC.

Is DTC "B273B-12" detected?

YES >>

Refer to [Diagnosis Procedure](#).

NO-1 >>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2 >>

Confirmation after repair: INSPECTION END

Diagnosis Procedure**1. CHECK REAR SENSOR POWER SUPPLY CIRCUIT**

1. Turn ignition switch OFF. <Deleted>
2. Disconnect sonar control unit connector, rear sonar sensor LH/RH outer connector, rear sonar sensor LH/RH inner connector.
3. Turn ignition switch ON.
4. Check voltage between sonar control unit harness connector and ground.

Sonar control unit		(-)	Voltage (Approx.)
Connector	Terminal		
B20	23	Ground	0 V

Is the inspection result normal?

YES >>

Replace the sonar control unit. Refer to [Removal and Installation](#).

NO >>

Repair harness or connector.

B273B-87 REAR SENSOR POWER SUPPLY**DTC Description****DTC DETECTION LOGIC**

DTC	M.U.T.-III SE screen items (Trouble diagnosis content)	DTC detection condition	
B273B-87	REAR SENSOR POWER (Rear sensor power)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	Rear sensor power supply
		Threshold	Connection error is detected between sonar control unit and each sonar sensor.
		Diagnosis delay time	4 seconds or more

SONAR SYSTEM

2. CHECK OPEN CIRCUIT BETWEEN SONAR CONTROL UNIT AND SENSOR

1. Turn ignition switch OFF.
2. Disconnect sonar control unit connector and each rear sonar sensor connector.
3. Check continuity between sonar control unit harness connector and each rear sonar sensor harness connector.

Sonar control unit		Each sonar sensor			Continuity
Connector	Terminal	Connector	Terminal	Terminal	
B20	23	Rear sonar sensor LH outer	B457	1	Existed
		Rear sonar sensor RH inner	B458	1	
		Rear sonar sensor LH inner	B459	1	
		Rear sonar sensor RH outer	B460	1	

Is the inspection result normal?

YES >>

[GO TO 3](#)

NO >>

Repair harness or connector.

<Deleted>

3. CHECK INTERMITTENT INCIDENT

Perform intermittent incident. Refer to Intermittent Incident.

Is the inspection result normal?

YES >>

Replace the sonar control unit. Refer to [Removal and Installation](#).

NO >>

Repair or replace the applicable malfunctioning parts.

B2740-82 TCU

DTC Description

DTC DETECTION LOGIC

DTC	M.U.T.-III SE screen items (Trouble diagnosis content)	DTC detection condition	
		Diagnosis condition	Signal (terminal)
B2740-82	TCU (TCU)	When ignition switch is ON	—
		Communication error between sonar control unit and TCU	
		2 seconds or more	

POSSIBLE CAUSE

- Sonar control unit
- TCU

FAIL-SAFE

DTC Inspection Priority Chart

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> • C1E00-44: Control unit • C1E00-45: Control unit • C1E00-46: Control unit • C1E00-47: Control unit • C1E00-48: Control unit • C1E00-49: Control unit • C1E00-4B: Control unit • C1E00-97: Control unit • C1E01-12: Incorrect installation location • C1E01-67: Incorrect installation location • C1E10-54: Radar off-center • C1E10-78: Radar off-center • C1E11-97: RADAR BLOCKED • C1E12-16: Power supply circuit • C1E12-17: Power supply circuit • C1E13-55: Configuration unfinished • U2A08-88: CAN comm err (ITS3/5-CAN Bus Off)
2	<ul style="list-style-type: none"> • U2104-87: CAN comm err (active steering) • U2141-87: CAN comm err (TCM) • U2148-87: CAN comm err (brake control unit) • U214E-87: CAN comm err (combination meter) • U214F-87: CAN comm err (BCM) • U2152-87: CAN comm err (ADAS control unit) • U2154-87: CAN comm err (MIU) • U2156-87: CAN comm err (steering angel sensor) • U215B-87: CAN comm err (IPDM E/R) • U216E-87: CAN comm err (side radar)
3	<ul style="list-style-type: none"> • U1B26-11: Circuit (Short/Open) 2 • U1B26-15: Circuit (Short/Open) 1 • U1B2E-86: CAN comm err • U1B2E-87: CAN comm err <p style="margin-left: 100px; color: red;"><Added></p>

