

# AIR BAG RESTRAINT SYSTEM

## Article Text

1993 Mazda 929

For Techdoc Ltd.

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## ARTICLE BEGINNING

1993 ACCESSORIES/SAFETY EQUIPMENT  
Mazda Air Bags

929

**WARNING:** To avoid injury from accidental air bag deployment, read and carefully follow all WARNINGS and SERVICE PRECAUTIONS.

## DESCRIPTION & OPERATION

Air bag restraint system consists of a driver-side air bag module, passenger-side air bag module, clockspring, diagnostic module, rear safing sensor, 3 front impact (crash) sensors, an AIR BAG warning light and wiring harnesses. See Fig. 1.

When the ignition is on, air bags deploy if a frontal impact is great enough to cause the contacts in the rear safing sensor and at least one front impact sensor to close. If the vehicle battery or fuses fail during a collision, the back-up battery built into the diagnostic module supplies current for the ignitor in the air bag module. Diagnostic module monitors air bag system for failures. If diagnostic module detects a failure, AIR BAG warning light comes on.

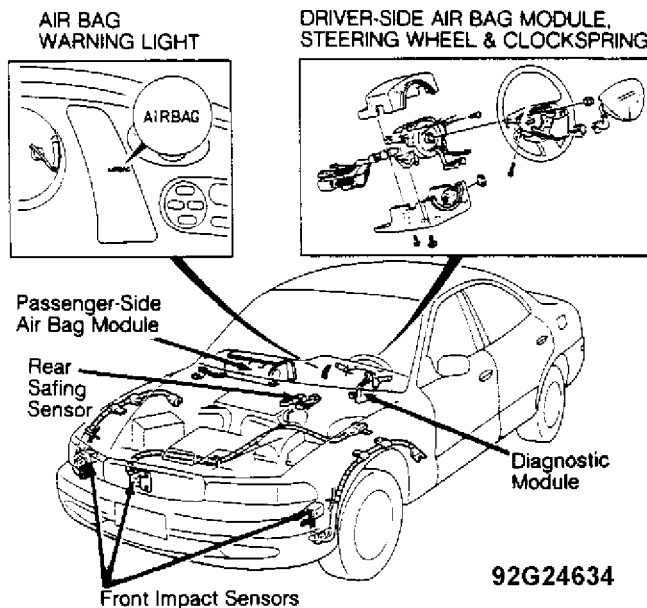


Fig. 1: Locating Air Bag System Components  
Courtesy of Mazda Motors Corp.

## SYSTEM OPERATION CHECK

Turn ignition switch to ON or START position. AIR BAG warning

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light in instrument cluster should glow for about 6 seconds and then go out. This indicates air bag system is functioning properly. If any of the following conditions exist, air bag system is malfunctioning and needs repair:

- \* AIR BAG warning light does not glow at all. If system fault occurs and warning light is burnt out, a warning buzzer in diagnostic module will sound 5 times in a row, for 5 cycles when ignition is turned on. If this occurs, repair warning light circuit first.
- \* AIR BAG warning light stays on for more than 6 seconds or comes on while driving. See DIAGNOSIS & TESTING.

If warning light functions as described, check horn operation. If horn does not sound, remove air bag module and check air bag module and horn switch connections. Always follow SERVICE PRECAUTIONS and deactivate air bag system before performing repairs. See DISABLING AND ACTIVATING AIR BAG SYSTEM.

### **SERVICE PRECAUTIONS**

Observe the following precautions when working with the air bag system:

- \* Disable air bag system before servicing any air bag system or steering column component. See DISABLING & ACTIVATING AIR BAG SYSTEM.
- \* Wait about 10 minutes after disabling air bag system before servicing. Air bag system voltage is maintained for about 10 minutes after system is disabled. Failure to wait 10 minutes before servicing system may cause accidental air bag deployment and possible personal injury.
- \* Obtain radio code number from customer, and deactivate radio anti-theft function before disconnecting battery.
- \* Because of critical system operating requirements, DO NOT service any air bag system component. Corrections are made by replacement only.
- \* DO NOT use an ohmmeter to check resistance of air bag module, as it may cause air bag deployment.
- \* When carrying a live (undeployed) air bag module, ensure trim cover is pointed away from your body. This minimizes chance of injury if air bag is accidentally deployed.
- \* When placing a live air bag module on any surface, always face trim cover upward to reduce motion of air bag module if it is accidentally deployed.
- \* If an open circuit is present, replace entire wiring harness. DO NOT repair wires.
- \* Impact sensors must always be installed with arrow marks facing front of vehicle. Also, check sensors for cracks, defects and rust before installation. Replace impact sensor(s) if required. After a collision, inspect impact sensor mounting surface. If it is deformed or damaged,

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restore it to original shape.

- \* Air bag system clockspring MUST be aligned in neutral position, since its rotation is limited. If column shaft is disconnected from steering gear, DO NOT turn steering wheel or column shaft or clockspring will be damaged.
- \* A double-lock mechanism is used on clockspring connectors. DO NOT use excessive force when disconnecting connectors, as connectors may be damaged.

