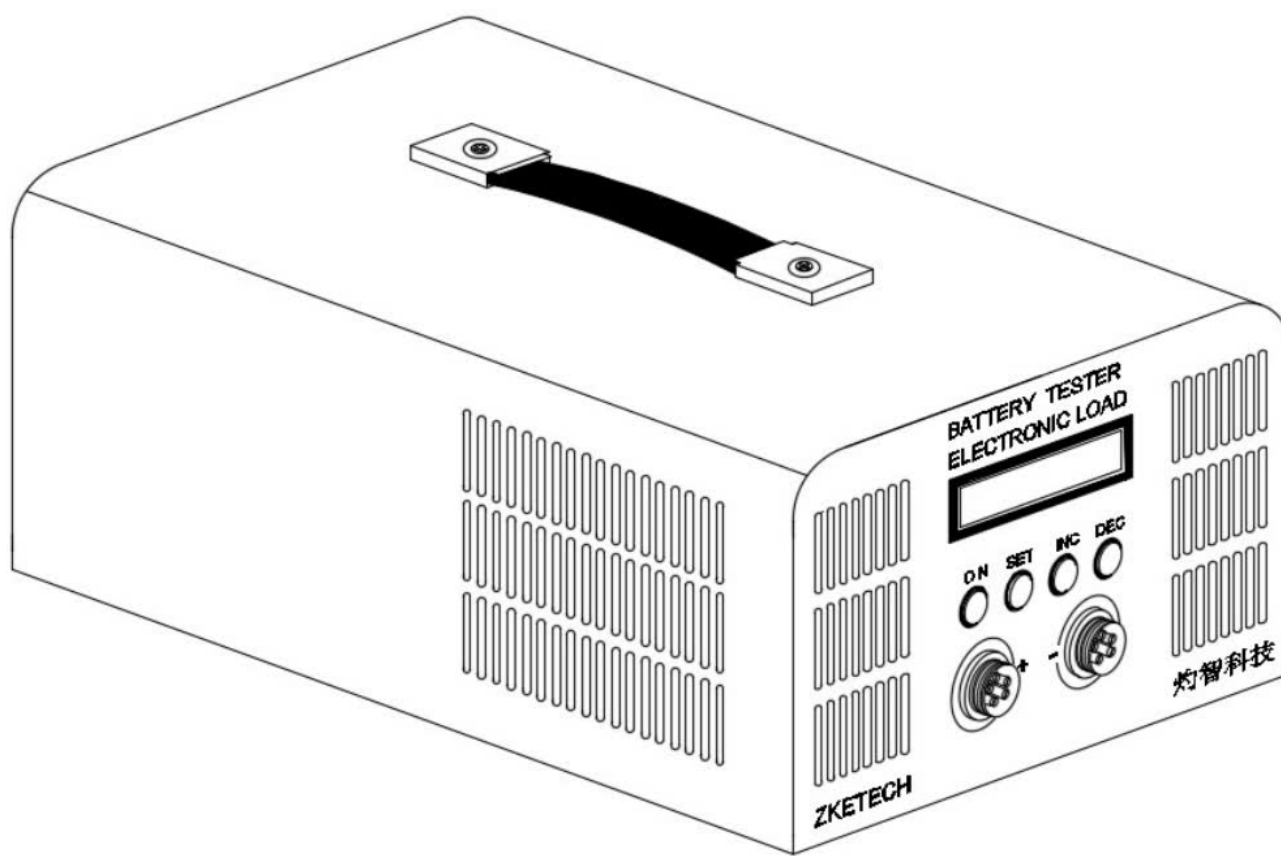


# EBC-A40L Battery Tester (User Manual)



Release Date 2020-07-01

## 1. Features

The EBC-A40L tester is designed to charge and discharge batteries within 5V at a large current, the maximum current it supports is 40A in charging and 40A in discharging.

