BENETECH GM86 Micro Power Monitor Instruction Manual

BENETECH GM86 Micro Power Monitor Instruction Manual

Contents

Introduction

The product adopts highly integrated microcomputer chip and dedicated electricity metering chip in combination with highlyprecise current sensor and LCD display to realize overall monitor to electric equipment.

Safety instruction

1. Plug the product into power supply socket,and electrical appliances into the product to measure parameters of electrical appliances. It can detect working voltage, current, power and other parameters of electrical appliances to make the operation situation and energy-consuming of electrical appliances clear.
2. Before using the product, check to see if there is crack or short of plastic parts on the shell, especially the insulation point around the joint. Please do not use the product if it is damaged.
3. Return the product to the company for repair if it can not worknormally.
4. D0 NOT use the product near explosive gas, steam or dust and put the product in the place which is humid or with water.
5. The loading power of electrical appliances with the product can not exceed the rated power of the product (2200W).
6. D0 NOT open up the product at will, nor check by dissembling the machine with electricity.

Operatin instructions

1. Instrument startup/ shutdown Directly plug the instrument into the power supply socket, and connect to power to start the instrument; disconnect the power supply to shut down the instrument.
2. Backlight setting function Long press “SET” for 2 seconds to enter backlight setting interface in the “CUR” display interface. It will display “LEd” after entering the interface, and the “ON or OFF” is flickering (as shown in **Figure 1)**. At this time, we can select to turn “ON or OFF” by pressing “ ▲ ” or ” ▼ ” momentarily, and after selection, press momentarily the “OK” to exit setting. If one selects “OFF” and the instrument has no button operation in 10 seconds, the backlight will automatically off (fault factory setting); if one selects “ON” , the backlight is always on.

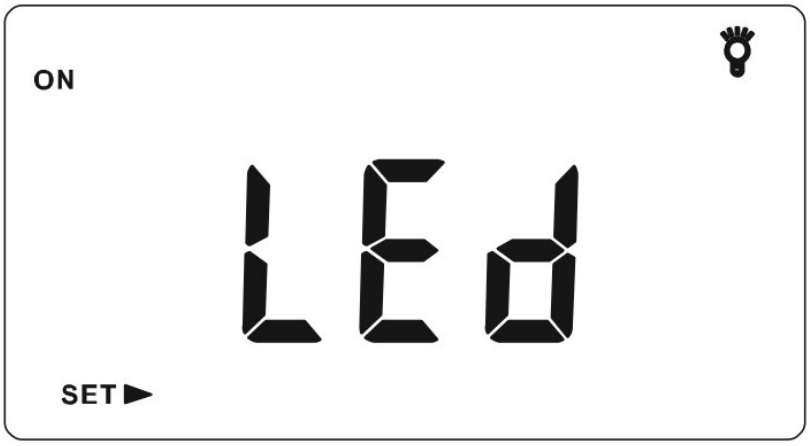


Figure 1

3. Measure and operation
    1. Measuring mode Under measuring mode,one can freely check working current,voltage,power,electric consumption quantity, CO2 discharge and power factor,etc by pressing "▲" or "▼" be: WATT→CUR→VOLT→FREQ→CT→POW→CO2PF; press "▲" or "▼", the check sequence shall be reversed.
    2. Check the current electricity consumption and electricity consumption time Respectively switch to accumulated electric quantity monitoring interface (as shown in **Figure 2)** and accumulated time monitoring interface (as shown in **Figure 3**) by pressing "▲" or "▼", and the measuring display ranges shall be 0.00-99,999KWh and 0-99,999 minutes respectively.The measured electricity value and electricity consumption time will be automatically stored,and the accumulated measured values will not be lost even under long time outage. * Accumulated electric quantity and accumulated time clearance: respectively switch the instrument to accumulated electric quantity and accumulated time interface. Press the "SET" for 2s, the accumulated electric quantity and accumulated time will flicker; press "OK" to reset.

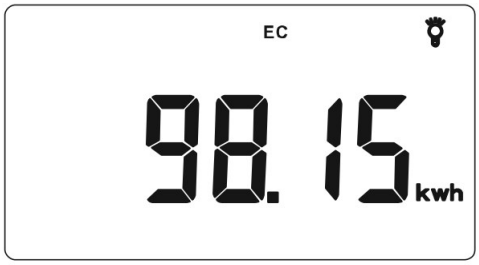


Figure 2

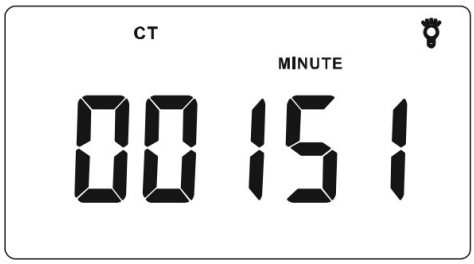


Figure 3

    3. Power and power factor of measuring equipment Respectively switch to power monitoring interface (as shown in **Figure 4)** and power factor monitoring interface (as shown in **Figure 5**) by pressing "▲" or "▼" under measuring mode, and the measuring display ranges shall be 0.02-2200.0W and 0.001-1.000 respectively.

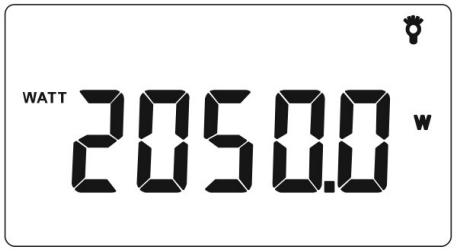


Figure 4

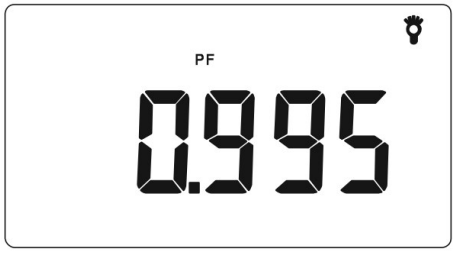


Figure 5

4. Voltage and frequency of measured power supply Respectively switch to voltage monitoring interface (as shown in **Figure 6**) and frequency monitoring interface (as shown in **Figure 7**)by pressing " ▲ " or " ▼ " and the measuring display ranges shall be 180.0-260.0V and 40.00-60.00Hz respectively.

