



# DYNAMIC BATTERIES

# BATTERY TESTING PLAN

## Initial Examination

Proof of purchase?, sound appearance?, approved application?, with warranty period?.

If YES, test      If NO, reject

### 1. Voltmeter Reading

#### Open Circuit Voltage

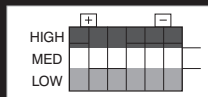
Record open circuit voltage (OCV) readings with a reliable digital voltmeter.

10 to 11.5

### 2. Hydrometer Reading

#### Hydrometer

Record readings from each cell. The cell nearest the positive terminal is identified as Cell No. 1. Using the hydrometer as a pump on the two end cells, check for discoloured electrolyte.



### 3. High Rate Discharge Test

#### High Rate Discharge

Record high rate discharge readings and note the movement of the instrument reading

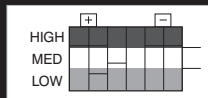
Below 9v  
(Voltage often rises)

### 4. Action

**Decision**  
Identify the result of the checks with the diagnostic chart steps 1 to 3. The nearest combinations will indicate the correct decision after taking into account the "further information" below.

Accept  
(manufacturing defect)

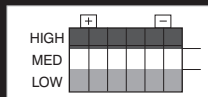
10 to 11.5



Below 9v  
(Voltage often rises)

Accept  
(manufacturing defect)

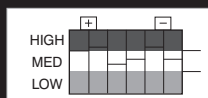
0 to 12.6



Below 3v  
(Voltage normally zero)

Accept  
(manufacturing defect)

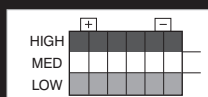
6 to 12.4



Below 9v  
(Voltage steadily falls)

Reject  
(due to service abuse)

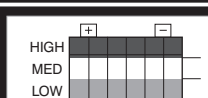
Below 10



Below 3v  
(Voltage can be zero)

Reject  
(over discharged. This is NOT a manufacturing defect.)

Above 11.5



Reject  
(due to service abuse)

#### Further Information

A. Where discoloured electrolyte is observed, it is always due to service related conditions. Recharge the battery and retest to check if it is still serviceable. Service life will however have been affected.

B. If the battery is identified as over discharged, then attempt to recharge at 3-4 amps and retest. If the battery accepts this current then recovery may be possible. If the battery fails to accept this current, then recovery is very unlikely.

C. Batteries may be undercharged or overcharged as a result of a malfunction of the vehicle electrical system. This is not the fault of the battery and the vehicle's electrics should be checked.

D. Gassing cells in a discharged battery, or where discoloured electrolyte is observed, is most unlikely to be a manufacturer's fault.