DTC Index

Self Diagnostic Result

x: Applicable

DTC	Items (M.U.T.-III SE screen terms)	Fail-safe			Reference	
		BSW	Active Blind Spot Assist [ABSA]	RCTA		
C1E00	44	Control unit	x	x	x	DTC Description DTC Description
	45		x	x	x	DTC Description DTC Description
	46		x	x	x	DTC Description DTC Description
	47		x	x	x	DTC Description DTC Description
	48		x	x	x	DTC Description DTC Description
	49		x	x	x	DTC Description DTC Description
	4B		x	x	x	DTC Description DTC Description
	97		x	x	x	DTC Description DTC Description
C1E01	12	Incorrect installation location	x	x	x	DTC Description DTC Description
	67		x	x	x	DTC Description DTC Description
C1E10	54	Radar off-center	x	x	x	DTC Description DTC Description
	78		x	x	x	DTC Description DTC Description
C1E11	97	RADAR BLOCKED	x	x	x	DTC Description DTC Description
C1E12	16	Power supply circuit	x	x	x	DTC Description DTC Description
	17		x	x	x	DTC Description DTC Description
C1E13	55	Configuration unfinished	x	x	x	DTC Description DTC Description

Network-DTC

x: Applicable

<Added>

DTC	Items (M.U.T.-III SE screen terms)	Fail-safe			Reference	
		BSW	Active Blind Spot Assist [ABSA]	RCTA		
U1B26	11	Circuit (Short/Open) 2	x	x	x	DTC Description DTC Description
	15	Circuit (Short/Open) 1	x	x	x	DTC Description DTC Description
U1B2E	86	CAN comm err	x	x	x	DTC Description DTC Description
	87		x	x	x	DTC Description DTC Description
U2104	87	CAN comm err (active steering)	x	x	x	DTC Description DTC Description
U2141	87	CAN comm err (TCM)	x	x	x	DTC Description DTC Description
U2148	87	CAN comm err (brake control unit)	x	x	x	DTC Description DTC Description
U214E	87	CAN comm err (combination meter)	x	x	x	DTC Description DTC Description
U214F	87	CAN comm err (BCM)	x	x	x	DTC Description DTC Description
U2152	87	CAN comm err (ADAS control unit)	x	x	x	DTC Description DTC Description
U2154	87	CAN comm err (MIU)	x	x	x	DTC Description DTC Description
U2156	87	CAN comm err (steering angel sensor)	x	x	x	DTC Description DTC Description
U215B	87	CAN comm err (IPDM E/R)	x	x	x	DTC Description DTC Description
U216E	87	CAN comm err (side radar)	x	x	x	DTC Description DTC Description
U2A08	88	CAN comm err (ITS3/5-CAN Bus Off)	x	x	x	DTC Description DTC Description

SIDE RADAR RH

Reference Value

VALUES ON THE DIAGNOSIS TOOL



NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to M.U.T.-III SE display items.

DTC Inspection Priority Chart

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> • C1E80-44: Control unit • C1E80-45: Control unit • C1E80-46: Control unit • C1E80-47: Control unit • C1E80-48: Control unit • C1E80-49: Control unit • C1E80-4B: Control unit • C1E80-97: Control unit • C1E81-12: Incorrect installation location • C1E81-67: Incorrect installation location • C1E82-62: RCTA ON/OFF Incorrect • C1E83-62: BSW ON/OFF Incorrect • C1E90-54: Radar off-center • C1E90-78: Radar off-center • C1E91-97: RADAR BLOCKED • C1E92-16: Power supply circuit • C1E92-17: Power supply circuit • C1E93-55: Configuration unfinished • U2A08-88: CAN comm err (ITS3/5-CAN Bus Off)
2	<ul style="list-style-type: none"> • U2104-87: CAN comm err (active steering) • U2141-87: CAN comm err (TCM) • U2148-87: CAN comm err (brake control unit) • U214E-87: CAN comm err (combination meter) • U214F-87: CAN comm err (BCM) • U2152-87: CAN comm err (ADAS control unit) • U2154-87: CAN comm err (MIU) • U2156-87: CAN comm err (steering angel sensor) • U215B-87: CAN comm err (IPDM E/R) • U216C-87: CAN comm err (side radar)
3	<ul style="list-style-type: none"> • U1B46-11: Circuit (Short/Open) 2 • U1B46-15: Circuit (Short/Open) 1 • U1B4E-86: CAN comm err • U1B4E-87: CAN comm err <p style="margin-left: 100px; color: red;"><Added></p>