Figure 6

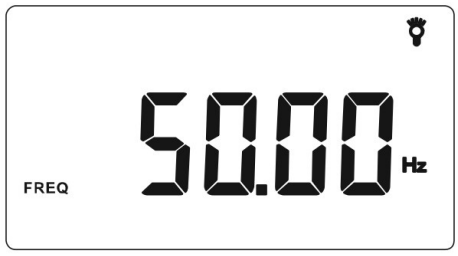


Figure 7

5. CO2 discharge quantity corresponding to current and electricity consumption of measuring equipment Respectively switch to current monitoring interface (as shown in **Figure 8)** and CO2 display interface (as shown in **Figure 9**) by pressing " ▲ " or " ▼ " , and the measuring display ranges shall be 1.000-10.000A (it displays mA when it is within 1A) and 0.00-555,000kg respectively.

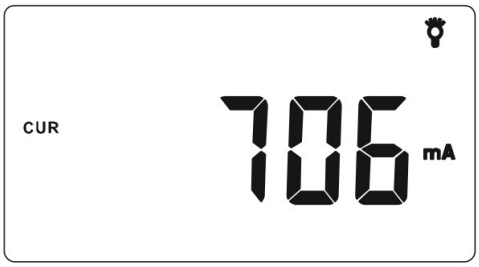


Figure 8

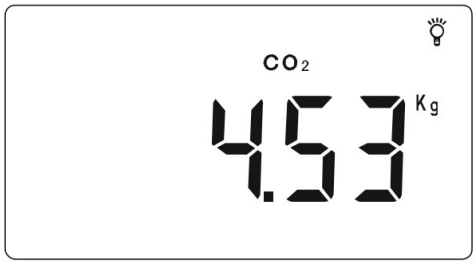


Figure 9

6. Measurement over-limit alarming setting After long pressing "SET" key on the power display interface for 2 seconds, the thousand-digit on LCD will flicker, and enter power alarm limit setting. Press " ▲ " or " ▼ " to adjust values,and press "OK" after completing thousand-digit adjustment to set hundred-digit, and so on, and press "OK" in the end to exit the setting mode. Pay attention that the setting value can not exceed 2200W (fault factory value is 2200W), and otherwise it is necessary to reset if it displays "Err" , as shown in **Figures 10 and 11.**

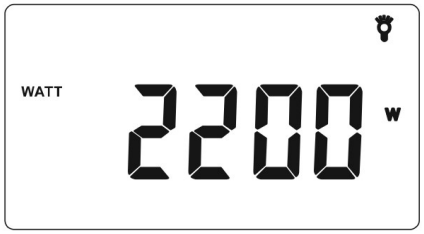


Figure 10

Figure 11

If the power of the electrical appliance exceeds the setting value of power alarm upper limit, the backlight will flicker to indicate users that the power exceeds the limit.

Application cases

1. When selling various kinds of energy-saving appliances, power metering function can be used to demonstrate energy saving situation of electrical appliances for users.
2. For normal users, use power/ electric quantity metering functions to test various working conditions of domestic electrical appliances(refrigerator, air conditioner, washing machine, computer, fan, energy-saving lamp, etc.) to clearly know power consumption situation of each electrical appliance to better guide users to use electricity.

3. One can find that it can timely eliminate risks due to power abnormality caused by appliance electricity leakage by testing working power of domestic appliances and comparing with marked power of appliances.

Maintenance and special declaration

1. Maintenance:
   - **a.** Refer to your maintenance card for relevant maintenance regulations.
   - **b.** In case of any product damages due to dissembling of users,improper transportation or storage after purchase, or operation not as required, modifying maintenance card at will and having no purchase certificate, the company will not provide maintenance.
2. **Special declaration:**
   Our company reserves the right to modify the product design and the instruction. We will not give further notice for any changes!

LCD display and keys

1. There are four keys in total on the product, which is as shown in **Figure 12.**
2. LCD display is as shown in **Figure 13.**

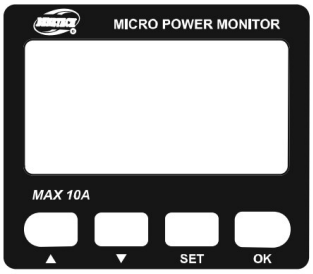


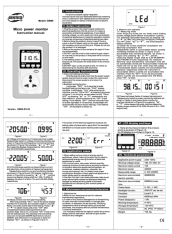
Figure 12

Figure 13

Technical Parameters

Applicable power supply	220V 50Hz
Working voltage range	180. OV-260. OV
Maximum rated current	10A
Maximum power	2200W
Measurable range	0. 2W-2200W
Maximum accumulated electric quantity	99999KWh
Maximum accumulated time	99999minutes
Power factor	0. 001-1. 000
Backlight function	ON/OFF can be set
Precision	Level 1.0
Constant	6400imp/kWh
Power dissipation	<1W
Working temperature	0-45t
Storage temperature	-20-60˚C
Product dimension	60. 0*55. 7*120mm
Weight	129. 6g

Documents / Resources

	BENETECH GM86 Micro Power Monitor [pdf] Instruction Manual GM86 Micro Power Monitor, GM86, Micro Power Monitor, Power Monitor, Monitor