

HEATER SYSTEM

1997 Heater System

DESCRIPTION & OPERATION

WARNING: To avoid injury from accidental air bag deployment, read and follow all **SERVICE PRECAUTIONS** and **DISABLING & ACTIVATING AIR BAG SYSTEM** procedures in **AIR BAG RESTRAINT SYSTEM** article in the **ACCESSORIES/SAFETY EQUIPMENT** section.

CAUTION: When battery is disconnected, radio will go into anti-theft protection mode. Obtain radio anti-theft protection code from owner prior to servicing vehicle.

Heater case, mounted under center of instrument panel, contains airflow mode doors and air-mix (temperature blend) doors. See **Fig. 1**. Blower case, mounted under right side of instrument panel, contains blower motor, blower resistor and fresh/recirculated air door. All doors are controlled manually from control panel by cable. Blower resistors, located on bottom of blower case, determine blower speed.

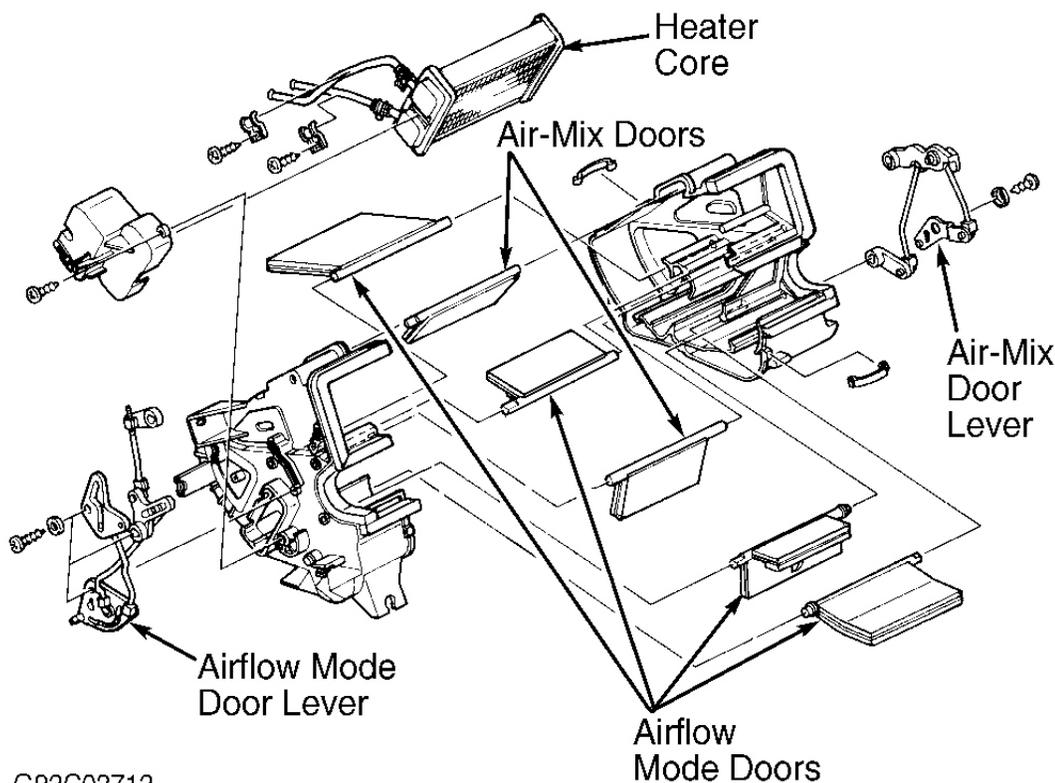


Fig. 1: Exploded View Of Heater Unit
Courtesy of MAZDA MOTORS CORP.

ADJUSTMENTS

AIRFLOW MODE DOOR

Set airflow mode control lever at vent position. Disconnect control cable at airflow mode door lever. See **Fig. 1**. Extend airflow mode door lever until it stops. Attach control cable to door lever. Secure cable using clip. Ensure control lever slides freely between defrost and vent positions.

AIR-MIX (TEMPERATURE BLEND) DOOR

Set temperature control lever at maximum hot setting. Disconnect control cable at air-mix door lever. See **Fig. 1**. Extend air-mix door lever until it stops. Attach control cable to door lever. Secure cable using clip. Ensure control lever slides freely between hot and cold settings.

