

Your Miata after 1-3 weeks may not start due to battery voltage drain. One of the best ways to guarantee your car is going to start is to disconnect the battery. Modern cars ECU computer and other components require some minute amount of voltage and will drain the battery in short time. A good condition disconnected battery can last 6-8 weeks. When you reconnect the battery, you have a better chance of starting the engine. The cutoff switch key is removable and can also provide added security. There is also a provision for tying the key to the mount, so you don't lose it. Two keys are included.

The TDR battery disconnect kit comes complete with battery switch, mounting bracket, two ground cables and mounting hardware. Installation is simple and only takes a few common shop tools. Both the 90-97 model and the 99-05 model installations are similar, only the mounting position of the switch differs.

Tools Required

- 8 mm wrench or socket wrench
- 10 mm wrench or socket wrench
- 17 mm wrench or socket wrench
- Wire cutters
- 4 mm Allen wrench



Disconnect Switch 90-97 Model and 99-05 Model

The battery disconnect unit mounts on the right rear fender above the battery. The curve shape of the mount was designed for the 99-05 model mounting to clear the shape of the fender mount. The shape of the mount works fine for the early models as well. There is a hole in the mounting plate in case you prefer to use a string and tie the disconnect switch key to the mount. Interior trunk liner can be pulled down for access to the disconnect switch or modified with an access hole.



90-97 model battery disconnect setup



99-05 model battery disconnect setup

SECTION 1: Disconnect Switch Mounted to Bracket

The disconnect switch has either 2 or 4 mounting holes depending on the switch you receive but will use only two mounting holes as shown in Photo 1-2.

- Install the two M5 Allen bolts and nuts into the disconnect switch and mount.
- Be sure on the 90-97 model that the selector direction goes from 11:00 to 1:00 position as shown in Photo 1-1.
- Using a 4 mm Allen wrench while hold the nut with an 8 mm wrench. Tighten the bolts to the mount.

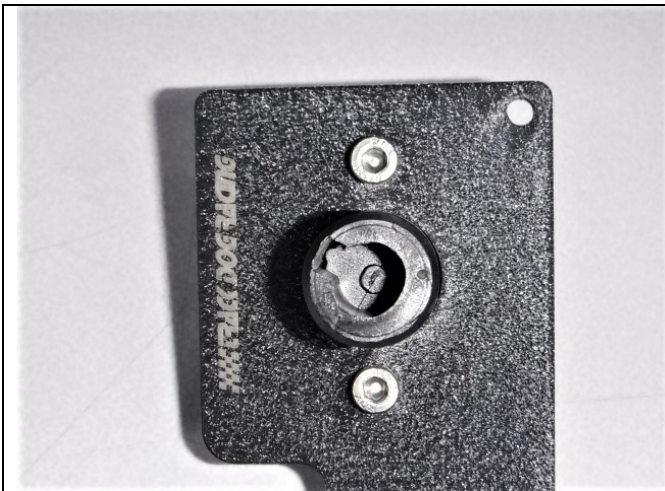


Photo 1-1: Disconnect switch orientation



Photo 1-2: Hardware installed on disconnect switch

SECTION 2: 90-97 Model Installation

The disconnect switch mounts to the antenna base mount location. The existing ground wire that goes to the battery post will be cutoff and discarded. Depending on the year model, you may or may not have a captive nut as part of the mounting bracket.

- Remove the battery from its location.
- Cut the original ground cable at the chassis ground mounting location as shown in Photos 2-1 and 2-2.
- Install the new ground strap to the chassis ground and to the disconnect switch. Install the ground at the angle shown in Photo 2-3.
- Install the battery cable with the battery post connection to the disconnect switch in the angle shown in Photo 2-4. Use a 17 mm wrench to tighten.
- Feed the battery post cable through the fender support brace as shown in Photo 2-4.



Photo 2-1: Ground strap to be cut



Photo 2-2: Ground strap cut off, new ground strap installed



Photo 2-3: Ground strap attached to disconnect switch



Photo 2-4: Ground strap with post bracket attached

- If your antenna uses the mount as shown in Photo 2-5, then remove the nut using a 10 mm wrench. If you do not have an antenna post installed, then using the M6 bolt and nut supplied.
- If your mount has a captive nut on the back side, then we will use a spacer and bolt to install the disconnect on the front as shown in Photo 2-6.
- Install the disconnect assembly to the fender mount as shown in Photos 2-5 or 2-6.