### DISABLING & ACTIVATING AIR BAG SYSTEM

**WARNING:** Wait about 10 minutes after disabling air bag system before servicing. Air bag system voltage is maintained for about 10 minutes after system is disabled. Failure to wait 10 minutes before servicing system may cause accidental air bag deployment and possible personal injury.

#### Disabling System

Obtain radio code number from customer, and deactivate audio anti-theft function. Turn ignition off. Disconnect and shield negative battery cable. Disconnect harness connectors from diagnostic module, located behind left side of instrument panel. See Figs. 1 and 2. Connect Short Circuit Connectors (49-H066-004) to diagnostic module harness connectors.

#### Activating System

Remove short circuit connectors from harness connectors. Reconnect diagnostic module connectors. Reconnect battery. Turn ignition on. Check AIR BAG warning light to ensure system is operating properly. See SYSTEM OPERATION CHECK.

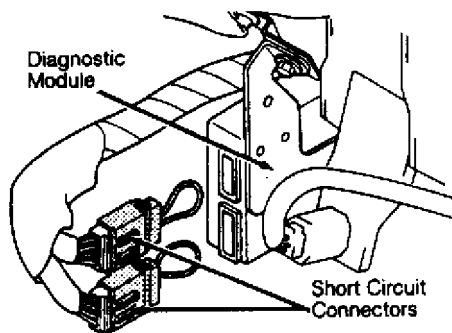


Fig. 2: Disabling Air Bag System  
Courtesy of Mazda Motors Corp.

### DISPOSAL PROCEDURES

#### DEPLOYED AIR BAG

Wrap deployed air bag module in a vinyl bag and dispose of it as you would any other part. Wear gloves and safety glasses when handling air bag module.

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## SCRAPPED VEHICLE

NOTE: Perform following procedure when scrapping a vehicle with an undeployed air bag.

1) Ensure vehicle is outside and away from other vehicles and people. Open all doors. Disconnect negative battery cable.

2) On driver's side, ensure air bag module is firmly mounted to steering wheel. Remove lower panel and lap duct. Disconnect clockspring connector under steering column. On passenger's side, remove rear console assembly, front console assembly, undercover, lower panel and side panel. Pull passenger-side air bag module from instrument panel, disconnect module connector and remove module. Pull connector through underside opening, and reinstall air bag module.

3) Before proceeding, ensure Deployment Tool (49-H066-002) is okay. See DEPLOYMENT TOOL INSPECTION under DIAGNOSIS & TESTING. If deployment tool is okay, go to next step.

4) On driver's side, connect deployment tool connector "A" to clockspring connector. See Fig. 14. Connect deployment tool to battery (Red clip to positive and Black clip to negative). Go to step 6).

5) On passenger's side, connect deployment tool connector "A" to air bag module connector. See Fig. 14. Connect deployment tool to battery (Red clip to positive and Black clip to negative). Go to next step.

6) Ensure Red light on deployment tool is illuminated. Ensure all people are clear of vehicle. Press activation switch on deployment tool, being prepared for loud noise. Because of heat, wait at least 15 minutes before touching deployed air bag module. DO NOT pour water on air bag module.

## REMOVAL & INSTALLATION

WARNING: Follow air bag service precautions to prevent accidental air bag deployment and personal injury. See SERVICE PRECAUTIONS.

NOTE: After replacing components, check system to ensure proper operation. See SYSTEM OPERATION CHECK.

## AIR BAG MODULE

### Removal & Installation (Driver-Side)

1) Before proceeding, follow air bag service precautions. See SERVICE PRECAUTIONS. Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM.

2) Driver-side air bag module is located on center of steering wheel. See Fig. 3. Remove side covers and mounting bolts. Disconnect support rope and harness connector(s). Remove air bag module from steering wheel. To install, reverse removal procedure.

3) Ensure horn operates. Activate air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Check AIR BAG indicator light to ensure system is functioning properly. See SYSTEM OPERATION CHECK.

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#### Removal & Installation (Passenger-Side)

1) Before proceeding, follow air bag service precautions. See SERVICE PRECAUTIONS. Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM.

2) Passenger-side air bag module is located in dash, above glove box. See Fig. 4. Remove rear console assembly, front console assembly, side panel, passenger-side undercover and lower panel.

3) Remove air bag module mounting bolts. Pull module away from dash and disconnect harness connector. Remove air bag module. To install, reverse removal procedure.

4) Activate air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Check AIR BAG warning light to ensure system is functioning properly. See SYSTEM OPERATION CHECK.

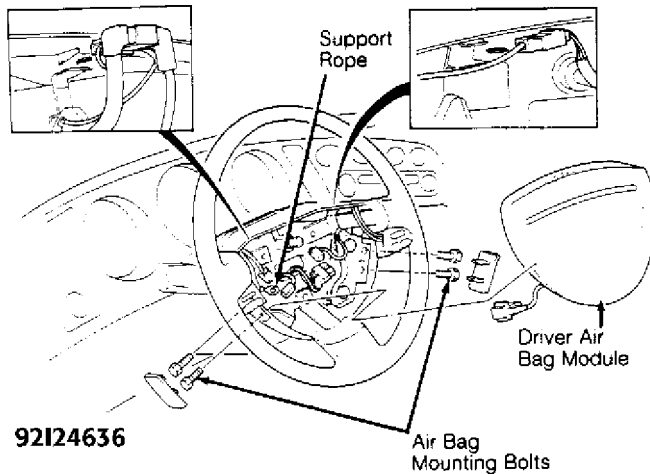


Fig. 3: Removing/Installing Air Bag Module (Driver-Side)  
Courtesy of Mazda Motors Corp.

