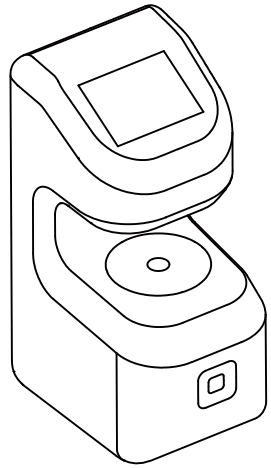
Portable Haze Meter Series

Product Instructions



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Usage of Haze Meter

1.Haze meter is designed for plastic, films, glass, LCD panel, touch screen and other transparent and semi-transparent materials haze and transmittance measurement.

2. Haze meter can be widely used in labs, factories or worksites, it can meet haze measurement requirement for all industries.

3. Limited warranty period is from the date of purchase of the instrument to the end of the warranty period. If your instrument needs service, please take it to your local sales department to contact us for maintenance.

4.To avoid damage on instrument accuracy or precision, please do not disassemble the instrument. Damage to the instrument caused by disassembly or improper use is not included in the warranty.

Haze Meter Notes

1.Dropping or collision is dangerous for this precision instrument . Please put it on the relatively flat place to start your measurement.

2.Moisture or liquid splashing will damage the instrument. It is not damp proof.

3.Large force, or sharp objects may easily damage the glass screen.

4.Do not use or store it in too hot or cold environment, neither wet nor sunlight shining places. Dangerous to use it under strong vibration. Please take care and avoid accidents.

5.This machine is a precision instrument, please avoid strong electromagnetic interference when using.

6.Please keep the instrument steady; do not shake the instrument in usage.

7.Please shut down the instrument after using.

8.Please store the instrument in a dry place.

9.You are not permitted to clean the interior of integrating sphere.

10.Please contact us if the instrument get a problem, don`t try to fix it yourself.

11.This instrument and its instructions are subject to further improvement or supplement without prior notice.

Haze Meter functions

1. Haze meter conforms to standards: GB/T 2410, ASTM D 1003, ISO 13468 , ISO 14782 and GB/T 2410-2008.

2. Haze meter can provide haze and transmittance value under CIE-A, CIE-C and CIE-D65 light sources.

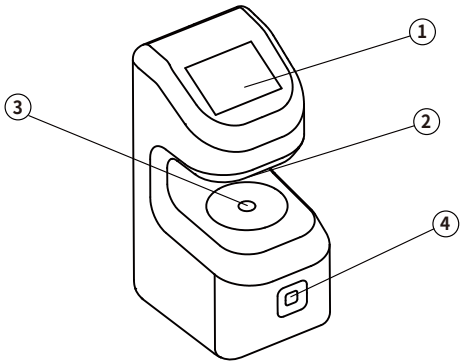
3. Haze meter adopts 2.8 inch capacitive touch screen for friendly interface.

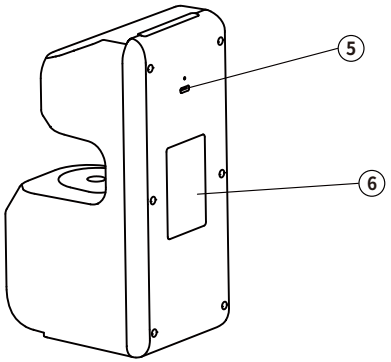
4. Haze meter provides professional haze degree and transmittance measurement and analysis software, which can meet the user's test data analysis and management.

Haze Meter Technical Parameters

Light Source	CIE-A,CIE-C,CIE-D65
Standard	ASTM D1003/D1044,ISO 13468/ISO14782,JIS K 7105,JIS K 7361,JIS K 7136, GB/T 2410-08
Measurement parameter	Haze and transmittance under ASTM standard
Spectral Response	CIE Luminosity function Y/V (λ)
Geometry	0/d
Measuring Aperture	21mm
Measurement Range	0-100%
Resolution	0.1%
Repeatability	0.1
Sample Size	Thickness≤40mm
Screen	2.8 inch touch screen
Storage	Mass storage
Interface	USB
Power	DC 5V/2A
Working Temperature	5~40℃, Relative humidity 80% or lower (35℃) no condensation
Storage Temperature	-20℃~45℃, Relative humidity 80% or lower (35℃) no condensation
Size	LxWxH：133mmX99mmX224mm
Weight	1.13kg
Optional	Customize caliber board