FRESH/RECIRCULATED AIR DOOR

Set fresh/recirculated air control lever at fresh air setting. Disconnect control cable at fresh/recirculated air door lever. Retract recirculated/fresh air door lever until it stops. Attach control cable to door lever. Secure cable using clip. Ensure control lever slides freely between recirculated air and fresh air settings.

TESTING

WARNING: To avoid injury from accidental air bag deployment, read and follow all SERVICE PRECAUTIONS and DISABLING & ACTIVATING AIR BAG SYSTEM procedures in AIR BAG RESTRAINT SYSTEM article in the ACCESSORIES/SAFETY EQUIPMENT section.

BLOWER MOTOR CIRCUIT

1. Check 30-amp HEATER fuse in passenger compartment fuse block. If fuse is okay, go to next step. If fuse is burnt, check for short circuit in wiring harness and repair as necessary. Replace fuse.
2. Turn ignition on. Turn blower switch to 4th position (high). Using voltmeter, backprobe Blue wire terminal of blower motor connector on bottom of blower case. If battery voltage exists, go to next step. If battery voltage is not present, repair wiring harness between circuit breaker or fuse and blower motor.
3. Ensure ignition is on. Backprobe Blue wire terminal of blower resistor 1-pin connector. If battery voltage exists, go to next step. If battery voltage is not present, replace blower motor.
4. Backprobe Blue/White wire terminal, Blue/Red wire terminal, Blue/Green wire terminal and Blue/Yellow wire terminal of blower resistor 4-pin connector. If battery voltage exists, go to next step. If battery voltage is not present at any terminal, replace blower resistor.
5. Turn blower switch to 4th position (high). Backprobe Black wire terminal of blower switch connector. If battery voltage is not present, go to next step. If battery voltage exists, repair Black wire between blower switch and chassis ground.

1997 Mazda MX-5 Miata

HEATER SYSTEM 1997 Heater System

- Turn ignition blower switch off. Backprobe Blue/White wire terminal, Blue/Red wire terminal, Blue/Green wire terminal and Blue/Yellow wire terminal of blower switch connector. If battery voltage is not present, repair open wire(s) between blower resistor and blower switch. If battery voltage exists, check blower motor.

BLOWER MOTOR

Disconnect blower motor 2-pin connector from bottom of blower case. Apply battery voltage across blower motor terminals. Replace blower motor if it does not operate.

BLOWER RESISTOR

Disconnect blower resistor connectors from blower case. Check continuity, in turn, between Blue wire terminal of 1-pin connector and each terminal of 4-pin connector. Ensure continuity exists. Replace resistor if continuity does not exist.

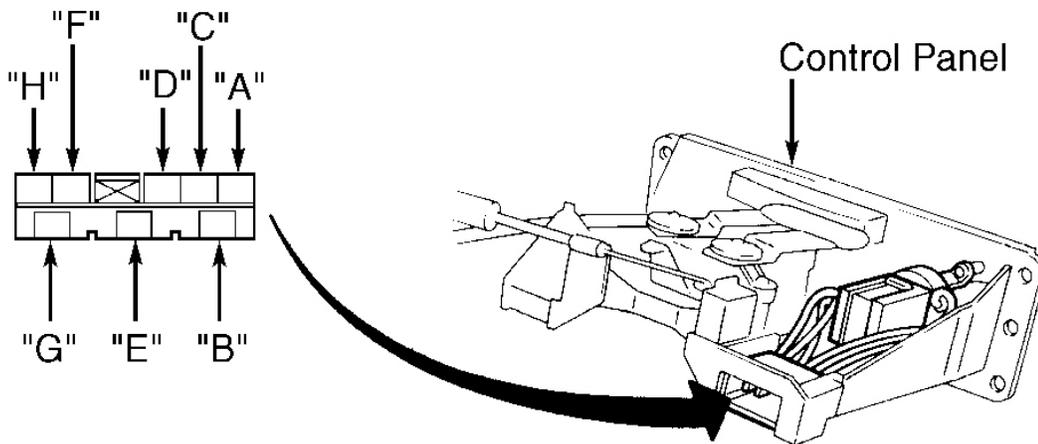
BLOWER SWITCH

Disconnect blower switch connector. Place blower switch in indicated positions, and check continuity between specified blower switch terminals. See BLOWER SWITCH TEST table. See **Fig. 2** . If continuity is not as specified, replace blower switch.

