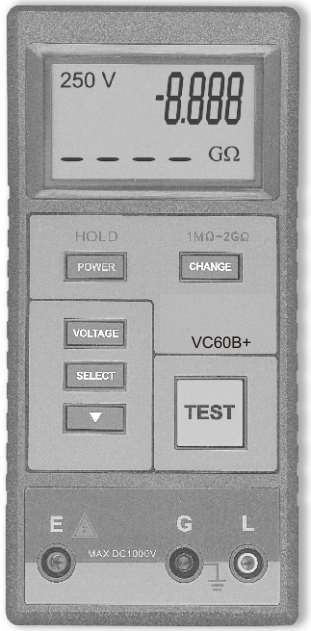



# Digital Insulation Tester

## CPU Controlled

## 7. Care and Maintenance

1) The product is precious measuring equipment; please avoid using it under adverse environment.

2) If no displays in the LCD panel while the battery level is full, please check the contact between the battery and the battery contact plate.

3) In order to ensure the accuracy of measuring uncertainty, do not adjust or modify internal circuit, do not abrade the clamp.

4) Check battery level regularly. Remove the batteries if you do



## 1. Features

VC60B+ is a high performance and accurate instrument with the following features:

1) User preset minimum Insulation resistance limit alarm function.
2) Powered by six AA batteries.
3) Soft touch button
4) One button selection between 250V/500V/1000V, unit sign and high voltage alarm.
5) Auto shut off after idle for ten minutes and data hold.
6) High voltage testing with auto data hold function.

## 2. Overview

VC60B+ is controlled by ASIC chipset. Changing 9V voltage into 250V/500V/1000V DC Voltage is done by using low power loss, high change rate inductance energy store type DC voltage converter. As well as, measuring electric insulation resistance by digital analogue circuit.

- Easy and accurate readout;
- Wide measurement range;
- High stability and reliability;
- LCD display for low power consumption and clear readout;
- Light-weight and compact construction for easy operation;
- Suitable for on-site maintenance of escalator, electric and mechanical equipment as well as telecommunication equipment.

## 3. Technical Characteristics

1) General Specifications:

| | |
|---|---|
| Display: | 60 x 32mm LCD |
| Max reading: | 1999 counts |
| Overload indication: | “OL” displays in LCD |
| Power: | 6 x AA batteries.<br>Auto shut off (after idle for 10 minutes) |
| Low battery: | Low battery sign on LCD |
| Power consumption: | static consumption <10mA |

### 3.1. Technical parameter

| Range | Voltage | Measurement range | Resolution | Medium | Accuracy |
|---|---|---|---|---|---|
| Resistance | | | | | |
| 200MΩ ±(4%+8d) | 250V | 5MΩ-200MΩ | 0.1MΩ | 2MΩ | |
| | 500V | 10MΩ-200MΩ | 0.1MΩ | 2MΩ | |
| | 1000V | 20MΩ-200MΩ | 0.1MΩ | 5MΩ | |
| 2GΩ ±(4%+5d) | 250V | 10MΩ-500MΩ | 1MΩ | 2MΩ | |
| | 500V | 20MΩ-1G | 1MΩ | 2MΩ | |

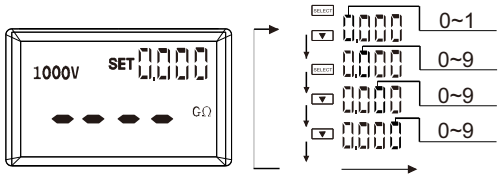


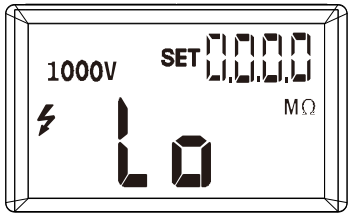
### 6. Data Setting (minimum limit)

Turn on the instrument, touch “Change” to ensure preset limit is lower than 199.9M or lower than 1.999G. Decimal point and unit sign will be changing. Preset data will be canceled if changing range. (Only exit the setting mode after finished the fourth digits setting)

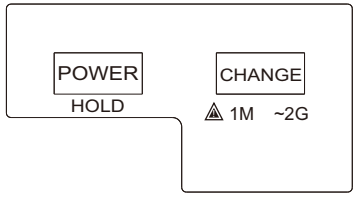
Touch “Select”, LCD displays “SET”, digits in the setting window in the top right hand corner flashes from the first “0”. Touch “∇ ”, digits change from “0” to “1”, it means the largest setting is 199.9M or 1.999G. if preset value larger than 99.9M or 0.999G, then set the value to “1”, otherwise set it as “0”.

