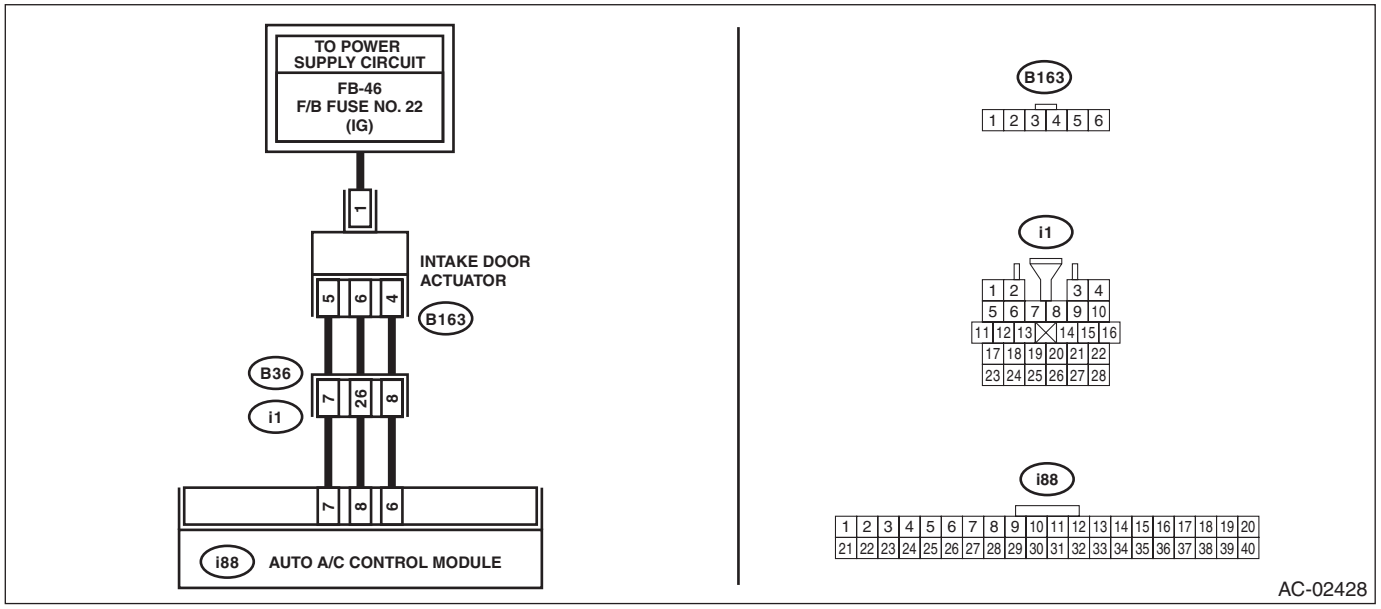
7. Diagnostic Procedure for Actuators

A: INTAKE DOOR ACTUATOR

TROUBLE SYMPTOM:
FRESH/RECIRC mode is not changed.
WIRING DIAGRAM:
Air conditioning system, auto A/C model <Ref. to WI-77, AUTO A/C MODEL, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK POWER SUPPLY FOR INTAKE DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the intake door actuator connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between intake door actuator connector and chassis ground. ***Connector & terminal*** ***(B163) No. 1 (+) — Chassis ground (–):***	Is the voltage approx. 10 V or more?	Go to step **2**.	Check for open or short circuit in the harness between intake door actuator and fuse.
2	**CHECK HARNESS BETWEEN AUTO A/C CONTROL MODULE AND INTAKE DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the auto A/C control module connector. 3) Measure the resistance between intake door actuator connector and auto A/C control module connector. ***Connector & terminal*** ***(i88) No. 8 — (B163) No. 6:*** ***(i88) No. 7 — (B163) No. 5:*** ***(i88) No. 6 — (B163) No. 4:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the harness between auto A/C control module and intake door actuator.

