

Operation Manual

# Processor Controlled Capacity Tester

12V 0.3A-25A  
also for 24V 0.3A –25A



English Version

### Introduction:

With this processor controlled capacity tester you can measure the capacity of the batteries. You can set the cut off voltage (The voltage limit where you want to stop the discharge), the discharging current, and the charging time between the cycles. You can program 1-8 cycles. The tester measures the charged/discharged Ah and the elapsed time since the start of each cycle.

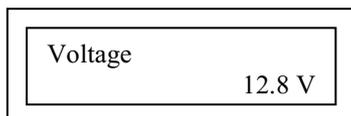
### Connecting the tester to the battery

After connecting the tester to the battery you can see the software version and the serial number of the tester for a few seconds. After that, you can see the voltage of the battery on the display.

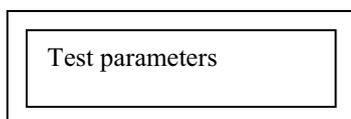
### Menu System:

The main menu consists of 5 screens. You can change between the screens with the Display Change button.

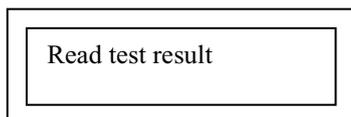
#### 1. Voltage screen



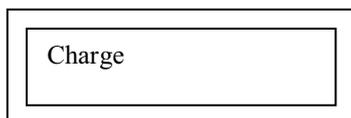
#### 2. Test Parameter screen



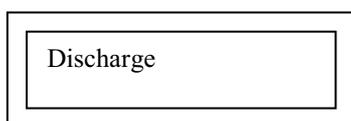
#### 3. Read Test Result



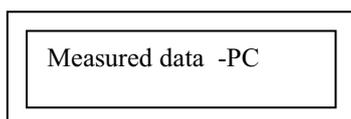
#### 4. Charge



#### 5. Discharge



#### 5. Send data



### Setting the test parameters:

To set the test parameters you have to switch to the test parameters screen and press the Start/Stop button.

This submenu consists of 4 different screens. You can change between the screens by pressing the display change button. In order to change the values use the UP and Down buttons. If you keep the UP / Down button pushed, the values change more rapidly.

First you can set the desired number of cycles.

Number of cycles Enter 1
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You can change the values 1-8 by pressing the up/down arrow button.

After selecting the number of cycles, press the Display Change button to skip to the Charging time screen.

Charging time Enter 02h
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You can change the charging time between 1-99 hours ( up / down arrow button.)

After setting the charging time press the Display Change button to skip to the Discharging Current screen.

Disch Current 05,5 A
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You can set the discharging current between 0.3A and 25A . (0.1A steps) (up/down arrow button.)

After setting the discharging current press the Display Change button to skip to the Cut off voltage screen

U-cut off 07,2 V Enter 1.2 V/c
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Here you can set the cut off voltage (Volts or Voltcell) between 6V-15V with 0.3V steps. (0.05V/cell step)

After finishing the setting of the parameters, press the Start/Stop Button to go back to the main menu screens.

### Reading the test results:

In the main menu go to the read test result display and press the Start/Stop button.

Pressing the Display Change button you can see the result of the each cycle.

A cycle consists of a charging and a discharging part.

The last cycle is always a half cycle. It means that there is only charging because the tester charges the battery after the test process. So for example if you have programmed 4 cycle, after the 4th cycle the tester connects the charger to battery and does the charging. When reading the test result of this last cycle you see only charged A\*h.

Minutes                      Discharged A\*h

025 min	05.2 A*h
4/5 Read	06.2 A*h

Cycle Number              Charged A\*h

To go back to the main menu press Start/Stop button .

### Starting the test:

#### Start with discharging:

If the battery is fully charged, you can start the test with discharging. In this case this first cycle is a half cycle (there is no charged Ah), you will see only discharged A\*h when reading the test result.

To start the test with discharging, change to the discharge Screen (See menu system) and press the Start button for 1 second.

#### Start with charging:

If it is necessary to charge the battery before discharging it, you should select this type of start. In this case the tester connects the charger to the battery and does the charging as long as you have programmed the charging time. (You can program the charging time in the Test Parameters menu)

To start the test with charging, change to the Charge Screen (See menu system) and press the Start button for 1 second.

Before the tester starts the process it checks if there is a charger connected to it. If not, it will ask you “Charger Ready??”.

## During the test:

During the test you can see the following screen:

Elapsed time                  Voltage

0025 min	12,0 V
1/1 Disch	1.3 A.h

Cycle    Process    Ah

Elapsed time: This is the time since the beginning of the actual process (charging or discharging)

Voltage: The voltage of the battery (during discharging), or the actual charging voltage (during charging)

Cycle: Number of cycle

Process: Charging or Discharging

Ah: The actual charged or discharged A\*h since the beginning of the actual process (charging or discharging)

Pressing the Display Change button you can see the result of the finished cycles.

## Measured data – PC

To transfer the measured data to a PC, you should connect it to a Pc via 232. Start the AKKU software and select Download Measurement, then push the start button...

Technical Data:	12V Version	24V Version
Measured Voltage Range:	6-18V	12-32 V
Max. Input Voltage :	16V	30V
Min Input Voltage:	6V	12 V
Discharging current:	0.3-25 (0.1 A steps)	0.3-25 (0.1 A steps)
Current error:	±2% ± 0.05A	
Cut off voltage	6-15 V	12-30V
Charging time:	1h -99 h	1h-99 h
Max Number of cycles:	8	8
Dimensions	200*140*190 [mm]	
Weight.	2 Kg	