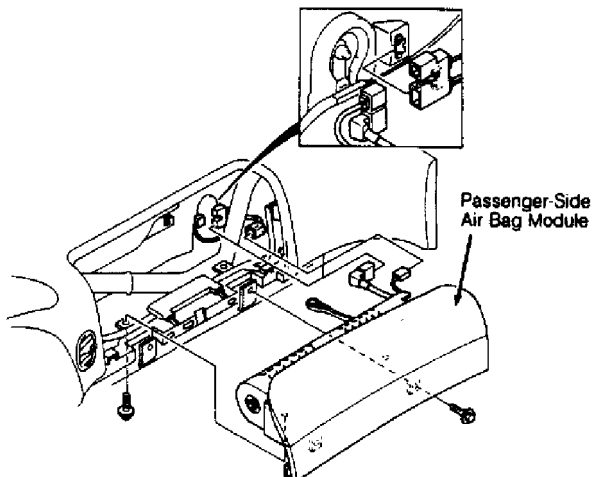


Fig. 4: Removing/Installing Air Bag Module (Passenger-Side)  
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### CLOCKSPRING

NOTE: Clockspring is part of combination switch. When replacing clockspring, replace clockspring and combination switch as an assembly.

#### Removal

1) Before proceeding, follow air bag service precautions. See SERVICE PRECAUTIONS. Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM.

2) Clockspring is located under steering wheel, on steering column. See Fig. 1. Remove driver-side air bag module. See AIR BAG MODULE under REMOVAL & INSTALLATION. Remove steering wheel nut. Remove steering wheel using steering wheel puller. Remove steering column covers. Remove screws. Remove clockspring and combination switch as an assembly.

#### Installation

1) To install, reverse removal procedure. Before installing steering wheel, center clockspring. See CLOCKSPRING CENTERING under ADJUSTMENTS. Tighten steering wheel nut to specification. See TORQUE SPECIFICATIONS table at the end of this article.

2) After installing clockspring and combination switch assembly, activate air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Check AIR BAG warning light to ensure system is functioning properly. See SYSTEM OPERATION CHECK.

### IMPACT SENSORS

WARNING: Impact sensors must be correctly oriented and mounted. All sensors must be positioned so arrow points forward. If sheet metal damage exists near sensor mounting point, inspect body structure at sensor mounting point for deformation. If structure is damaged, restore it to original shape. Ensure sensor mounting bolts or nuts are tightened to specification. See TORQUE SPECIFICATIONS table at the end of this article. A double-lock mechanism is used on connectors. DO NOT use excessive force when disconnecting connectors, as damage to connector may occur.

#### Removal (Front Impact Sensors)

1) Before proceeding, follow air bag service precautions. See SERVICE PRECAUTIONS. Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM.

2) Front impact sensors are located in center front, left front and right front of vehicle. See Fig. 1. To remove center sensor, disconnect connector. Remove ducting (for intake air). See Fig. 5. Remove sensor bolts. Open harness retaining clips. Remove sensor and harness.

3) To remove left or right front sensor, remove wheelwell undercover. See Fig. 6. Remove sensor bolts. Open harness retaining clips. Remove sensor and harness.

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#### Installation (Front Impact Sensors)

To install, reverse removal procedure. Position sensor with arrow toward front of vehicle. Tighten sensor bolts to specification. See TORQUE SPECIFICATIONS table at the end of this article. Activate air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Check AIR BAG warning light to ensure system is functioning properly. See SYSTEM OPERATION CHECK.

#### Removal (Rear Safing Sensor)

Before proceeding, follow air bag service precautions. See SERVICE PRECAUTIONS. Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Remove instrument panel. Remove cooling unit and heater unit. See Fig. 7. Disconnect safing sensor connectors. Remove sensor.

#### Installation (Rear Safing Sensor)

Position sensor with arrow toward front of vehicle. To install, reverse removal procedure. Fill cooling system. Evacuate and charge A/C system. Activate air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Check AIR BAG warning light to ensure system is functioning properly. See SYSTEM OPERATION CHECK.

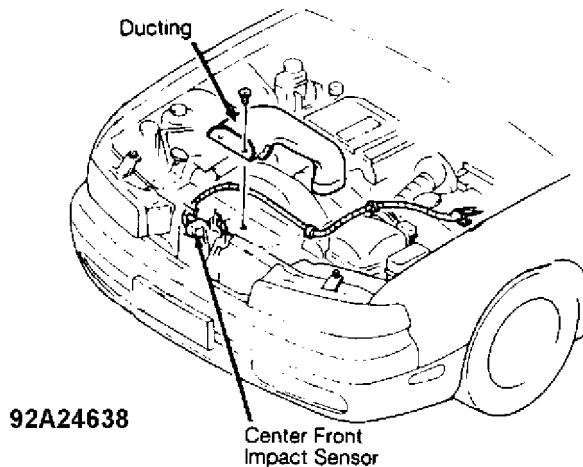


Fig. 5: Removing Center Front Impact Sensor  
Courtesy of Mazda Motors Corp.