	Step	Check	Yes	No
3	**CHECK OPERATION OF INTAKE DOOR ACTUATOR.** 1) Connect the intake door actuator connector. 2) Ground the auto A/C control module connector with a suitable wire. 3) Turn the ignition switch to ON, and check the operation of intake door actuator. ***Connector & terminal*** ***(i88) No. 6 — Chassis ground:***	Does the actuator move to the FRESH side?	Go to step **4**.	Replace the intake door actuator.
4	**CHECK OPERATION OF INTAKE DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Ground the auto A/C control module connector with a suitable wire. 3) Turn the ignition switch to ON, and check the operation of intake door actuator. ***Connector & terminal:*** ***(i88) No. 8 — Chassis ground:***	Does the actuator move to the RECIRC side?	Replace the auto A/C control module. <Ref. to AC-31, REMOVAL, Control Unit (Auto A/C Model).>	Replace the intake door actuator.

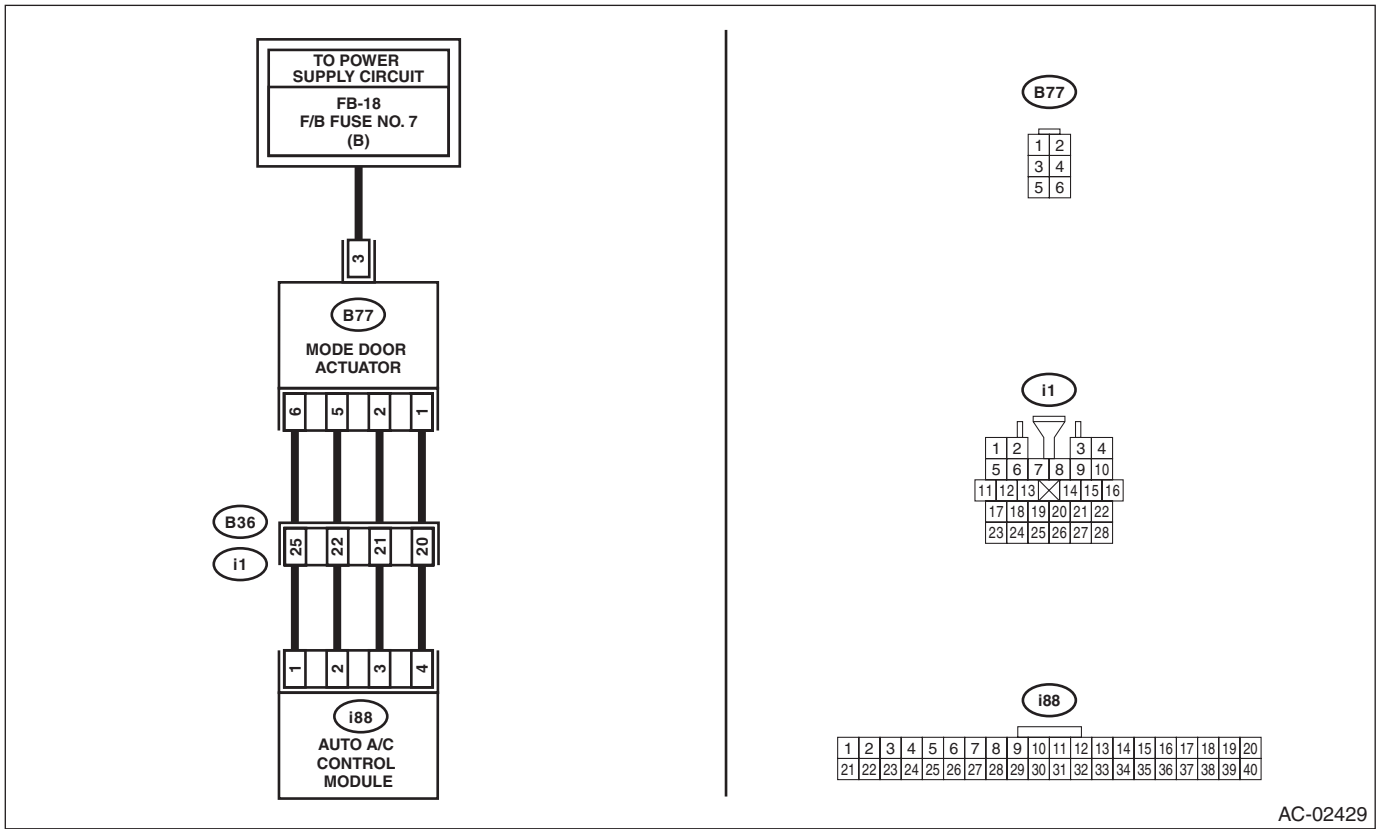
B: MODE DOOR ACTUATOR

TROUBLE SYMPTOM:

Air flow outlet is not changed.

WIRING DIAGRAM:

Air conditioning system, auto A/C model <Ref. to WI-77, AUTO A/C MODEL, WIRING DIAGRAM, Air Conditioning System.>

