

OPERATION MANUAL

Model: 98886
Palm-held WBGT meter



The smart WBGT meter features four (4) measurements in one multi-function WBGT meter model. Easy operation, meter powered by two AA batteries.

FEATURES:

- ✓ Measurement: WBGT, Global temp., Ambient temp. and humidity.
- ✓ Audible WBGT temperature alarm threshold setting.
- ✓ Auto power off function (15 minutes).
- ✓ 3-tier simultaneously display WBGT, Global temp., air temp. and humidity.
- ✓ Global temperature, air temperature and Humidity offset function.
- ✓ Warranty period: 2 years for the main unit, 1 year for the sensors.

SUPPLIED:

1. Meter
2. Battery-AA x 2pcs
3. Operation manual
4. Black fabric case
5. White box

LCD DISPLAY

- a) Battery icon: Battery status.
- b) Bell Icon: Alarm Sound On.
- c) WBGT: Wet bulb global temp.
- d) GBT: Black globe temp.
- e) T: Ambient Temperature
- f) RH: Ambient Humidity



SPECIFICATION

Model	98886
WBGT outdoor meas. range	15~56°C (Accuracy:±1.5°C, others ±2°C)
Air temp. meas. range	0.0~50.0°C
Temp. accuracy	±0.6 °C (20.0~50.0°C), others±1°C
Globe temp. meas. range	0~70°C
Globe temp. accuracy	±0.6 °C (20.0~60.0°C), others±1°C
Relative humidity range	20.0~90.0%
RH accuracy	±5% (AT 25°C, 30~90%RH), others ±10%
Brightness Adjustment	YES
Audible alarm	YES
WBGT Alarm Setting Range	20°C~40°C (Adjustable in 0.1 °C increments)
Operating Environment:	0.0~50.0°C, 0~80.0%, non-condensing Airflow: ≥ 0.3 m/s
Meter size	170 x 153 x 40mm
Weight	0.13 kgs (Batteries included)
Power supply	AA batteries x 2pcs
Precautions (JIS B7922)	Measurement may be inaccurate in environments where airflow is below 0.3 m/s.

KEY PAD:

Button	Description
	Power On / Power Off: Press the power button briefly to turn on, press and hold to turn off. Alarm sound: Short press the power button to turn the alarm sound on or off. The bell icon  will appear or disappear accordingly. Adjusting Values: Decrease the value in setting mode.
	Entering Setting Mode: Press and hold the arrow button to sequentially enter the following setting modes: 1. WBGT alarm setting 2. Global temperature compensation 3. Air temperature compensation 4. Humidity compensation 5. Brightness adjustment Press and hold the arrow button again to save the settings and return to the measurement screen. Adjusting Values: Increase the value in setting mode.

MEASUREMENT

Short press the power button to turn on the device.

The warm-up time is approximately 10 seconds. During this time, the MIC logo, full display, and battery voltage will be shown sequentially. After that, the device will enter measurement mode.



POWER

The device is powered by two AA batteries.

Battery life: Battery capacity 800 mAh, provides approximately **12 hours** of operation.

NOTE : To avoid battery leakage, remove the batteries if the device will not be used for an extended period.

Battery Level

An icon of a battery is displayed at the top of the LCD. As the bars disappear, the battery power gradually decreases. Please refer to the chart below.

Battery Level (%)	100	66	33	1
ICON				

AUTO-POWER OFF:

When the meter is not in use for 15 minutes, it will automatically power off.

WBGT AUDIBLE ALARM THRESHOLD SETTING

(Default WBGT temperature alarm value as 28°C)

Press and hold the  to enter the WBGT alarm threshold setting interface. The default value is 28°C.

Short press the  to increase the value, and short press  to decrease the value.

After setting, press and hold  again to switch to the black globe temperature compensation mode.

***WBGT Alarm Setting Range: 20°C~40°C.**



TURN ON/OFF ALARM FUNCTION:

short press  button, the bell icon  indicates the alarm is on; when it disappears, the alarm is off.