DRIVER ASSISTANCE SYSTEM

DTC Index

Self Diagnostic Result

x: Applicable

DTC	Items (M.U.T.-III SE screen terms)	Fail-safe			Reference	
		BSW	Active Blind Spot Assist [ABSA]	RCTA		
C1E80	44	Control unit	x	x	x	DTC Description DTC Description
	45		x	x	x	DTC Description DTC Description
	46		x	x	x	DTC Description DTC Description
	47		x	x	x	DTC Description DTC Description
	48		x	x	x	DTC Description DTC Description
	49		x	x	x	DTC Description DTC Description
	4B		x	x	x	DTC Description DTC Description
	97		x	x	x	DTC Description DTC Description
C1E81	12	Incorrect installation location	x	x	x	DTC Description DTC Description
	67		x	x	x	DTC Description DTC Description
C1E82	62	RCTA ON/OFF Incorrect	x	x	x	DTC Description DTC Description
C1E83	62	BSW ON/OFF Incorrect	x	x	x	DTC Description DTC Description
C1E90	54	Radar off-center	x	x	x	DTC Description DTC Description
	78		x	x	x	DTC Description DTC Description
C1E91	97	RADAR BLOCKED	x	x	x	DTC Description DTC Description
C1E92	16	Power supply circuit	x	x	x	DTC Description DTC Description
	17		x	x	x	DTC Description DTC Description
C1E93	55	Configuration unfinished	x	x	x	DTC Description DTC Description

Network-DTC

x: Applicable

DTC	Items (M.U.T.-III SE screen terms)	Fail-safe			Reference	
		BSW	Active Blind Spot Assist [ABSA]	RCTA		
U14B46	11	Circuit (Short/Open) 2	x	x	x	DTC Description DTC Description
	15	Circuit (Short/Open) 1	x	x	x	DTC Description DTC Description
U1B4E	86	CAN comm err	x	x	x	DTC Description DTC Description
	87		x	x	x	DTC Description DTC Description
U2104	87	CAN comm err (active steering)	x	x	x	DTC Description DTC Description
U2141	87	CAN comm err (TCM)	x	x	x	DTC Description DTC Description
U2148	87	CAN comm err (brake control unit)	x	x	x	DTC Description DTC Description
U214E	87	CAN comm err (combination meter)	x	x	x	DTC Description DTC Description
U214F	87	CAN comm err (BCM)	x	x	x	DTC Description DTC Description
U2152	87	CAN comm err (ADAS control unit)	x	x	x	DTC Description DTC Description
U2154	87	CAN comm err (MIU)	x	x	x	DTC Description DTC Description
U2156	87	CAN comm err (steering angel sensor)	x	x	x	DTC Description DTC Description
U215B	87	CAN comm err (IPDM E/R)	x	x	x	DTC Description DTC Description
U216C	87	CAN comm err (side radar)	x	x	x	DTC Description DTC Description
U2A08	88	CAN comm err (ITS3/5-CAN Bus Off)	x	x	x	DTC Description DTC Description

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

OVERALL SEQUENCE

Diagnosis Procedure

1. PERFORM CONFIGURATION OF SIDE RADAR LH

Perform configuration of side radar LH when DTC "C1E13-55" is detected.

>>

Perform configuration of side radar LH. Refer to [Work Procedure](#).

<Added>

U1B26-11 Circuit (Short/Open) 2

DTC Description

DTC DETECTION LOGIC

DTC No.	M.U.T.-III SE screen terms (Trouble diagnosis content)	DTC detection condition	
		Diagnosis condition	When electric motor switch is ON
U1B26-11	Circuit malfunction (short/open) 2 (Controller area network communication error)	Signal (terminal)	–
		Threshold	BSW indicator circuit LH for short
		Diagnosis delay time	Within 1 second

POSSIBLE CAUSE

- BSW indicator circuit LH
- BSW indicator LH
- Side radar LH

FAIL-SAFE

The following systems are canceled.

- BSW
- Active Blind Spot Assist [ABSA]
- RCTA

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Change the power supply mode of the electric motor switch to ON (READY indicator: ON).
2. Perform "Read All DTCs" with M.U.T.-III SE.
3. Check if the "U1B26-11" is detected as the current malfunction in "Diagnostic Trouble Code" of "Side radar (Rear left)".

Is "U1B26-11" detected as the current malfunction?

YES >>

Refer to DTC Diagnosis Procedure.

NO-1 >>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2 >>

Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE SYSTEM

<Added>

Diagnosis Procedure

1. CHECK BSW INDICATOR CIRCUIT LH (FOR SHORT)

1. Turn the electric motor switch OFF.
2. Disconnect side radar LH harness connector and door mirror (passenger side) harness connector.
3. Check continuity between side radar LH harness connector and ground.

