13.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF

Detected when CAN line abnormality is detected.

NOTE:

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

B: DTC U0100 LOST COMMUNICATION WITH ECM/PCM "A"

Detected when CAN data from the engine control module (ECM) does not arrive.

NOTE:

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

C: DTC U0101 LOST COMMUNICATION WITH TCM

Detected when CAN data from TCM does not arrive.

NOTE:

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

D: DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE

Detected when CAN data from VDC does not arrive.

NOTE:

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

E: DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE

Detected when CAN data from BIU does not arrive.

NOTE:

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

F: DTC U0155 LOST COMMUNICATION WITH INSTRUMENT PANEL CLUSTER (IPC) CONTROL MODULE

Detected when CAN data from meter does not arrive.

NOTE:

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

G: DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM "A"

Detected when there is malfunction in CAN data from the engine control module (ECM).

NOTE:

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

H: DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE

Detected when CAN data from BIU is abnormal.

NOTE:

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

I: DTC U1120 LOST COMMUNICATION WITH AUTOSTART STOP CONTROL MODULE

Detected when CAN data from hybrid system or from Auto Start Stop system is abnormal.

NOTE:

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

J: DTC B1242 WIRELESS TUNER ABNORMAL

DTC DETECTING CONDITION:

When short circuit occurs in harness between keyless access CM and receiver.

TROUBLE SYMPTOM:

• The keyless access with push button start function (except for emergency function) does not operate properly.

• Operation by the access key button does not function.

CAUTION:

• For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IM-MOBILIZER".

• When the harness comes close to the receiver, the performance of keyless access system operation and wireless operation may reduce. So, when replacing or inspecting the receiver and harness, do not change the route and length of the surrounding harnesses.

WIRING DIAGRAM:

Push button start system <Ref. to WI(w/o HEV)-179, WIRING DIAGRAM, Push Button Start System.> <Ref. to WI(HEV)-181, WIRING DIAGRAM, Push Button Start System.>



SL-03312

	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Disconnect the receiver connector. 3) Using the tester, measure the resistance between terminals of keyless access CM connector and receiver connector, and keyless access CM and chassis ground. Connector & terminal (B573) No. 19 - (R296) No. 2: (B573) No. 5 - (R296) No. 4: (R296) No. 1 - Chassis ground: 	Is the resistance less than 1 Ω ?	Go to step 3.	Repair or replace the open circuit of harness.

KPS(diag)-46

	Step	Check	Yes	No
3	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B573) No. 19 — Chassis ground: (B573) No. 17 — Chassis ground: (B573) No. 5 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 4.	Repair or replace the short circuit of the harness.
4	 CHECK RECEIVER. 1) Replace the receiver, and then connect it. <ref. receiver.="" sl-108,="" to=""></ref.> 2) Using the Subaru Select Monitor, clear the memory. 3) Use the Subaru Select Monitor and read DTCs. 	Is B1242 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Receiver has a malfunction.

KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)

K: DTC B2271 IGN FUSE BLOWN OR IGN CIRCUIT ABNORMAL

DTC DETECTING CONDITION:

- When malfunction is detected in IG1 and IG2 drive circuits in the keyless access CM.
- When malfunction is detected in IG hold circuit in the keyless access CM.

TROUBLE SYMPTOM:

Not all functions operate at IGN ON.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	CHECK FUSE. Check the fuse.	Is the fuse OK?	Go to step 3 .	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-cir- cuited.

	Step	Check	Yes	No
3	CHECK HARNESS. 1) Disconnect the keyless access CM connec-	Is the voltage 9.5 — 16 V?	Go to step 4.	Check the power supply circuit.
	tor.			
	between the keyless access CM connector and			
	chassis ground.			
	Connector & terminal			
	(B572) No. 2 (+) — Chassis ground (–):			
4	CHECK HARNESS.	Is the resistance less than 1 Ω ?	Go to step 5.	Repair or replace
	Using a tester, measure the resistance between			the open circuit of
	the keyless access CM connector and chassis ground.			harness.
	Connector & terminal			
	(B572) No. 11 — Chassis ground:			
5	CHECK HARNESS.	Is resistance 74.15 — 460.88	Go to step 6.	Check IG relay 2.
	 Disconnect the keyless access CM connec- tor. 	Ω? (20°C)		Go to step 7.
	Using a tester, measure the resistance			
	between the keyless access CM connector and			
	chassis ground.			
	Connector & terminal			
	(B572) NO. 9 — Chassis ground:		<u> </u>	
6	CHECK HARNESS.	Is resistance $50.87 - 72.17 \Omega$?	Go to step 8.	Check IG relay 1.
	T) Disconnect the keyless access CM connec-	(20 C)		Go to step 7.
	2) Using a tester measure the resistance			
	between the keyless access CM connector and			
	chassis around.			
	Connector & terminal			
	(B574) No. 6 — Chassis ground:			
7	CHECK RELAY.	Is the relay OK?	Go to step 8.	Replace the relay.
	Perform unit inspection of IG relay 1 and IG	-	-	<ref. sl-119,<="" td="" to=""></ref.>
	relay 2. <ref. check="" relay,<="" sl-13,="" td="" to=""><td></td><td></td><td>REMOVAL, IG</td></ref.>			REMOVAL, IG
	INSPECTION, Relay and Fuse.>			Relay1 (Push But-
				ton Start).> <ref.< td=""></ref.<>
				to SL-121,
				REMOVAL, IG
				ton Start).>
8	CHECK KEYLESS ACCESS CM.	Is the voltage 1 V or less \rightarrow 9.5	System is normal.	Replace the key-
	1) Connect the keyless access CM connector.	$-$ 16 V when ACC \rightarrow IGN ON?	It is possible that	less access CM.
	2) Using a tester, measure the voltage		temporary poor	<ref. sl-110,<="" td="" to=""></ref.>
	between the terminals of keyless access CM		contact occurs.	KEMOVAL, Key-
	Connector.			IESS ACCESS CM.>
	$(B574) \operatorname{No} 6(4) - Chase is around (-);$			
	(B572) No. 9 (+) - Chassis ground (-).			
	(-).	1		

KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)

L: DTC B2274 ACC MONITOR

DTC DETECTING CONDITION:

When malfunction is detected in ACC relay drive circuit in the keyless access CM or external circuit.

TROUBLE SYMPTOM:

Each function does not operate at the ACC position.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	CHECK FUSE. Remove the fuse.	Is the fuse OK?	Go to step 3 .	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-cir- cuited.

	Step	Check	Yes	No
3	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 2 (+) — Chassis ground (-): 	Is the voltage 9.5 — 16 V?	Go to step 4.	Check the power supply circuit.
4	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 5.	Repair or replace the open circuit of harness.
5	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B574) No. 4 — Chassis ground: 	Is resistance 152.61 — 216.5 Ω? (20°C)	Go to step 7.	Go to step 6 .
6	CHECK RELAY. Perform inspection of ACC relay unit. <ref. to<br="">SL-123, Accessory Relay (Push Button Start).></ref.>	Is the relay OK?	Go to step 7.	Replace the relay.
7	CHECK HARNESS. Using a tester, measure the resistance between keyless access CM connectors. Connector & terminal (B574) No. 4 — (B426) No. 2: (B426) No. 3 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 8 .	Repair or replace the open circuit of harness.
8	 CHECK KEYLESS ACCESS CM. 1) Connect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. Connector & terminal (B574) No. 4 (+) — Chassis ground (-): 	Is the voltage 1 V or less \rightarrow 9.5 — 16 V when OFF \rightarrow ACC ON?	System is normal. It is possible that temporary poor contact occurs.	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>

M: DTC B2275 STSW CIRCUIT ABNORMAL

DTC DETECTING CONDITION:

- When malfunction is detected in engine start permission signal output circuit in the keyless access CM.
- When malfunction is detected in external engine start permission signal circuit.

TROUBLE SYMPTOM:

Engine will not start.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	CHECK FUSE. Remove the fuse.	Is the fuse OK?	Go to step 3.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-cir- cuited.
3	 CHECK HARNESS. 1) Disconnect the keyless access CM connector and ECM connector. 2) Using a tester, measure the resistance between the keyless access CM connector and ECM. Connector & terminal (B572) No. 7 – (B137) No. 17: 	Is the resistance less than 1 Ω ?	Go to step 4.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 5.	Repair or replace the open circuit of harness.
5	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 7 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 6 .	Repair or replace the short circuit of the harness.
6	 CHECK KEYLESS ACCESS CM. 1) Connect the keyless access CM connector and ECM connector. 2) Using a tester, measure the voltage between the terminals of keyless access CM connector. <i>Connector & terminal</i> (B572) No. 7 (+) — (B572) No. 11 (-): 	Is the voltage 2 V or less \rightarrow 9 V or more when the push button ignition switch is turned on while depressing the brake pedal with the shift position in P or N?	Perform inspec- tion according to the diagnosis of engine. <ref. to<br="">EN(H4DO w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. to EN(H4DO HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.></ref. </ref.>	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>

KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)

N: DTC B2276 ACCR SIGNAL ABNORMAL

DTC DETECTING CONDITION:

When input error occurs in accessory relay cut input signal of keyless access CM.

