



This Service Information bulletin supersedes SI M61 06 07 **dated May 2011**.

NEW designates changes to this revision

SUBJECT

NEW **Discharged Battery: Energy Diagnosis Must Be Performed**

MODEL

NEW R55

NEW R56

NEW R57

NEW R58

NEW R59

NEW R60

NEW SITUATION

MINI electrical systems and advancements in vehicle technology have resulted in an increased demand on the vehicle battery. This SI will help the dealer handle “discharged battery” complaints.

A discharged battery can have various causes, most unrelated to the battery. A failed battery is often the symptom and not the cause. A fully serviceable battery fails when an electrical component causes the battery to discharge; the battery becomes internally damaged and must be replaced. For more information, refer to <http://www.batteryuniversity.com/parttwo-42B.htm>. For this reason, replacing the battery is not usually a permanent repair. The cause of the discharged battery must be analyzed in order to guarantee a proper repair.

To properly repair the vehicle the first time in the workshop, the diagnostic test plans must be performed to completion, with all results taken into consideration. The procedure below will guide the technician to properly repairing the vehicle and getting paid for a warranty claim.

NEW CAUSE

Discharged battery

PROCEDURE

NEW With the introduction of ISTA 2.33 or later, the Energy Diagnosis test plan will now indicate if the battery is “aged” (**This only applies to vehicles equipped with the IBS - Intelligent Battery Sensor**).

NEW If Energy Diagnosis indicates the “Most likely cause - battery is aged,” the test plan:

- **NEW** Will prompt you to replace the battery; and

- **NEW** Provide the applicable DIAGCODE.

NEW In this case, a Midtronics' Battery Tester printout is **not** needed.

NEW For all other cases, the Energy Diagnosis test plan will always provide a DIAGCODE based on the results of the diagnosis.

Vehicles that **do not have** IBS:

- **NEW** Still require an Energy Diagnosis procedure and the Midtronics Battery Tester to test the battery.
- **NEW** The Energy Diagnosis will not provide a "specific battery" replacement DIAGCODE. However, the test plan will provide the technician a "Most likely cause" result for why the battery was discharged.

NEW **Please do not submit diagnosis feedback information for these non-IBS equipped vehicle cases.**

NEW The 2 exceptions to the rule are:

- Battery damage and leakage
- Use of mobile service and battery replacement to restore customer drivability as soon as possible. In the case of a battery replacement during a roadside repair, a subsequent service appointment needs to be scheduled for the customer; this is in order to perform an energy diagnosis to locate and address the cause of the battery failure, as well as to register the replacement battery.

NEW Only use the latest diagnostic software when diagnosing discharged battery complaints.

NEW For all other models, "Energy Diagnosis" must be performed on all discharged battery complaints. At the conclusion of the "Energy Diagnosis" test plan, a diagnostic code will be generated. **The exception is for "Exhaustive Battery discharge" or "Terminal 30g-f shutdown due to start capability limit" test plan results; these are displayed for informational purposes only, and would not display a diagnostic code. In these cases, the most likely cause is a faulty battery, and this can be determined by the Midtronics battery tester.**

NEW **To ensure defective battery claim payment, the "Energy Diagnosis" test plan must be completed in its entirety. The results of the test plan will produce a cause for a discharged battery and present a DIAGCODE at the conclusion of the test plan. This code (if displayed in the test plan) must be included in the "Comments" section when submitting a warranty claim. The "Energy Diagnosis" test plan will not provide a DIAGCODE to replace the battery, except as noted above.**

1. Fault analysis (Energy Diagnosis)

There are currently 2 paths to access the energy diagnosis test plan:

- If a power management fault is stored, the MINI diagnosis system will select the energy diagnosis test plan automatically.

- The test plan can also be selected manually by selecting Function selection\Complete vehicle\Body\Power supply\Energy diagnosis\Execute energy diagnosis.

NEW Note: The vehicle must have had a discharged battery before Energy Diagnosis can be performed. Also, fault codes must not be deleted.

Once the test plan has finished, the number [1] “**Most Likely Cause**” is automatically displayed if any are calculated by the test plan. Finish the test plan by processing all the “Most Likely Causes”, starting from [1]. For purposes of diagnosis and warranty, the number [1] cause should be diagnosed and the other listed causes should be used for informational purposes. This is because the stored energy history is calculated over the last 3,000 kilometers, and the most recent cause of a discharged battery is listed under [1]. If no “Most Likely Causes” are calculated, the results screen will be displayed: “Most Likely Cause (0)”.

As an example:

Most Likely Causes listed

[1] Closed-circuit current is too high

[2] Terminal 30g-f shutdown due to start capability limit

[3] Side Lights/Parking lights left on too long

In this example, “closed-circuit current too high” should be diagnosed and the other 2 causes should be used for informational purposes. Even though an operating fault is listed under number [3], the most likely cause is listed as a vehicle fault.

Some examples of vehicle fault

- Battery fault/alternator fault
- Vehicle is not entering sleep mode
- Vehicle is constantly woken out of sleep mode
- **NEW** Closed-circuit current is too high (**only vehicles equipped with Navigation SA609 and an IBS Intelligent Battery Sensor**)

Some examples of operating faults

- Lights/hazard warning lamps left on for too long
- Terminal R/15 left on for too long
- Unfavorable driving profile (e.g., extremely short distances)
- Vehicle parked for too long

A functional description of Energy Diagnosis and terminal control, together with troubleshooting

information, can be found in the Energy Diagnosis test module.

2. **NEW Closed-circuit current measurement (only vehicles equipped with Navigation SA609 and an IBS Intelligent Battery Sensor)**

Use the following path to diagnose closed circuit current faults: Function selection\Service functions\Body\Power supply\Closed-circuit current\Evaluate closed circuit current monitoring.

Refer to the MINI diagnosis system functional description for further information.

3. **Checking the charging system**

Refer to the MINI diagnosis system for testing the alternator using the following path: Function selection\Complete vehicle\Body\Power supply\Alternator.

4. **Checking the battery condition**

Refer to [SI M61 01 02](#) for battery requirements.

5. **New battery registration**

Registration of the new battery is necessary using the MINI diagnosis system service function. If the new battery is not registered, erroneous messages (check control) may appear.

Use the following path to register the new battery: Function selection\Service functions\Body\Power supply\Battery\Register battery change. Follow the test plan instructions.

6. **Recharging the battery**

Refer to [SI M61 03 07](#) for information on connecting the battery charger.

NEW WARRANTY INFORMATION

In order to claim an eligible faulty battery either under the MINI New Passenger Car Limited Warranty or the MINI Original Parts Warranty (In-dealer workshop repairs), the Energy Diagnosis test plan must be performed to completion.

When required, a Midtronics' Battery Test procedure must also be performed. The Midtronic battery tester printout(s) must be retained with the repair order.

To assist you in determining the warranty coverage on a battery, please refer to the following guidelines:

Covered under warranty:

- A diagnostic code is generated for a vehicle fault
- A diagnostic code is undetermined
- A diagnostic code is generated for an operating fault such as unfavorable driving profile (e.g., driven extremely short distances) and the Midtronics battery tester or Energy Diagnosis results indicate the battery needs to be replaced.

A “Stand-alone” faulty battery is claimed using the battery defect code listed in KSD2.

Other Repairs

If it is determined that some other covered vehicle fault and repair caused the battery to fail, the failed battery is to be claimed under the KSD2 defect code that applies to the failed (casual) component or repair (e.g. Alternator, permanent failure).

Not covered under warranty:

A diagnostic code is generated for an operating fault such as leaving the lights on, vehicle parked too long, battery not maintained etc.

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