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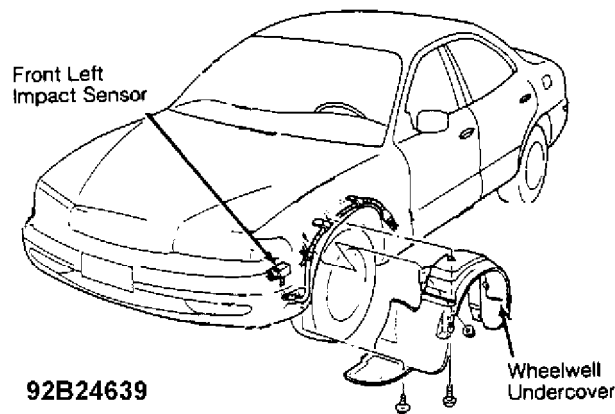


Fig. 6: Removing Left Front Impact Sensor (Right Front Is Similar)  
Courtesy of Mazda Motors Corp.

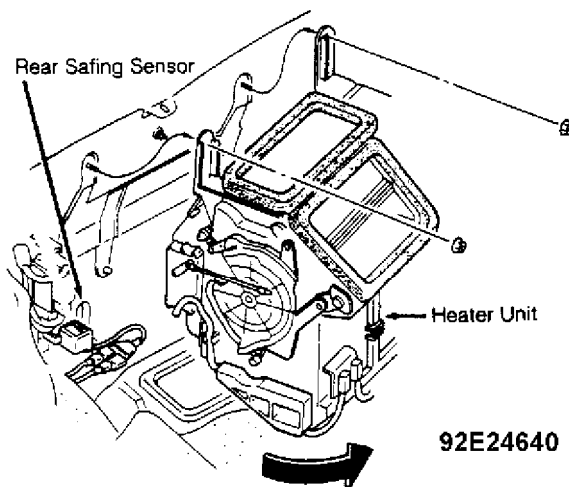


Fig. 7: Removing Rear Safing Sensor  
Courtesy of Mazda Motors Corp.

## DIAGNOSTIC MODULE

### Removal & Installation

1) Before proceeding, follow air bag service precautions. See SERVICE PRECAUTIONS. Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Diagnostic module is located behind left side of instrument panel. See Figs. 1 and 2. Disconnect diagnostic module connectors. Remove diagnostic module mounting bolt and nut. Remove diagnostic module.

2) To install, reverse removal procedure. Activate air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Check AIR BAG warning light to ensure system is functioning properly. See SYSTEM OPERATION CHECK.



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### **STEERING WHEEL**

#### **Removal & Installation**

Remove driver-side air bag module. See AIR BAG MODULE. Remove steering wheel nut. DO NOT strike steering shaft with a hammer or steering shaft may collapse. Remove steering wheel with a steering wheel puller. To install, reverse removal procedure. Tighten steering wheel nut to specification. See TORQUE SPECIFICATIONS table at the end of this article.

### **ADJUSTMENTS**

#### **CLOCKSPRING CENTERING**

Set front wheels in straight-ahead position. Turn clockspring clockwise until it stops (DO NOT force). Turn clockspring 2 3/4 turns counterclockwise. Align arrow at top of outer housing with arrow on clockspring (rotate clockspring slightly further if necessary to align).

### **WIRE REPAIR**

DO NOT repair air bag system wiring. If air bag wiring harness or connectors are faulty, replace entire faulty harness.

### **DIAGNOSIS & TESTING**

**WARNING:** Follow air bag service precautions to prevent accidental air bag deployment and personal injury. See SERVICE PRECAUTIONS.

**NOTE:** After component replacement, check system to ensure proper operation. See SYSTEM OPERATION CHECK.

#### **SELF-DIAGNOSTIC SYSTEM**

##### **Trouble Shooting**

AIR BAG warning light flashes are used to diagnose air bag system. Number of warning light flashes depends on type of fault being detected. Codes are prioritized. If 2 or more faults are present, the highest test-priority fault indication will be displayed until it is corrected. After correction, the next fault indication will be displayed.

##### **Warning Light Does Not Glow**

Check for blown fuses, burned-out bulb, disconnected diagnostic module or open circuit between warning light and diagnostic module.

**NOTE:** If warning light does not glow and buzzer sounds when ignition is turned on, check and repair warning light

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circuit first.

Warning Light Flashes Or Remains On

Check code output of AIR BAG warning light. See AIR BAG FLASH CODES table.

