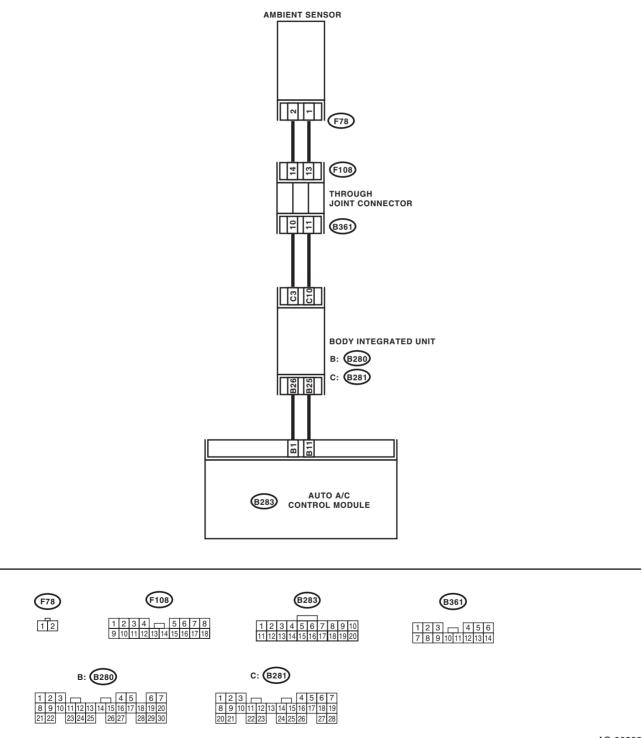
A: AMBIENT SENSOR

TROUBLE SYMPTOM:

Fan speed is not switched when the fan speed control dial is in AUTO position. **WIRING DIAGRAM:**