Photo 2-5: Disconnect bracket installed behind bracket



Photo 2-6: Disconnect bracket installed in front of bracket



Photo 2-7: Spacer and 25 mm bolt on bracket



Photo 2-8: Bracket with hardware in fender mount

- To install with the captive nut, locate M6-25 mm bolt and ¼ inch spacer. Install the bolt and spacer to the bracket as shown in Photo 2-7.
- Install the disconnect bracket as shown in Photo 2-8. Hold the bracket straight up and tighten using a 10 mm wrench.
- Readjust the ground cables as necessary on the disconnect switch.
- The spare tire normal location is close to the disconnect switch as shown in Photo 2-9.
- If you need additional clearance, you can install the tie-down bolt into the wheel stud opening as shown in Photo 2-10.



Photo 2-9: Spare tire near the disconnect switch



Photo 2-10: Spare tire mounting bolt installed in wheel stud opening



Photo 2-11: Battery connection complete



Photo 2-12: Disconnect key installed

- Install the battery back into the location and secure with the tie-down bar if it was removed. Make sure the battery is secure.
- Install the ground strap to the battery post using a 10 mm wrench to tighten as shown in Photo 2-11.
- Install the disconnect key and turn to energize the battery. You may have to reset your radio stations, but that's better than a dead battery. You can keep the key in a safe place if you feel you need additional security.

SECTION 3: 99-05 Model Installation

The disconnect switch mounts to the fender location. The existing ground wire that goes to the battery post will be cutoff and discarded.

- Remove the battery from its location.
- Cut the original ground cable at the chassis ground mounting location as shown in Photos 3-1 and 3-2.



Photo 3-1: Ground strap attached to chassis



Photo 3-2: Ground strap to battery cut off



Photo 3-3: New ground strap attached to disconnect switch

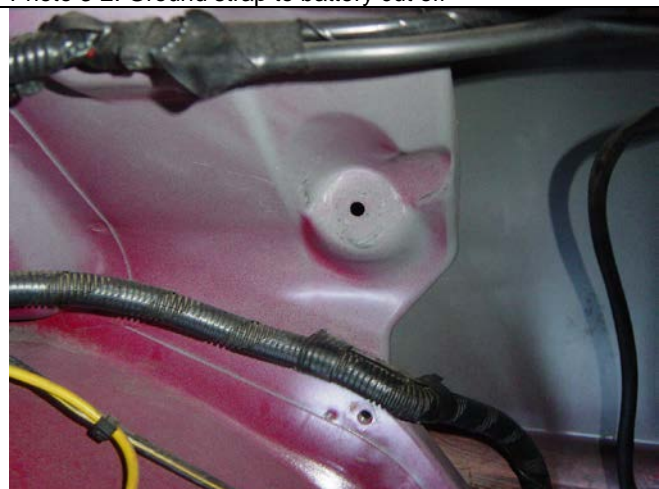


Photo 3-4: Top hole used to mount disconnect bracket

- Install the new ground strap to the disconnect switch. Install the ground that goes to the chassis on the top mount and angled as shown in Photo 3-3.
- Install the battery post ground cable on the lower post and angled downward as shown in Photo 3-3.
- The disconnect bracket will be mounted onto the fender support hole as shown in Photo 3-4.
- Install the disconnect mount using the M6 bolt and nut supplied as shown in Photo 3-5 using a 10 mm wrench.



Photo 3-5: Disconnect bracket installed



Photo 3-6: Disconnect bracket and ground strap

- Install the ground strap to the existing ground strap location as shown in Photos 3-6 and 3-7 using a 10 mm wrench.
- Install the battery post connection using a 10 mm wrench as shown in Photo 3-7.
- Install the disconnect key and turn to energize the battery. You may have to reset your radio stations, but that's better than a dead battery. You can keep the disconnect key in a safe place if you feel you need additional security.



Photo 3-7: Disconnect switch with key



Photo 3-8: Ground strap installed on battery post

We hope you will be pleased with our product. If at any time you need assistance, please contact us by phone or email us at support@trackdogracing.com.