Side radar LH		Ground	Continuity
Connector	Terminal		
B461	6		Not existed

Is the inspection result normal?

YES >>

[GO TO 2](#)

NO >>

Repair the harnesses or connectors.

2. REPLACE THE DOOR MIRROR (PASSENGER SIDE)

1. Replace the door mirror (passenger side).
2. Erase in "Diagnostic Trouble Code" of "Side radar (Rear left)" with M.U.T.-III SE.
3. Perform "Read All DTCs" with M.U.T.-III SE.
4. Check if the "U1B26-11" is detected in "Diagnostic Trouble Code" of "Side radar (Rear left)"

Is the DTC "U1B26-11" detected?

YES >>

Replace the side radar LH.

NO >>

INSPECTION END

U1B26-15 Circuit (Short/Open) 1

DTC Description

DTC DETECTION LOGIC

DTC No.	M.U.T.-III SE screen terms (Trouble diagnosis content)	DTC detection condition	
		Diagnosis condition	Signal (terminal)
U1B26-15	Circuit malfunction (short/open) 1 (Controller area network communication error)	When electric motor switch is ON	-
		BSW indicator circuit LH for short	
		Threshold	
		Diagnosis delay time	Within 1 second

POSSIBLE CAUSE

- BSW indicator circuit LH
- BSW indicator LH
- Side radar LH

FAIL-SAFE

The following systems are canceled.

- BSW
- Active Blind Spot Assist [ABSA]
- RCTA

<Added>

CONFIRMATION PROCEDURE**1. PERFORM DTC CONFIRMATION PROCEDURE**

1. Change the power supply mode of the electric motor switch to ON (READY indicator: ON).
2. Perform "Read All DTCs" with M.U.T.-III SE.
3. Check if the "U1B26-15" is detected as the current malfunction in "Diagnostic Trouble Code" of "Side radar (Rear left)".

Is "U1B26-15" detected as the current malfunction?

YES >>

Refer to DTC Diagnosis Procedure.

NO-1 >>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2 >>

Confirmation after repair: INSPECTION END

Diagnosis Procedure**1. CHECK BSW INDICATOR CIRCUIT LH (FOR SHORT)**

1. Turn the electric motor switch OFF.
2. Disconnect side radar LH harness connector and door mirror (passenger side) harness connector.
3. Check continuity between side radar LH harness connector and ground.

Side radar LH		Ground	Continuity
Connector	Terminal		
B461	6		Not existed

Is the inspection result normal?

YES >>

[GO TO 2](#)

NO >>

Repair the harnesses or connectors.

2. REPLACE THE DOOR MIRROR (PASSENGER SIDE)

1. Replace the door mirror (passenger side).
2. Erase in "Diagnostic Trouble Code" of "Side radar (Rear left)" with M.U.T.-III SE.
3. Perform "Read All DTCs" with M.U.T.-III SE.
4. Check if the "U1B26-15" is detected in "Diagnostic Trouble Code" of "Side radar (Rear left)".

Is the DTC "U1B26-15" detected?

YES >>

Replace the side radar LH.

NO >>

INSPECTION END

U1B2E-86 CAN COMM CIRCUIT**DTC Description****CAN COMMUNICATION**

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control units, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads the required data only.

CAN communication signal chart.

DRIVER ASSISTANCE SYSTEM

<Added>

U1B46-11 Circuit (Short/Open) 2

DTC Description

DTC DETECTION LOGIC

DTC No.	M.U.T.-III SE screen terms (Trouble diagnosis content)	DTC detection condition	
		Diagnosis condition	When electric motor switch is ON
U1B46-11	Circuit malfunction (short/open) 2 (Controller area network communication error)	Signal (terminal)	–
		Threshold	BSW indicator circuit RH for short
		Diagnosis delay time	Within 1 second

POSSIBLE CAUSE

- BSW indicator circuit RH
- BSW indicator RH
- Side radar RH

FAIL-SAFE

The following systems are canceled.

- BSW
- Active Blind Spot Assist [ABSA]
- RCTA

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Change the power supply mode of the electric motor switch to ON (READY indicator: ON).
2. Perform "Read All DTCs" with M.U.T.-III SE.
3. Check if the "U1B46-11" is detected as the current malfunction in "Diagnostic Trouble Code" of "Side radar (Rear right)".

Is "U1B46-11" detected as the current malfunction?

YES >>

Refer to DTC Diagnosis Procedure.

