

NO.2 AMOUNT OF AIR BLOWN FROM VENTS DOES NOT CHANGE

B3E070301038W04

Full-auto Air Conditioner

| | |
|-----------------------|---|
| 2 | Amount of air blown from vents does not change. |
| DESCRIPTION | • Malfunction in blower system |
| POSSIBLE CAUSE | <ul style="list-style-type: none"> • A/C unit malfunction (Steps 3, 4, 12) • Blower motor malfunction (Steps 5-9) • Malfunction in power MOS FET system (Steps 10, 11, 13, 14) • Climate control unit malfunction (Step 15) |

• When performing an asterisked (*) troubleshooting inspection, shake the wiring harness and connectors while performing the inspection to discover whether poor contact points are the cause of any intermittent malfunctions. If there is a problem, inspect make sure connectors, terminals and wiring harnesses are connected correctly and undamaged.

Diagnostic procedure

| STEP | INSPECTION | | ACTION |
|------|--|-----|---|
| 1 | INSPECT HEATER 40 A FUSE <ul style="list-style-type: none"> • Inspect the HEATER 40 A fuse. • Is it normal? | Yes | Go to the next step. |
| | | No | Replace the fuse, then go to Step 15. If the fuse burns out immediately, go to the next step. |
| 2 | INSPECT TO SEE WHETHER MALFUNCTION IS IN A/C UNIT OR ELSEWHERE <ul style="list-style-type: none"> • Turn the ignition switch to the ON position. • Recirculate air inside the vehicle. • Does the blower motor rotate smoothly? | Yes | Go to Step 4. |
| | | No | Go to the next step. |
| 3 | INSPECT A/C UNIT INTAKE VENT <ul style="list-style-type: none"> • Is A/C unit intake vent clogged? | Yes | Remove obstruction, then go to Step 15. |
| | | No | Inspect if there are any obstruction in the A/C unit passage, then go to Step 15. |
| 4* | INSPECT TO SEE WHETHER MALFUNCTION IS IN BLOWER RELAY SYSTEM OR POWER MOS FET SYSTEM <ul style="list-style-type: none"> • Turn the ignition switch to ON position. • Measure the voltage at the following blower motor terminal. <ul style="list-style-type: none"> - Terminal B (blower motor operation signal) • Is voltage approx. 12 V? | Yes | Go to Step 8. |
| | | No | Go to the next step. |
| 5* | INSPECT TO SEE WHETHER MALFUNCTION IS IN WIRING HARNESS (LACK OF CONTINUITY BETWEEN FUSE BLOCK AND BLOWER RELAY) OR ELSEWHERE <ul style="list-style-type: none"> • Measure the voltage at the following blower relay terminals. | Yes | Go to the next step. |
| | | | Repair the wiring harness |

| | | | |
|-----|---|-----|---|
| | <ul style="list-style-type: none"> - Terminal B (IG2 signal) - Terminal A (B+ signal) | No | between the blower relay and HEATER 40 A fuse, then go to Step 15. |
| | • Is the voltage approx. 12 V ? | | |
| 6* | INSPECT TO SEE WHETHER MALFUNCTION IS IN WIRING HARNESS (LACK OF CONTINUITY BETWEEN BLOWER RELAY AND GROUND) OR ELSEWHERE | Yes | Go to the next step. |
| | | No | Repair the wiring harness between the blower relay and ground, then go to Step 15. |
| | | | |
| 7* | INSPECT TO SEE WHETHER MALFUNCTION IS IN WIRING HARNESS (LACK OF CONTINUITY BETWEEN BLOWER RELAY AND BLOWER MOTOR) OR BLOWER RELAY | Yes | Repair the wiring harness between the blower relay and blower motor, then go to Step 15. |
| | | No | Replace the blower relay, then go to Step 15. |
| | | | |
| 8* | INSPECT TO SEE WHETHER MALFUNCTION IS IN BLOWER MOTOR OR ELSEWHERE | Yes | Go to the next step. |
| | | No | Inspect the blower motor, then go to Step 15. |
| | | | |
| 9* | INSPECT TO SEE WHETHER MALFUNCTION IS IN WIRING HARNESS (LACK OF CONTINUITY BETWEEN BLOWER MOTOR AND POWER MOS FET) OR ELSEWHERE | Yes | Go to the next step. |
| | | No | Repair the wiring harness between the blower motor and power MOS FET, then go to Step 15. |
| | | | |
| 10* | INSPECT TO SEE WHETHER MALFUNCTION IS IN WIRING HARNESS (LACK OF CONTINUITY BETWEEN POWER MOS FET AND GROUND) OR ELSEWHERE | Yes | Go to the next step. |
| | | No | Repair the wiring harness between the power MOS FET and ground, then go to Step 15. |
| | | | |
| 11 | INSPECT A/C UNIT | Yes | Go to the next step. |
| | | | |
| | | | Remove obstruction, repair or |

| | | | |
|-----|--|-----|---|
| | <p>- Is the fan free of foreign material and obstruction?</p> <p>• Is the fan normal?</p> | No | replace the fan and A/C unit case, then go to Step 15. |
| 12* | <p>INSPECT TO SEE WHETHER MALFUNCTION IS IN POWER MOS FET OR ELSEWHERE</p> <p>• Disconnect power MOS FET connector.</p> <p>• Measure the voltage at the following power MOS FET terminal.</p> <p>- Terminal B (blower motor control signal)</p> <p>• Is voltage approx. 10 V?</p> | Yes | Replace the power MOS FET, then go to Step 15. |
| | | No | Go to the next step. |
| 13* | <p>INSPECT TO SEE WHETHER MALFUNCTION IS IN WIRING HARNESS (LACK OF CONTINUITY BETWEEN POWER MOS FET AND CLIMATE CONTROL UNIT) OR ELSEWHERE</p> <p>• Turn the ignition switch to the LOCK position.</p> <p>• Disconnect climate control unit connector.</p> <p>• Inspect for continuity at the following terminals between the power MOS FET and climate control unit.</p> <p>- Terminal B-F (blower motor control signal)</p> <p>- Terminal C-D (blower motor feedback signal)</p> <p>• Is there continuity?</p> | Yes | Go to the next step. |
| | | No | Repair the wiring harness between the power MOS FET and climate control unit, then go to Step 15. |
| 14* | <p>INSPECT TO SEE WHETHER MALFUNCTION IS IN CLIMATE CONTROL UNIT OR WIRING HARNESS (SHORT TO GROUND IN WIRING HARNESS BETWEEN POWER MOS FET AND CLIMATE CONTROL UNIT)</p> <p>• Inspect for continuity at the following terminal between the power MOS FET and ground.</p> <p>- Terminal B (blower motor control signal)-ground</p> <p>• Is there continuity?</p> | Yes | Repair the wiring harness between the power MOS FET and ground, then go to the next step. |
| | | No | Replace the climate control unit, then go to the next step. |
| 15 | <p>CONFIRM THAT MALFUNCTION SYMPTOM DOES NOT RECUR AFTER REPAIR</p> <p>• Is air discharged from vent?</p> | Yes | Troubleshooting completed. Explain repairs to customer. |
| | | No | Recheck malfunction symptoms, then repeat from Step 1 if the malfunction recurs. |