BLOWER SWITCH TEST

Switch Position	Continuity Between Terminals
Off	(1)
Low	"A" & "G"
Medium-Low	"C", "G" & "H"
Medium-High	"E", "G" & "H"
High	"B", "G" & "H"

(1) There should not be continuity between any terminals.



94B10422

Fig. 2: Identifying Blower Switch Terminals
 Courtesy of MAZDA MOTORS CORP.

REMOVAL & INSTALLATION

WARNING: To avoid injury from accidental air bag deployment, read and follow all **SERVICE PRECAUTIONS** and **DISABLING & ACTIVATING AIR BAG SYSTEM** procedures in **AIR BAG RESTRAINT SYSTEM** article in the **ACCESSORIES/SAFETY EQUIPMENT** section.

BLOWER UNIT

Removal & Installation

Remove glove box. Disconnect electrical connectors. Loosen seal plate between blower unit and evaporator unit (if equipped). Remove blower unit bolts and blower unit. Disassemble blower unit to remove blower motor and blower resistor. To install, reverse removal procedure.

CONTROL PANEL

Removal & Installation

Remove rear center console. Remove vent outlets from center panel. Remove center panel. Remove control panel screws, and pull control panel from center panel. Disconnect heater control cables. To install, reverse removal procedure.

HEATER CORE

Removal & Installation

1997 Mazda MX-5 Miata

HEATER SYSTEM 1997 Heater System

Drain coolant. Disconnect heater hoses at engine compartment firewall. Remove grommets from holes (if equipped). Remove instrument panel. See **INSTRUMENT PANEL** . Remove heater unit. Disassemble heater unit to remove heater core. See **Fig. 1** . To install, reverse removal procedure. Fill cooling system.

INSTRUMENT PANEL

Removal & Installation

Before disconnecting negative battery cable, obtain radio anti-theft code from vehicle owner. Disconnect negative battery cable. Remove components in the order listed in illustration. See **Fig. 3** . To install, reverse removal procedure.