### AIR BAG FLASH CODES TABLE

UAAA;			
3 Flash Code	3	3 Diagnostic	3
3 (Priority)	3 Cause	3 Test No.	3
AAA-			
3 Remains On (1)	3 Faulty Diagnostic Module Or Poor	3 1	3
3	3 Connection At Diagnostic Module	3	3
AAA-			
3 Flashes 3 Times	3 Open In Power Supply Circuit To	3 2	3
3 (2)	3 Diagnostic Module	3	3
AAA-			
3 Flashes 5 Times	3 Faulty Front Impact Sensor	3 3	3
3 (3)	3	3	3
AAA-			
3 Flashes 10 Times	3 Faulty Diagnostic Module	3 4	3
3 (4)	3 (System-Down Fuse Burned)	3	3
AAA-			
3 Flashes 4 Times	3 Faulty Rear Safing Sensor	3 5	3
3 (5)	3	3	3
AAA-			
3 Flashes 6 Times	3 Faulty Driver-Side Air Bag Module	3 6	3
3 (6)	3 Or Poor Connection At Clockspring	3	3
AAA-			
3 Flashes 7 Times	3 Faulty Passenger-Side Air Bag	3 7	3
3 (7)	3 Module Or Poor Connection At	3	3
3	3 Passenger-Side Air Bag Module	3	3
AAA-			
3 Flashes 9 Times	3 Open Circuit Between Diagnostic	3 3	3
3 (8)	3 Module And Front Impact Sensor	3	3
AAA-			
3 Remains OFF	3 Faulty AIR BAG Warning Light	3 8	3
3 (None)	3	3	3
AAU			

### DIAGNOSTIC TEST NO. 1

Warning Light Remains On

Disconnect negative battery cable. Ensure diagnostic module connectors are properly connected. If connectors are okay, replace diagnostic module.

### DIAGNOSTIC TEST NO. 2

Warning Light Flashes 3 Times

1) Measure battery voltage. If voltage is less than 9 volts, charge battery. If battery voltage is greater than 9 volts, check

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fuses. See FUSE LOCATION table. See Fig. 9. Replace blown fuses. If fuses are okay, go to next step.

### FUSE LOCATION TABLE

AA

Fuse	Location
------	----------

EGI (30-Amp)	In Main Fuse Block No. 1
--------------	--------------------------

Engine (10-Amp)	In Fuse Box (Under Dash)
-----------------	--------------------------

Meter (10-Amp)	In Fuse Box (Under Dash)
----------------	--------------------------

AA

2) Disconnect negative battery cable. Ensure diagnostic module connectors are properly connected. Reconnect as necessary. If connections are okay, go to next step.

3) Disconnect diagnostic module connectors. Reconnect negative battery cable. Measure voltage between diagnostic module connector terminal 1A (Black/White wire) and ground. See Fig. 10. If battery voltage is present, go to next step. If battery voltage is not present, replace wiring harness assembly.

4) Measure voltage between diagnostic module connector terminal 2M (Black/Yellow wire) and ground. See Fig. 10. If battery voltage is present, go to next step. If battery voltage is not present, replace wiring harness assembly.

5) Measure voltage between diagnostic module connector terminal 2N (White/Green wire) and ground. See Fig. 10. If battery voltage is present, replace diagnostic module. If battery voltage is not present, replace wiring harness assembly.

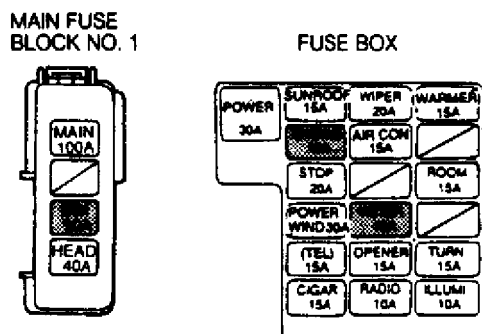


Fig. 8: Identifying Air Bag System Related Fuses  
Courtesy of Mazda Motors Corp.

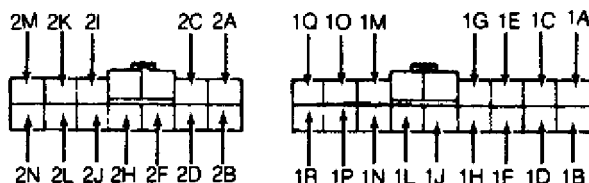


Fig. 9: Identifying Diagnostic Module Connector Terminals  
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Warning Light Flashes 5 Or 9 Times

1) Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM.

2) Disconnect diagnostic module connectors. Check for continuity between diagnostic module connector terminals 1N (Black/Yellow wire) and 2D (Black wire). See Fig. 10. If there is continuity, go to next step. If there is no continuity, go to step 5).

3) Disconnect front impact sensor connectors (center, left and right). Measure resistance across terminals "A" and "B" of each sensor. See Fig. 11. Resistance should be about 1200 ohms. If resistance is not as specified, replace sensor. If resistance for all sensors is correct, go to next step.

4) Reconnect all front impact sensor connectors. Disconnect diagnostic module connectors. Measure resistance between diagnostic module connector terminals 1H (Purple wire) and 1M (Red/White wire). See Fig. 10. If resistance is 1200 ohms, go to next step. If resistance is not 1200 ohms, replace wiring harness.

5) Measure resistance between diagnostic module connector terminals 1G (Yellow wire) and 1O (Orange/White wire). See Fig. 10. If resistance is 1200 ohms, go to next step. If resistance is not 1200 ohms, replace wiring harness.