NO-1 >>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2 >>

Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. CHECK BSW INDICATOR CIRCUIT RH (FOR SHORT)

1. Turn the electric motor switch OFF.
2. Disconnect side radar RH harness connector and door mirror (driver side) harness connector.
3. Check continuity between side radar RH harness connector and ground.

Side radar RH		Ground	Continuity
Connector	Terminal		
B462	6		Not existed

<Added>

Is the inspection result normal?

YES >>

[GO TO 2](#)

.

NO >>

Repair the harnesses or connectors.

2. REPLACE THE DOOR MIRROR (DRIVER SIDE)

1. Replace the door mirror (driver side).
2. Erase in "Diagnostic Trouble Code" of "Side radar (Rear right)" with M.U.T.-III SE.
3. Perform "Read All DTCs" with M.U.T.-III SE.
4. Check if the "U1B46-11" is detected in "Diagnostic Trouble Code" of "Side radar (Rear right)"

Is the DTC "U1B46-11" detected?

YES >>

Replace the side radar RH.

NO >>

INSPECTION END

U1B46-15 Circuit (Short/Open) 1**DTC Description****DTC DETECTION LOGIC**

DTC No.	M.U.T.-III SE screen terms (Trouble diagnosis content)	DTC detection condition	
		U1B46-15 Circuit malfunction (short/open) 1 (Controller area network communication error)	Diagnosis condition
Signal (terminal)	-		
Threshold	BSW indicator circuit RH for short		
Diagnosis delay time	Within 1 second		

POSSIBLE CAUSE

- BSW indicator circuit RH
- BSW indicator RH
- Side radar RH

FAIL-SAFE

The following systems are canceled.

- BSW
- Active Blind Spot Assist [ABSA]
- RCTA

DRIVER ASSISTANCE SYSTEM

<Added>

CONFIRMATION PROCEDURE**1. PERFORM DTC CONFIRMATION PROCEDURE**

1. Change the power supply mode of the electric motor switch to ON (READY indicator: ON).
2. Perform "Read All DTCs" with M.U.T.-III SE.
3. Check if the "U1B46-15" is detected as the current malfunction in "Diagnostic Trouble Code" of "Side radar (Rear right)".

Is "U1B46-15" detected as the current malfunction?

YES >>

Refer to DTC Diagnosis Procedure.

NO-1 >>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2 >>

Confirmation after repair: INSPECTION END

Diagnosis Procedure**1. CHECK BSW INDICATOR CIRCUIT RH (FOR SHORT)**

1. Turn the electric motor switch OFF.
2. Disconnect side radar RH harness connector and door mirror (driver side) harness connector.
3. Check continuity between side radar RH harness connector and ground.

Side radar RH		Ground	Continuity
Connector	Terminal		
B462	6		Not existed

Is the inspection result normal?

YES >>

[GO TO 2](#)

NO >>

Repair the harnesses or connectors.

2. REPLACE THE DOOR MIRROR (DRIVER SIDE)

1. Replace the door mirror (driver side).
2. Erase in "Diagnostic Trouble Code" of "Side radar (Rear right)" with M.U.T.-III SE.
3. Perform "Read All DTCs" with M.U.T.-III SE.
4. Check if the "U1B46-15" is detected in "Diagnostic Trouble Code" of "Side radar (Rear right)"

Is the DTC "U1B46-15" detected?

YES >>

Replace the side radar RH.

NO >>

INSPECTION END

U1B4E-86 CAN COMM CIRCUIT**DTC Description****CAN COMMUNICATION**

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control units, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads the required data only.

CAN communication signal chart.