Press “Select” again, the second “0” flashes, this digits changes between 0-9. Touch “Δ” once, the digit changes once. Repeat the procedure to set the value of third and fourth digits. Press “Select” for 3 seconds to exit the setting mode. Only exit the setting mode could continue the normal test process. (LCD displays OL)”.





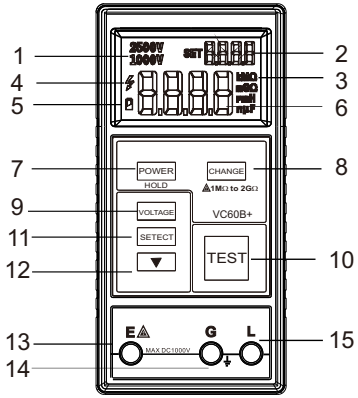

6) Press "Power" to hold data. LCD displays the last test reading. Exit high voltage mode when data hold. Press "Power" for 5 seconds to turn off the instrument.




7) When LCD displays "OL" means overloaded. Please select high voltage range to do the test. When select 2G, it means the test resistance is large than 2G (please make sure the connection is firm between connections cable and the test subject).



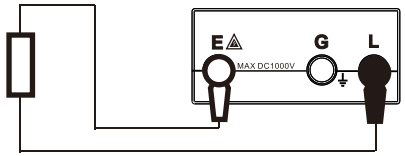
## 4) Front Panel Description



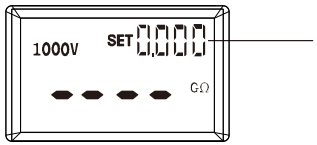

1) LCD Display
2) Minimum value setting window
3) Unit sign
4) High voltage sign
5) Low battery sign
6) Reading of insulation resistance measurement
7) Switch; soft touch power/data hold (POWER/HOLD)
8) Soft touch range selection switch (CHANGE)
9) Soft touch voltage selection switch (250V/500V/1000V)
10) Testing button: auto restore (TEST) /auto memory
11) Soft touch minimum value setting (SELECT and ♦ )
12) E : Input socket: connect to test circuit
13) G : Shield socket: connect to protection electrode when test

## 5. Operation:

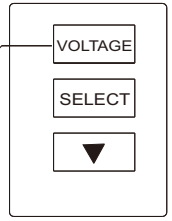
1) Connect input cable L to GND of test subject. Connect terminal E to test circuit, hang terminal E as much as possible. When testing




2) Press “Power” to turn on the instrument, after displays DIT-910, LCD displays “----”, setting window displays “0000”

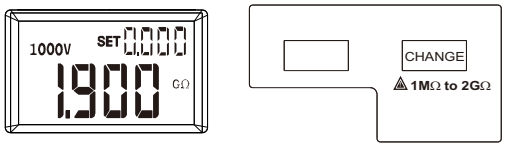


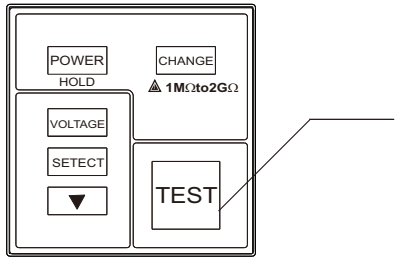

3) Touch “Voltage” to select voltage, i.e.






4) Touch “Change” to select between 2000M/2G)




5) Press “Test”, after the reading stabilized, get readings from LCD, release “Test”, LCD will display “----“. If press “Test” more than five seconds, CPU automatically shift to memory state. High voltage sign flashes and the buzzer alarms. Please release “Test” button. (Note: there is continuous high voltage output), test will last for 30 seconds. Press “Test” again to stop the test. Press “Hold” to exit

Select 200M, when the test resistance is less than 5MΩ, buzzer alarms in short while; when the test resistance is less than 1M, buzzer alarms for longer time. LCD displays “Lo” and cut of high