TROUBLE SYMPTOM:

- The accessory power supply is not cut during engine start.
- Starter rotation is slow.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:



	Otara	Oh a a la	N	N
	Step	Спеск	res	NO
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	 CHECK HARNESS. 1) Disconnect the keyless access CM connector and ECM connector. 2) Using a tester, measure the resistance between the keyless access CM connector and ECM. Connector & terminal (B573) No. 28 — (B135) No. 32: 	Is the resistance less than 1 Ω?	Go to step 3.	Repair or replace the open circuit of harness.
3	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B573) No. 28 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 4.	Repair or replace the short circuit of the harness.
4	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 5.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
5 CHECK 1) Con and EC 2) Usir betweel connec: is press with the Connec (B57)	KEYLESS ACCESS CM. nect the keyless access CM connector M connector. In a tester, measure the voltage in terminals of the keyless access CM tor when the push button ignition switch ed, while depressing the brake pedal is shift lever in the "P" range. Exector & terminal r3) No. 28 (+) — (B572) No. 11 (–):	Is the voltage 9.5 — 16 V \rightarrow 1 V or less?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Replace the ECM. <ref. to<br="">FU(H4DO(w/o HEV))-100, REMOVAL, Engine Control Module (ECM).> <ref. to<br="">FU(H4DO(HEV))- 85, REMOVAL, Engine Control Module (ECM).></ref.></ref.>

KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)

O: DTC B2277 SUBMERGING CIRCUIT ABNORMAL

DTC DETECTING CONDITION:

When the water-submersion detection circuit integrated into the keyless access CM detects the water submersion.

TROUBLE SYMPTOM:

- The ignition can be turned ON, but cannot be turned OFF.
- Engine will not start.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	CHECK SUBMERSION CONDITION. Check the keyless access CM and environment of equipment, and check the harness for any trace of water submersion.	Is there any trace of water sub- mersion?	Take necessary measures against water submersion and replace the keyless access CM. <ref. sl-<br="" to="">110, Keyless Access CM.></ref.>	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>

P: DTC B2282 VEHICLE SPEED SIGNAL ABNORMAL

DTC DETECTING CONDITION:

When the vehicle speed signal transmitted from VDC via solid line and the vehicle speed signal transmitted via CAN communication line do not match.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2 .	Perform the inspection accord- ing to the diagnosis for LAN system.
2	CHECK COMBINATION METER. Check that the speedometer is displayed nor- mally.	Is the meter display normal?	Go to step 3 .	Check the VDC. <ref. to<br="">VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.></ref.>
3	 CHECK CURRENT DATA. Confirm the current data display of keyless access system using Subaru Select Monitor. Vehicle speed signal 	Is the parked state or driving state displayed normally?	Go to step 4.	Check the VDC. <ref. to<br="">VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.></ref.>

	Step	Check	Yes	No
4	CHECK FUSE. Remove the fuse.	Is the fuse OK?	Go to step 5 .	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-cir- cuited.
5	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. Connector & terminal (B572) No. 2 (+) — Chassis ground (-): 	Is the voltage 9.5 — 16 V?	Go to step 6 .	Check the power supply circuit.
6	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 7.	Repair or replace the open circuit of harness.
7	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Disconnect the combination meter connector. 3) Using a tester, measure the resistance between the keyless access CM connector and VDC CM connector. Connector & terminal Without EyeSight (B574) No. 27 – (B310) No. 27: With EyeSight (B574) No. 27 – (B310) No. 11: 	Is the resistance less than 1 Ω?	Go to step 8 .	Repair or replace the open circuit of harness.
8	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B574) No. 27 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 9 .	Repair or replace the short circuit of the harness.
9	 CHECK KEYLESS ACCESS CM. 1) Connect each connector. 2) Using the Subaru Select Monitor, measure the waveform between the terminals of keyless access CM. Connector & terminal (B574) No. 27 — Chassis ground: 	Is 3.54 Hz displayed when the vehicle is driven at approx. 5 km/h? Or does the value change from 3.54 Hz when the vehicle stops?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Check the VDC. <ref. to<br="">VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.></ref.>

Q: DTC B2283 VEHICLE SPEED SENSOR FAULT DETECTION

DTC DETECTING CONDITION:

- Either of the following malfunctions is detected (Vehicle speed sensor failure is detected.).
- Vehicle speed signal failure detection 1: Excessive deceleration detection
- · Vehicle speed signal failure detection 2: Engine speed interlock detection

TROUBLE SYMPTOM:

The steering lock cannot be released.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	 CHECK COMBINATION METER. Check that the speedometer is displayed normally. Vehicle speed signal 	Is the meter display normal?	Go to step 3.	Check the VDC. <ref. to<br="">VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.></ref.>

	01		M	
	Step	Check	Yes	No
3	CHECK CURRENT DATA.	Is the parked state or driving	Go to step 4.	Check the VDC.
	Confirm the current data display of keyless	state displayed normally?		<ref. td="" to<=""></ref.>
	access system using Subaru Select Monitor.			VDC(diag)-2,
	 Vehicle speed signal 			PROCEDURE,
				Basic Diagnostic
				Procedure.>
4	CHECK FUSE.	Is the fuse OK?	Go to step 5.	Replace the fuse.
	Remove the fuse.			When the replaced
				fuse is blown
				immediately, check
				the power supply
				circuit for short-cir-
				cuited.
5	CHECK HARNESS.	Is the voltage 9.5 — 16 V?	Go to step 6.	Check the power
	1) Disconnect the keyless access CM connec-			supply circuit.
	tor.			
	Using a tester, measure the voltage			
	between keyless access CM connectors.			
	Connector & terminal			
	(B572) No. 2 (+) — Chassis ground (–):			
6	CHECK HARNESS.	Is the resistance less than 1 Ω ?	Go to step 7.	Repair or replace
	Using a tester, measure the resistance between			the open circuit of
	the keyless access CM connector and chassis			harness.
	ground.			
	Connector & terminal			
	(B572) No. 11 — Chassis ground:			
7	CHECK HARNESS.	Is the resistance less than 1 Ω ?	Go to step 8.	Repair or replace
	1) Disconnect the keyless access CM connec-			the open circuit of
	tor.			harness.
	2) Disconnect the combination meter connec-			
	tor.			
	3) Using a tester, measure the resistance			
	between the keyless access CIVI connector and			
	VDC CM connector.			
	Connector & terminal			
	WILLIOUL EYESIGHT			
	(B5/4) NO. 2/ — (B310) NO. 2/: With EvoSight			
	(B574) No. 27 (B210) No. 11;			
0		la the registeres 10 kO or	Co to stop 0	Popoir or replace
0	Lising a tester measure the resistance between	more?	Go to step 9 .	the short circuit of
	the keyless access CM connector and chassis	inore:		the harness
	around			the namess.
	Connector & terminal			
	(B574) No. 27 — Chassis ground:			
٥		ls 3 54 Hz displayed when the	Boplace the key-	Check the VDC
ľ	1) Connect each connector	vehicle is driven at approx 5	less access CM	<ref td="" to<=""></ref>
	2) Using the Subaru Select Monitor measure	km/h? Or does the value	<ref. -110<="" si="" td="" to=""><td>VDC(dian)-2</td></ref.>	VDC(dian)-2
	the waveform between the terminals of keyless	change from 3.54 Hz when the	Kevless Access	
	access CM	vehicle stops?	CM >	Basic Diagnostic
	Connector & terminal			Procedure >
	(B574) No. 27 — Chassis around:			
	(1		1

R: DTC B2284 BRAKE SIGNAL (CABLE-INFORMATION DOES NOT MATCH TO BEAN-INFORMATION)

DTC DETECTING CONDITION:

When the brake signal transmitted via the hard wire and the brake signal transmitted from body integrated unit via CAN communication line do not match.