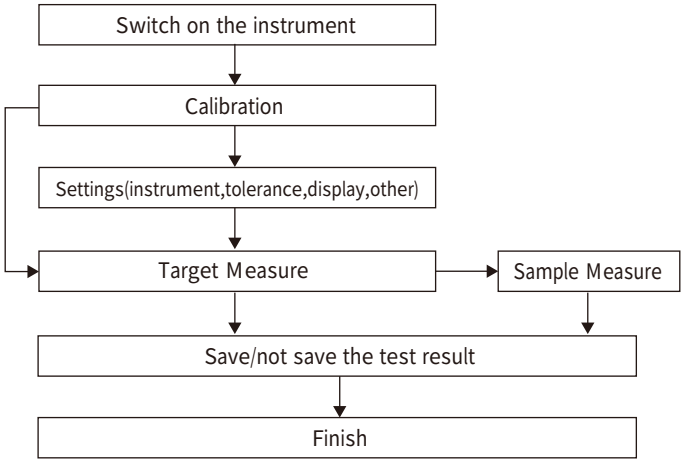
Appearance and structure



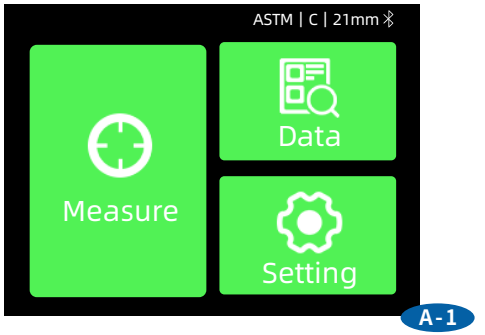


1. Display screen
2. Light exit aperture
3. Test aperture
4. Test button
5. USB port
6. Nameplate

Measurement flow chart



Program interface introduction



A-1

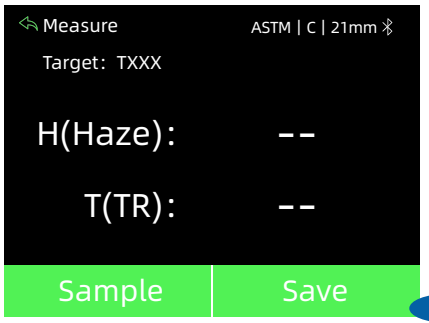
Basic operation method of the program:
Capacitive touch screen, click to select "corresponding function module".

Measure: The user can measure the total transmittance and haze parameters of the sample, measure the difference between the sample and the standard sample, and set the parameters and saved test records.

Data: In this page, the user can view the parameters under the saved standard sample, and can view the sample, delete and edit the name of the selected sample.

Setting: The user can select and set various parameters of the instrument measurement conditions.

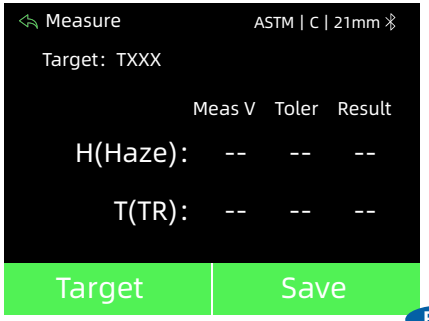
Measurement



B-1

Target measurement

After placing the target sample, press the "test key" on the body and finish the measurement after the beep to view the measurement results.The test results page shows the sample name and test results. When the sample is not saved, the title bar always shows "Current Sample: Txxx". When you click "Save" to save the sample, the name is displayed as the sample name after saving. Test criteria and parameters can be set in Settings before measuring (refer to the Settings section for instructions).
Note: Please calibrate the sample before measuring. (See the Calibration chapter)