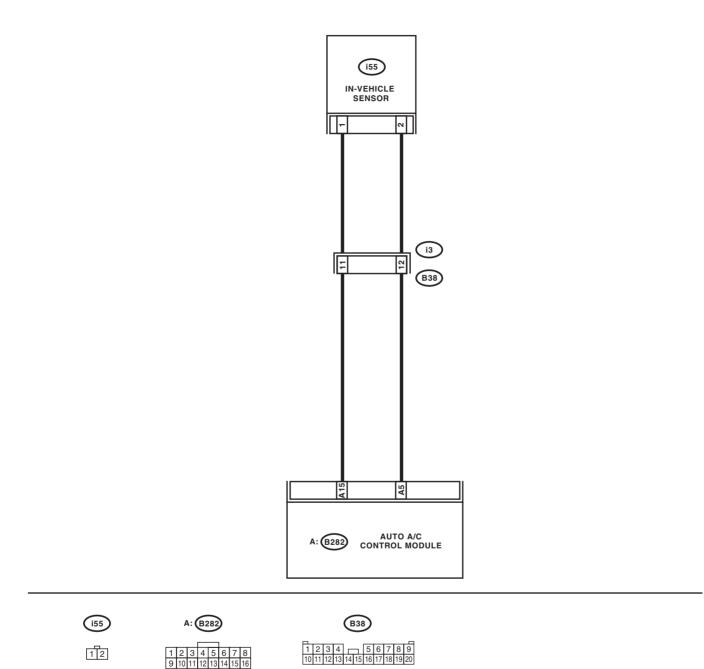


	Step	Check	Yes	No
1	CHECK AMBIENT SENSOR.	Is the resistance approximately	Go to step 2.	Replace the ambi-
	 Turn the ignition switch to OFF. 	2.2 kΩ at 25°C (77°F)?		ent sensor.
	Disconnect the connector from ambient			
	sensor.			
	3) Measure the resistance between connector			
	terminals of ambient sensor.			
	Terminal			
	No. 1 — No. 2:		-	-
2	CHECK INPUT SIGNAL FOR AMBIENT SEN-	Is the voltage approx. 5 V?	Go to step 6.	Go to step 3.
	SOR.			
	1) Turn the ignition ON.			
	2) Measure the voltage between connector			
	(F78) terminals. Connector & terminal			
	(F78) No. 1 (+) — No. 2 (–):			
3	CHECK OUTPUT SIGNAL OF BODY INTE-	le the voltage epprov. 5 1/2	Co to stop 4	Co to oton 6
3	GRATED UNIT.	Is the voltage approx. 5 V?	Go to step 4.	Go to step 6.
	 Turn the ignition switch to OFF. 			
	 Draw out the body integrated unit. 			
	 Disconnect the connector from ambient 			
	sensor.			
	4) Turn the ignition switch to ON.			
	5) Measure the voltage between connector			
	terminals of body integrated unit.			
	Connector & terminal			
	(B281) No. 3 (+) — No. 10 (–):			
4	CHECK HARNESS CONNECTOR BETWEEN	Is the resistance less than 1	Go to step 5.	Repair the open
	BODY INTEGRATED UNIT AND AMBIENT	Ω?		circuit of harness
1	SENSOR.			between body inte-
	1) Turn the ignition switch to OFF.			grated unit and
	2) Disconnect the connector from body inte-			ambient sensor.
	grated unit.			
	3) Measure the resistance of harness			
	between body integrated unit and ambient sen-			
	sor. Connector & terminal			
	(F78) No. 1 — (B281) No. 10:			
5	CHECK HARNESS CONNECTOR BETWEEN	ls the resistance less than 1	Go to step 6.	Repair the open
5	BODY INTEGRATED UNIT AND AMBIENT	Ω ?		circuit of harness
	SENSOR.	<u> </u>		between body inte-
	Measure the resistance of harness between			grated unit and
	body integrated unit and ambient sensor.			ambient sensor.
	Connector & terminal			
	(F78) No. 2 — (B281) No. 3:			
6	CHECK COMMUNICATION ERROR DIS-	Is "Er xx" displayed?	Check the commu-	Go to step 7.
	PLAY.		nication circuit.	
	1) Connect the connectors of body integrated		<ref. td="" to<=""><td></td></ref.>	
	unit and ambient sensor as originally con-		LAN(diag)-2, Basic	
	nected.		Diagnostic Proce-	
	2) Check if "Er xx" is displayed on the Odo/Trip		dure.>	
	meter in combination meter after turning the			
	ignition switch to ON.			
7	CHECK POOR CONTACT.	Is there poor contact in the	Repair the con-	Replace the auto
	Check poor contact of auto A/C control module	connector?	nector.	A/C control mod-
	connector.			ule.

B: IN-VEHICLE SENSOR

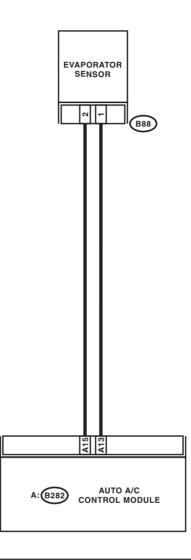
TROUBLE SYMPTOM:

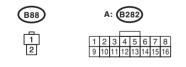
Blower fan speed, outlet port and inlet port do not change after turning the AUTO switch ON **WIRING DIAGRAM:**