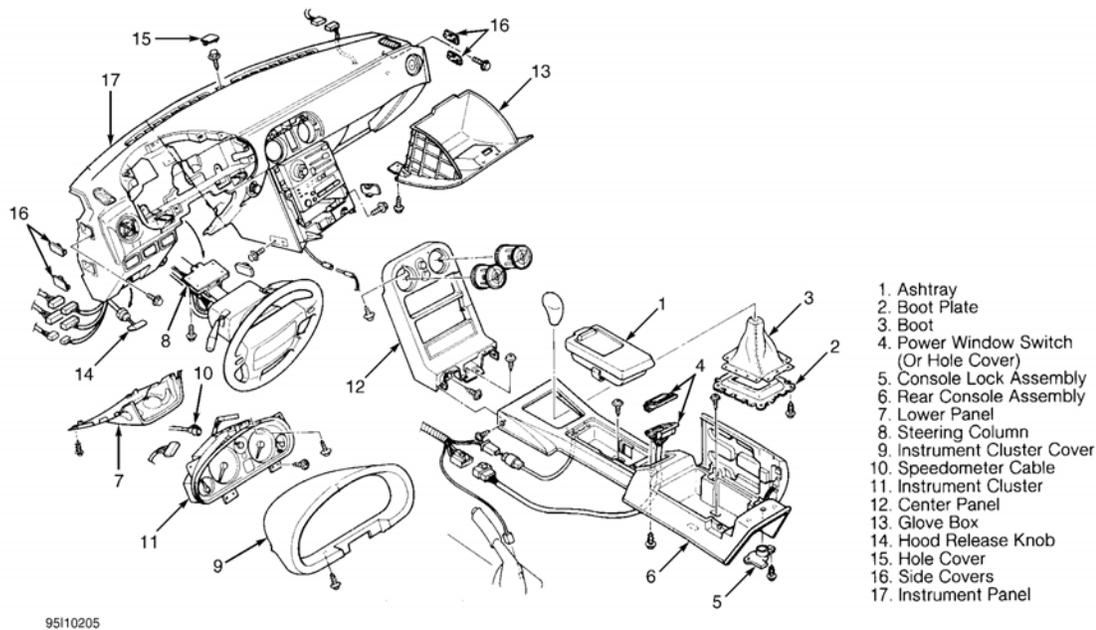
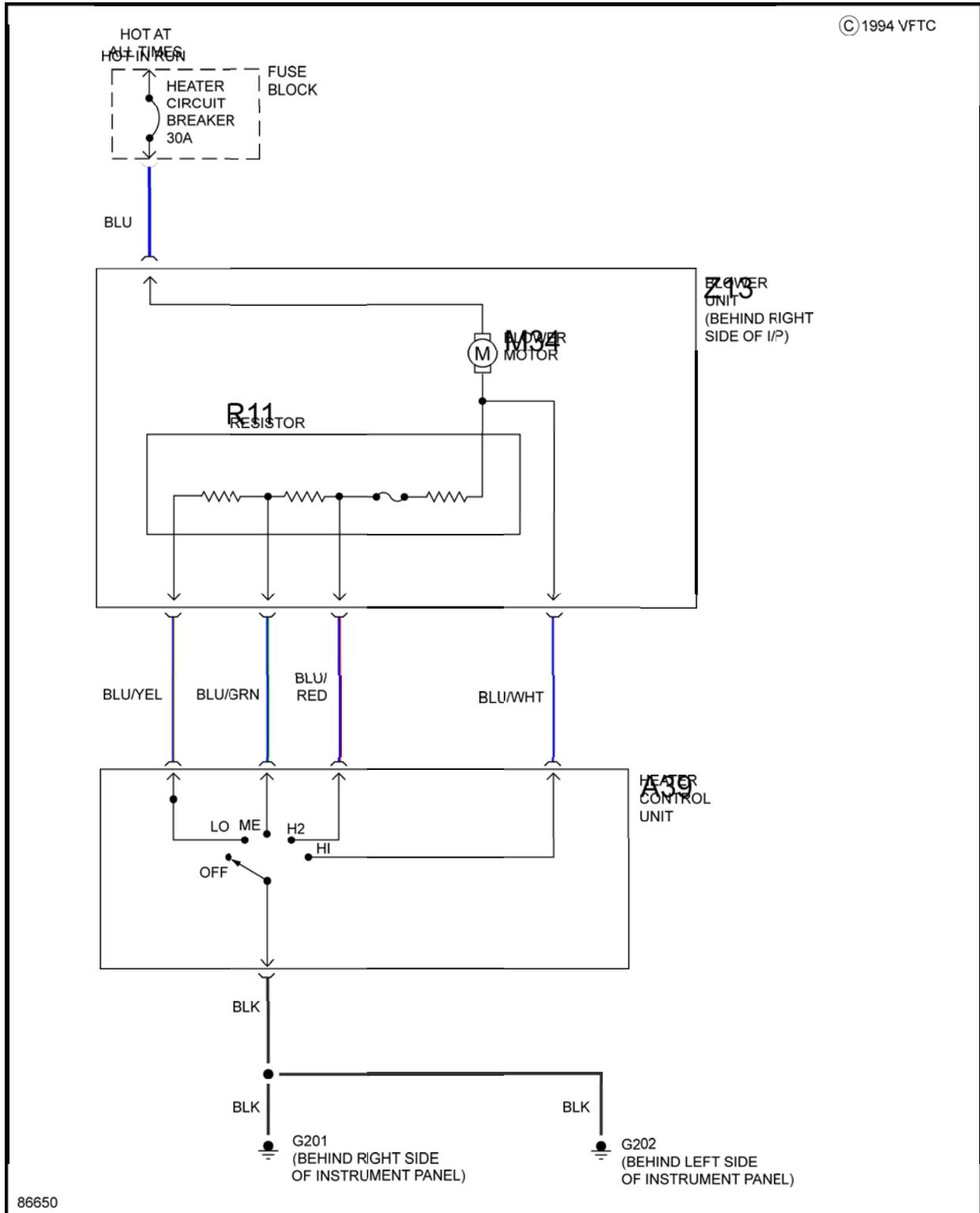


Fig. 3: Exploded View Of Instrument Panel
Courtesy of MAZDA MOTORS CORP.

WIRING DIAGRAM

1997 Mazda MX-5 Miata

HEATER SYSTEM 1997 Heater System



1997 Mazda MX-5 Miata

HEATER SYSTEM 1997 Heater System

Fig. 4: Heater System Wiring Diagram