# Portable mV mA 24V Signal Generator

# **BRT LB78**

## **Main Features**

• Built-in one-time quick-break fuse can avoid instrument damages caused in case of inserting probes into electric supply with 110V or 220V.

• Using stable and high reliable IC chips such as DA, reference voltage and operational amplifier to improve temperature stability of instrument and long-term aging performance.

- Simple button layout. Each functions has independent corresponding key, it is easily to be operated.
- Fast response and zero delay once pressing each button.
- Low power dissipation and long stand-by time.

BRT LB78 has almost all the main functions required for maintenance of PLC, DCS, ESD, field instruments, regulating valve and frequency converter, and it has long-term stability and high precision. It is characterized by safety protection, clear accurate LED display, small portable refined scratch-proof shell.

## **General Description**

1. This generator has three functional gear in corresponding to functional buttons  $\checkmark$ , mA and mV.

By pressing down either one of these three buttons, user can access to one function accordingly.

2. Battery capacity indication

When the battery capacity is lower than 3.5V, "LO" is displayed regularly on screen to remind user to recharge the battery. When the battery capacity is lower than 3.0V, it will be automatic power off to protecting the battery from damage. If user wants to know the battery capacity in normal operating conditions, pressing down ON/OFF power button can get power capacity of the battery. Usually if the voltage is higher than 3.9V, it indicates sufficient battery capacity, and if less than 3.6V, it indicates low power capacity.

3. Parameters auto-save in case of power off. In case of power off, this generator will automatically save all setting values, stepping values, and other parameters.

## **Function Instruction**

### Set Changing Steps

**v m i w** are both functional setting buttons and stepping setting buttons. When the generator is in one function status (e.g.: V/mV/mA output), press its corresponding functional button (e.g.: V/mV/mA button), user

can access to changing step setting status (e.g.: V/mV/mA step setting). Then step setting byte is on, the other byte is off; next press this button again to change step setting byte.

V output changing steps available: 0.01/0.1V/1.0V

mV output changing steps available: 0.01/0.1V/10.0mV

Note: mA output step setting: 0.01/0.1/1.0/4.0 mA

1.0 mA and 4.0mA steps are in same byte position, if the step setting value is 1.0, this byte will be on, other bytes are off; if step setting value is 4.0, this byte position is still on, and others are off, but the figure shown is "4".

#### 1. Voltage Output

There are three LED indicators in corresponding to vmamv, if the LED indicator above v is not on, press v button to access to voltage output function. Use v keys to increase and decrease output signal value. By referring to set changing steps above, user can increase and decrease voltage accordingly.

#### 2. mV Output

Similar to voltage output above, if the LED indicator above  $\boxed{mV}$  is not on, press  $\boxed{mV}$  button to access to voltage output function. Use  $\boxed{mV}$  keys to increase and decrease output signal value. By referring to set changing steps above, user can increase and decrease mV signal accordingly.

### 3. mA 24V Output

Current output function has three sub-functions: active current output (screen displays SOU), passive current output (screen displays SIN), 24V output (screen displays 24 U) output.

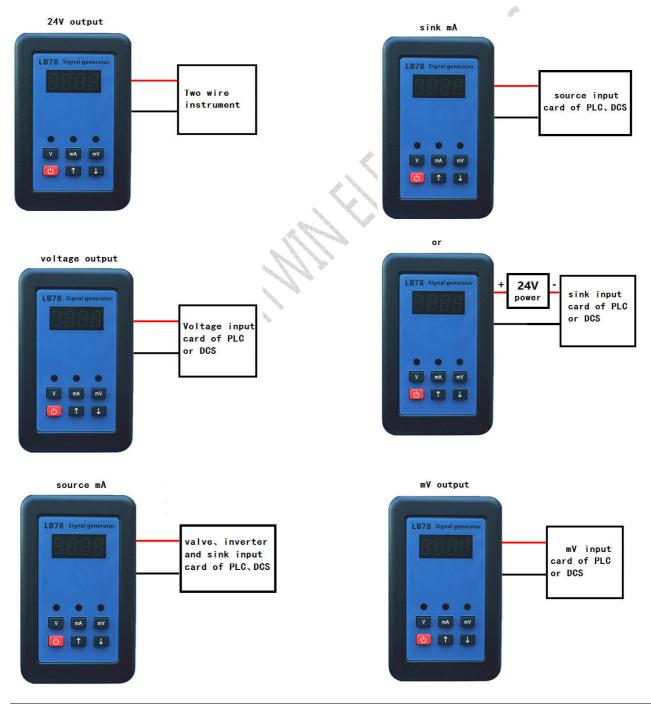
Long press *m* button to switch among these three functions alternatively. Long press *m* key one time to switch one function, and cannot be continuous shifted to next function. For example, if user wants to shift from active current output function to 24V output function, user has to long you press *m* button for 3 times.

The operation methods of active current output and passive current output are similar to those of voltage and mV output. If the LED indicator above mains is not on, press mains button to enter into mA output function. One of the symbol SOU, SIN, 24U is displayed accordingly, press the buttons to increase and decrease output signal value in active and passive mA signal output status. By referring to set changing steps above, user can increase and decrease mA signal accordingly. When it is in 24V output status, the current value measured through this loop is shown, and the buttons have no functions in that status.

#### 4. Other Functions

1. Battery recharging and status indication. It can be recharged when it is in on or off states. In power-on states, "CHA" is displayed if charge is plugged in. In the state of power-off, there is no indication when plugging in the charger, but it is still be recharged and will be stopped to charge automatically after the battery is fully charged. Don not charge it after battery capacity is empty. It is required to be fully charged fully if it is not used for a long time.

2. Replace one-time quick-break fuse. The quick-break little fuse used is 1808/500mA , please use littlel brand in case of replacing it and must change into a quick-break fuse with specifications below 500mA and above 50mA.



Shenzhen Brightwin Technology Co., Ltd.

www.brightwinelectronics.com