	Step	Check	Yes	No
1	CHECK IN-VEHICLE SENSOR.	Is the resistance approximately	Go to step 2.	Replace the in-
	 Turn the ignition switch to OFF. 	2.7 kΩ at 20°C (68°F)?		vehicle sensor.
	2) Remove the driver side lower cover.			
	3) Disconnect the connector from in-vehicle			
	sensor.			
	4) Measure the resistance between connector			
	terminals of in-vehicle sensor.			
	Terminal			
	No. 1 — No. 2:			
2	CHECK INPUT SIGNAL FOR IN-VEHICLE	Is the voltage approx. 5 V?	Go to step 6.	Go to step 3.
	SENSOR.			
	 Turn the ignition switch to ON. 			
	2) Measure the voltage between in-vehicle			
	sensor harness connector terminal and chas-			
	sis ground.			
	Connector & terminal			
	(i55) No. 2 (+) — No. 1 (–):			
3	CHECK AUTO A/C CONTROL MODULE	Is the voltage approx. 5 V?	Go to step 4.	Go to step 6.
-	OUTPUT SIGNAL.	• • • •		
	1) Turn the ignition switch to OFF.			
	2) Remove the auto A/C control module.			
	3) Turn the ignition switch to ON.			
	4) Measure the voltage between connector			
	terminals of auto A/C control module.			
	Connector & terminal			
	(B282) No. 5 (+) — (B282) No. 15 (–):			
4	CHECK HARNESS BETWEEN AUTO A/C	Is the resistance less than 1	Go to step 5.	Repair the har-
	CONTROL MODULE AND IN-VEHICLE SEN-	Ω?		ness between auto
	SOR.			A/C control mod-
	1) Turn the ignition switch to OFF.			ule and in-vehicle
	2) Disconnect the connector from the auto A/			sensor.
	C control module.			
	3) Measure the resistance of harness			
	between auto A/C control module and in-vehi-			
	cle sensor.			
	Connector & terminal			
	(i55) No. 2 (B282) No. 5:			
5	CHECK HARNESS BETWEEN AUTO A/C	Is the resistance less than 1	Go to step 6.	Repair the har-
	CONTROL MODULE AND IN-VEHICLE SEN-	Ω?		ness between auto
	SOR.			A/C control mod-
	Measure the resistance of harness between			ule and in-vehicle
	auto A/C control module and in-vehicle sensor.			sensor.
	Connector & terminal			
	(i55) No. 1 (B282) No. 15:			
6	CHECK POOR CONTACT.	Is there poor contact in the	Repair the con-	Replace the auto
	Check poor contact of auto A/C control module	connector?	nector.	A/C control mod-
			1	ule.

C: EVAPORATOR SENSOR WIRING DIAGRAM:





	Step	Check	Yes	No
1	CHECK EVAPORATOR SENSOR.	Is the resistance approximately		Replace the evap-
 '	1) Turn the ignition switch to OFF.	3.3 k Ω at 20°C (68°F)?		orator sensor.
	 Remove the glove box. 	3.3 KS2 at 20 C (08 F)?		orator sensor.
	 Disconnect the connector from evaporator 			
	sensor.			
	4) Measure the resistance between connector			
	•			
	terminals of the evaporator sensor. Terminal			
	No. 1 — No. 2:			
2	CHECK INPUT SIGNAL FOR EVAPORATOR	le the voltage approx 5 V2	Go to step 6.	Go to step 3.
2	SENSOR.	is the voltage approx. 5 v?		Go io siep 3 .
	1) Turn the ignition switch to ON.			
	 Provide the solution switch to ON. Measure the voltage between connector 			
	(B88) terminal and chassis ground.			
	Connector & terminal			
	(B88) No. 1 (+) — No. 2 (–):			
3	CHECK AUTO A/C CONTROL MODULE	Is the voltage approx. 5 V?	Go to step 4.	Go to step 6.
3	OUTPUT SIGNAL.	is the voltage approx. 5 v?		Go to step o .
	1) Turn the ignition switch to OFF.			
	 Remove the auto A/C control module. 			
	,			
	 3) Turn the ignition switch to ON. 4) Measure the veltage between connector 			
	 Measure the voltage between connector terminals of auto A/C control module. 			
	Connector & terminal			
4	(B282) No. 13 (+) — No. 15 (–):		Cata star 5	Densin the energy
4	CHECK HARNESS CONNECTOR BETWEEN		Go to step 5.	Repair the open
	AUTO A/C CONTROL MODULE AND EVAP- ORATOR SENSOR.	\$27		circuit of harness
				between auto A/C control module
	 Turn the ignition switch to OFF. Disconnect the connector from the auto A/ 			
	C control module.			and evaporator sensor.
	3) Measure the resistance of harness			Sensor.
	between auto A/C control module and evapo-			
	rator sensor.			
	Connector & terminal			
	(B88) No. 2 — (B282) No. 15:			
5	CHECK HARNESS CONNECTOR BETWEEN	Is the resistance less than 1	Go to step 6.	Repair the open
Ĭ	AUTO A/C CONTROL MODULE AND EVAP-			circuit of harness
	ORATOR SENSOR.			between auto A/C
	Measure the resistance of harness between			control module
	auto A/C control module and evaporator sen-			and evaporator
	sor.			sensor.
	Connector & terminal			
	(B88) No. 1 — (B282) No. 13:			
6	CHECK POOR CONTACT.	Is there poor contact in the	Repair the con-	Replace the auto
ľ	Check poor contact of auto A/C control module	connector?	nector.	A/C control mod-
	connector.			ule.
				ui0.