6) Measure resistance between diagnostic module connector terminals 2H (Green/Yellow wire) and 2F (Blue/White wire). See Fig. 10. If resistance is 1200 ohms, replace diagnostic module. If resistance is not 1200 ohms, replace wiring harness.

7) Disconnect front impact sensor connectors (center, left and right). Measure resistance across terminals "C" and "D" of each sensor. See Fig. 11. Resistance should be about 1200 ohms. If resistance is not as specified, replace sensor. If resistance for all sensors is correct, replace wiring harness.

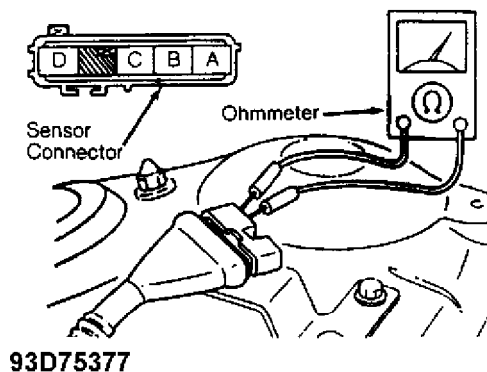


Fig. 10: Checking Impact Sensor Resistance  
Courtesy of Mazda Motors Corp.

### DIAGNOSTIC TEST NO. 4

Warning Light Flashes 10 Times

1) Disable air bag system. See DISABLING & ACTIVATING AIR BAG

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SYSTEM.

2) Disconnect front impact sensor connectors (center, left and right). Measure resistance across terminals "A" and "B" of each sensor. See Fig. 11. If resistance is about 1200 ohms, go to next step. If resistance is not about 1200 ohms, replace faulty sensor.

3) Reconnect all front impact sensor connectors. Disconnect diagnostic module connectors. Measure resistance between diagnostic module connector terminals 1H (Purple wire) and 1M (Red/White wire). See Fig. 10. If resistance is about 1200 ohms, go to next step. If resistance is not about 1200 ohms, replace wiring harness.

4) Measure resistance between diagnostic module connector terminals 1G (Yellow wire) and 1O (Orange/White wire). See Fig. 10. If resistance is about 1200 ohms, go to next step. If resistance is not about 1200 ohms, replace wiring harness.

5) Measure resistance between diagnostic module connector terminals 2H (Green/Yellow wire) and 2F (Blue/White wire). See Fig. 10. If resistance is about 1200 ohms, go to next step. If resistance is not about 1200 ohms, replace wiring harness.

6) Check for continuity between diagnostic module connector terminal 2J (Light Green wire) and ground. See Fig. 10. If continuity is present, replace wiring harness. If continuity is not present, replace diagnostic module.

7) Activate air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Check AIR BAG warning light to ensure system is functioning properly. See SYSTEM OPERATION CHECK.

## DIAGNOSTIC TEST NO. 5

Warning Light Flashes 4 Times

1) Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Disconnect diagnostic module connectors. Check for continuity between diagnostic module connector terminals 1J (Green wire) and 2L (Green/Red wire). See Fig. 10.

2) If continuity is present, go to next step. If continuity is not present, go to step 6).

3) Check continuity between diagnostic module connector terminals 1L (Green/White wire) and 2K (White wire). See Fig. 10. If continuity is present, go to next step. If continuity is not present, go to step 6).

4) Check continuity between diagnostic module connector terminals 2L (Green/Red wire) and 2K (White wire). See Fig. 10. If continuity is present, go to next step. If continuity is not present, go to step 6).

5) Check continuity to ground at diagnostic module connector terminals 2L (Green/Red wire) and 2K (White wire). See Fig. 10. If continuity to ground is present at either terminal, replace diagnostic module. If continuity to ground is not present at either terminal, go to next step.

6) Disconnect rear safing sensor connector. Check continuity between rear safing sensor connector terminals "A" and "B". See Fig. 12. If continuity is not present, replace rear safing sensor. If continuity is present, go to next step.

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7) Check continuity between rear safing sensor connector terminals "C" and "D". See Fig. 12. If continuity is not present, replace rear safing sensor. If continuity is present, replace wiring harness.

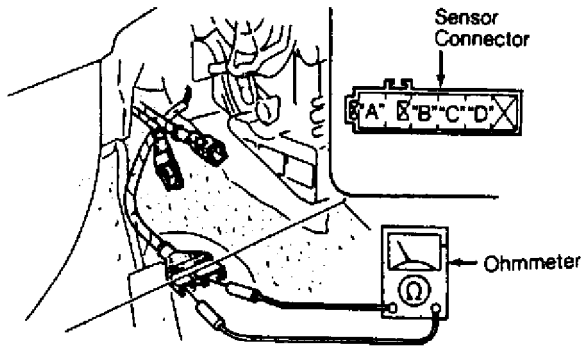


Fig. 11: Testing Rear Safing Sensor Continuity  
Courtesy of Mazda Motors Corp.

### DIAGNOSTIC TEST NO. 6

#### Warning Light Flashes 6 Times

1) Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Remove driver-side undercover and lower panel. Check condition of clockspring connector; repair as necessary.