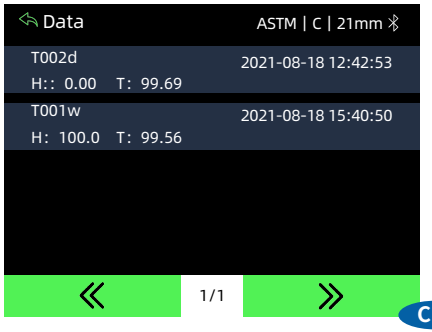
B-2

B-2

Sample measurement

After the above sample measurement is completed, click on the "sample", enter the "sample measurement" interface under the standard, click on the "test key" to measure, and complete the sample measurement after the beep to view the measurement results. Click the Test Key again to make a new sample measurement. The title bar shows the name of the current reference sample. Click Save to save the sample measurement results.
Note: Set tolerance before test. (See Tolerance Settings)

Data

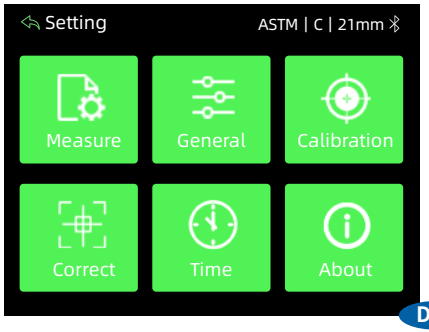


C-1

C-1

Data: Users can view data in the data interface after saving the measured data from the measurement interface. Click on a data to enter the data details interface, where you can view the standard test data and sample test data for "pull out to mark" and "delete" operations.

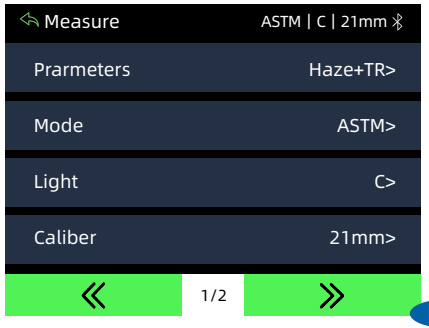
Settings



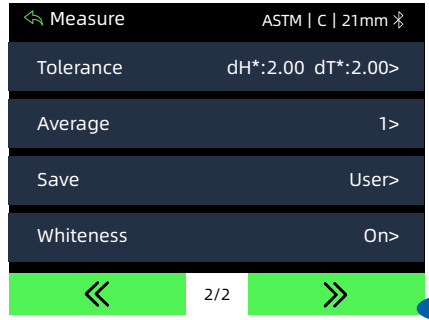
D-1

D-1

Setting: In this interface, users can set up and view the six options of measure, general, calibration, correct, time, and about.



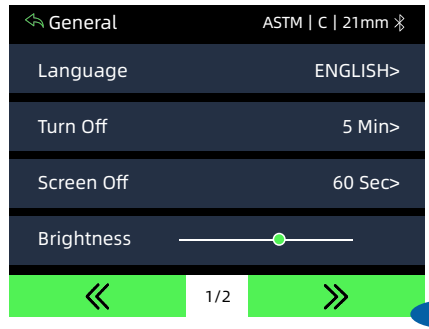
E-1



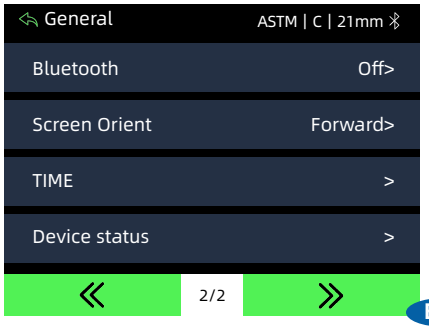
E-1

E-1

Measurement Settings
Parameters: Users can select the measurement parameters (fog, transmittance, fog+ transmittance) displayed during the measurement at this interface.
Mode: Users can view the current measurement mode.
Light: Users can view the current light source.
Caliber: Users can view the current measurement caliber.
Tolerance: The user can modify the tolerance value at this interface;
Average: Users can set the average number of measurements on this interface (the test results are equal to the average of the measured data);
Save: Users can switch between manual and automatic saving in this interface;
Whiteness: User can set whiteness On or Off.



