

# THIS IS WHAT HAPPENS IF YOU DO NOT LOOK AFTER YOUR BATTERY!



**1.SULPHATING:**  
DUE TO DISCHARGED BATTERIES

**2.ACID STRATIFICATION:**  
DUE TO DEEPLY DISCHARGED BATTERIES

**3.DESICCATION:**  
EXCESSIVE OVERCHARGING MAKES  
THE FLUID IN THE BATTERY "BOIL"



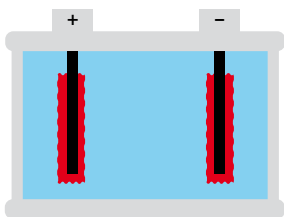
THE SMARTEST BATTERY CHARGERS IN THE WORLD

# 1

## SULPHATING

### SULPHATING:

When batteries become discharged, crystals build up from lead sulphate. If the battery is not charged immediately, the crystals grow and the battery loses capacity.



Discharged      Charged      Overcharged



*If the battery is not desulphated, the lead sulphate crystals on the lead plates build up and the battery starts to gradually lose its capacity and will become prematurely damaged.*

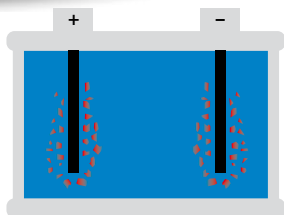
### STEP

### 1

### DESULPHATION



CTEK's chargers desulphate the lead plates by dissolving the large lead sulphate crystals. The battery regains partial or original capacity after desulphating.



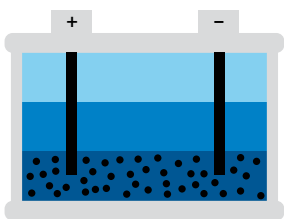
Discharged      Charged      Overcharged

# 2

## ACID STRATIFICATION

### ACID STRATIFICATION:

If normal Ca/Ca batteries become discharged by more than 40–50%, the acid stratifies which means that the acid and water form separate layers. The battery's capacity and service life is reduced dramatically.



Discharged      Charged      Overcharged

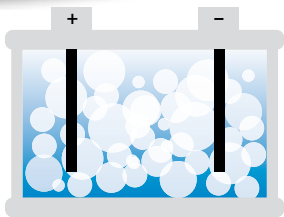
**!** CTEK's specific reconditioning function is specially developed to restore acid stratified batteries so that they regain their original capacity and prolong service life.

### STEP 6

### RECOND



CTEK's RECOND function mixes the battery acid so that the battery regains an even acid density. An even acid density enables the battery to maintain a better charge and makes the battery feel "revived and fresher", which extends the battery's service life.



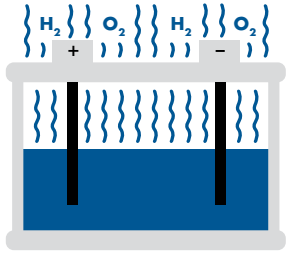
Discharged      Charged      Overcharged

# 3

## DESICCATION

### DESICCATION:

If the battery is charged with a voltage that is too high, it will become overcharged and lose water through evaporation. The top section of the battery's plates dry out and this causes permanent damage.



Discharged      Charged      Overcharged

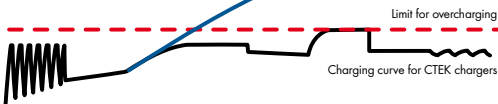


*If you use chargers with inferior technology, the desiccation accelerates and the batteries become overcharged more easily.*

### CTEK'S OVERCHARGING PROTECTION



Charging curve for a normal charger



CTEK chargers increase to max voltage and then automatically reduce the current to avoid over charging.