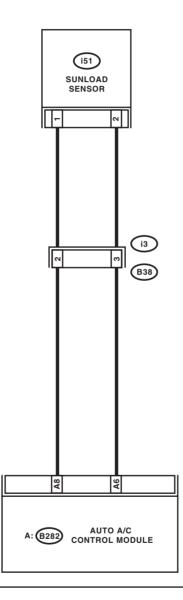
D: SUNLOAD SENSOR

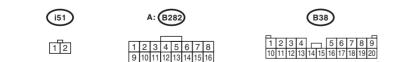
TROUBLE SYMPTOM:

- Sensor identifies that sunlight is at maximum. Then, A/C system is controlled to COOL side.
- Sensor identifies that sunlight is at minimum. Then, A/C system is controlled to HOT side.

NOTE:

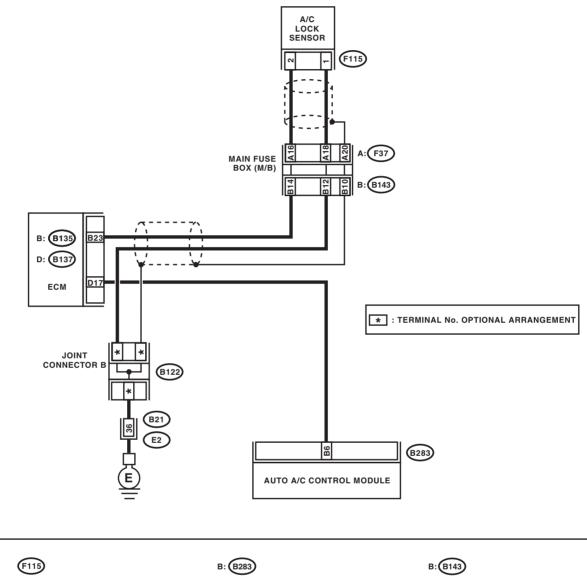
When the sunload sensor check is performed indoors or in the shade, it could be diagnosed as having an open circuit. Always check the sunload sensor with the sun shining on it. **WIRING DIAGRAM:**

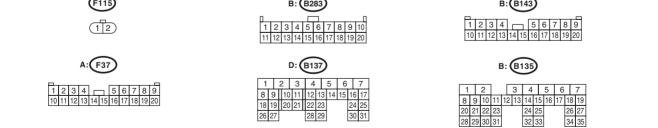




	Step	Check	Yes	No
1	 CHECK POWER SUPPLY VOLTAGE FOR SUNLOAD SENSOR. 1) Turn the ignition switch to OFF. 2) Disconnect the connector from sunload sensor. 3) Turn the ignition switch to ON. 4) Measure the power supply voltage for sun- load sensor. Connector & terminal (i51) No. 1 (+) - No. 2 (-): 	Is the voltage approx. 5 V?	Go to step 4.	Go to step 2.
2	 CHECK HARNESS CONNECTOR BETWEEN AUTO A/C CONTROL MODULE AND SUN- LOAD SENSOR. 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the auto A/ C control module. 3) Measure the resistance of the harness between the auto A/C control module and sun- load sensor. Connector & terminal (i51) No. 2 — (B282) No. 6: 	Is the resistance less than 1 Ω ?	Go to step 3.	Repair the har- ness between auto A/C control mod- ule and sunload sensor.
3	CHECK HARNESS CONNECTOR BETWEEN AUTO A/C CONTROL MODULE AND SUN- LOAD SENSOR. Measure the resistance of the harness between the auto A/C control module and sun- load sensor. Connector & terminal (i51) No. 1 — (B282) No. 8:	Is the resistance less than 1 Ω?	Go to step 4.	Repair the har- ness between auto A/C control mod- ule and sunload sensor.
4	 CHECK INPUT VOLTAGE FOR AUTO A/C CONTROL MODULE. 1) Connect the connectors of sunload sensor and auto A/C control module. 2) Turn the ignition switch to ON. 3) Measure the voltage between connector terminals of auto A/C control module. Connector & terminal (B282) No. 8 (+) — (B282) No. 6 (-): 	Is the voltage approx. 2.5 V?	Go to step 5.	Replace the sun- load sensor.
5	CHECK POOR CONTACT. Check poor contact of auto A/C control module connector.	Is there poor contact in the connector?	Repair the con- nector.	Replace the auto A/C control mod- ule.

