

TECHNICAL SERVICE BULLETIN



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NO.

CORRECTION

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SUBJECT:

Battery Claims

MODELS:

All Models

Recent investigation of battery claims has revealed that many batteries are being replaced which are affected by neglect or sulphation rather than a genuine manufacturing defect.

The Manufacturer has advised that no further claims of this nature can be accepted, therefore it is in your interests to ensure that proper reclaiming procedures are in effect at your Dealership to conform to the attached recommendation sheets.

This will involve each dealer in establishing a float supply of new, fully charged batteries which should be maintained on suitable low charge rate equipment, to ensure that immediate replacements are available for customers' cars where the battery is suspect.

There are various methods of doing this, such as from new cars in stock or purchasing one each model type battery to start the system.

All displaced batteries must then be checked and recharged as per the recommendations and if reclaimed, used in your float.

Should the battery be genuinely defective, the details should be reported to your Distributor on a Product Report for approval of your claim.

Please note that it is also mandatory that all batteries be recharged on a Slow Charge Basis at pre-delivery inspection to positively ensure that the battery initial recharge requirements are observed.

This information must be recorded on all pre-delivery sheets.

RECOVERY OF DISCHARGED (SULPHATED) BATTERIES

This information is a guide of how to recover batteries which have been standing idle for a considerable time.

Batteries should be checked with a good hydrometer or with a first grade moving coil voltmeter. Battery should not be on load when testing with voltmeter.

RECHARGE PROCEDURE

	<u>Voltmeter</u>	<u>Hydrometer</u>	<u>Period of Recharge Rate</u>
Less than	11.6	1.160	36 hrs.
Between	11.6 - 12	1.160-1.200	22 hrs.
	12.01-12.10	1.201-1.210	18 hrs.
	12.1-12.4	1.211-1.240	14 hrs.
	12.4-12.5	1.241-1.250	10 hrs.
Above	12.5	1.250	6 hrs.

After recharge, batteries which were initially over 11.6 volts (hydrometer 1.160) should stand for 12 hours and voltage or hydrometer figures rechecked. Batteries with 12.5 volts (1.250 hydrometer) or more can be returned to service. If less than 12.5 volts (1.250 hydrometer) they should be given a freshening charge for 5 hours and allowed to stand for 5 days--recheck should be carried out as for the 36 hour recharge as given below.

Batteries given the 36 hour recharge should stand for 5 days after termination of charge. If voltage and/or hydrometer show 12.4 volts or 1.240 hydrometer, recharge for 6 hours and return to service. Batteries below 12.4 volts (1.240 hydrometer) are to be held for inspection pending a warranty claim submission or returned where practicable.

BATTERY CONDITION

<u>Volts</u>	<u>Hydrometer</u>	<u>Condition</u>
12.6-12.9	1.265-1.290	Fully Charged
11.9-12.1	1.190-1.210	Half Charged
11 -11.2	1.100-1.120	Discharged

RECHARGE RATE

Batteries should be recharged at 1/10 of their ampere/hour capacity.
Example: 60 ampere/hour battery $\div 10 = 6$. Correct recharge current should then be 6 amperes.

THREE MINUTE TEST TO PROVE POSSIBILITY OF BATTERY SULPHATION

EQUIPMENT REQUIRED

Battery charger capable of producing 80 amps for a 6 volt battery and 40 amps for a 12 volt battery. Advantageous to have a timing device fitted to charger.

TEST PROCEDURE

Charge 12 volt battery at 40 amps for three minutes.
Charge 6 volt battery at 80 amps for three minutes.
At the end of the three minute charge, measure battery voltage across terminals.
If battery voltage is less than 15.5 volts for 12 volt battery and 7.75 volts for 6 volt battery, the battery is in good condition but in a discharged condition.
If battery volts are over these figures, the battery is discharged and may be sulphated. Battery should be put on a low charge and left on until the gravity readings are between 1.265 and 1.290.

EXPLANATION OF VOLTAGE READINGS

If battery volts are high, this means that the battery did not accept a high current and, therefore, its internal resistance is high (sulphated). Conversely, if the voltage is lower, this means that the battery resistance is low and more current is being accepted by the battery.