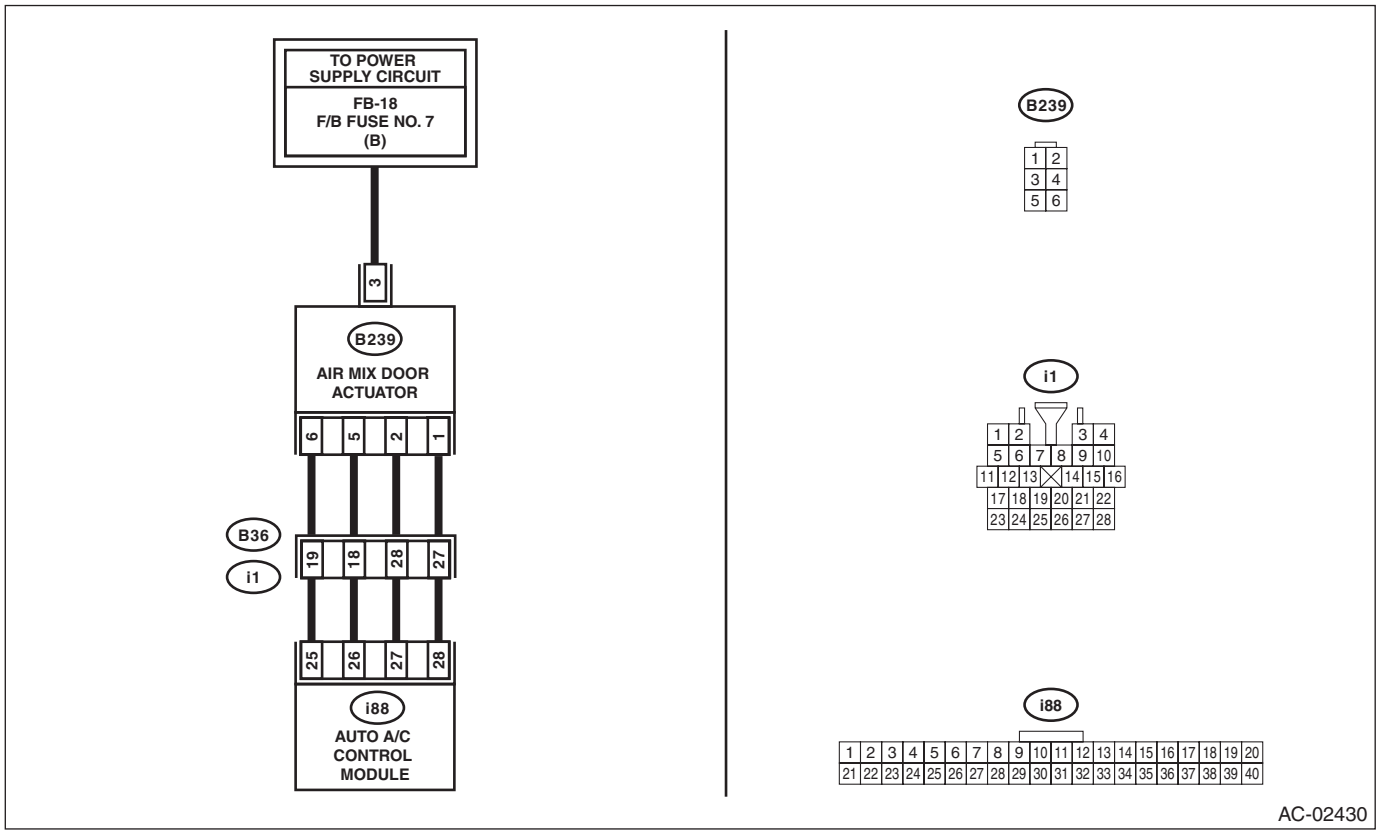


Diagnostic Procedure for Actuators

	Step	Check	Yes	No
1	**CHECK POWER SUPPLY FOR MODE DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the mode door actuator connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between the mode door actuator connector terminal and chassis ground. ***Connector & terminal*** ***(B77) No. 3 (+) — Chassis ground (–):***	Is the voltage approx. 10 V or more?	Go to step **2**.	Check the DC power supply circuit.
2	**CHECK MODE DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between mode door actuator terminals using a tester. ***Connector & terminal*** ***(B77) No. 3 — No. 1:*** ***(B77) No. 3 — No. 2:*** ***(B77) No. 3 — No. 5:*** ***(B77) No. 3 — No. 6:***	Is the resistance 80 — 100 Ω?	Go to step **3**.	Replace the mode door actuator.
3	**CHECK HARNESS BETWEEN AUTO A/C CONTROL MODULE AND MODE DOOR ACTUATOR.** 1) Disconnect the auto A/C control module connector. 2) Measure the resistance between auto A/C control module and mode door actuator connector. ***Connector & terminal*** ***(B77) No. 1 — (i88) No. 4:*** ***(B77) No. 2 — (i88) No. 3:*** ***(B77) No. 5 — (i88) No. 2:*** ***(B77) No. 6 — (i88) No. 1:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair the harness between auto A/C control module and mode door actuator.
4	**CHECK FOR POOR CONTACT.** Check poor contact of auto A/C control module and connector.	Is there poor contact of connector?	Repair the connector.	Replace the auto A/C control module. <Ref. to AC-31, REMOVAL, Control Unit (Auto A/C Model).>

C: AIR MIX DOOR ACTUATOR

TROUBLE SYMPTOM:
Outlet air temperature does not change.