E-2



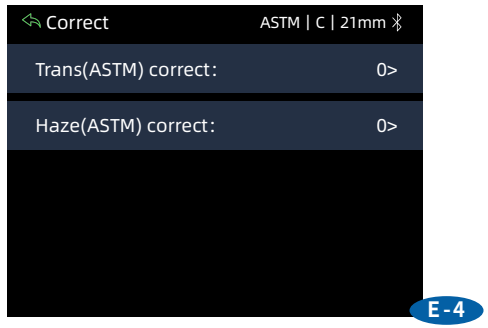
E-2

General : Users can set language, shutdown time, backlight time, screen brightness, Bluetooth switch, screen flip, time and device status in this interface.



E-3

Calibration: The user calibrates the instrument on this interface, keeping the test port pointed at the air and pressing the measurement button to complete the calibration.



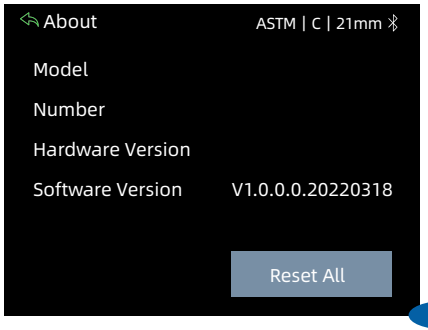
E-4

Correct: Users can perform self-calibration operations in this interface.



E-5

Time Settings: Users can set time in this interface.



E-6

About: Users can view the model number of the instrument, the serial number of the product, the hardware version number, the software version number and the operation of restoring the factory settings under this interface.

Parameter introduction

Haze

Diffuse scattering reduces the image quality of the object. Small particles inside the material or sample surfaces cause scattering, and scattered light is scattered to different angles and the optical density at each angle is small. It causes a decrease in contrast and the sample forms a milky or cloud-like appearance, this phenomenon is known as haze.

Conditions for the assessment of transparency

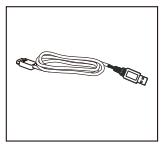
Transparent product appearance has the characteristics of gloss, color and transparency. Transparency is particularly important, and its evaluation conditions are: transmittance, haze and so on. The ratio of light to incident light when the transparency rate is all projected. It will decrease as the surface of the material reflects and absorbs light. According to the ASTM D1003 the percentage of light that when passing through that deviates from the incident beam by greater than 2.5 degrees on average is defined as haze.

Exception Handling Analysis

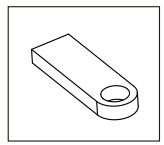
Trouble Shooting	Analysis	How to solve?
1.Instrument does not power on	Power connection may be abnormal	Check whether the power interface is in good contact and plug in
2.No access to main interface after start	The power-on calibration process may be abnormal	Re-calibrate as required
3.Error in measure-ment results	Tolerance settings may be abnormal	Check tolerance settings and adjust
4.Test result is not correct	1. Whether the sample fits closely with the measuring port 2. Is the sample surface damaged?	1.Check the sample and test port fit to ensure close fitting 2.Check the sample surface condition to ensure that the sample is at good condition and has no effect on the measurement

Accessories

Standard Accessories



USB Cable



Software U disk

Company statement

- Our company promises to the user that the haze meter produced by us will be repaired free of charge from the date when you sign for it until the end of the warranty period. If it is not caused by human factors under normal use, our company will provide maintenance, and will charge maintenance materials and related costs for the failure beyond the warranty period or caused by human factors.
- The company is not liable for any loss or claim arising from the use of this product by the third party.
- The company is not liable for any damage caused by loss of data due to failure, maintenance or power off. To prevent the loss of the data, be sure to back up all your data.
- The copyright of all products belongs to the company and is protected by copyright law of the People's Republic of China.
- Our company ' s sale of this product does not represent the transfer or grant of any rights related to the copyright of the works to the user.
- The product specifications and information mentioned in this specification are for reference only and will be updated at any time without prior notice.