2) If connector is okay, remove driver-side air bag module. See AIR BAG MODULE under REMOVAL & INSTALLATION. Check clockspring connector. Repair as necessary. If connection is okay, go to next step.

3) Disconnect both ends of clockspring connector harness. Check continuity of clockspring harness between terminals "B" (air bag module side) and "B" (harness side). See Fig. 13.

4) If continuity is not present, replace clockspring. If continuity is present, go to next step.

5) Check continuity of clockspring harness between terminals "C" (air bag module side) and "C" (harness side). See Fig. 13. If continuity is not present, replace clockspring. If continuity is present, go to next step.

6) Disconnect diagnostic module connectors. Check continuity of wiring harness between diagnostic module connector terminal 2I (Blue wire) and clockspring connector terminal "B" (Blue wire). See Figs. 10 and 13. If continuity is present, go to next step. If continuity is not present, replace wiring harness.

7) Check continuity of wiring harness between diagnostic module connector terminal 2J (Light Green wire) and clockspring connector terminal "C" (Light Green wire). See Figs. 10 and 13. If continuity is present, go to next step. If continuity is not present, replace wiring harness.

8) Replace driver-side air bag module. Activate air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Check AIR BAG warning light to ensure system is functioning properly. See SYSTEM OPERATION CHECK. If warning light flashes 6 times, replace diagnostic module.

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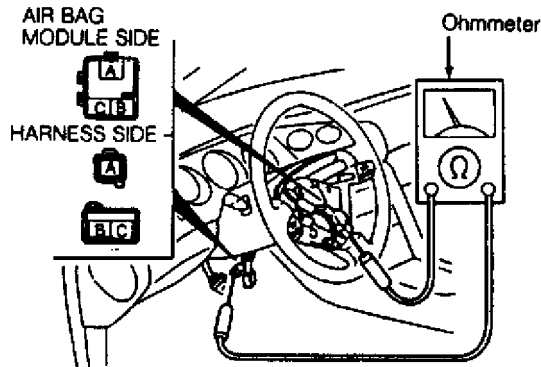


Fig. 12: Checking Clockspring Harness Continuity  
Courtesy of Mazda Motors Corp.

#### DIAGNOSTIC TEST NO. 7

Warning Light Flashes 7 Times

1) Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Remove passenger-side air bag module for access to harness connector. See AIR BAG MODULE under REMOVAL & INSTALLATION. Repair connection as necessary. If connection is okay, go to next step.

2) Check continuity of passenger-side air bag module harness between diagnostic module connector terminal 1E (Red wire) and passenger-side air bag module harness connector terminal "B" (Red wire). If continuity is present, go to next step. If continuity is not present, replace wiring harness.

3) Check continuity between terminal 1F (Brown wire) of diagnostic module connector and terminal "C" (Brown wire) of passenger-side air bag module harness connector. If continuity is present, go to next step. If continuity is not present, replace wiring harness.

4) Replace passenger-side air bag module. Activate air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM. Check AIR BAG warning light to ensure system is functioning properly. See SYSTEM OPERATION CHECK. If warning light flashes 7 times, replace diagnostic module.

#### DIAGNOSTIC TEST NO. 8

Warning Light Does Not Glow

1) Check fuses. See FUSE LOCATION table. See Fig. 9. If a fuse is blown, check harness and replace fuse. If fuses are okay, go to next step.

2) Remove instrument cluster. Check AIR BAG warning light bulb. Replace bulb if necessary. If bulb is okay, go to next step.

3) Connect a voltmeter between terminal 1J (Red wire) of instrument cluster connector and ground. Turn ignition on. If battery voltage is present for about 6 seconds, replace instrument cluster printed circuit. If battery voltage is not present for about 6 seconds, go to next step.

4) Disable air bag system. See DISABLING & ACTIVATING AIR BAG

## AIR BAG RESTRAINT SYSTEM

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1993 Mazda 929

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SYSTEM. Check continuity of harness between diagnostic module connector terminal 2A (Red wire) and instrument cluster connector terminal 1J (Red wire). See Fig. 10.

5) If continuity is present, go to next step. If continuity is not present, repair Red wire or replace wiring harness between instrument cluster and diagnostic module.

6) Check continuity of harness between diagnostic module connector terminal 2C (Purple wire) and instrument cluster connector terminal 2E (Purple wire). See Fig. 10.

7) If continuity is present, replace diagnostic module. If continuity is not present, repair Purple wire or replace wiring harness between instrument cluster and diagnostic module.

### DEPLOYMENT TOOL INSPECTION

#### Operational Check

1) Using Deployment Tool (49-H066-002), connect Red clip to battery positive terminal and Black clip to battery negative terminal. Observe deployment tool Green and Red lights. See Fig. 14. Green light should be on and Red light should be off.

2) Connect deployment tool connectors "A" and "B" together. Green light should be off and Red light should be on.

3) Press deployment tool activation switch. Green light should turn on and Red light should go out. If lights function as specified, deployment tool is okay. If lights do not function as specified, replace deployment tool.

