KPS MF50

KPS MF50 Multifunction Environmental Tester User Manual

Model: MF50 (Part Number: 602450006)

1. Introduction

The KPS MF50 is a versatile multifunction environmental tester designed to measure five key environmental parameters: temperature, relative humidity, light intensity, air speed/volumetric air flow, and sound level. This manual provides detailed instructions for the safe and effective use, setup, operation, and maintenance of your device.

2. Safety Information

Please read and understand all safety instructions before operating the KPS MF50. Failure to follow these instructions may result in injury or damage to the device.

- Do not attempt to open or modify the device. There are no user-serviceable parts inside.
- Keep the device away from water, moisture, and extreme temperatures.
- Ensure batteries are inserted correctly according to polarity markings. Remove batteries if the device will not be used for an extended period.
- Avoid pointing the light sensor directly at strong light sources for prolonged periods to prevent damage.
- When measuring sound, avoid exposing the microphone to excessively loud noises that exceed the device's specified range.
- Use only the accessories provided or recommended by KPS.

3. Product Overview

The KPS MF50 is a compact and robust environmental tester. It features a clear display and intuitive controls for easy operation. The device integrates multiple sensors to provide comprehensive environmental data.

Key Features:

- Temperature measurement in Celsius or Fahrenheit.
- Relative humidity measurement.
- Light measurement with correction filter.
- Air speed (m/s, km/h, ft/s) and volumetric air flow (ft^3/min, m^3/min) measurement.

- Sound measurement Class II according to IEC 61672, with A and C frequency weightings.
- Simultaneous display of current, maximum, minimum, average, and difference (max-min) values.
- Automatic range selection.
- Out-of-range indication on display.
- Automatic power-off function and low battery indicator.

Device Components:

The device includes a microphone for sound measurement, a light sensor, and sensors for temperature, humidity, and air speed. The display shows measurement readings and various indicators.



Figure 1: KPS MF50 Environmental Tester with visible sensors for light, sound, and air flow. The display and control buttons are also

visible.

4. Setup

4.1 Unpacking and Inspection

Carefully unpack the KPS MF50 and all accessories. Verify that all components listed below are present and undamaged:

- KPS MF50 Multifunction Environmental Tester
- User Manual
- Batteries (if included)
- Mounting Tripod

If any items are missing or damaged, contact your supplier immediately.

4.2 Battery Installation

1. Locate the battery compartment cover on the back of the device.
2. Open the cover by sliding or unscrewing it (refer to markings on the device).
3. Insert the required batteries, ensuring correct polarity (+/-) as indicated inside the compartment.
4. Replace the battery compartment cover securely.

4.3 Tripod Assembly (Optional)

The KPS MF50 is supplied with a mounting tripod for stable, hands-free operation, especially useful for long-term monitoring or precise positioning.

1. Extend the legs of the tripod to a stable position.
2. Locate the tripod mounting screw on the bottom of the KPS MF50.
3. Carefully screw the device onto the tripod until it is secure. Do not overtighten.



Figure 2: KPS MF50 Environmental Tester shown mounted on its included tripod for stable measurements.

5. Operating Instructions

5.1 Powering On/Off

- To power on: Press the **POWER** button.
- To power off: Press and hold the **POWER** button until the display turns off. The device also features an automatic power-off function to conserve battery life.

5.2 Selecting Measurement Mode

Press the **MODE** button to cycle through the available measurement functions:

- Temperature / Relative Humidity
- Light Intensity
- Air Speed / Volumetric Air Flow
- Sound Level

5.3 Unit Selection

In most measurement modes, you can change the units by pressing the **UNIT** button. For example:

- Temperature: °C / °F
- Air Speed: m/s, km/h, ft/s
- Volumetric Air Flow: m^3/min, ft^3/min

5.4 Data Hold Function

Press the **HOLD** button to freeze the current reading on the display. Press it again to release the hold and resume live measurements.

5.5 Max/Min/Avg/Dif Readings

The device can display maximum, minimum, average, and difference (Max-Min) values. Consult the specific button (e.g., **MAX/MIN** or **AVG**) on your device for cycling through these display options. These values are typically recorded from the moment the device is powered on or the function is selected.

5.6 Specific Measurement Guidelines

- **Temperature & Humidity:** Position the device in the area to be measured, allowing sufficient time for the sensors to stabilize.
- **Light:** Ensure the light sensor is unobstructed and facing the light source. Avoid shadows on the sensor.
- **Air Speed & Flow:** Position the anemometer (fan-like sensor) directly into the airflow. For volumetric flow, input the duct area if prompted by the device, or calculate manually.
- **Sound Level:** Point the microphone towards the sound source. Ensure no obstructions are blocking the microphone. Select A or C frequency weighting as required for your application (A-weighting mimics human hearing, C-weighting is flatter).

6. Maintenance

6.1 Cleaning

Wipe the device with a soft, dry cloth. Do not use abrasive cleaners, solvents, or immerse the device in water. Keep the sensors (especially the light sensor and anemometer) free from dust and debris.

6.2 Battery Replacement

When the low battery indicator appears on the display, replace the batteries promptly to ensure accurate readings and continuous operation. Refer to section 4.2 for battery installation instructions.

6.3 Storage

If the device will not be used for an extended period, remove the batteries to prevent leakage. Store the device in a cool, dry place, away from direct sunlight and extreme temperatures.

7. Troubleshooting

Problem	Possible Cause	Solution
Device does not power on.	Dead or incorrectly installed batteries.	Check battery polarity; replace batteries.
Inaccurate readings.	Sensors obstructed or dirty; device not stabilized; incorrect mode/unit.	Clean sensors; allow stabilization time; verify mode and units.
"OL" or "OVER" displayed.	Measurement value is out of range.	The measured value exceeds the device's maximum capacity for the current setting. Move to an environment within the device's specified range.
Automatic power-off occurs too quickly.	Automatic power-off feature is enabled.	This is a normal function to save battery. Refer to the device's specific settings for disabling or adjusting auto-off if available (check manual for specific button combinations).

8. Specifications

Parameter	Value
Model	MF50 (602450006)
Brand	KPS
Product Type Name	Multifunction Environmental Tester
Temperature Accuracy	1.0 Degree Celsius
Upper Rated Temperature	80 Degrees Celsius
Sound Measurement Standard	Class II according to IEC 61672
Included Components	User Manual, Batteries, Mounting Tripod
Package Dimensions	35.2 x 16 x 7.6 cm
Item Weight	1.62 kilograms

9. Warranty and Support

For warranty information or technical support, please refer to the warranty card included with your product or contact your local KPS distributor. Do not attempt to repair the device yourself, as this may void your warranty.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question