



Model: GM3120

Electromagnetic Radiation Tester Instruction manual



Version: GM3120-EN-00

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I. Introduction

Radiation survey meter can test electric field radiation and magnetic field emission to reach the optimal test result. It is used to test and learn electromagnetic radiation situation indoor and outdoor. It is equipped with a built-in electromagnetic radiation sensor, which can display the radiation value on LCD digital display after processing by the control micro-chip. You can make reasonable processing or taking effective prevention measures toward the electromagnetic radiation according to the test result.

Influence and harms of electromagnetic radiation on human body:

1. Being one of the causes of leukemia for children;
2. Can cause cancer and accelerate proliferation of cancer cells;
3. Can cause direct harm to human genital system, nervous system and immune system;
4. Can cause mental disabilities of children and diminution of vision, affect tissue development and skeletal development of children;
5. Can cause diminution of hematopoietic function of livers and even cause amotio retinae;
6. Being one of the main causes of cardiovascular disease and diabetes;
7. Having bad influence on human visual system.

Moreover, strong electromagnetic radiation may influence and destroy original bioelectric current and biomagnetic field in human body and cause abnormality of the original electromagnetic field in human body. The elderly, children and the pregnant are susceptible to electromagnetic radiation.

Artificial electromagnetic radiation sources include all kinds of electric appliances and devices. By fair use of household appliances and taking reasonable precautions measures, electromagnetic radiation can be effectively prevented and reduced.

II. Functions and features

This radiation survey meter has the following features :

- One instrument with two uses, It can test the electric field and the magnetic field radiation at the same time;
- Sound-light alarm, when the test result exceeds the safe value, the instrument will alarm automatically;
- Data locking, one-key lock of the radiation value;
- LCD graphic display of the radiation value trend;
- Radiation assessment, remind you whether the radiation value is safe or not;
- Fashionable design, easy on-hand operation, it is easy to move or make field measurement.

III. Range of application

- Electromagnetic radiation monitoring: House and apartment, office, outdoor and industrial site;
- Electromagnetic radiation test: Mobile phone, computer, TV set, refrigerator and high voltage cable radiation test;
- Radiation protection product test: Test effects of radiation-proof clothes, radiation-proof film and other prevention articles.

VI. Radiation indexes

- X-ray radiation index: ★★★★★
- Electric hair drier radiation index: ★★★★★
- Electric blanket radiation index: ★★★★★
- Microwave oven radiation index: ★★★★★
- Computer monitor and host radiation index: ★★ ★
- Mobile phone radiation index: ★★
- TV set radiation index: ★★
- Keyboard and mouse radiation index: ★
- Copying machine and printer radiation index: ★
- Security check radiation index: ★



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.

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.



Figure 10



Figure 11

IV. 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.

V. 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 disassembling 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!

VI. 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

VII. Technical parameters

Applicable power supply	220V 50Hz
Working voltage range	180.0V~260.0V
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	0~45°C
Storage temperature	-20~60°C
Product dimension	60.0*55.7*120mm
Weight	129.6g