E: A/C LOCK SENSOR H6 model WIRING DIAGRAM:





HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)

	Step	Check	Yes	No
1	CHECK A/C LOCK SENSOR SIGNAL.	Is the A/C lock signal switch	Go to step 4.	Go to step 2.
	1) Turn the ignition switch to OFF.	ON?		
	2) Connect the Subaru Select Monitor to the			
	data link connector.			
	3) Start the engine and turn the A/C switch			
	ÓN.			
	4) Read the data of A/C lock signal using Sub-			
	aru Select Monitor.			
	NOTE:			
	Subaru Select Monitor			
	For detailed operation procedure, refer to			
	"READ CURRENT DATA FOR ENGINE". < Ref.			
	to EN(H6DO) (diag)-28, READ CURRENT			
	DATA FOR ENGINE (NORMAL MODE), OP-			
	ERATION, Subaru Select Monitor.>			
2	A/C LOCK SENSOR SIGNAL INSPECTION.	Is the voltage 7 — 14 V?	Replace the auto	Go to step 3.
	1) Start the engine and turn the A/C switch	5	A/C control mod-	•
	ÓN.		ule.	
	2) Measure the voltage between auto A/C			
	control module harness connector and chassis			
	ground.			
	Connector & terminal			
	(B283) No. 6 (+) — Chassis ground (–):			
3	CHECK ECM.	Is the voltage 7 — 14 V?	Repair the har-	Replace the ECM.
-	Measure the voltage between ECM and chas-		ness between the	
	sis ground.		ECM and the auto	
	Connector & terminal		A/C control mod-	
	(B136) No. 24 (+) — Chassis ground (–):		ule connector.	
4	CHECK A/C LOCK SENSOR.	Is the resistance between 240	Replace the ECM.	Go to step 5.
	 Turn the ignition switch to OFF. 	and 290 Ω?		
	Disconnect the connector from ECM.			
	3) Measure the resistance between ECM con-			
	nector and chassis ground.			
	Connector & terminal			
	(B135) No. 14 — Chassis ground:			
5	CHECK A/C LOCK SENSOR.	Is the resistance between 240	Go to step 7.	Go to step 6.
	 Turn the ignition switch to OFF. 	and 290 Ω?		
	2) Disconnect the main fuse box harness con-			
	nector.			
	3) Measure the resistance between main fuse			
	box terminal.			
	Connector & terminal			
L	(F37) No. 16 — No. 18:			
6	A/C LOCK SENSOR INSPECTION.	Is the resistance between 240		Replace the A/C
	1) Turn the ignition switch to OFF.	and 290 Ω?	harness between	compressor
	2) Disconnect the A/C lock sensor connector.		A/C lock sensor	assembly. (A/C
	3) Measure the resistance between A/C lock		and main fuse box.	lock switch mal-
	sensor terminals.			function)
	Connector & terminal			
-	(F115) No. 1 — No. 2:		Danainan D. J.	Deplese the second
7	CHECK MAIN FUSE BOX.	Is the resistance less than 10		Replace the main
	1) Turn the ignition switch to OFF.	Ω?	the harness	fuse box.
	2) Disconnect the connector and then mea-		between A/C lock	
	sure the resistance between main fuse box ter-		sensor and main	
	minal.		fuse box.	
	Connector & terminal			
	(F37) No. 16 — (F143) No. 12: (F37) No. 18 — (F143) No. 14:			
	(F37) No. 18 — (F143) No. 14:			

AC(diag)-38