<Added>

LOOSE PANEL

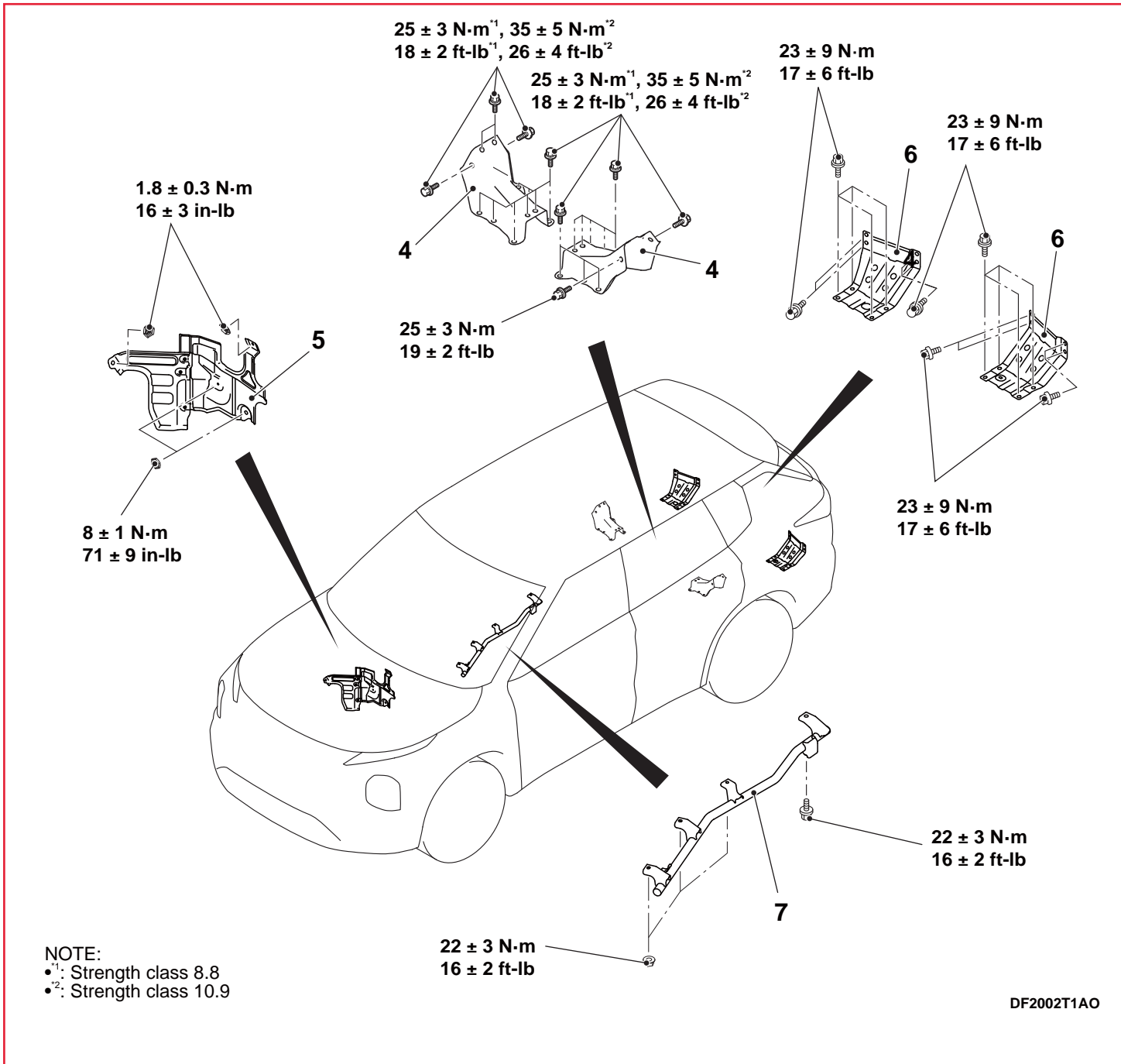
Removal and Installation

CAUTION:

- Disconnect the 12V battery (-) terminal and wait for 60 seconds or more before starting work. Insulate the disconnected (-) terminal by wrapping a tape.
- The parts indicated by * indicates parts which should be temporarily tightened, and then fully tightened with the vehicle standing on the ground at curb weight.

