

## WARRANTY

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The obligation of *BK* arising from a Warranty claim shall be limited to repairing, or at its option, replacing without charge, any product which in *BK*'s sole opinion proves to be defective within the scope of the Warranty.

*BK* must be notified in writing of the defect or nonconformity within the Warranty period and the affected product returned to *BK*'s factory or to an authorized service center within (30) days after discovery of such defect or nonconformity.

For products warranties requiring return to *BK*, products must be returned to a service facility designated by *BK*.

*BK* shall have no responsibility hereunder for any defect or damage caused by improper storage, improper installation, unauthorized modification, neglect, inadequate maintenance, accident or for any product which has been repaired or altered by anyone other than *BK* or its authorized representative and not in accordance with instructions furnished by *BK*.

### EXCLUSION OF OTHER WARRANTIES

The Warranty described above is Buyer's sole and exclusive remedy and no other warranty, whether written or oral, is expressed or implied. *BK* specifically disclaims the implied warranties of merchantability and fitness for a particular purpose.

No statement, representation, agreement, or understanding, oral or written, made by an agent, distributor, representative, or employee of *BK*, which is not contained in the foregoing Warranty will be binding upon *BK*, unless made in writing and executed by an authorized *BK* employee. Under no circumstances shall *BK* be liable for any direct, indirect, special, incidental, or consequential damages, expenses, losses, or delays (including loss of profits) based on contract, tort, or any legal theory.

MODEL NO. OF THE INSTRUMENT      600

SR. NO. OF THE INSTRUMENT      \_\_\_\_\_

DATE OF DESPATCH      \_\_\_\_\_

## CONTENTS

<i>Section</i>	<i>Description</i>	<i>Page No.</i>
<b>1</b>	<b>GENERAL DESCRIPTION</b>	<b>1</b>
1.1	Introduction	1
1.2	Application	1
1.3	Specifications	1
<b>2</b>	<b>OPERATION</b>	<b>3</b>
2.1	Front Panel Controls	3
2.2	Operating Procedure	4
2.2.1	Connecting Procedure	4
2.2.2	Selecting AH Capacity	5
2.2.3	Conducting a Test	6
2.2.4	Observing Result after a Test	6
2.3	Caution	7

## Section 1 General Description

### 1.1 INTRODUCTION

BK's Battery Capacity Analyser Model 600 measures the % capacity left in a battery. By just selecting proper AH range & pressing TEST switch user can get the % Balance capacity.

Model 600 supports 12V storage type lead acid batteries with wide range of AH capacity. No external power (Mains or DC) is required. The unit works on BUT (Battery Under Test).

### 1.2 APPLICATIONS

As the information age develops it is likely that the demand for UPS units will increase for use in hospitals, offices, labs etc. It is expected that the importance of battery maintenance will increase alongwith increasing demand for UPS.

Looking forward to the future developments the Battery Capacity Analyser can fulfill many applications.

The instrument can be applicable for Automobile Service Stations, UPS Manufacturing, Maintenance and Field Servicing, QC Department, Battery Systems in Railways, Telecommunications, Ships / Submarine.

### 1.3 SPECIFICATIONS

#### TECHNICAL

- 1) Capacity Display Range : 0% to 100%.
- 2) Max. Input Voltage : 20V.

- 3) No Load Voltage :  $\pm 2$  counts.  
Indication Accuracy

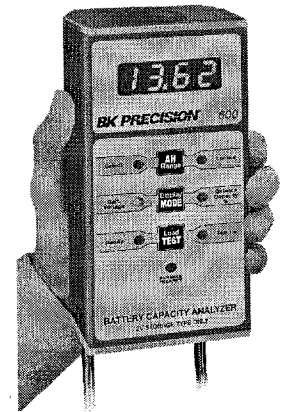
**Caution :** Do not exceed max. input voltage rating. Doing so may cause fatal damage to the unit.

#### PHYSICAL

- 1) Dimensions : 80 (W) x 160 (H) x 40 (D).  
(mm)  
2) Weight : 1 Kg. (approx.).

## Section 2 Operation

### 2.1 FRONT PANEL CONTROLS



Refer to the Front view of the unit.

