WINDOW TINT METER

WTM-1200

This Window Tint Meter is small in size, light in weight, easy to carry. Although complex and advanced, it is convenient to use and operate. Its ruggedness will allow many years of use if proper operating techniques are followed. Please read the following instructions carefully and always keep this manual within easy reach.

1. FEATURES

Applicable to measure the transmittance of all kinds of transparent, translucent samples with parallel plane (such as automobile manufacturing, aerospace, glass products, plastic sheet, sheet, etc). Also can be used to determine the turbidity or clarity of liquid sample (water, drinks and so on).

* This Meter is a hand held device that measures the amount of light that passes through a window.
* Technology is designed in accordance with GB 2410-80, ASTM D1033-61, JIS k7105-81 and other standards.
* Digital display, wide range, high resolution.
* Wireless design, easy to use.
* One key calibration, easy to use.
* Solid structure, small volume, light weight, easy to carry.
* Use USB cable or Bluetooth adapter to connect with PC.

2. SPECIFICATIONS

Disply: 10mm LCD
Measurement Range:
     0 to 100% Light Transmission
Resolution: 0.1
Accuracy: ≤2%
Wavelength: 550 Nanometers
Interface: USB
Sample Thickness:
     Less than 18 mm/0.7inch
Operating conditions:
     0~50°C,<90%RH
Time of Testing:
     Maximum of 4 Seconds
Effects From Stray Light:
     Not Effected by Stray Light
Lamp Life: 10 Years
Power Source:
     Main Unit: 4 x 1.5v AAA Batteries
     Light Emitter: 2 x 1.5v AAA
Batteries
Weight: 290g (including batteries)

Dimensions:
     Main Unit: 141x65x38mm
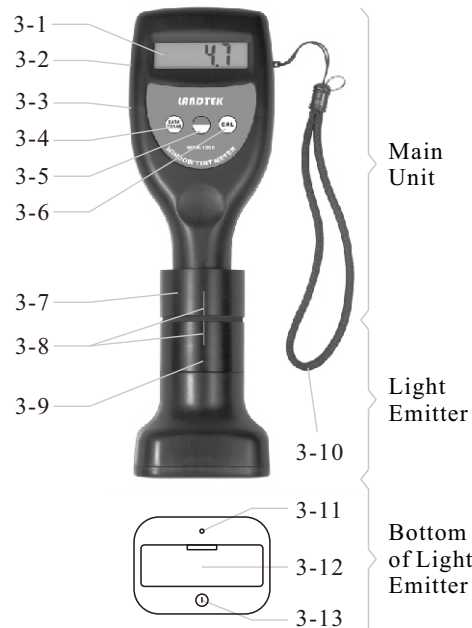   Light Emitter: 70x62x52mm
Standard Accessories included :
     Testing block..........1pc.
     Carrying case............1pc.
     Operation manual......1 pc.
Optional Accessory:
     USB Cable and software
   Bluetooth adapter and software

3. FRONT PANEL DESCRIPTIONS

3-1 Display
3-2 Battery Cover on the Back
3-3 USB Interface
3-4 Data Transmission Key
3-5 Power Key (Main Unit)
3-6 Calibration Key
3-7 Reception Probe
3-8 Tick Mark
3-9 Emitter Probe
3-10 Wrist Rope
3-11 Emitter Indicator
3-12 Emitter Battery Cover
3-13 Emitter Power Key

4. HOW TO PERFORM A TEST

4.1 Power on the Main Unit by pressing the Power Key, then power on the Light Emitter by pressing the Emitter Power Key.

4.2 Be sure the meter is well calibrated. If not, please refer to **5. CALIBRATION** for calibration. The calibration result is memorized in the meter automatically, so

it is not necessary to calibrate the meter in every boot. However, if there is doubt about accuracy, calibrate the meter.

4.3 Place the 2 probes on each side of sample in a central line, the meter will display the light transmission of that sample on an easy to read liquid crystal display. See as the figure below.
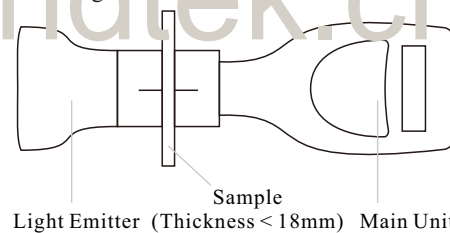
Light Emitter (Thickness < 18mm)   Sample   Main Unit

NOTE:
* **When measuring, the Reception Probe and the Emitter Probe should be aligned. Also, the 2 tick marks should be aligned.**
* **Because the meter applies photoelectric principle, do not operate under strong light.**

4.4 After measurement, to power off the meter, press and hold the Power Key for 3 seconds and release the key when OFF is displayed. Also, press the Emitter Power Key to power off the Emitter. Slide the meter up vertically to remove the device.

5. CALIBRATION

5.1 Zero Calibration

5.1.1 Pressed the Reception Probe tightly on a opaque plane, then press the Calibration Key. The reading '0' is displayed, the meter is zero calibrated. When zero calibrating, it is necessary to avoid light into the probe.

5.2 Full Calibration

5.2.1 In power on state, align the 2 probes with no sample or other object between them, be sure the 2 tick marks are aligned, then press the Calibration Key. The reading '100' should be displayed and the full calibration is finished.

5.2.2 To ensure the accuracy, it is suggested to check the same standard block for verification.

6. MEASUREMENT CONSIDERATIONS

6.1 Non corrosive gas.

6.2 No strong electromagnetic interference.

6.3 No direct sunlight.

6.4 the instrument should prevent from violent vibration and impact. After use, clean the surface of the instrument and put it into the instrument box.

7. AUTO POWER OFF

7.1.1 A 10 minute auto power off function can be set up for the main unit.

7.1.2 In power on state, press and hold the Power Key for about 6 seconds, and release the key when 'AUTO' comes out on the display.

7.1.3 At this time, there is a digit '10' or '0' on the display, indicating 10 minutes auto power off or non auto power off. Press the Data Transmission Key or the Calibration Key to select auto power off or non auto power off. Press the Power Key to confirm and quit.

7.2.1 The Light Emitter has a 8 minutes no key operation auto power off function.

8. BATTERY REPLACEMENT

8.1 When there is a battery symbol appears on the lower left corner of the display, it is necessary to replace the batteries of main unit. On the other hand, when the Emitter Indicator does not light any more, it is necessary to replace the batteries of the Light Emitter.

8.2 Slide the Battery Cover away from the instrument and remove the batteries.

8.3 Install the batteries correctly into the case.

8.4 If the instrument is not to be used for any extended period , remove batteries.

9. CONNECTION WITH A COMPUTER

9.1 USB Cable Connection Operation

9.1.1 When USB Data Cable with Software is purchased, readings can be transferred to computer.

9.1.2 Put the software CD into CD-ROM of computer and install the software.

9.1.3 Connect instrument with computer through the USB Cable.

9.1.4 Switch on your meter.

9.1.5 Start the software and follow the instructions included with the software Demo. EXE.

9.2 Bluetooth Adapter Connection Operation
When Bluetooth Adapter with software is purchased, data can be transferred to the computer. For detailed operation please see *Bluetooth Adapter Operation Instructions*.