TROUBLE SYMPTOM:

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:

• Gasoline engine model

Stop light system <Ref. to WI(w/o HEV)-211, WIRING DIAGRAM, Stop Light System.>



HEV model

Stop light system <Ref. to WI(HEV)-210, WIRING DIAGRAM, Stop Light System.>



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	 CHECK CURRENT DATA. Confirm the current data display of keyless access system using Subaru Select Monitor. Stop light SW 	Is DTC displayed normally according to the brake pedal operation?	Go to step 3.	Check the stop light system.
3	CHECK CURRENT DATA.Check the current data display of body integrated unit using Subaru Select Monitor.Stop light SW	Is DTC displayed normally according to the brake pedal operation?	Go to step 4.	Check body inte- grated unit <ref. to<br="">BC(diag)-2, PRO- CEDURE, Basic Diagnostic Proce- dure.> and the stop light switch circuit.</ref.>
4	CHECK FUSE. Check the fuse.	Is the fuse OK?	Go to step 5.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-cir- cuited.

	Step	Check	Yes	No
5	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. Connector & terminal (B572) No. 2 (+) — Chassis ground (-): 	Is the voltage 9.5 — 16 V?	Go to step 6 .	Check the power supply circuit.
6	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 7.	Repair or replace the open circuit of harness.
7	CHECK HARNESS. 1) Disconnect the stop light switch connector. 2) Using a tester, measure the resistance between the keyless access CM connector and stop light switch connector. Connector & terminal Gasoline engine model (B572) No. 18 — (B65) No. 4: HEV model (B572) No. 18 — (B65) No. 2:	Is the resistance less than 1 Ω?	Go to step 8.	Repair or replace the open circuit of harness.
8	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 18 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 9 .	Repair or replace the short circuit of the harness.
9	CHECK HARNESS. Using a tester, measure the voltage between the keyless access CM connector and chassis ground when the brake pedal is depressed. Connector & terminal (B572) No. 18 (+) — Chassis ground (–):	Does the voltage change as fol- lows? Brake pedal not depressed: 1 V or less \rightarrow Brake pedal depressed: 11 — 14 V	Replace the key- less access CM. <ref. sl-110,<br="" to="">REMOVAL, Key- less Access CM.></ref.>	Check the power supply circuit of stop light switch.

KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)

S: DTC B2285 STEERING LOCK POSITION SIGNAL ABNORMAL

DTC DETECTING CONDITION:

When the steering lock position signal transmitted from the steering lock CM via solid line and the steering lock position signal transmitted via LIN communication system do not match.

TROUBLE SYMPTOM:

- There are conditions when the steering lock is not released.
- Engine will not start.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:

Push button start system <Ref. to WI(w/o HEV)-179, WIRING DIAGRAM, Push Button Start System.> <Ref. to WI(HEV)-181, WIRING DIAGRAM, Push Button Start System.>



Step	Check	Yes	No
1 CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2 CHECK DTC. Use the Subaru Select Monitor and read DTCs.	Is B2785 displayed?	Perform the inspection accord- ing to B2785. <ref. to KPS(diag)-77, DTC B2785 LIN COMMUNICA- TION ERROR, Diagnostic Proce- dure with Diagnos- tic Trouble Code (DTC).></ref. 	Go to step 3.

KPS(diag)-64

	Step	Check	Yes	No
3	 CHECK CURRENT DATA. Confirm the current data display of keyless access system using Subaru Select Monitor. When locked: Lock side sensor status: ON Unlock side sensor status: OFF Lock confirmation: Confirmed Unlock confirmation: Not confirmed When unlocked: Lock side sensor status: OFF Unlock side sensor status: OFF Unlock side sensor status: OFF Unlock confirmation: Not confirmed When unlocked: Lock confirmation: Not confirmed When unlock side sensor status: OFF Unlock confirmation: Not confirmed Unlock confirmation: Not confirmed NOTE: To lock the steering lock, turn off the power, and open → close, or close → open the driver's door. To unlock the steering lock, turn the ignition switch to ACC ON or IGN ON. 	Are the readings as shown on the left according to the steer- ing lock status?	Go to step 4 .	Replace the steer- ing lock CM. <ref. to SL-113, REMOVAL, Steer- ing Lock CM.></ref.
4	 CHECK CURRENT DATA. Confirm the current data display of keyless access system using Subaru Select Monitor. When locked: Steering unlock switch: OFF When unlocked: Steering unlock switch: ON NOTE: To lock the steering lock, turn off the power, and open → close, or close → open the driver's door. To unlock the steering lock, turn the ignition switch to ACC ON or IGN ON. 	Are the readings as shown on the left according to the steer- ing lock status?	Replace the key- less access CM. <ref. sl-110,<br="" to="">REMOVAL, Key- less Access CM.></ref.>	Go to step 5 .
5	CHECK FUSE. Check the fuse.	Is the fuse OK?	Go to step 6 .	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-cir- cuited.
6	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. Connector & terminal (B572) No. 2 (+) — Chassis ground (-): 	Is the voltage 9.5 — 16 V?	Go to step 7.	Check the power supply circuit.
7	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 8.	Repair or replace the open circuit of harness.
8	CHECK HARNESS. Using a tester, measure the resistance between the steering lock CM connector and chassis ground. Connector & terminal (B424) No. 4 — Chassis ground:	Does the following occur? Steering lock: 10 k Ω or more \rightarrow Steering unlock: less than 1 Ω	Go to step 9 .	Replace the steer- ing lock CM. <ref. to SL-113, REMOVAL, Steer- ing Lock CM.></ref.

	Step	Check	Yes	No
9	CHECK HARNESS.	Is the resistance less than 1 Ω ?	Go to step 10.	Repair or replace
	1) Disconnect the keyless access CM connec-			the open circuit of
	tor.			harness.
	2) Disconnect the steering lock CM connector.			
	3) Using a tester, measure the resistance			
	between the keyless access CM connector and			
	steering lock CM.			
	Connector & terminal			
	(B574) No. 26 — (B424) No. 4:			
10	CHECK HARNESS.	Is the resistance 10 k Ω or	Replace the key-	Repair or replace
	Using a tester, measure the resistance between	more?	less access CM.	the short circuit of
	the keyless access CM connector and chassis		<ref. sl-110,<="" th="" to=""><th>the harness.</th></ref.>	the harness.
	ground.		REMOVAL, Key-	
	Connector & terminal		less Access CM.>	
	(B574) No. 26 — Chassis ground:			

T: DTC B2286 DRIVING POSSIBLE SIGNAL ABNORMAL

DTC DETECTING CONDITION:

When the engine speed signal transmitted from the ECM via solid line and the engine speed signal transmitted from the ECM via CAN communication line do not match.

TROUBLE SYMPTOM:

Cannot start the engine, or the engine stops after starting.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.

	Step	Check	Yes	No
2	 CHECK CURRENT DATA. Confirm the current data display of keyless access system using Subaru Select Monitor. Engine speed 	Can the data be read normally?	Perform the diag- nosis for the engine. <ref. to<br="">EN(H4DO w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. to EN(H4DO HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.></ref. </ref.>	Go to step 3.
3	CHECK FUSE. Remove the fuse.	Is the fuse OK?	Go to step 4.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-cir- cuited.
4	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. Connector & terminal (B572) No. 2 (+) — Chassis ground (-): 	Is the voltage 9.5 — 16 V?	Go to step 5.	Check the power supply circuit.
5	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 6.	Repair or replace the open circuit of harness.
6	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Disconnect the ECM connector. 3) Using a tester, measure the resistance between the keyless access CM connector and ECM connector. Connector. Connector & terminal (B572) No. 17 — (B135) No. 15: 	Is the resistance less than 1 Ω ?	Go to step 7.	Repair or replace the open circuit of harness.
7	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 17 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 8.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
8	 CHECK HARNESS. 1) Connect the keyless access CM connector and ECM connector. 2) Using the Subaru Select Monitor, measure the waveform between the keyless access CM connector and chassis ground. <i>Connector & terminal</i> (B572) No. 17 — Chassis ground: 	Does the pulse stop when the engine is stopped, and does the pulse generate when the engine is started?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Perform the diag- nosis for the engine. <ref. to<br="">EN(H4DO w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. to EN(H4DO HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.></ref. </ref.>

KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)

U: DTC B228A SUB-TRAVEL POSSIBLE SIGNAL ABNORMAL

DTC DETECTING CONDITION:

When the engine speed signal transmitted from the ECM via solid line and the engine speed signal transmitted from the ECM via CAN communication line do not match.

