

# Mazda Tips

June 1994

Timely Repair Information for Mazda Dealer Service Personnel

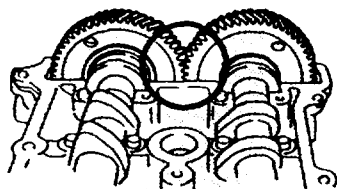


## Cam Gear (1995 Millenia)

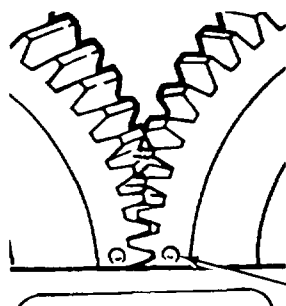
Both Millenia engines (2.5-liter/KL, 2.3-liter/KJ) have the same camshaft gears, but different timing marks are used to set valve timing.

Stamp marks (dots) appear on the KL camshaft gears, while paint lines and the dots appear on the KJ gears. Align the stamp marks to adjust valve timing on the KL model and use the paint lines for the KJ model.

Camshaft Gears

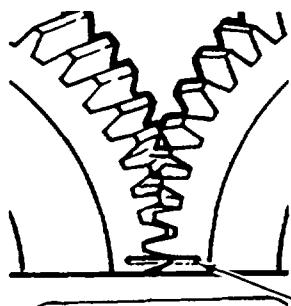


KL



Stamp Marks

KJ



Paint Lines



## Keyless Entry System (1995 Millenia; 1994 929)

Here's some information to help you better understand keyless entry system operating conditions, reprogramming and transmitter operation.

### Operating Conditions

- The system may not always work in some customers' garages that use garage door openers. The reason: garage door openers can interfere with the system's transmitter signal - even if the door openers are not in use. Don't replace the system (or parts of it) if this happens to a customer. The system will start working again if the car is moved away from the door opener unit.

- Metal wall surroundings and fluorescent lights - common in service shops - may also interfere with the system's function. You may need to move the car to an open area if you're re-programming the transmitter.

Mazda is currently working to improve the system's operation in these circumstances.

### Re-programming an Inoperative Transmitter

1. Confirm the transmitter is inoperative. Test this outside of the shop, just in case it might not function correctly inside (see above).
2. Re-program the system - outside, if necessary - according to the **April Mazda Tips** procedure (pages 1 & 2).
3. If the system is still inoperative, check the transmitter battery. Replace it if necessary.
4. If this fails to correct the condition, call your regional technical hotline.

### Transmitter Operation Highlights

- Pressing the "Unlock" button will unlock the driver's door immediately.
- Holding that button down for one second will unlock all of the doors.
- To unlock the trunk or activate the panic mode, hold down the appropriate button **for at least one second**.
- After the transmitter unlocks the doors, all doors will lock again in 30 seconds if one of them is not opened.

Continued

**"Keyless Entry System," cont.'d**

•**Important:** If one transmitter operates two vehicles, it was mistakenly programmed. Re-program both vehicles with their own transmitters.

**929 Keyless Entry System**

The 929's keyless entry system design is similar to the Millenia system design, but the conditions we've mentioned do not occur as often. This is because the keyless receiver is in a different location on the 929.

**Driveability (1995 Millenia)**

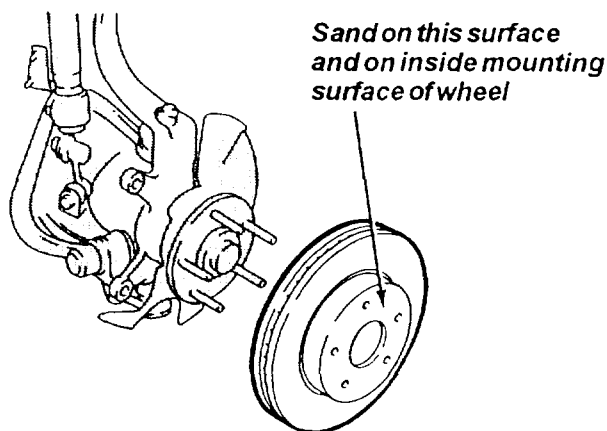
Before replacing components to correct driveability problems, check for loose connections at the PCME or other components. The loose connections may also prevent the NGS tester's diagnostic operation.

Besides the PCME, inspect connectors at the air flow meter, TPS, ignitor, boost sensor, etc. See the back page for more information on causes of NGS tester malfunction ("NGS System Messages").

**Front Wheel (1995 Millenia)**

A clicking sound from the outside of either front wheel may occur when the vehicle is moving slowly and turning to the left or right. You may hear several clicks each time the wheel goes round, but they occur irregularly.

