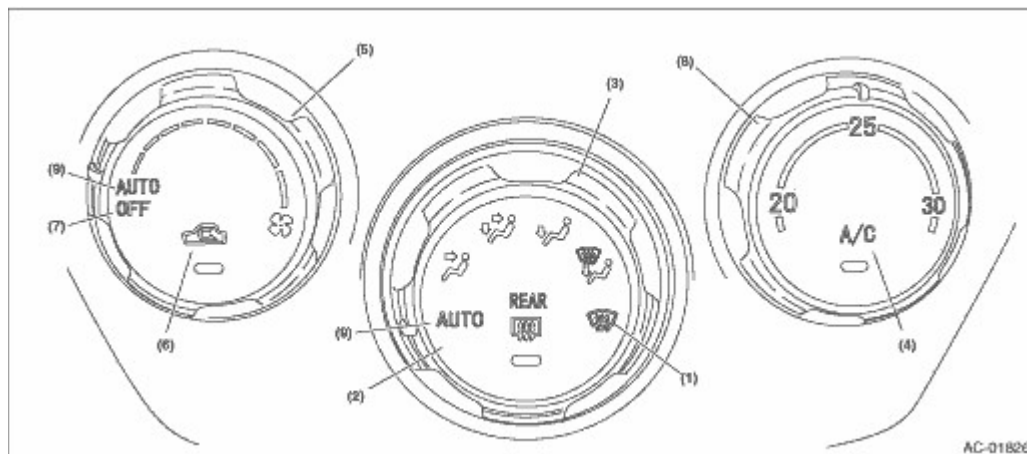


HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS) > Diagnostic Chart for Self-diagnosis












OPERATION




- (1) Defroster switch
- (2) Rear window defogger switch
- (3) Air flow control dial
- (4) A/C switch
- (5) Fan speed control dial
- (6) FRESH/RECIRC switch
- (7) OFF switch
- (8) Temperature adjustment dial
- (9) AUTO switch

1. A/C CONTROL PANEL SELF-DIAGNOSIS

STEP	CHECK	YES	NO
1.SELECT SELF-DIAGNOSIS MODE IN THE CONTROL PANEL. 1) Set the air flow control dial and the fan speed control dial to AUTO. 2) Start the engine while pressing the A/C switch and the FRESH/RECIRC switch.	Does the self-diagnosis mode operate?		
2.CHECK THE LIGHTING OF THE LED. Make sure that all switch LEDs on the control panel illuminate.	Do all LEDs blink eight times?		Replace the control panel.
3.CHECK SENSOR MALFUNCTION.			

STEP	CHECK	YES	NO
1) Set the air flow control dial and the fan speed control dial to AUTO. 2) If any sensor in the system has a malfunction, the FRESH/RECIRC switch LED blinks or turns off. 3) If the system has no malfunctions, the FRESH/RECIRC switch LED is illuminated.	Does the FRESH/RECIRC switch LED illuminate?		
4.CONFIRM MALFUNCTIONING SENSOR. 1) Set the air flow control dial to AUTO. 2) Turn the fan speed control dial to each mode position, and check each switch LED illumination according to sensor check table. 	When turning the fan speed control dial to each mode position, does the FRESH/RECIRC switch LED illuminate?		Repair the defective sensor. 
5.CHECK AIR MIX DOOR AND MODE DOOR POSITION SIGNALS. 1) Set the air flow control dial to FACE. 2) Turn the fan speed control dial to AUTO. 3) If there is a system malfunction in the air mix door signal or the mode door position signal, the FRESH/RECIRC switch LED turns off. 4) If the system has no malfunctions, the FRESH/RECIRC switch LED is illuminated.	Does the FRESH/RECIRC switch LED illuminate?		Check the mode door actuator circuit. 
6.CHECK AIR MIX DOOR AND MODE DOOR POSITION OPERATION SIGNALS. 1) Set the air flow control dial to FACE. 2) Place the fan speed control dial in each position and then check each LED illumination conditions. 	Do the LEDs illuminate in accordance with the operation signal table?		Check the air mix door actuator circuit. 
7.CHECK AIR MIX DOOR AND MODE DOOR POSITION OPERATION SIGNALS. 1) Press the A/C switch. 2) Place the fan speed control dial in each position and then check each LED illumination conditions. 	Do the LEDs illuminate in accordance with the operation signal table?		Check the mode door actuator circuit. 
	Does the operation of each mode match to operating mode table?	Turn the fan speed control dial to OFF or the ignition	