## 2. Specifications

Voltage Range	0-5V
Voltage Accuracy	0.2%±0.003V
Current Range	0.1-40A ( Max charging current is 35A )
Current Accuracy	0.2%±0.01A
Discharging Mode	CC/CP
Discharging Termination	Time/Cut-off Voltage/Manual
Discharging Power	180W Max
Charging Mode	CC-CV
Charging Termination	Time/Cut-off Current/Manual
Heat Dissipation	Fan
Power Supply	AC 220V
Packed Weight	6.5Kg

## 3. Connecting pattern

### 3.1 Testing connector



### 3.2 PC connection

The EBC-A40L tester can connect with a computer through a designated USB-TTL cable

### 3.3 Power supply:

AC 200V

## 4. Display and setting

### 4.1 Buttons

SET (1) — setting knob

ON (2) — start and stop.

## 4.2 Testing interface

```
CC 00.00V 00.00A
DSC 0000 00.00Ah
```

The first line shows mode (CC-constant current), voltage, and current.

The second line shows working process, working time (in minute) and capacity (automatic switch between 0000mAh and 00.00Ah).

Working process reads OFF when the test stops and DSC or CHG in testing. It shows AT1 if you choose automatic charging/discharging and 1 means the step 1 of current testing.

A short press on the "SET" button and the display changes to power and energy.

```
CC 00.00V 00.00A
DSC 00.0 00.00Wh
```

In auto test of "charge-discharge-charge", you can check test results of each step by spin the "SET" knob.

```
Auto Test:
AT2: CC 2600mAh
```

Press the "ON" button to start discharging test (shows DSC) and one more press to stop (shows OFF).

You can open setting interface by press on the "SET" button for 2 seconds in the stop state (This function is invalid when the tester being connected with the PC software).

## 4.3 Setting interface

The cursor default is on mode setting. Press "SET" button to move it to the value you want to set up. Spin the "SET" knob to change parameters selected by the cursor. It will go back to the limit value if your setting exceeds the allowed range. Press "ON" button then move to the next item.

### 1) DSC-CC (Constant current discharge)

```
DSC-CC 00.00A
00.00V 000Min
```

First line: mode and current setting.

Second line: cut-off voltage (testing automatically stops when voltage reaches below this value) and the maximum testing time setting (no time limit if being set 0).

### 2) DSC-CP (constant power discharge)

```
DSC-CP 000W
00.00V 000Min
```

First line: mode and power setting.

Second line: cut-off voltage (testing automatically stops when voltage reaches below this value) the maximum testing time setting (no time limit if being set 0).

3) CHG-CV (constant voltage-current charge)

```
CHG-CV    00.00A
00.00V 0.00 NOR
```

First line: mode and current setting.

Second line: constant voltage, cut-off current (testing automatically stops when current reaches below this value; can be set above 0.1A), and the auto mode setting:

- ✧ NOR — normal mode, testing stops when charging finish.
- ✧ AUTO — automatically go through the “charge-discharge-charge” round test.

Put the cursor on AUTO and a long-time press on the “ON” button can lead to the setting of auto discharging parameters:

```
AUTO Discharge
00.00A 00.00V 00
```

The first parameter is discharging current, and the second the cut-off voltage, the third is the waiting time for step switches (you are suggested to wait for 5-10 minutes between charging and discharging for the battery cooling).

After you finish setting, press the “SET” button for a long time to return to the previous setting interface.

Press “SET” button for a long time in the first-level setting interface to save data and go back to testing interface.

After finish setting, press “ON” button to start testing.

#### 4.4 Setting examples

1) Discharge setting (discharge the Lithium battery from 3.7V to 2.8V at 5A)

```
DSC-CC    05.00A
02.80V    000Min
```

2) Charge setting (charge the Lithium battery from 3.7V to 4.2V at 2.5A, cut-off current is 0.11A)

```
CHG-CV    02.50A
04.20V 0.11 NOR
```

3) Auto test setting (charge the 3.7V Lithium battery at 2.5A and discharge it at 5A, waiting time is 5 minutes)

```
CHG-CV  02.50A  
04.20V  0.11 AUTO  
AUTO Discharge  
2.00A   02.80V 05
```

## 5. Precautions

- 1) Positive and negative connections should not be reversed.
- 2) Always use the tester within the allowed range.
- 3) PC connection software: EB Tester Software, download it from [www.zketech.com](http://www.zketech.com).
- 4) PC connection: follow EB Tester Software User Manual.
- 5) Technical support: [tech@zketech.com](mailto:tech@zketech.com)
- 6) Business consultant: [sale@zketech.com](mailto:sale@zketech.com)

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