TROUBLE SYMPTOM:

Cannot start the engine, or the engine stops after starting.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:



Step	Check	Yes	No
1 CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnosti Procedure.> <ref. lan(hev)(diag)-2,="" pro<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.

	Step	Check	Yes	No
2	 CHECK CURRENT DATA. Confirm the current data display of keyless access system using Subaru Select Monitor. Engine speed 	Can the data be read normally?	Perform the diag- nosis for the engine. <ref. to<br="">EN(H4DO w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. to EN(H4DO HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.></ref. </ref.>	Go to step 3.
3	CHECK FUSE. Remove the fuse.	Is the fuse OK?	Go to step 4 .	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-cir- cuited.
4	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. Connector & terminal (B572) No. 2 (+) — Chassis ground (-): 	Is the voltage 9.5 — 16 V?	Go to step 5 .	Check the power supply circuit.
5	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 6 .	Repair or replace the open circuit of harness.
6	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Disconnect the ECM connector. 3) Using a tester, measure the resistance between the keyless access CM connector and ECM connector. Connector. Connector & terminal (B572) No. 17 – (B135) No. 15: 	Is the resistance less than 1 Ω ?	Go to step 7.	Repair or replace the open circuit of harness.
7	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 17 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 8.	Repair or replace the open circuit of harness.

Step	Check	Yes	No
 CHECK HARNESS. Connect the keyless access CM connector and ECM connector. Using the Subaru Select Monitor, measure the waveform between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 17 — Chassis ground: 	Does the pulse stop when the engine is stopped, and does the pulse generate when the engine is started?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Perform the diag- nosis for the engine. <ref. to<br="">EN(H4DO w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. to EN(H4DO HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.></ref. </ref.>

V: DTC B2779 REMOTE CONTROL ENGINE STARTER COMMUNICATION COL-LATION NG

DTC DETECTING CONDITION:

Keyless access CM does not respond to engine start even when the remote control engine starter is ON, or there is a code mismatch.

TROUBLE SYMPTOM:

Remote engine starter does not function.

Step	Check	Yes	No
 REGISTER THE REMOTE ENGINE START- ER. Clear the DTC. Register the remote engine starter using the Subaru Select Monitor. (Refer to the "REGIS- TRATION MANUAL FOR IMMOBILIZER".) Read the DTC again. 	Is DTC B2779 detected?	Replace the remote engine starter.	System is normal. It is possible that temporary poor contact occurs.

W: DTC B2781 STEERING LOCK ECU OPEN/SHORT

DTC DETECTING CONDITION:

- When malfunction is detected in lock/unlock position detection sensor.
- When the open or short circuit in the steering lock motor drive circuit is detected.

TROUBLE SYMPTOM:

- The steering lock cannot be released.
- Engine will not start.

CAUTION:

For replacement procedure of steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

NOTE:

When all ECMs connected to collation system LIN bus cannot communicate with the keyless access CM, DTC B2785 is output.

	Step	Check	Yes	No
1	CHECK DTC.	Is B2785 displayed?	Perform the diag-	Replace the steer-
	Use the Subaru Select Monitor and read DTCs.		nosis according to	ing lock CM. <ref.< th=""></ref.<>
			DTC.	to SL-113, Steer-
				ing Lock CM.>

X: DTC B2782 STEERING LOCK POWER SUPPLY CIRCUIT ABNORMAL (SMART ECU-SIDE ABNORMAL)

DTC DETECTING CONDITION:

When the open or short circuit in the steering lock motor power supply circuit is detected.

TROUBLE SYMPTOM:

- The steering lock cannot be released.
- Engine will not start.

CAUTION:

For replacement procedure of keyless access CM and steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	 CHECK STEERING LOCK CM. 1) Disconnect the steering lock CM connector. 2) Using a tester, measure the resistance between the steering lock CM connector and chassis ground. Connector & terminal (B424) No. 1 — Chassis ground: 	Is the resistance less than 1 Ω ?	Go to step 2.	Repair or replace the open circuit of harness.
2	 CHECK CURRENT DATA. 1) Connect the steering lock CM connector. 2) Set to ACC OFF, IGN OFF, and the shift position P. 3) Using a tester, open the door, and measure the voltage between terminals of steering CM connector when the steering lock motor is driven. Connector & terminal (B424) No. 3 (+) — (B424) No. 1 (-): 	Does the voltage change as fol- lows? Steering lock motor in operation: 1 V or less → Steer- ing lock motor is stopped: 11 — 14 V	Go to step 3.	Go to step 4.

	Step	Check	Yes	No
3	 CHECK DTC. 1) Turn the ignition switch to ON. 2) Using the Subaru Select Monitor, clear the memory. 3) Turn the ignition switch to OFF. 4) Disconnect the battery ground cable and reconnect it, and then clear the abnormal information displayed on the data monitor. 5) Turn the ignition switch to ON. 6) Use the Subaru Select Monitor and read DTCs. 	Is B2782 displayed?	Replace the steer- ing lock CM. <ref. to SL-113, Steer- ing Lock CM.></ref. 	System is normal. It is possible that temporary poor contact occurs.
4	CHECK CONNECTOR.1) Disconnect the steering lock CM connector.2) Disconnect the keyless access CM connector.	Are connectors normal?	Go to step 5 .	Repair or replace the connector.
5	CHECK HARNESS. Using a tester, measure the resistance between steering lock CM connector and keyless access CM connector. Connector & terminal (B574) No. 29 — (B424) No. 3:	Is the resistance less than 1 Ω ?	Go to step 6.	Repair or replace the open circuit of harness.
6	CHECK HARNESS. Using a tester, measure the resistance between steering lock CM connector and chassis ground, and between keyless access CM con- nector and chassis ground. <i>Connector & terminal</i> (B424) No. 3 — Chassis ground: (B574) No. 29 — Chassis ground:	Is the resistance 10 kΩ or more?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Repair or replace the short circuit of the harness.

Y: DTC B2784 ANTENNA COIL FAULT

DTC DETECTING CONDITION:

When open or short circuit occurs in the antenna coil.

TROUBLE SYMPTOM:

The keyless access function may not be operable.

CAUTION:

For replacement procedure of keyless access CM and steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Immobilizer system <Ref. to WI(w/o HEV)-143, WIRING DIAGRAM, Immobilizer System.> <Ref. to WI(HEV)-151, WIRING DIAGRAM, Immobilizer System.>



	Step	Check	Yes	No
1	 CHECK STEERING LOCK CM. 1) Disconnect the push button ignition switch connector. 2) Disconnect the keyless access CM connector. 3) Using the tester, measure the resistance between terminals. Connector & terminal (i150) No. 14 — (B574) No. 1: (i150) No. 9 — (B574) No. 9: (i150) No. 10 — (B574) No. 7: (i150) No. 8 — (B574) No. 24: 	Is the resistance less than 1 Ω ?	Go to step 2 .	Repair or replace the open circuit of harness.
2	CHECK HARNESS. Using the tester, measure the resistance between terminals. Connector & terminal (i150) No. 14 — Chassis ground: (i150) No. 9 — Chassis ground: (i150) No. 10 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 3 .	Repair or replace the short circuit of the harness.
3	 CHECK PUSH BUTTON IGNITION SWITCH. 1) Replace the push button ignition switch. <ref. button="" ignition="" push="" sl-114,="" switch.="" to=""></ref.> 2) Using the Subaru Select Monitor, clear the memory. 3) Use the Subaru Select Monitor and read DTCs. 	Is B2784 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Malfunction occurred in the push button igni- tion switch.

Z: DTC B2785 LIN COMMUNICATION ERROR

DTC DETECTING CONDITION:

When the keyless access CM detected the collation system LIN bus communication error three times in a row.

TROUBLE SYMPTOM:

The keyless access function may not be operable.

CAUTION:

For replacement procedure of keyless access CM and steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	CHECK DTC. Use the Subaru Select Monitor and read DTCs.	Is B2785 displayed?	Go to step 2.	Check the connec- tor.
2	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Disconnect the steering lock CM connector. 3) Disconnect the ID code box connector. (with ID code box) 4) Using the tester, measure the resistance between terminals. Connector & terminal (B574) No. 17 — (B424) No. 5: (B574) No. 17 — (B422) No. 2: (with ID code box) 	Is the resistance less than 1 Ω?	Go to step 3.	Repair or replace the open circuit of harness.
3	CHECK HARNESS. Using the tester, measure the resistance between terminals. Connector & terminal (B424) No. 5 — Chassis ground: (B574) No. 17 — Chassis ground: (B422) No. 5 — Chassis ground: (with ID code box)	Is the resistance 10 kΩ or more?	Go to step 4.	Repair or replace the short circuit of the harness.