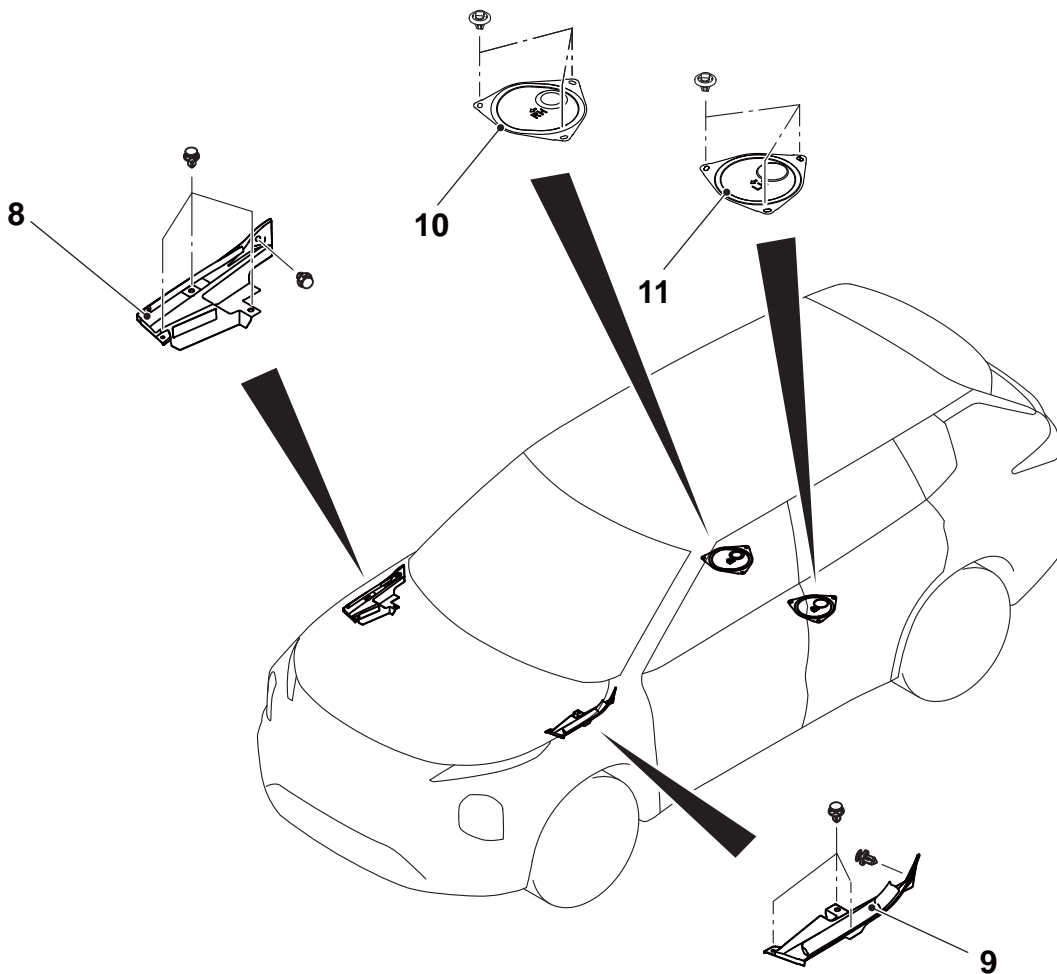
EXTERIOR

<Added>



EXTERIOR

<Added>



DF2002T2AD

		Headlight support upper panel removal steps
		• Secondary lever, Hood lock (Refer to Hood Latch and Cable)
		• Radiator support upper insulator (Refer to Radiator)
>>B<<	1.	Headlight support upper panel
		Cowl top panel removal steps
		• Front wiper drive assembly (Refer to Front wiper)
	2.	Cowl top panel
	3.	Sealing
		Rear wheelhouse inner panel brace removal steps
		• Luggage side lower finisher (Refer to Luggage Trim)
>>A<<	4.	Rear wheelhouse inner panel brace
		Dash panel heat protector removal steps
		• Front wiper drive assembly (Refer to Front wiper)
	2.	Cowl top panel
	5.	Dash panel heat protector
		Rear end brace removal steps
		• Luggage rear plate mask (Refer to Luggage trim)
		• Luggage rear plate (Refer to Luggage trim)
	6.	Rear end brace
		Rear floor gusset assembly removal
	7.	Rear floor gusset assembly
		Fender inner garnish removal steps
		• Front wiper drive assembly (Refer to Front wiper)
	2.	Cowl top panel

EXTERIOR

<Added>

		8.	Fender inner garnish (RH)
		9.	Fender inner garnish (LH)
			Rear floor hole cover removal steps
		•	Second Seat Cushion Assembly (Refer to Second seat assembly)
		10.	Rear floor hole cover(RH)
		11.	Rear floor hole cover(LH)

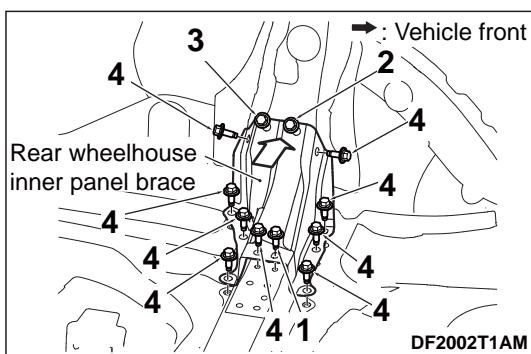
INSTALLATION SERVICE POINTS

>>A<< REAR WHEELHOUSE INNER PANEL BRACE INSTALLATION

CAUTION:

The torque value differs depending on the strength class of the bolt. Therefore, refer to the tightening torque table to check which type of bolt is used, and tighten the bolt to the appropriate torque. (Refer to GENERAL INFORMATION – GENERAL INFORMATION – HOW TO USE THIS MANUAL – TIGHTENING TORQUE OF STANDARD BOLTS .)