WIRING DIAGRAM:
Air conditioning system, auto A/C model <Ref. to WI-77, AUTO A/C MODEL, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK POWER SUPPLY OF AIR MIX DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the air mix door actuator connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between the air mix door actuator connector terminal and chassis ground. ***Connector & terminal*** ***(B239) No. 3 (+) — Chassis ground (–):***	Is the voltage approx. 10 V or more?	Go to step **2**.	Check the DC power supply circuit.
2	**CHECK AIR MIX DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between air mix door actuator terminals using a tester. ***Connector & terminal*** ***(B239) No. 3 — No. 1:*** ***(B239) No. 3 — No. 2:*** ***(B239) No. 3 — No. 5:*** ***(B239) No. 3 — No. 6:***	Is the resistance 80 — 100 Ω?	Go to step **3**.	Replace the air mix door actuator.

	Step	Check	Yes	No
3	**CHECK HARNESS BETWEEN AUTO A/C CONTROL MODULE AND AIR MIX DOOR ACTUATOR.** 1) Disconnect the auto A/C control module connector. 2) Measure the resistance between auto A/C control module and air mix door actuator connector. ***Connector & terminal*** ***(B239) No. 1 — (i88) No. 28:*** ***(B239) No. 2 — (i88) No. 27:*** ***(B239) No. 5 — (i88) No. 26:*** ***(B239) No. 6 — (i88) No. 25:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair the harness between auto A/C control module and air mix door actuator.
4	**CHECK FOR POOR CONTACT.** Check poor contact of auto A/C control module and connector.	Is there poor contact of connector?	Repair the connector.	Replace the auto A/C control module. <Ref. to AC-31, REMOVAL, Control Unit (Auto A/C Model).>