	Step	Check	Yes	No
4	 CHECK HARNESS. 1) Connect the keyless access CM connector only. 2) Use the Subaru Select Monitor and read DTCs. 	Is B2785 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Go to step 5.
5	 CHECK ID CODE BOX. NOTE: For model without ID code box, go to the next step. 1) Connect only the ID code box. 2) Use the Subaru Select Monitor and read DTCs. 	Is B2785 displayed?	Replace the ID code box.	Go to step 6 .
6	 CHECK STEERING LOCK CM. 1) Replace the steering lock CM, and then connect it. <ref. cm.="" lock="" sl-113,="" steering="" to=""></ref.> 2) Using the Subaru Select Monitor, clear the memory. 3) Use the Subaru Select Monitor and read DTCs. 	Is B2785 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Malfunction occurred in the steering lock CM.

AA:DTC B2786 NO RESPONSE FROM STEERING LOCK ECU

DTC DETECTING CONDITION:

When communication between keyless access CM and steering lock CM is interrupted for a set amount of time.

TROUBLE SYMPTOM:

The steering lock cannot be released.

CAUTION:

For replacement procedure of keyless access CM and steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	CHECK DTC. Use the Subaru Select Monitor and read DTCs.	Is a DTC other than B2786 dis- played?	Perform the diag- nosis according to DTC.	Go to step 2 .
2	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Disconnect the steering lock CM connector. 3) Using the tester, measure the resistance between terminals. Connector & terminal (B574) No. 17 — (B424) No. 5: 	Is the resistance less than 1 Ω ?	Go to step 3.	Repair or replace the open circuit of harness.
3	CHECK HARNESS. Using the tester, measure the resistance between terminals. Connector & terminal (B424) No. 5 — Chassis ground: (B574) No. 17 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 4.	Repair or replace the short circuit of the harness.

	Step	Check	Yes	No
4	CHECK HARNESS. Using a tester, measure the resistance between the steering lock CM connector and chassis ground. Connector & terminal (B424) No. 1 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 5.	Repair or replace the open circuit of harness.
5	 CHECK HARNESS. 1) Turn the ignition switch to ON. 2) Using a tester, measure the voltage between the steering lock CM connector and chassis ground. Connector & terminal (B424) No. 6 (+) — Chassis ground (-): (B424) No. 7 (+) — Chassis ground (-): 	Is the voltage 11 — 14 V?	Go to step 6.	Repair or replace the open circuit of harness.
6	 CHECK STEERING LOCK CM. 1) Turn the ignition switch to ON. 2) Replace the steering lock CM. <ref. sl-<br="" to="">113, Steering Lock CM.></ref.> 3) Using the Subaru Select Monitor, clear the memory. 4) Use the Subaru Select Monitor and read DTCs. 	Is B2786 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Malfunction occurred in the steering lock CM.

AB:DTC B2788 IGN1 INPUT ABNORMAL

DTC DETECTING CONDITION:

When mismatch occurs in the IG1 input of the steering lock CM for both LIN communication line input (IG1 input value of keyless access CM) and solid line input.

TROUBLE SYMPTOM:

The steering lock cannot be released.

CAUTION:

For replacement procedure of steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	CHECK FUSE. Check the fuse.	Is the fuse OK?	Go to step 2.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-cir- cuited.
2	CHECK CURRENT DATA. Check the current data display of keyless access CM using the Subaru Select Monitor. • IGN SW	Is the display normal according to the ignition switch operation?	Go to step 3 .	Go to step 5 .

	Step	Check	Yes	No
3	 CHECK HARNESS. 1) Disconnect the steering lock CM connector. 2) Using a tester, measure the resistance between the steering lock CM connector and chassis ground. Connector & terminal (B424) No. 1 — Chassis ground: 	Is the resistance less than 1 Ω ?	Go to step 4.	Repair or replace the open circuit of harness.
4	 CHECK HARNESS. 1) Connect the steering lock CM connector. 2) Using the tester, measure the voltage between terminals. Connector & terminal (B424) No. 6 (+) — (B424) No. 1 (-): 	Is the voltage 11 — 14 V with IG ON? Is the voltage less than 1 V with IG OFF?	Replace the steer- ing lock CM. <ref. to SL-113, REMOVAL, Steer- ing Lock CM.></ref. 	Check the DC power supply cir- cuit.
5	CHECK HARNESS. Using a tester, measure the voltage between the keyless access CM connector and chassis ground. Connector & terminal (B574) No. 5 (+) — Chassis ground (–):	Is the voltage 11 — 14 V with IG ON? Is the voltage less than 1 V with IG OFF?	Replace the key- less access CM. <ref. sl-110,<br="" to="">REMOVAL, Key- less Access CM.></ref.>	Check the DC power supply cir- cuit.

AC:DTC B2789 ID CODE BOX NO RESPONSE

DTC DETECTING CONDITION:

- When communication between keyless access CM and ID code box is interrupted for a set amount of time.
- Open or short circuit in the wiring harness between keyless access CM and ID code box

TROUBLE SYMPTOM:

Engine will not start.

CAUTION:

For replacement procedure of keyless access CM and ID code box, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:



Yes No	Check Yes No		Step
Go to step 2. Check the	displayed? Go to step 2. Check the conne	ls	1 CHECK DTC.
tor.	tor.	DTCs.	Use the Subaru Select Monitor and read DTCs.
s than 1 Ω? Go to step 3 . Repair or re the open ci harness.	stance less than 1 Ω? Go to step 3 . Repair or replac the open circuit harness.	onnec- or. nce	 CHECK HARNESS. Disconnect the keyless access CM connector. Disconnect the ID code box connector. Using the tester, measure the resistance between terminals. Connector & terminal (DSTAINES ACCESS)
			Connector & terminal (B574) No. 17 — (B422) No. 2:

	Step	Check	Yes	No
3	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between ID code box connector and chassis ground. <i>Connector & terminal</i> (B574) No. 17 — Chassis ground: (B422) No. 2 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 4.	Repair or replace the short circuit of the harness.
4	CHECK HARNESS. Using a tester, measure the resistance between ID code box connector and chassis ground. Connector & terminal (B422) No. 5 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 5.	Repair or replace the open circuit of harness.
5	CHECK HARNESS. Using a tester, measure the voltage between ID code box connector and chassis ground. Connector & terminal (B422) No. 1 (+) — Chassis ground (-):	Is the voltage 11 — 14 V?	Go to step 6.	Repair or replace the open circuit of harness.
6	 CHECK ID CODE BOX. 1) Replace the ID code box. <ref. box.="" code="" id="" sl-112,="" to=""></ref.> 2) Using the Subaru Select Monitor, clear the memory. 3) Use the Subaru Select Monitor and read DTCs. 	Is B2789 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	ID code box has an error.

AD:DTC B278A ABNORMAL IMMOBILIZER POWER SUPPLY

DTC DETECTING CONDITION:

When the power supply circuit of the push button ignition switch is shorted to ground.

- TROUBLE SYMPTOM:
- Engine will not start.
- The keyless access system function does not operate.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:

Immobilizer system <Ref. to WI(w/o HEV)-143, WIRING DIAGRAM, Immobilizer System.> <Ref. to WI(HEV)-151, WIRING DIAGRAM, Immobilizer System.>



Step	Check	Yes	No
1 CHECK KEYLESS ACCESS CM.	Is the waveform shown in the	Replace the push	Go to step 2.
2) Take the access key out of the passenger room.	len column displayed :	switch. <ref. to<br="">SL-114, Push But-</ref.>	
 Push the push button ignition switch. Within 30 seconds, use oscilloscope to measure the waveform between connectors. 		ton Ignition Switch.>	
Connector & terminal (i150) No. 14 — (i150) No. 8:			
SL-00634			

	Step	Check	Yes	No
2	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Disconnect the push button ignition switch connector. 3) Using the tester, measure the resistance between terminals. Connector & terminal (i150) No. 14 — (B574) No. 1: (i150) No. 8 — (B574) No. 24: 	Is the resistance less than 1 Ω ?	Go to step 3.	Repair or replace the open circuit of harness.
3	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B574) No. 1 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 4.	Repair or replace the short circuit of the harness.
4	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B574) No. 24 — Chassis ground:	Is the resistance 1 Ω or less?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Repair or replace the harness.

AE:DTC B278D ID CODE BOX RECOGNITION JUDGMENT ABNORMAL

DTC DETECTING CONDITION:

- When ID code box setting is set to OFF, ID code box ON input is detected.
- When ID code box setting is set to OFF, ID code box LIN signal is received.