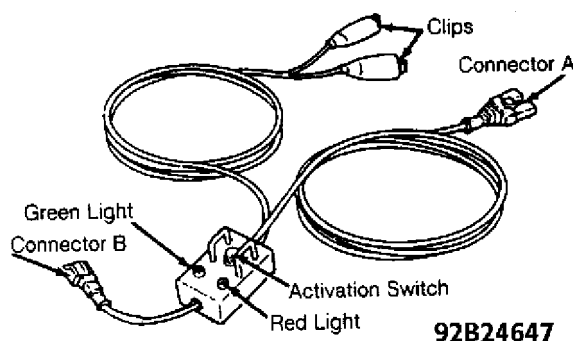


Fig. 13: Identifying Deployment Tool Components  
Courtesy of Mazda Motors Corp.

### TORQUE SPECIFICATIONS

#### TORQUE SPECIFICATIONS TABLE

AA

Application	Ft. Lbs. (N.m)
-------------	----------------

Air Bag Module Bolt .....	(1)
Steering Wheel Nut .....	29-36 (39-49)

INCH Lbs. (N.m)



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Front Impact Sensor Bolt	87 (10)
Rear Safing Sensor Nut	(1)

(1) - Information is not available from manufacturer.

[illegible]

## WIRING DIAGRAM

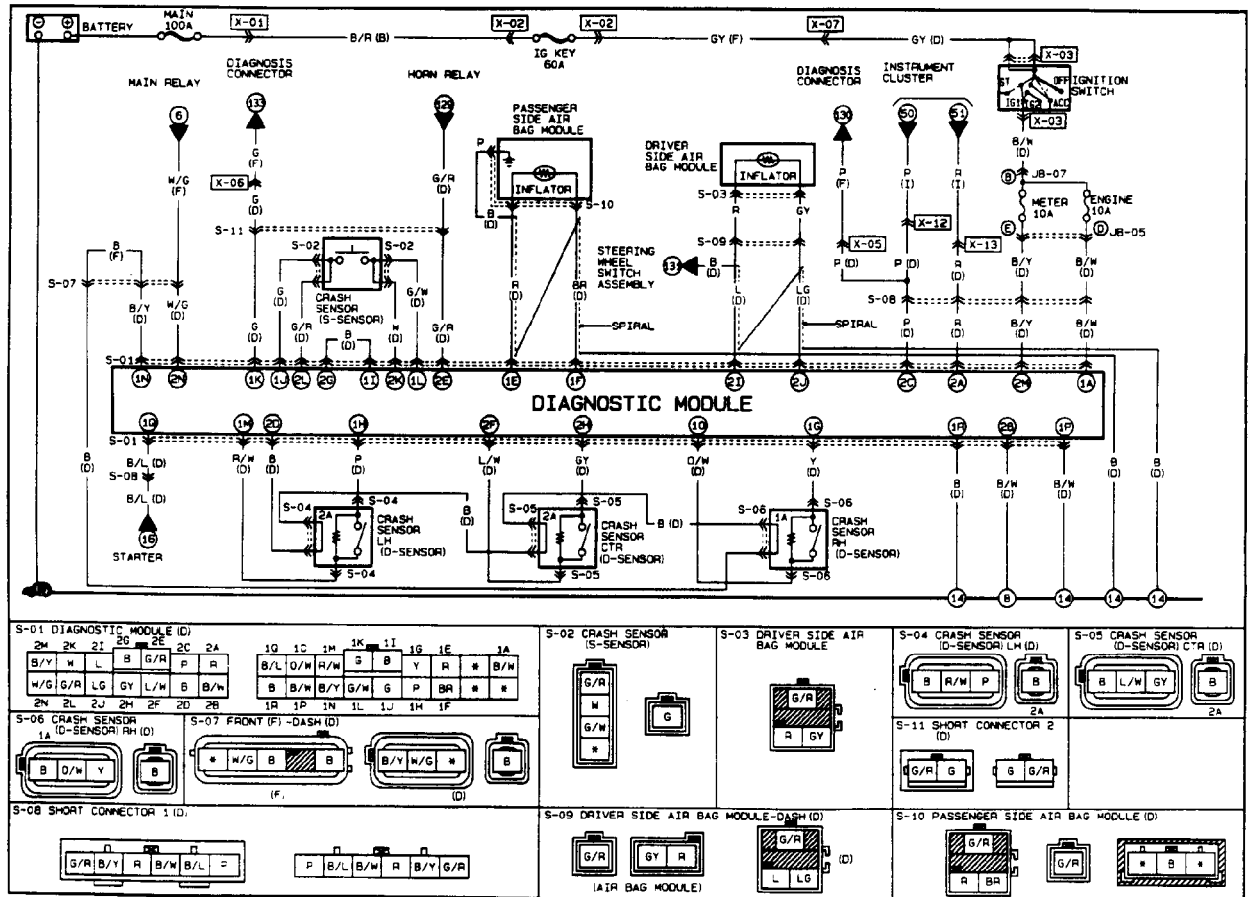


Fig. 14: Air Bag System Wiring Diagram (929)  
Courtesy of Mazda Motors Corp.

**END OF ARTICLE**