

**Electromagnetic Radiation Tester
Instruction manual**



Standard: Q/HTY 006-2017
Version: WT3121-EN-00

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 precautionary measures, electromagnetic radiation can be effectively prevented and reduced.

II. Function features

Electromagnetic radiation detector has the following function features:

- ▶ One detector for two usage, simultaneous detection of electric and magnetic field radiation;
- ▶ Color-screen display;
- ▶ Sound and light alarm, automatic alarm above safe value;
- ▶ Data lock, press one button to lock radiation value;
- ▶ LCD graphic display of radiation value trend;
- ▶ Radiation assessment, indicating if current radiation value is at safe level;
- ▶ Stylish appearance, easy to operate with one hand, move or perform on-site 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: ★

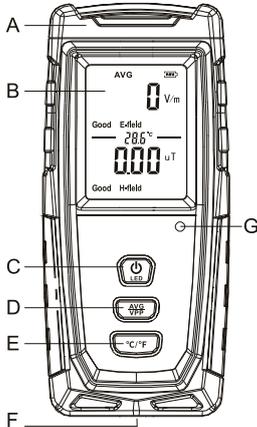
V. LCD display and part names

1. Full screen LCD: as shown in the figure below



2. Part names: as shown in the figure below

- A. Front sensing area
- B. LCD
- C. Startup / LED button
- D. Average/Peak value mode switch button
- E. Unit switch button
- F. Charging port
- G. Indicator light



VI. Operation Instruction

1. Startup/shutdown:

Short press on/off button to turn on detector, measured value of current electric field and magnetic field will be displayed after about 1 second of full screen display, long press on/off button after startup to turn off detector. Detector will automatically shut down after 5 minutes of no button operation.

※ Note: Due to possible electromagnetic interference in the environment, the instrument may display minor reading when it is turned on, which has nothing to do with instrument fault.

2. Measurement:

Hold the instrument with hand, with front sensing area slowly approaching electromagnetic radiation source to be tested. If the actual radiation value is within specification range, the value will be displayed; if the instrument has no reading, the electromagnetic radiation value of radiation source is lower than the minimum value of detector, namely 1V/m or 0.01μT.

※ Note: please measure from a distance for high-pressure facilities to make sure of safety.

3. Lock reading:

After startup, short press on/off button, reading will be locked and HOLD icon shows up on the screen; press again to resume normal measurement. and HOLD icon will not flash.

4. Average/peak value mode:

After startup, short press AVG/VPP button to switch between average value mode and peak value mode; average value mode displays "AVG" icon, peak value mode displays "VPP" icon.

5. Buzzer switch:

After startup, long press AVG/VPP button to turn buzzer on or off. If buzzer is turned on, "🔊" icon will be displayed on screen.

6. Unit switch:

After startup, short press °C/°F button to switch temperature unit between °C and °F; long press °C/°F button to switch magnetic field unit between uT and mG.

7. Zeroing of electric field/magnetic field:

After startup, long press AVG/VPP and °C/°F button simultaneously, and enter zeroing interface after about 2 seconds. At this time, electric field or magnetic field value flashes; short press AVG/VPP button or °C/°F button to switch between electric and magnetic field; when electric field value flashes and the value is less than 10V/m, press on/off button, the electric field value will return to zero; when magnetic field value flashes and the value is

less than 0.1uT, press on/off button, the magnetic field value will return to zero; after zeroing operation finishes, long press AVG/VPP button or °C/°F button to exit zeroing interface or long press on/off button to shut down.

8. Charging indication:

When battery power shows "🔋", please charge the instrument in time. After connected with charging wire, the instrument displays dynamic charging interface and stops measuring electromagnetic field. After battery is fully charged, battery grid bar is full as well.

VII. Technical parameters

	Electric field	Magnetic field
Unit	V/m	μT
Accuracy	1V/m	0.01μT
Range	1V/m-1999V/m	0.01μT-99.99μT
Alarm threshold	40V/m	0.4μT
Reading display	3-1/2digit LCD	
Measurement bandwidth	5Hz—3500MHz	
Sampling time	About 0.4 second	
Measurement mode	Dual mode at the same time	
Overload indication	Maximum value of measurement range on LCD	
Operation temperature	0°C~50°C	
Operation humidity	Relative humidity below 80%	
Working voltage	3.7V	
Power	3.7V lithium battery	
Dimensions	60*25*133mm	
Weight	121g	

Reference standards:
GB8702-1988 Regulations for Electromagnetic Radiation Protection
HJ/T10.3-1996 Environmental Impact Assessment Methods and standards on Electromagnetic Radiation
GB9175-88 Hygienic Standard for Environmental Electromagnetic Waves

Specific Declarations:
Our company shall hold no any responsibility resulting from using output from this product as an direct or indirect evidence. We reserves the right to modify product design and specification without notice.

