



Important!

Please give copies to all your VW Technicians

Technical Bulletin

Subject: **Battery, Testing, Charging Using Midtronics MCR340V Battery Analyzer or InCharge 940 (INC-940) Battery Charging Station**

Group: 27

Number: 04-01

Date: Sept. 21, 2004

Model(s): ALL

2004

Supersedes T.B. Group 27 number 03-02 dated June 20, 2003 due to added information.

Service

Testing / charging directly at battery terminals

When testing or charging battery directly at battery terminals, whether installed or removed from vehicle:

- Always use DIN value as indicated on battery label.

When selecting battery type:

- Always select Standard (Lead-Acid) except for the following, which are AGM (Absorbed Glass Mat) batteries:
 - ◆ Touareg V10 TDI Starter battery (located under spare tire).
 - ◆ Phaeton V8 and W12 engines On-Board battery (located in left rear side of trunk).

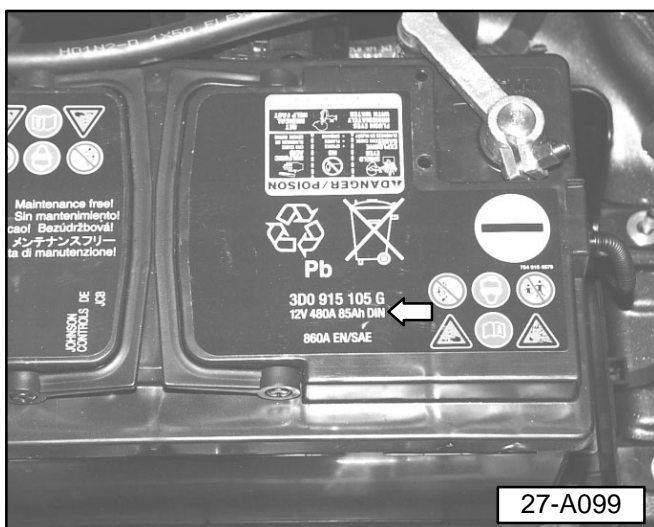
Testing / charging directly at battery terminals - DIN Ratings

When testing or charging at battery terminals:

- ◀ - Always use actual DIN rating as shown on battery label -arrow-.

Note:

Label shown is for example only. DIN specifications may vary from battery to battery.





Important!

Please give copies to all your VW Technicians

Technical Bulletin

Refer to list on next page for reference:

- ◆ Starter battery (Standard) located in right side of trunk: **330 DIN***.

Phaeton Dual Battery System - V8 and W12 Engines

- ◆ On-Board auxiliary battery (AGM) located in left side of trunk: **480 DIN***.

Touareg Dual Battery System - V10 TDI Engine

- ◆ Starter battery (AGM) located under spare tire: **480 DIN***.
- ◆ On-Board auxiliary battery (Standard) located under driver's seat: **520 DIN***.

Touareg Single Battery System - V6 and V8 Engines

- ◆ Starter/On-Board battery (Standard) located under driver's seat: **450 DIN***.

***Always verify using DIN rating as shown on battery label.**

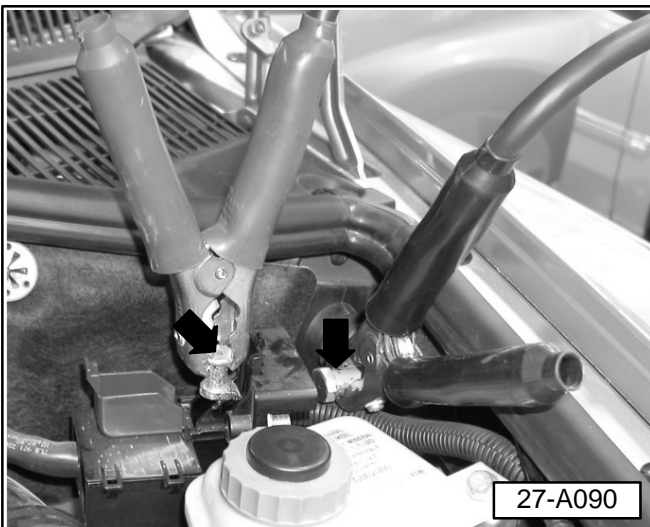
All Other VW Models - Battery Located in Engine Compartment

- ◆ Standard battery: Use DIN rating as shown on battery label.

Testing / charging from remote locations in vehicle (Reduced DIN rating requirement)

◀ When using remote jumper terminals -arrows- located in the engine compartment, always reduce DIN rating on MCR340V or INC-940 testers to the following values:

- ◆ Touareg V6 and V8 engines: **270 DIN**.
- ◆ Touareg V10 TDI engine On-Board auxiliary battery only: **295 DIN**.



C 27-04-01

2 of 5



Important!

Please give copies to all
your VW Technicians

Technical Bulletin

- ◆ Phaeton V8 or W12 engines: Go directly to battery terminals. Do not use remote location:

The use of these reduced DIN ratings are required to compensate for the internal battery manager.

Also, due to the battery manager operation, there could be periodic “system noise” readings indicated on both the tester and charger. These are infrequent and normal indicators that can be overcome by testing or charging directly at battery terminals.

If testing results in a “bad battery” when using remote jumper terminals:

- Always retest directly at battery terminals.

If the battery retests as “good battery” when testing directly at battery:

- Check cable harnesses and connections from battery to remote jumper terminals.

Battery testing results: Midtronics MCR340V Battery Analyzer vs INC-940 Battery Charging Station

In some cases, when testing a battery using the MCR340V tester:

- ◆ Test results may be “Good Battery - Recharge”.

However, when attempting to charge the same battery with INC-940 Charger:

- ◆ Results may be to “Replace Battery” either during testing or charging process.

Note:

This is normal since INC-940 uses an “intelligent” testing and charging algorithm.

- ◆ In this case, the results of INC-940 should be used instead of MCR340V.



Important!

Please give copies to all
your VW Technicians

Technical Bulletin

Charging system test results at remote location: “Excess Ripple Detected” using the Midtronics MCR340V Battery Analyzer

If performing a charging system test with Midtronics MCR340V Tester at remote jumper terminal:

- ◆ Test results may be “Problem - Excess Ripple Detected”.

Note:

This result may be due to periodic “system noise” in the vehicle’s electronics system or possible low battery voltage.

To ensure results are accurate:

- Always retest directly at battery terminals.
- Test battery directly at battery terminals and perform any action as directed by Midtronics tester (good, recharge or replace).
- Then perform Charging System Test again directly at battery posts.

Battery testing / charging: INC-940 Battery Charging Station -Automatic Mode-

When using INC-940 Battery Charging Station in “Automatic Mode”.

- Testing or charging a deeply discharged battery:
- ◆ INC-940 may display a message to “Check Or Connect Battery Cables”.

In order to test battery:

- Manually charge battery for 30 minutes and perform test again.



Important!

Please give copies to all
your VW Technicians

Technical Bulletin

Battery testing / charging: INC-940 Battery Charging Station -Manual Mode-

When using INC-940 Battery Charging Station in "Manual Mode".

- ◆ INC-940 will prompt user to "Check Or Connect Battery Cables" twice.

This is not a result of a defective INC-940 test equipment but is a safety feature of the INC-940 to ensure cables are connected to the battery before power is turned ON.