To get rid of this condition, remove the wheel and use rough sand paper to clean the disc plate and wheel mounting surface (see illustration). Carefully remove abrasive dust that's produced from sanding and install the wheel. Tighten the lug nuts to 94 ft. lbf.

**Hotline Call Requirements (1995 Millenia)**

We want the Millenia Powertrain Technical Hotline to be the most helpful possible tool for you. So when you call the Hotline with **transaxle** questions, please be prepared to offer the following information:

- Dealer code, VIN and mileage.
- Customer complaint and problem condition.
- Transmission fluid level and condition.
- Trouble codes (pages K1-3 to K1-6 in the Millenia Workshop Manual).
- System Voltages (pages K1-100 to K1-103 in Millenia Workshop Manual).
- Line pressure and stall speed reading at operation temperature in all gears.

Also, you should have this same information handy when you call your Regional Technical Hotline with transmission questions about other models.

**Questions about the Millenia powertrain?**  
Remember to call the national Millenia Powertrain Technical Hotline: 1-800-TECH-940 (832-4940)

**Illuminated Entry System (1995 Millenia - Both Models)**

Page Z-86 of the Wiring Diagram incorrectly labels a normally open switch as "Outer Door Handle Switch." It should be labeled as the "Key Cylinder Switch" because the key cylinder - not the door handle - activates the illuminated entry system.

Here's how the system works: If the dome light switch is in the "Door" position, unlocking the passenger or driver's-side door (with a key or remote) triggers the dome light and C-pillar lights to come on.

Please note that the Millenia does not use the key cylinder illumination feature found in some other models.

**CD Player/Random Feature (1995 Millenia)**

The owner's manual incorrectly states that pressing the random play button activates the feature "from the next selection."

For vehicles with a trunk-mounted CD changer,

*Continued*

**"CD Player/Random Feature," cont.'d.**

pressing the button will activate random play immediately, cancelling the current track.

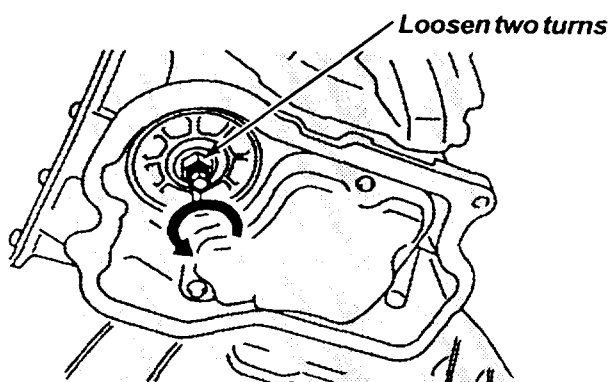
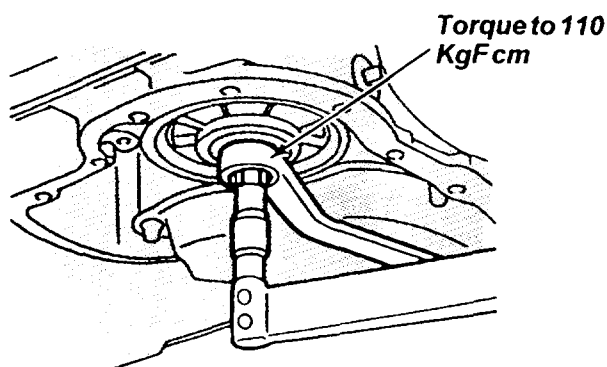
This is a normal function on these models, so don't replace the CD player - it's not defective. The owner's manual will be corrected to clarify this function.

## **Shift Feel (1995 Millenia-2.5-liter GF4A-EL)**

A harsh shift from first to second and second to third may be the result of a tight 2-4 brake band adjustment. To confirm the condition, test drive two equally equipped vehicles and compare shift quality. If you verify the condition, adjust the band according to the Workshop Manual procedure on page K1-111, using the following new specifications for steps 10 and 11:

Step 10 - Torque piston stem to **110 KgF cm**.

Step 11 - Loosen piston stem **two turns**.



Reassemble components and test drive vehicle again, checking this time for shift flare. If flare exists:

1. Remove transmission oil pan, drain fluid and loosen piston stem locknut.

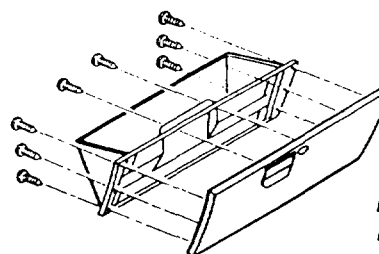
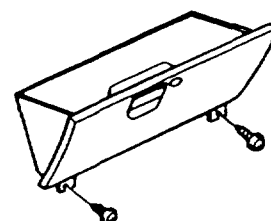
2. Tighten piston stem 1/4 turn. Tighten locknut, reassemble components and test drive one last time.

