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TROUBLESHOOTING

CONDITION	ACTION
There is a large spark when connecting a battery cable:	The battery may be installed backwards. Be sure that the terminals on the battery match the cables (positive to positive, negative to negative). Reinstall the battery (if the above is applicable).
One or both cables do not reach the battery terminals:	The battery cables may be hung up. The battery may be installed backwards. Make sure you have purchased the correct battery.
The vehicle will not start when cold, or has trouble restarting when hot:	Check that the battery is fully charged. Check that the battery cables are tight (loose cables can prevent the vehicle from starting). Check that the cable ends are clean and free of corrosion. If the problem persists, the battery may not be at fault. Take the vehicle to your Toyota Dealer Service Department for diagnosis and repair.
The “Check Engine” light comes on:	Take the vehicle to your Toyota Dealer Service Department for diagnosis and repair.

REFERENCES

Please refer to the following sources for additional information:

- Your vehicle’s Owner’s Manual
- Your vehicle’s Repair Manual
- Genuine Toyota Battery Brochure (Available in English and Spanish)

CAUTION

Moving parts like the fan blade and drive belts, as well as extreme heat in the engine compartment or from the exhaust system can result in serious injury.

- Approach with caution and care.
- Never take shortcuts when replacing parts.
- Improper servicing may damage your Toyota and lead to personal injury.
- Unless you have proper knowledge, equipment and tools, you should have your Toyota Dealer Service Department perform the repairs and maintenance.

IMPORTANT SAFETY NOTICE

Proper installation of Genuine Toyota replacement parts is essential for the safe and reliable operation of your vehicle.

Following these instructions will:

- Help to assure your personal safety
- Assist you in the proper replacement of specific parts

There are many variations in the step-by-step procedures used in installing various parts, and varying skill levels of individuals doing the parts replacement. These instructions cannot anticipate all circumstances or provide advice and caution on each. If you are in doubt concerning your ability to replace the part or have any questions, consult your local Toyota Dealer Service Department and have the work performed by an experienced technician.

For further assistance, contact your Toyota dealer.

TOYOTA
GENUINE PARTS

Visit our Web site at www.toyota.com
M/N 00405-HOWTO-BATRY

How To Replace The BATTERY



A GUIDE TO ASSIST YOU
IN THE PROPER REPLACEMENT
OF GENUINE TOYOTA PARTS

TOYOTA

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DIFFICULTY LEVEL
FROM ONE TO FOUR–FOUR BEING THE MOST DIFFICULT

ESTIMATED TIME INVOLVED
15-30 MINUTES

TOOLS AND SUPPLIES

- **Genuine Toyota Replacement Battery**
- **10 mm and 12 mm wrenches or adjustable wrench**
- **Battery cable puller or large screwdriver**
- **Battery cable and terminal cleaner**
- **Grease or petroleum jelly**
- **Baking soda**
- **Disposable gloves**
- **Eye protection**
- **Newspaper**

NOTE: Always inspect for loose connections and corrosion as well as the condition of the battery, terminals, cables and starter to find the source of the starting problems, before replacing the battery.

Toyota vehicles are equipped with 2 types of batteries:



TYPE 1: Batteries with a built-in hydrometer, which will indicate the condition of the battery (fully charged, needs charging, or discharged) through the inspection window.

TYPE 2: Batteries with vent plugs that have a see-through casing to view the electrolyte level from the outside. The electrolyte in some batteries with removable vent plugs can be tested using a Hydrometer.



For the correct replacement battery, refer to the Toyota Battery Application Chart at your Toyota dealer or ask the parts counter person for assistance.

On most Toyota vehicles, the battery is easy to find, usually located near the front of the engine compartment.

NOTE: Some diesel models have two batteries.

BATTERY LOCATION

On the Toyota Van ('84-'89) the battery is located in a compartment directly behind the driver's seat, under the floor covering. On the Sienna, the battery is located in the engine compartment.

The MR2 and MR2 Spyder battery is located in the engine compartment. Replacement of the Prius 12V battery should only be performed by your Toyota Dealer Service Department.

INSTRUCTIONS

1. ALWAYS REMOVE THE KEYS FROM THE IGNITION WHEN WORKING ON THE VEHICLE. TURN OFF THE HEADLIGHTS AND MAKE SURE THERE IS NO DRAIN ON THE BATTERY (CLOSE THE VEHICLE DOORS, GLOVEBOX, VISOR VANITY MIRRORS AND TURN OFF MAP LIGHTS). WEAR DISPOSABLE GLOVES AND EYE PROTECTION TO AVOID GETTING GREASE OR BATTERY ACID ON YOUR HANDS OR IN YOUR EYES. SEE **CAUTION** ON BACK PANEL.