TROUBLE SYMPTOM:

Engine will not start.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:



	Step	Check	Yes	No
1	 CHECK DTC. 1) Turn the ignition switch to OFF. 2) Using the Subaru Select Monitor, clear the keyless access system memory. 3) Turn the ignition switch to OFF → ON. 4) Use the Subaru Select Monitor and read DTCs. 	Is B278D displayed?	Go to step 2.	System is normal. It is possible that temporary poor contact occurs.
2	 CHECK HARNESS. 1) Disconnect the keyless access CM connector. 2) Measure the resistance between keyless access CM connector and chassis ground. Connector & terminal (B573) No. 15 — Chassis ground: 	Is the resistance 10 kΩ or more?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Repair or replace the short circuit of the harness.

KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)

AF:DTC B2790 ID CODE BOX ABNORMAL (EEPROM ABNORMAL)

DTC DETECTING CONDITION:

An error has occurred inside the ID code box.

TROUBLE SYMPTOM:

Engine will not start.

CAUTION:

For replacement procedure of ID code box, refer to the "REGISTRATION MANUAL FOR IMMOBILIZ-ER".

Step	Check	Yes	No
 CHECK DTC. Turn the ignition switch to OFF. Using the Subaru Select Monitor, clear the keyless access system memory. Turn the ignition switch to OFF → ON. Register the ID code box. Use the Subaru Select Monitor and read DTCs. 	Is B2790 displayed?	Replace the ID code box. <ref. to<br="">SL-112, ID Code Box.></ref.>	System is normal. It is possible that temporary poor contact occurs.

AG:DTC B27A1 DRIVER SIDE EXTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:

When open circuit occurs in the harness between keyless access CM and driver's side front door outer handle.

TROUBLE SYMPTOM:

Keyless access system does not function.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:

Keyless access system <Ref. to WI(w/o HEV)-153, WIRING DIAGRAM, Keyless Access System.> <Ref. to WI(HEV)-158, WIRING DIAGRAM, Keyless Access System.>



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	CHECK CONNECTOR.1) Disconnect the keyless access CM connector.2) Disconnect the front door outer handle connector.	Is the connector OK?	Go to step 3 .	Repair or replace the connector.

	Step	Check	Yes	No
3	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and front door outer handle connector, and between front door outer handle connector and chassis ground. Connector & terminal (B574) No. 12 — (D66) No. 6: (B574) No. 13 — (D66) No. 3: (D66) No. 2 — Chassis ground: (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω?	Go to step 4 .	Repair or replace the open circuit of harness.
4	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front door outer handle connector and chassis ground. <i>Connector & terminal</i> (B574) No. 12 — Chassis ground: (B574) No. 13 — Chassis ground: (D66) No. 6 — Chassis ground: (D66) No. 3 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 5.	Repair or replace the short circuit of the harness.
5	 CHECK KEYLESS ACCESS CM. 1) Connect the keyless access CM connector. 2) Use an oscilloscope, measure the waveform between terminals with ignition switch OFF, all doors closed and access key not in passenger room. Connector & terminal (B574) No. 12 - (B572) No. 11: (B574) No. 13 - (B572) No. 11: 	Does pulse output change from pulse output OFF \rightarrow pulse out- put ON by the lock operation using access key?	Go to step 6 .	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>
6	 CHECK FRONT DOOR OUTER HANDLE. 1) Replace the driver's front door outer handle with the passenger's front door outer handle. 2) Read DTC using the Subaru Select Monitor. 	Is B27A1 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Replace the driver's front door outer handle. <ref. to SL-40, Front Outer Handle.></ref.

AH:DTC B27A2 PASSENGER SIDE EXTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:

When open circuit occurs in the harness between keyless access CM and passenger's side front door outer handle.

TROUBLE SYMPTOM:

Keyless access system does not function.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:

Keyless access system <Ref. to WI(w/o HEV)-153, WIRING DIAGRAM, Keyless Access System.> <Ref. to WI(HEV)-158, WIRING DIAGRAM, Keyless Access System.>



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	 CHECK CONNECTOR. 1) Disconnect the keyless access CM connector. 2) Disconnect the front door outer handle connector. 	Is the connector OK?	Go to step 3 .	Repair or replace the connector.

	Step	Check	Yes	No
3	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and front door outer handle connector, and between front door outer handle connector and chassis ground. <i>Connector & terminal</i> (B574) No. 11 — (D56) No. 6: (B574) No. 10 — (D56) No. 3: (D56) No. 2 — Chassis ground: (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω?	Go to step 4 .	Repair or replace the open circuit of harness.
4	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front door outer handle connector and chassis ground. <i>Connector & terminal</i> (B574) No. 11 — Chassis ground: (B574) No. 10 — Chassis ground: (D56) No. 6 — Chassis ground: (D56) No. 3 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 5.	Repair or replace the short circuit of the harness.
5	 CHECK KEYLESS ACCESS CM. 1) Connect the keyless access CM connector. 2) Use an oscilloscope, measure the waveform between terminals with ignition switch OFF, all doors closed and access key not in passenger room. Connector & terminal (B574) No. 12 — (B572) No. 11: (B574) No. 13 — (B572) No. 11: 	Does pulse output change from pulse output OFF \rightarrow pulse out- put ON by the lock operation using access key?	Go to step 6 .	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>
6	 CHECK FRONT DOOR OUTER HANDLE. 1) Replace the passenger's front door outer handle with the driver's front door outer handle. 2) Read DTC using the Subaru Select Monitor. 	Is B27A2 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Replace the pas- senger's front door outer handle. <ref. to SL-40, Front Outer Handle.></ref.

AI: DTC B27A5 FRONT INTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:

When open circuit occurs in the harness between keyless access CM and front interior antenna.

TROUBLE SYMPTOM:

Keyless access system does not function. (When the access key is in the front area of the passenger room)

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:

Keyless access system <Ref. to WI(w/o HEV)-153, WIRING DIAGRAM, Keyless Access System.> <Ref. to WI(HEV)-158, WIRING DIAGRAM, Keyless Access System.>



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	 CHECK CONNECTOR. 1) Disconnect the keyless access CM connector. 2) Disconnect the front interior antenna connector. 	Is the connector OK?	Go to step 3.	Repair or replace the connector.
3	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and front interior antenna connector, and between front interior antenna connector and chassis ground. <i>Connector & terminal</i> (B574) No. 3 — (B579) No. 1: (B574) No. 2 — (B579) No. 2: (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω ?	Go to step 4 .	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front interior antenna con- nector and chassis ground. <i>Connector & terminal</i> (B574) No. 3 — Chassis ground: (B579) No. 1 — Chassis ground: (B574) No. 2 — Chassis ground: (B579) No. 2 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 5.	Repair or replace the short circuit of the harness.
5	 CHECK KEYLESS ACCESS CM. 1) Connect the keyless access CM connector. 2) Use an oscilloscope, measure the waveform between terminals with ignition switch OFF, all doors closed and access key not in passenger room. Connector & terminal (B574) No. 3 — (B572) No. 11: (B574) No. 2 — (B572) No. 11: 	Does pulse output change from pulse output OFF → pulse out- put ON by operating the touch sensor (lock)?	Go to step 6.	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>
6	 CHECK FRONT INTERIOR ANTENNA. 1) Replace the front interior antenna. <ref. access="" antenna.="" indoor="" keyless="" sl-99,="" to=""></ref.> 2) Read DTC using the Subaru Select Monitor. 	Is B27A5 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Malfunction occurred in the front interior antenna.

AJ:DTC B27A6 REAR INTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:

When open circuit occurs in the harness between keyless access CM and center interior antenna.