- Strength class 8.8: 25 ± 3 N·m (18 ± 2 ft·lb)
- Strength class 10.9: 35 ± 5 N·m (26 ± 4 ft·lb)



1. Temporarily hand tighten the bolt 1.

2. Press the rear wheelhouse inner panel brace toward the fastening surface of the bolt 2 and 3, clear the gap between the rear wheelhouse inner panel brace and the rear wheelhouse inner panel, and tighten the bolt 2 and 3.

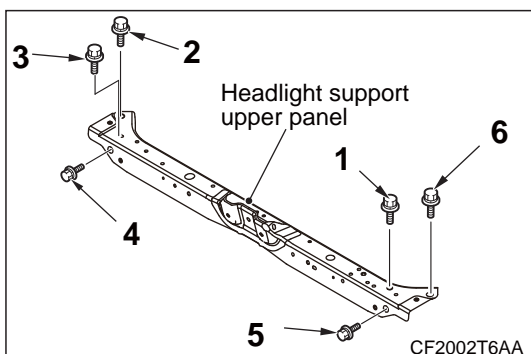
3. Temporarily hand tighten the bolt 4 (9 places), and check whether the gap between the surface of the rear floor and the rear wheelhouse inner panel brace is cleared.

CAUTION:

If the gap between the surface of the rear floor and the rear wheelhouse inner panel brace is not cleared, repeat the step 2.

4. Tighten the bolt 1 and the bolt 4 (9 places).

>>B<< HEADLIGHT SUPPORT UPPER PANEL INSTALLATION



Tighten the headlight support upper panel bolts in the numerical order to 21 ± 3 N·m (16 ± 2 ft·lb).

2. CAPACITY TEST

Check battery voltage.

1. Remove the battery cable. <Added>

2. Check battery voltage.

Is the voltage 12.35 V or more?

YES >>

[GO TO 3](#)

.

NO >>

[GO TO 4](#)

.

3. LOAD TEST

1. Check battery type and determine the specified current using the table.

Type	Current (A)
L3-EFB	300

2. Read load tester voltage when specified discharging current flows through battery for 15 seconds.



NOTE:

Follow tool manufacturers operating instructions when performing load test.

Is the voltage 10 V or more?

YES >>

Ready for use.

NO >>

Replace battery. Refer to [Removal and Installation](#).

4. CHARGE

Charge battery, following the instructions below:

- Constant current charging may damage batteries. Therefore, charge battery by constant voltage charge mode with the maximum voltage set at 15 V.
- Charge at least 6 hours or until the charge current becomes 4 amps or less.

>>


[GO TO 3](#)

.

DOOR & LOCK

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

 With M.U.T.-III SE

1. Erase DTC.
2. Ignition switch OFF.
3. Ignition switch ON.
4. Check "Self Diagnostic Result" mode of "HANDS FREE MODULE" using M.U.T.-III SE.

Is DTC detected?

YES >>

Refer to DTC [Diagnosis Procedure](#).

NO-1 >>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2 >>

Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. CHECK BATTERY VOLTAGE

Measure the battery voltage. Refer to [Work Flow](#).

<Change>

Is the inspection result normal?

YES >>

[GO TO 2.](#)

NO >>

Replace battery.

2. CHECK POWER SUPPLY CIRCUIT

Check Keyless operation key unit power supply circuit. Refer to [Diagnosis Procedure](#).

Is the inspection result normal?

YES >>

Replace Keyless operation key unit. Refer to [Removal and Installation](#).

NO >>

Repair the malfunctioning part.

B203D-14 INSIDE ANTENNA

DTC Description

DTC DETECTION LOGIC

DTC No.	M.U.T.-III SE screen items (Trouble diagnosis content)	DTC detecting condition	
		Diagnosis condition	Work support "INSIDE/OUTSIDE ANT DIAGNOSIS": activated
B203D-14	Inside antenna (Inside antenna)	Signal (terminal)	Inside key antenna signal (Keyless operation key unit connector terminal: 33, 34)
		Threshold	Inside key antenna circuit is shorted to ground
		Diagnosis delay time	1 second or less

POSSIBLE CAUSE

- Keyless operation key unit
- Inside key antenna
- Harness or connector (inside key antenna circuit is open or shorted)