

Service Bulletin

Mazda Motor of America, Inc.
7755 Irvine Center Drive
Irvine, California 92718
Telephone (714) 727-1990

MAZDA

Category G	Applicable Model/s See Below	Subject CHECKING POINTS FOR DEAD BATTERY	Bulletin No. 003/96
			Issued 12/26/96
			Revised

APPLICABLE MODELS

All models except M - Edition MX-5 Miata

DESCRIPTION

The following information provides basic instructions for measuring dark current and guidelines to determine if the current is excessive.

DARK CURRENT

Current which flows from the battery even when the ignition is in the OFF position and the key removed. This current is used to maintain memory functions in the radio, clock, CPU and other electronic equipment. Current will vary depending on the vehicle's electronic components.

Average Dark Current = Less than 20 mA.

NOTE: If the ignition key is in the ACC position, current flow may be up to 250 mA. This amount of current is capable of draining the battery within 2 - 3 days.

DARK CURRENT CHECKING PROCEDURE

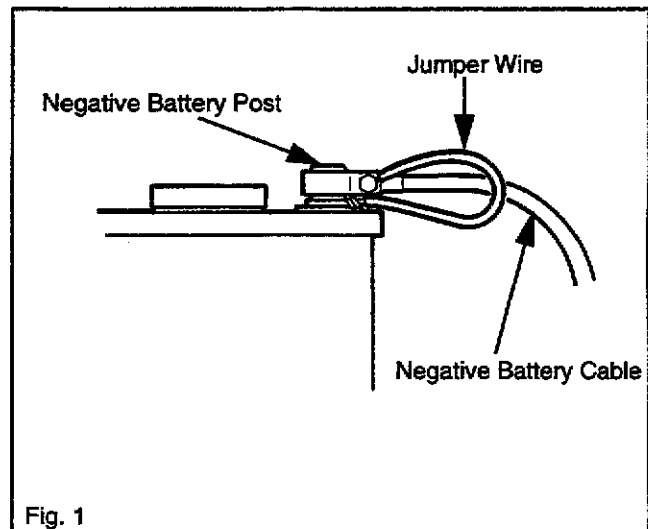
1. Turn ignition OFF and remove key from ignition.
2. Turn off all electrical loads and confirm that doors and trunk lid are completely closed.
3. Measure voltage from the battery.
 - If less than 10V, connect a fully charged battery parallel to the vehicle battery using a booster cable.

NOTE: Do not disconnect the battery cables during this step (if the battery cables are disconnected with any circuits which still operate when the ignition switch is removed, the problem symptom may not be duplicated and the correct dark current can not be measured even if the cable is reconnected).

4. Use a jumper wire to connect the negative battery cable to the negative battery post. Refer to Fig. 1.
5. Confirm that jumper wire is connected and disconnect the negative battery cable.

NOTES:

- **Vehicles with Anti-Theft Devices** - Open hood and disconnect coupler from the hood switch so that the warning light on the theft deterrent system does not illuminate.
 - **Vehicles with Anti-Theft Audio Systems** - Confirm that the customer has the personal code number.
6. Select "Maximum Amperage Range" (1A or 3A) on the circuit tester and connect tester. Refer to Fig. 2.
 - "RED" positive probe (+) - Connect to negative cable.
 - "BLACK" negative probe (-) - Connect to negative battery post.



CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools / equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership.

7. Disconnect the jumper wire and measure current.

CAUTION: Do not open doors or trunk lid during this measurement. Excessive current will damage the tester.

NOTE: If the measurement range of the tester is not high enough to measure this current, connect the jumper wire first (otherwise the conductivity between the battery cable and the battery is shut off momentarily when the measurement range is changed).

Change setting to 100 mA or 30 mA, disconnect the jumper wire and measure current.

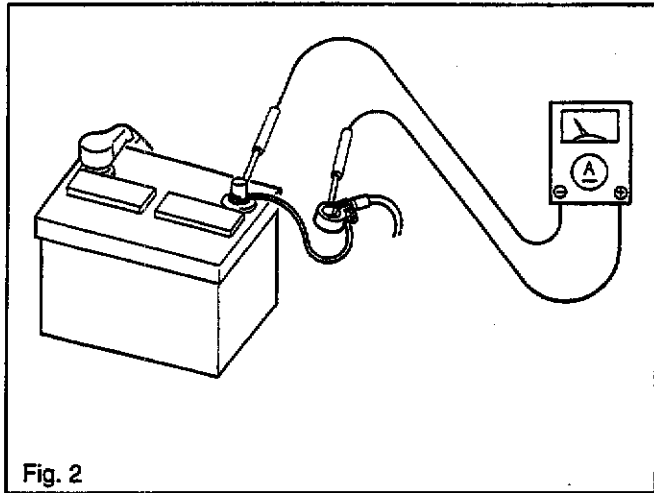


Fig. 2

8. If the current is more than 20 mA, perform the following:
- Disconnect the "ROOM" fuse and measure dark current.
 - Reconnect "ROOM" fuse to determine if current has changed.
 - If the current measurement is more than 2.5 mA, disconnect and connect each fuse to determine which circuit is drawing abnormal current.
9. Repair or replace faulty component(s) according to the workshop manual.

CHECKING POINT FOR DEAD BATTERY

1. Measure the dark current according to the instructions on page 1 of 2 and above.

NOTE: If the dark current is higher than specified, especially if the vehicle has accessories that may draw excessive current, investigate the cause.
2. Measure the open circuit voltage of the battery and/or load test according to the instructions in the workshop manual (Battery, "Charging System").