TROUBLE SYMPTOM:

Keyless access system does not function. (When the access key is in the rear area of the passenger room (near the seat))

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:

Gasoline engine model

Keyless access system <Ref. to WI(w/o HEV)-153, WIRING DIAGRAM, Keyless Access System.>



HEV model

Keyless access system <Ref. to WI(HEV)-158, WIRING DIAGRAM, Keyless Access System.>



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	CHECK CONNECTOR.1) Disconnect the keyless access CM connector.2) Disconnect the center interior antenna connector.	Is the connector OK?	Go to step 3.	Repair or replace the connector.
3	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and center interior antenna connector, and between center interior antenna connector and chassis ground. <i>Connector & terminal</i> (B573) No. 10 — (R298) No. 3: (B573) No. 11 — (R298) No. 1: (B572) No. 11 — Chassis ground:	Is the resistance less than 1 Ω?	Go to step 4.	Repair or replace the open circuit of harness.
4	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between center interior antenna connector and chassis ground. <i>Connector & terminal</i> (B573) No. 10 — Chassis ground: (B573) No. 11 — Chassis ground: (R298) No. 1 — Chassis ground: (R298) No. 3 — Chassis ground:	Is the resistance 10 kΩ or more?	Go to step 5.	Repair or replace the short circuit of the harness.
5	 CHECK KEYLESS ACCESS CM. 1) Connect the keyless access CM connector. 2) Use an oscilloscope, measure the waveform between terminals with ignition switch OFF, all doors closed and access key not in passenger room. Connector & terminal (B573) No. 10 — (B572) No. 11: (B573) No. 11 — (B572) No. 11: 	Does pulse output change from pulse output OFF → pulse out- put ON by operating the touch sensor (lock)?	Go to step 6 .	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>
6	 CHECK CENTER INTERIOR ANTENNA. 1) Replace the center interior antenna. <ref. access="" antenna.="" indoor="" keyless="" sl-99,="" to=""></ref.> 2) Read DTC using the Subaru Select Monitor. 	Is B27A6 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	Malfunction occurred in the center interior antenna.

AK:DTC B27A7 TRUNK/REAR GATE INTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:

When open circuit occurs in the harness between keyless access CM and rear interior antenna.

TROUBLE SYMPTOM:

Keyless access system does not function. (When the access key is in the rear area of the passenger room (in the luggage room or the trunk))

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:

Gasoline engine model

Keyless access system <Ref. to WI(w/o HEV)-153, WIRING DIAGRAM, Keyless Access System.>



HEV model

Keyless access system <Ref. to WI(HEV)-158, WIRING DIAGRAM, Keyless Access System.>



KPS(diag)-97

	Step	Check	Yes	No
1	CHECK LAN SYSTEM.	Is LAN system normal?	Go to step 2.	Perform the
	Inspect LAN system. <ref. lan(w="" o<="" th="" to=""><th>-</th><th>•</th><th>inspection accord-</th></ref.>	-	•	inspection accord-
	HEV)(diag)-2, PROCEDURE, Basic Diagnostic			ing to the diagnosis
	Procedure.> <ref. lan(hev)(diag)-2,="" pro-<="" th="" to=""><th></th><th></th><th>for LAN system.</th></ref.>			for LAN system.
	CEDURE, Basic Diagnostic Procedure.>			
2	CHECK CONNECTOR.	Is the connector OK?	Go to step 3.	Repair or replace
	tor			the connector.
	 Disconnect the rear interior antenna con- 			
	nector.			
3	CHECK HARNESS.	Is the resistance less than 1 Ω ?	Go to step 4.	Repair or replace
	Using a tester, measure the resistance between			the open circuit of
	the keyless access CM connector and rear inte-			harness.
	rior antenna connector, and between rear inte-			
	rior antenna connector and chassis ground.			
	Gasoline engine model (4 door model)			
	(B573) No. 9 — (R297) No. 1:			
	(B573) No. 8 — (R297) No. 3:			
	(B572) No. 11 — Chassis ground:			
	Gasoline engine model (5 door model)			
	(B573) No. 9 — (R298) No. 1: (B573) No. 9 — (B208) No. 2:			
	(B573) NO. 8 — (R298) NO. 3: (B572) No. 11 — Chassis ground:			
	HEV model			
	(B573) No. 9 — (R439) No. 1:			
	(B573) No. 8 — (R439) No. 3:			
	(B572) No. 11 — Chassis ground:			
4	CHECK HARNESS.	Is the resistance 10 k Ω or	Go to step 5.	Repair or replace
	Using a tester, measure the resistance between	more?		the short circuit of
	around and between rear interior antenna con-			ine namess.
	nector and chassis ground.			
	Connector & terminal			
	Gasoline engine model (4 door model)			
	(B573) No. 9 — Chassis ground:			
	(B573) No. 8 — Chassis ground:			
	(R297) No. 1 — Chassis ground: (R297) No. 3 — Chassis ground:			
	Gasoline engine model (5 door model)			
	(B573) No. 9 — Chassis ground:			
	(B573) No. 8 — Chassis ground:			
	(R298) No. 1 — Chassis ground:			
	(R298) No. 3 — Chassis ground:			
	HEV MODEL (B573) No. 9 — Chassis ground:			
	(B573) No. 8 — Chassis ground:			
	(R439) No. 1 — Chassis ground:			
	(R439) No. 3 — Chassis ground:			
5	CHECK KEYLESS ACCESS CM.	Does pulse output change from	Go to step 6.	Replace the key-
	1) Connect the keyless access CM connector.	pulse output OFF \rightarrow pulse out-		less access CM.
	2) Use an oscilloscope, measure the wave-	put ON by operating the touch		<ret. sl-110,<="" th="" to=""></ret.>
	OFF all doors closed and access key not in pas-			CM >
	senger room.			0101
	Connector & terminal			
	(B573) No. 9 — (B572) No. 11:			
	(B573) No. 8 — (B572) No. 11:			

	Step	Check	Yes	No
6	CHECK REAR INTERIOR ANTENNA. 1) Replace the rear interior antenna. <ref. to<br="">SL-99, Keyless Access Indoor Antenna.></ref.>	Is B27A7 displayed?	Replace the key- less access CM. <ref. sl-110,<="" th="" to=""><th>Malfunction occurred in the rear interior</th></ref.>	Malfunction occurred in the rear interior
	2) Read DTC using the Subaru Select Monitor.		Keyless Access CM.>	antenna.

AL:DTC B27A8 TRUNK/REAR GATE EXTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:

When open circuit occurs in the harness between keyless access CM and rear exterior antenna.

TROUBLE SYMPTOM:

Keyless access system does not function.

(Unable to unlock with the rear gate opener button, unable to lock with the rear lock button, or unable to open/ close the trunk with the trunk opener button.)

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMO-BILIZER".

WIRING DIAGRAM:

Keyless access system <Ref. to WI(w/o HEV)-153, WIRING DIAGRAM, Keyless Access System.> <Ref. to WI(HEV)-158, WIRING DIAGRAM, Keyless Access System.>



	Step	Check	Yes	No
1	CHECK LAN SYSTEM. Inspect LAN system. <ref. lan(w="" o<br="" to="">HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <ref. lan(hev)(diag)-2,="" pro-<br="" to="">CEDURE, Basic Diagnostic Procedure.></ref.></ref.>	Is LAN system normal?	Go to step 2.	Perform the inspection accord- ing to the diagnosis for LAN system.
2	 CHECK CONNECTOR. 1) Disconnect the keyless access CM connector. 2) Disconnect the rear exterior antenna connector. 	Is the connector OK?	Go to step 3.	Repair or replace the connector.
3	CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and rear exterior antenna connector, and between rear exterior antenna connector and chassis ground. <i>Connector & terminal</i> (B573) No. 2 — (R299) No. 1: (B573) No. 1 — (R299) No. 2:	Is the resistance less than 1 Ω ?	Go to step 4.	Repair or replace the open circuit of harness.

Step	Check	Yes	No
 CHECK HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassi ground, and between rear exterior antenna connector and chassis ground. Connector & terminal	Is the resistance 10 kΩ or n more? s n-	Go to step 5.	Repair or replace the short circuit of the harness.
 5 CHECK REAR EXTERIOR ANTENNA. 1) Remove the rear exterior antenna. 2) Using a tester, measure the resistance between rear exterior antenna connectors. Connector & terminal (R299) No. 1 - No. 2: 	Is the resistance less than 1 Ω?	Go to step 6.	Replace the rear exterior antenna. <ref. sl-103,<br="" to="">Keyless Access Outdoor Antenna.></ref.>
 6 CHECK KEYLESS ACCESS CM. 1) Replace the keyless access CM. <ref. access="" cm.="" keyless="" sl-110,="" to=""></ref.> 2) Read DTC using the Subaru Select Monitor 	Is B27A8 displayed?	Replace the rear exterior antenna. <ref. sl-103,<br="" to="">Keyless Access Outdoor Antenna.></ref.>	Malfunction occurred in the keyless access CM.

KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)

AM:DTC B1571 REFERENCE CODE INCOMPATIBILITY

DTC DETECTING CONDITION:

Incompatibility of reference code between keyless access CM (model without ID code box) or ID code box (model with ID code box) and ECM occurs.

TROUBLE SYMPTOM:

Engine will not start.