Look for a service bulletin and a Workshop Manual correction on this subject in the near future.

## **Glovebox Door (1993-'94 626/MX-6)**

A glovebox door and hinge that rattles or squeaks may be a result of loose screws. To eliminate this condition, make sure the two hinge screws and the eight inner glove box lid screws are adequately tight.

Hinge Screws (2 total)



Inner Glove Box Lid Screws (8 total)

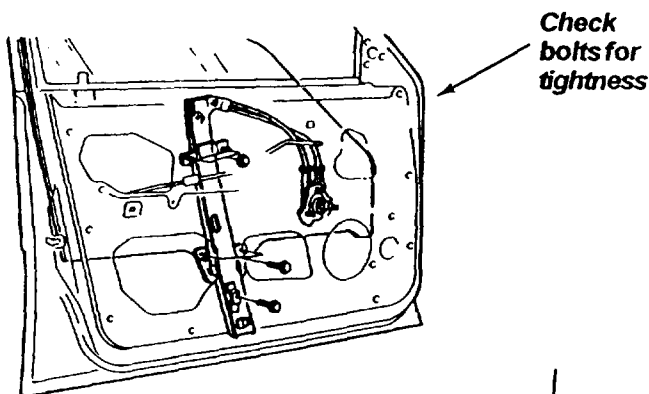
## **Window Weatherstripping (1993-'94 MX-6)**

A squeaking noise from the front driver and passenger-side windows may occur when the windows rub against the weatherstripping. To stop the squeaking, spray silicone lubricant on a rag and wipe all the weatherstripping where it touches the window.

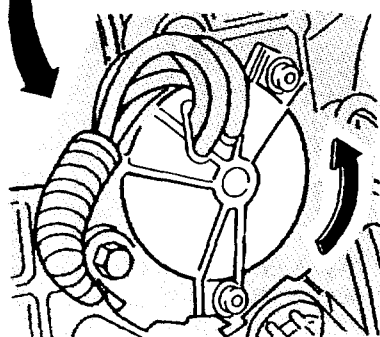
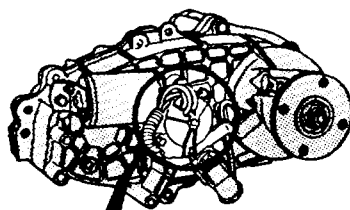
## **Window Regulator Bolts (1990-'94 323/Protegé)**

Do not simply replace the window regulator (manual or power) if the door rattles or if it's difficult to roll a manual window up and down. First check for loose window regulator mounting bolts. Remove the door panel and ensure the bolts are tightened to 61-87 in.-lbs., 6.9-9.8 N.m. (illustration, next pg.).

Continued

**"Window Regulator Bolts," Cont. 'd****Shift To 4WD  
(1991-1994 Navajo)**

An open electrical contact in the change motor position plate may prevent shifts into or out of four wheel drive intermittently. To correct this condition, rotate the plate cover one notch counterclockwise after loosening the three cover screws.



Rotate one notch

**Spark Plug Variations  
(1990-'94 Navajo/  
1994 B-4000)**

Do not replace 4.0-liter engine spark plugs if you notice different identification numbers stamped on the right side and left side plugs. For example, the the number "42P" may ap-

pear on the left plug, while "42PG" is stamped on the right one. This a normal numbering system used in mass production.

All spark plugs you order from the PDCs, however, will have the same numbers on them.

**NGS System Messages**

If the NGS screen displays "DATA LINK ERROR," check for:

- Loose link adaptor/power cable connections;
- Incorrect vehicle and engine selection.
- Tightness of NGS data link connector terminal;
- Tightness of X-13 connector terminal (you'll find this terminal under the plastic carpet protector just below the left side of the radio);
- Tightness of PCME connector(s) terminal (PCME is under the radio).

If "DATA LINK ERROR" still appears after you cycle the ignition key, check whether the NGS tester is operating properly by testing it on a known good vehicle (same model).

If the "DATA LINK ERROR" appears on this vehicle, the NGS tester could be defective. Call Kowa Seiki for questions at 1-800-535-5455 (Calif. only) or 1-800-824-9655 (outside Calif.) Monday through Friday, 9:00 A.M. to 5:00 P.M. (Pacific Time).

# **mazda**

Mazda Tips  
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Customer Support Division

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