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Purpose

The purpose of the following document is to specify the phases for a battery check after the customer has been contested and which are the reference values to better understand the battery status.

Main points to test a battery

1. Check the charging code and production code
2. Check open circuit voltage
3. Check electrolyte density where possible
4. Verify the value of Midtronics (indicative data)

Recharge the battery before final conclusions. The batteries must be recharged, when possible, slowly at low current. If the temperature during the charge exceeds 55 ° C, stop charging and wait for the temperature to decrease.

For AGM batteries always limit the charging voltage to a maximum of 14.7V.

After recharging the battery, let it rest for a few hours and perform the above checks again.

With the values after recharging it will be easier to understand the state of the battery more precisely.

Some values found, are the obvious symptom of a battery fault or incorrect use of the customer.

The following are the main situations that can be observed:

Initial check			Possible Problem detected	Solution	Note
Voltage (V)	Density (Kg/l)	Midtronics (A)			
< 12.30	Homogeneous	< 50% nominal CCA Charge battery	Discharged battery	Charge the battery	No production defect
between 9 - 10.8	5 cells Homogeneous 1 cell very low	< 20% nominal CCA Replace battery	Short circuit	No electrical solution	If within the warranty period production defect
No voltage	Homogeneous	No midtronics value	Battery with an Interruption	No electrical solution	If within the warranty period production defect
< 12.0	Very High > 1.315 Kg/l	< 30% nominal CCA Replace battery	Overcharge	No electrical solution	No production defect
< 9.0	Homogeneous but very low < 1.100 Kg/l	< 20% nominal CCA Replace battery	Overdischarge Sulphation	Charge the battery slowly	No production defect

The table above shows the most common situations that can occur. Before any conclusion it is always recommended to recharge the battery and carefully evaluate each parameter indicated above. Every decision must be taken objectively using common sense as well.