	Step	Check	Yes	No
1	CHECK ECM. Perform ECM registration. Refer to the "REGIS- TRATION MANUAL FOR IMMOBILIZER".	Is ECM registration finished? And does the engine start?	System is normal.	Go to step 2 .
2	 REPLACE ECM. 1) Install the ECM from other normal operating vehicle (with push button start) which use same ECM to the vehicle to be diagnosed. 2) Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER". 	Is ECM registration finished? And does the engine start?	Replace the ECM. <ref. to<br="">FU(H4DO(w/o HEV))-100, REMOVAL, Engine Control Module (ECM).> <ref. to<br="">FU(H4DO(HEV))- 85, REMOVAL, Engine Control Module (ECM).> Install the ECM from other vehicle to the original vehi- cle.</ref.></ref.>	Replace Keyless access CM (model without ID code box), <ref. sl-<br="" to="">110, Keyless Access CM.> or replace ID code box (model with ID code box). <ref. to<br="">SL-112, REMOVAL, ID Code Box.></ref.></ref.>

AN:DTC B1572 IMM CIRCUIT FAILURE (EXCEPT ANTENNA CIRCUIT)

1. EXCEPT FOR C0 AND C5 MODELS

DTC DETECTING CONDITION:

Communication error between keyless access CM and ECM

TROUBLE SYMPTOM:

Engine will not start.

WIRING DIAGRAM:





r		1		
	Step	Check	Yes	No
1	CHECK CURRENT DATA.	Is the data displayed as	Go to step 2.	Perform diagnos-
	 Turn the ignition switch to ON. 	described above?		tics with phenome-
	Check the keyless access CM data using			non. <ref. th="" to<=""></ref.>
	the Subaru Select Monitor.			KPS(diag)-142,
	3) Display the next data. "Immobilizer" "Engine			ENGINE DOES
	start" "Unlock confirmation"			NOT START,
	Data			INSPECTION,
	Immobilizer = Unset:			Diagnostics with
	Engine start = Engine start permission:			Phenomenon.>
	Unlock confirmation = Confirmed:			
2	CHECK CURRENT DATA.	Is the data displayed as	Go to step 3.	Repair or replace
	Use the Subaru Select Monitor to check the	described above?		the harness
	keyless access CM data when holding down the			between keyless
	push button ignition switch while depressing on			access CM and
	the brake pedal.			ECM.
	Data			
	EGI code reception status = Reception:			
	NOTE:			
	If "Reception" is displayed, the status changes			
	to "Not yet received" in 10 seconds. When per-			
	forming the check again, perform the check af-			
	ter turning the ignition to OFF.			

	Step	Check	Yes	No
3	 CHECK WIRING HARNESS. 1) Turn the ignition switch to OFF. 2) Disconnect the keyless access CM connector and ECM connector. 3) Using a tester, measure the resistance between the keyless access CM connector and ECM. Connector & terminal (B572) No. 13 — (B135) No. 25: 	Is the resistance less than 10 Ω ?	Go to step 4.	Repair or replace the open circuit of harness.
4	CHECK WIRING HARNESS. Using a tester, measure the resistance between the keyless access CM connector and chassis ground. Connector & terminal (B572) No. 11 — Chassis ground:	Is the resistance less than 10 Ω ?	Go to step 5.	Repair or replace the open circuit of harness.
5	CHECK ECM. 1) Install the ECM from other normal operating vehicle (with push button start) which use same ECM to the vehicle to be diagnosed. 2) Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBI- LIZER".	Is ECM registration finished? And does the engine start?	Replace the ECM. <ref. to<br="">FU(H4DO(w/o HEV))-100, REMOVAL, Engine Control Module (ECM).> <ref. to<br="">FU(H4DO(HEV))- 85, REMOVAL, Engine Control Module (ECM).> Install the ECM from other vehicle to the original vehi- cle.</ref.></ref.>	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>

2. FOR C0 AND C5 MODELS

DTC DETECTING CONDITION:

Communication error between ID code box and ECM

TROUBLE SYMPTOM:

Engine will not start.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	 CHECK CURRENT DATA. 1) Turn the ignition switch to ON. 2) Check the keyless access CM data using the Subaru Select Monitor. 3) Display the next data. "Immobilizer" "Engine start" "Unlock confirmation" Data Immobilizer = Unset: Engine start = Engine start permission: Unlock confirmation = Confirmed:	Is the data displayed as described above?	Go to step 2.	Perform diagnos- tics with phenome- non. <ref. to<br="">KPS(diag)-142, ENGINE DOES NOT START, INSPECTION, Diagnostics with Phenomenon.></ref.>
2	CHECK CURRENT DATA. Use the Subaru Select Monitor to check the keyless access CM data when holding down the push button ignition switch while depressing on the brake pedal. Data EGI code reception status = Reception: NOTE: If "Reception" is displayed, the status changes to "Not yet received" in 10 seconds. When per- forming the check again, perform the check af- ter turning the ignition to OFF.	Is the data displayed as described above?	Go to step 3.	Repair or replace the harness between ID code box and ECM.
3	 CHECK WIRING HARNESS. 1) Turn the ignition switch to OFF. 2) Disconnect the ID code box connector and the ECM connector. 3) Using a tester, measure the resistance between ID code box connector and ECM. <i>Connector & terminal</i> (B422) No. 4 — (B135) No. 25: 	Is the resistance less than 10 Ω?	Go to step 4.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	CHECK WIRING HARNESS. Using a tester, measure the resistance between ID code box connector and chassis ground. Connector & terminal (B422) No. 5 — Chassis ground:	Is the resistance less than 10 Ω ?	Go to step 5.	Repair or replace the open circuit of harness.
5	 CHECK ECM. 1) Install the ECM from other normal operating vehicle (with push button start) which use same ECM to the vehicle to be diagnosed. 2) Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER". 	Is ECM registration finished? And does the engine start?	Replace the ECM. <ref. to<br="">FU(H4DO(w/o HEV))-100, REMOVAL, Engine Control Module (ECM).> <ref. to<br="">FU(H4DO(HEV))- 85, REMOVAL, Engine Control Module (ECM).> Install the ECM from other vehicle to the original vehi- cle.</ref.></ref.>	Replace the ID code box. <ref. to<br="">SL-112, REMOVAL, ID Code Box.></ref.>

AO:DTC B1576 EGI CONTROL MODULE EEPROM

DTC DETECTING CONDITION:

- ECM malfunctioning
- When inaccessible to ROM in ECM during registration.

	Step	Check	Yes	No
1	PERFORM ECM REGISTRATION. Perform ECM registration. Refer to the "REGIS- TRATION MANUAL FOR IMMOBILIZER".	Is ECM registration complete?	Make sure that the engine can start. This completes the work.	Go to step 2.
2	PERFORM ECM REGISTRATION. Perform ECM registration. Refer to the "REGIS- TRATION MANUAL FOR IMMOBILIZER".	Is ECM registration complete?	Make sure that the engine can start. This completes the work.	Go to step 3.
3	PERFORM ECM REGISTRATION. Perform ECM registration. Refer to the "REGIS- TRATION MANUAL FOR IMMOBILIZER".	Is ECM registration complete?	Make sure that the engine can start. This completes the work.	Replace the ECM. <ref. to<br="">FU(H4DO(w/o HEV))-100, REMOVAL, Engine Control Module (ECM).> <ref. to<br="">FU(H4DO(HEV))- 85, REMOVAL, Engine Control Module (ECM).></ref.></ref.>

AP:DTC B1577 IMM CONTROL MODULE EEPROM

1. EXCEPT FOR C0 AND C5 MODELS

DTC DETECTING CONDITION:

- Defective keyless access CM
- When inaccessible to ROM in keyless access CM.

Step	Check	Yes	No
 CHECK DTC. Turn the ignition switch to ON. Perform the clear memory operation of ECM. Turn the ignition switch to OFF. Remove and install the battery. Turn the ignition switch to ON. After 5 seconds or more, read DTC. 	Is B1577 displayed?	Replace the key- less access CM. <ref. sl-110,<br="" to="">Keyless Access CM.></ref.>	System is normal.

2. FOR C0 AND C5 MODELS

DTC DETECTING CONDITION:

- ID code box malfunction
- When inaccessible to ROM in ID code box.

Step	Check	Yes	No
 CHECK DTC. Turn the ignition switch to ON. Perform the clear memory operation of ECM. Turn the ignition switch to OFF. Register the ID code box. Read the DTC again. 	Is B1577 displayed?	Replace the ID code box. <ref. to<br="">SL-112, ID Code Box.></ref.>	System is normal.