GLOBAL TEMPERATURE/AMBIENT TEMPERATURE/HUMIDITY OFFSET FUNCTION:

The meter is designed with precision and free maintenance capacitor humidity sensor and thermistor temperature sensor. For long time usage drift, or special accurate purpose, user may do the offset function to adjust Temperature and Humidity per standard values.

1. Globe temperature offset:

In measurement mode, press and hold  twice to enter the black globe temperature compensation mode.

Short press  to increase the value;

Short press  to decrease the value.

press and hold  again to enter ambient temperature offset.

2. Ambient temperature offset:

Short press  to increase the value;

Short press  to decrease the value.

press and hold  again to enter relative humidity offset.

3. Relative Humidity offset:

Short press  to increase the value;

Short press  to decrease the value.

press and hold  to save the settings, then enter brightness adjustment mode.

NOTE: Only $\pm 9.9^{\circ}\text{C}$, $\pm 9.9^{\circ}\text{F}$, $\pm 9.9\%$ are the available values to be adjusted.



Brightness Adjustment

(Brightness default: 50%)

Short press  to cycle the brightness through 25%, 50%, 75%, and 100%.

press and hold  to return to measurement mode.

Guidelines for Preventing Heat Illness During Sports Activities

AT (Ref.)	WBGT	ICON	Exercise Guidelines Based on WBGT	
$\geq 35^{\circ}\text{C}$	$\geq 31^{\circ}\text{C}$		Warning: Exercise should generally be discontinued.	WBGT $> 31^{\circ}\text{C}$: Exercise should be stopped except in special circumstances. Children, in particular, should discontinue exercise.
$31 - 35^{\circ}\text{C}$	$28 - 31^{\circ}\text{C}$		High Alert (stop strenuous exercise)	WBGT $> 28^{\circ}\text{C}$: High risk of heat-related illness. Avoid strenuous or endurance exercise. Rest every 10–20 minutes and rehydrate with water and electrolytes. People with low fitness or unacclimated to heat should stop exercising.
$28 - 31^{\circ}\text{C}$	$25 - 28^{\circ}\text{C}$		Caution (take frequent breaks)	WBGT $> 25^{\circ}\text{C}$: Increased risk of heat-related illness. Take frequent rest and rehydrate with water and electrolytes. During strenuous exercise, rest every 30 minutes.
$24 - 28^{\circ}\text{C}$	$21 - 25^{\circ}\text{C}$		Notice (actively replenish fluids)	WBGT $> 21^{\circ}\text{C}$: Potential risk of fatal heat-related incidents. Monitor for signs of heat illness and actively rehydrate with water and electrolytes during breaks.
$< 24^{\circ}\text{C}$	$< 21^{\circ}\text{C}$		Basic Safety (maintain adequate hydration)	WBGT $< 21^{\circ}\text{C}$: Risk of heat-related illness is generally low. Maintain hydration and electrolytes. Caution is still advised during events such as public marathons.

****Source:** Cited from Japan Sports Association (Public Interest Incorporated Foundation), 'Guidelines for the Prevention of Heat-Related Illness in Physical Activity' (2019)

"These reference values apply to general exercise activities and are not intended for work, prolonged outdoor exposure, or special populations."

WARRANTY

This instrument is warranted for two years from the date of purchase (One year limited warranty applies to cables). A Return Authorization letter must be issued before returning for any reason. This warranty does not apply to defects resulting from action of the user such as misuse, abuse, alteration neglect, improper wiring, improper maintenance or repair, or unauthorized modification, damage resulting from leaking batteries, operation outside of specification. During the warranty period the manufacturer reserved the right to decide either to repair or replace the product. The meters are to be returned along with good packing to prevent any damage in shipment and insured against

possible damage or loss.

The two year's warranty doesn't apply to:

- Accessories and batteries (not covered by warranty)
- Claim is not acceptable for improper use (including adaptation to particular applications not foreseen in the instructions manual) or improper combination with incompatible accessories or equipment or by previous attempts for repair carried out by none skilled or unauthorized personnel.
- Sensor damaged by user improper use; watering, burning, condensation....