- 1) **AH Range** : With this key the user can select the correct AH range according to the battery under test.
- 2) **Select LED** : This LED glows to indicate that user can select the AH range.
- 3) **Locked LED** : This LED is ON when the unit locks to a particular AH range set by the user.

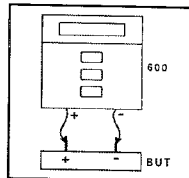
- 4) **Display Mode** : This key selects the display either as No load voltage or % balance capacity.
- 5) **Batt. Voltage** : When display indicates Batt. voltage this LED glows.
- 6) **% Balance Capacity** : This LED glows when remaining capacity is displayed.
- 7) **Load Test** : The test starts by pressing this key.
- 8) **Ready** : When this LED glows steadily, it indicates that the unit is ready to conduct a test.
- 9) **Test On** : This LED glows for approx. 2 sec. when the battery test is carried out.
- 10) **Reverse Polarity** : If the unit is connected to a battery in reverse polarity this LED glows.

**2.2 OPERATING PROCEDURE**

Follow the steps as outlined below :

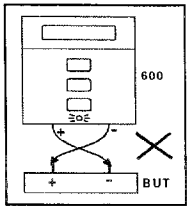
**2.2.1 Connection Procedure**

Connect Battery Capacity Analyser (600) to Battery Under Test (BUT). Connect the +ve terminal of 600 to +ve terminal of Battery. Connect -ve terminal of 600



to -ve terminal of Battery. The 600 will be powered with the BUT. On Power up, 600 performs a self test by turning on the 7 segments, LEDs one after another & finally flashing the version number.

**CAUTION** : Do not connect the +ve terminal of 600 to -ve terminal of BUT and -ve terminal of 600 to +ve terminal of BUT. On doing so, the 'Reverse Polarity' LED glows as shown.



**2.2.2 Selecting AH Capacity**

Press the 'AH Range' key. The select LED glows as shown.

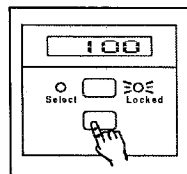
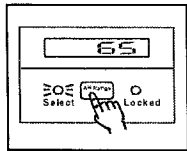
The display will show the last selected/stored AH value.

(Power ON default value is 7 AH)

To change the value to say 100 AH press the key again. Display shows new value. Keep on pressing till the desired AH is obtained.

To Lock the AH capacity, either press any key OTHER than the AH Range key OR wait for about 10 seconds. Your selected AH value will automatically get locked.

Locking is indicated by the glowing of 'Locked' LED.



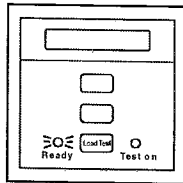
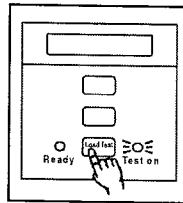
### 2.2.3 Conducting a Test

Test can be conducted any time by pressing the 'Load Test' key.

By doing so the 'Test On' LED starts glowing. Typically, it glows for about 2 seconds. Thereafter the 'Ready' test starts blinking.

(The blinking time depends on the AH range selected). Thereafter it becomes steady.

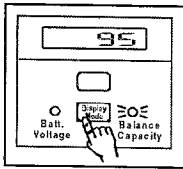
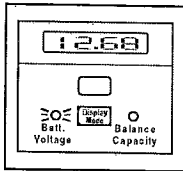
Note : User cannot conduct a test while the 'Ready' LED is blinking.



### 2.2.4 Observing Result After a Test

By default the Batt. Voltage is displayed on the display. To observe the Balance Capacity left, press the 'Display Mode' switch. The display will show the capacity in percentage.

Note : Balance Capacity can have a meaningful value only after conduction of a test. At power on, a value of 0 is shown. Hence Balance Capacity should be seen only after conduction



of a test. To observe No Load Batt. Voltage, press the 'Display Mode Key'. The display will show the No Load Batt. Voltage.

### 2.3 CAUTION

- 1) Do not connect Model 600 to a voltage source more than 20V.
- 2) Do not connect the unit to a battery connected in circuit.

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