STEP	CHECK	YES	NO
<p>8.CHECK OPERATION OF EACH ACTUATOR, BLOWER FAN AND COMPRESSOR CLUTCH.</p> <p>1) Set the air flow control dial to B/L. 2) Turn the fan speed control dial from AUTO to 7th, and select operating modes. 3) Check each the operation of each mode according to the operating mode table. </p> <ul style="list-style-type: none"> • Intake door • Air flow control door • Air mix door • Blower fan • A/C compressor 		switch to OFF in order to complete self-diagnosis.	Repair the malfunctioning part in accordance with each diagnostic chart.

2. SENSOR CHECK TABLE

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 at a location exposed to direct sunlight.

Air flow control dial position	Fan speed control dial position	Sensor	No trouble	Short circuit	Open circuit	If there is a current malfunction	If there was a past malfunction
AUTO	AUTO	In-vehicle sensor	FRESH/RECIRC switch LED is off	FRESH/RECIRC switch LED is flashing (illuminated for 0.2 seconds ⇔ off for 0.2 seconds)	FRESH/RECIRC switch LED is flashing (illuminated for 1 second ⇔ off for 1 second)	Rear window defogger switch LED is off	Rear window defogger switch LED is illuminated
	1st	Ambient sensor		FRESH/RECIRC switch LED is flashing (illuminated for 0.2 seconds ⇔ off for 0.2 seconds)			
	2nd						

Air flow control dial position	Fan speed control dial position	Sensor	No trouble	Short circuit	Open circuit	If there is a current malfunction	If there was a past malfunction
		Evaporator sensor		FRESH/RECIRC switch LED is flashing (illuminated for 0.2 seconds ⇔ off for 0.2 seconds)			
	3rd	Engine coolant temperature sensor		—			
	4th	Sunload sensor		FRESH/RECIRC switch LED is flashing (illuminated for 0.2 seconds ⇔ off for 0.2 seconds)			
	5th — 7th	CAN communication		—			

3. OPERATING MODE TABLE

Operation	Fan speed control dial position							
	AUTO	1st	2nd	3rd	4th	5th	6th	7th
Blower fan	4 V	4 V	4.9 V	5.9 V	7.0 V	8.3 V	9.8 V	14 V
Intake door	RECIRC	RECIRC	MIX	FRESH	FRESH	FRESH	FRESH	FRESH
Air flow control door	FACE	FACE	FACE	B/L	HEAT	HEAT	D/H	D/H
Air mix door	0%	0%	0%	50%	50%	100%	100%	100%
A/C compressor	OFF	ON	ON	ON	ON	ON	ON	ON

4. OPERATION PROGRESS CHECK TABLE

Air flow control dial position	Fan speed control dial position	Operation signal being checked	A/C switch LED	No trouble	Short circuit	Open circuit	If there is a current malfunction	If there was a past malfunction
FACE	AUTO	MIX #1	Flashing (illuminated for 0.2 seconds ⇔ off for 0.2 seconds)	FRESH/RECIRC switch LED is off	FRESH/RECIRC switch LED is flashing (illuminated for 0.2 seconds ⇔ off for 0.2 seconds)	FRESH/RECIRC switch LED is flashing (illuminated for 1 second ⇔ off for 1 second)	Rear window defogger switch LED is off	Rear window defogger switch LED is illuminated
	1st	MIX #2						
	2nd	MIX #3						
	3rd — 7th	MIX #4						
	AUTO	MODE #1	Flashing (illuminated for 1 seconds ⇔ off for 1 seconds)					
	1st	MODE #2						
	2nd	MODE #3						
	3rd — 7th	MODE #4						