   ⚠**WARNING:** Do not smoke or place open flames near the battery. The gas produced by the battery can explode from a flame or spark. Clean the old battery with water and baking soda to remove acid before beginning work.

2. DISCONNECT THE NEGATIVE BATTERY TERMINAL (–) CABLE – Lift the terminal clamp protective cover and loosen the terminal clamp with a wrench or pliers. Twist the clamp back and forth while pulling up to disconnect the cable. If you have trouble disconnecting the cable, use a battery cable puller or screwdriver to loosen the clamp.

3. DISCONNECT THE POSITIVE BATTERY TERMINAL (+) CABLE – Lift the terminal clamp protective cover and remove the same way as described above for the negative terminal.

   NOTE: On some vehicles, the alarm will sound when the battery is reconnected. Also, clocks and radio station presets will have to be reset after battery is reconnected (refer to your vehicle's Owner's Manual for instructions).

4. REMOVE THE HOLD-DOWN BRACKET – Loosen one clamp bolt and remove the other. Remove the clamp assembly or pivot it out of the way.

   NOTE: Be careful not to contact the positive (+) terminal with the tools while working on the hold-down bracket, as sparks may result.



5. REMOVE THE OLD BATTERY – DO NOT TIP OR TILT THE BATTERY – Note the position of the battery terminals. Carefully lift out the battery and set it down on newspaper.

   ⚠**WARNING:** Do not drop the battery or it could explode. Avoid contact with electrolyte in your eyes, on your skin, clothing or on the car finish. If contact is made, immediately flush your skin with water for 5 minutes (eyes for 15 minutes). Contact a physician as soon as possible. The clothing and car finish should be thoroughly washed with baking soda and water to avoid damage.

INSTRUCTIONS (continued)

6. INSPECT THE BATTERY CABLES AND BATTERY COMPARTMENT – Check the battery cables for corrosion, damage, and loose connections. If the battery compartment is corroded, wash it with a solution of warm water and baking soda.

7. CLEAN BOTH BATTERY TERMINALS, CABLE CLAMPS AND THE HOLD-DOWN BRACKET – Using the battery cable cleaner, clean both terminals and battery cables. Use baking soda and warm water to clean all corrosion on the battery cable and bracket.



8. CAREFULLY PLACE THE NEW BATTERY INTO POSITION – DO NOT TIP OR TILT THE BATTERY – Be sure to position the positive and negative terminals for proper connection to the battery cables.



   NOTE: On some models, an adapter kit will be required to fit batteries into the hold-down bracket due to a difference in battery size standards between Japan and the U.S.

   Refer to the Toyota Battery Application Chart at your Toyota dealer or ask the parts counter person for assistance.

9. INSTALL THE HOLD-DOWN BRACKET – Tighten the bracket only enough to keep the battery firmly in place. **DO NOT OVER-TIGHTEN**. Over-tightening may damage the battery case.

10. INSTALL THE POSITIVE BATTERY TERMINAL CABLE – Push on the cable clamp until it is flush with the top of the terminal. Tighten the clamp bolt – **DO NOT OVER-TIGHTEN**. Coat the terminal and clamp with grease or household petroleum jelly to help prevent corrosion. Install protective cover.

11. INSTALL THE NEGATIVE BATTERY TERMINAL CABLE – The same way as the positive cable.

    ⚠**WARNING:** Do not leave the old battery unattended in your garage, carport, basement or yard – discharged batteries are still explosive and contain toxic chemicals. NEVER DISPOSE OF A BATTERY BY THROWING IT INTO THE TRASH, LANDFILL, INCINERATOR OR TRASH COMPACTOR. Place the old battery into a cardboard box and take it to a service station, recycling center or your Toyota Dealer Parts or Service Department for recycling.

12. RECORD THE DATE AND MILEAGE OF THE BATTERY CHANGE IN YOUR SERVICE MAINTENANCE LOG. CHECK SCHEDULED MAINTENANCE GUIDE TO ASSURE ALL MAINTENANCE IS PERFORMED AT THE APPROPRIATE TIME FOR THE MILEAGE.