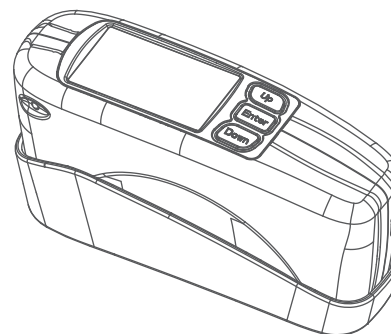China's leading expert of color and gloss analysis

Tiny–Single–Glossmeter

INSTRUCTION MANUAL ▶

CS-300S

Service hotline:4000-7272-81

Address:No.166,Wenyuan North Road,Jianggan District,Hangzhou City,China

⚠ Please do not disassemble the product without the assistance of customer support center, If you have any questions, please contact the local agency.

www.chnspec.com

CATALOGUE

Gloss meter Overview

1. The "Gloss meter" described in this manual refers to the mirror gloss meter or specular gloss meter, also known as " vancometer ".
2. The "Work Tile" described in this manual refers to the glossmeter's ancillary equipment, which is a standard component used for device calibration.
3. Do not use this device in a strong electromagnetic environment.

Limited Warranty and Technical Support
1. Limited warranty period is calculated from the date of product purchase. If you need to service your device, please bring it to our local sales department and contact us for repair.
2. We can also provide spare parts such as calibration tiles, etc. to dealers or customers.
3. Please do not disassemble the device on your own and repair, as it may adversely affect device accuracy and increase repair complexity. The user shall be responsible for any damage to the device due to unauthorized disassembly or incorrect use.

Gloss Meter Functions

1. One button measurement. Measuring light's angle of incidence complies with ISO 2813 standards.
2. User-friendly design, good human-machine interface.
3. 10,000 test records storage capacity. Storage structure: 100 samples data with 100 related data sets saved for each sample.
4. Data browsing.
5. Low power and low data storage space prompts.
6. USB and Bluetooth connectivity.
7. Micro printer connecting support.
8. PC data management software, to manage gloss data.

Power Supply: Standard +5V external power supply. No load voltage +5.3V.
Standard Tile: A standard self-diagnostic tile for the glossmeter, to conduct device calibration.
USB Cable: PC communication cable.
CD: The CD-ROM has PC-based device support software.

Optional Accessories
SD Card: Provides external SD card storage function for the device.
Micro Printer: Supports printing of measurement results.

Comprehensive Gloss Meter Standards

1.ISO2813，ISO7668
2.ASTM D523，ASTM D2457
3.GB/T 9754，GB/T13891，GB/T7706，GB/T8807
All Gloss Meter performance indices comply with national JJG 696-2002 Metrological Verification Regulations for 1st level working device.
Gloss Meters are widely used in areas such as: Paint coatings, decoration materials, building materials, plastic materials, bamboo and wood products, ceramic products, leather products, thin film, paper, printing ink, car mainte-nance, molds and many other areas that require surface gloss measurement for materials and products.

Gloss Meter Technical Parameters

Product Model	CS-300S
Measurement Angle	60°
Measurement Spot (mm)	60° ：2*3
Measurement Range	60° ：0-600GU
Scale Interval	0-100:0.1GU 大于100：1GU
Measurement Mode	Average mode, standard sample and test sample measurement
Measurement Repeatability Precision	0-100GU:0.2GU
	100-600GU:0.2%GU
Measurement Accuracy	Complies with JJG 696 Gloss Meter work standards
Measurement Time	Less than 1s
Data Storage	100 standard samples and 10,000 test samples can be stored
Dimensions (mm)	165*51*77 (length * width * height)
Weight	About 400g
Language	Simplified Chinese and English
Battery Power	3000 mAh lithium battery
Connectivity	USB, Bluetooth (optional)
Working Temperature	0-40℃
Relative Humidity	Less than 85%, non-condensing
Accessories	5V/1A charger, USB cable, manual, CD, calibration standard tile

Start-Up and Shut-Down Operation

Long press "Test" to start up/shut down the device, followed by a "beep" sound.

Calibration

Start up the device; it automatically navigates to the calibration screen. Press "Enter", the device starts automatic calibration. Calibration is successful when you hear the "beep" sound and the screen displays "Calibration Successful". After calibration, the device navigates to the "Standard Sample Test" screen, as shown in Figure 2.
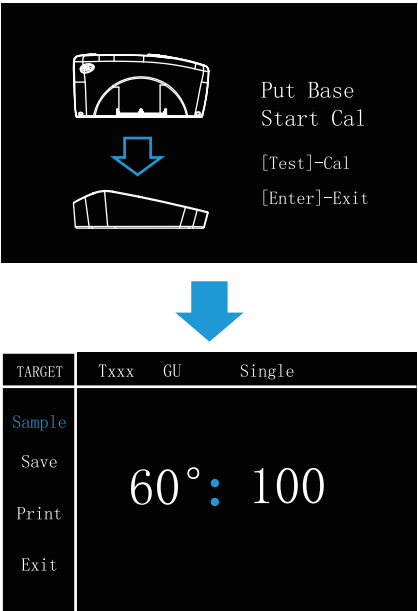
Put Base
Start Cal

[Test]-Cal
[Enter]-Exit

Figure 1

TARGET	Txxx	GU	Single

Sample
Save
Print
Exit

60°: 100

Figure 2

Note: If calibration is required during measurement, navigate to the "Home" screen and select the "Calibration" icon. Follow the same procedure as listed above.

Main Menu

In the "Main Menu", as shown in Figure 3, use "Up" or "Down" to select the appropriate operation; the options are "Measurement", "Calibration", "Data View", "Settings", "USB" and "Bluetooth". Press "Enter" to confirm. Press "Test" to return to the last step.
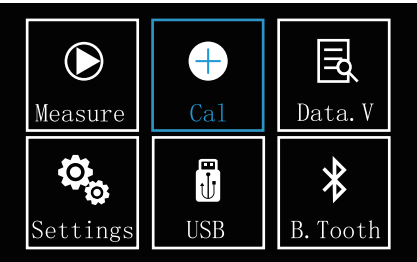
Measure   Cal   Data.V

Settings   USB   B.Tooth

Figure 3

Measurement

In the Main Menu, use "Up" or "Down" to select the "Measurement" icon, and press "Enter" to navigate to the Measurement screen. The system displays the "Standard Sample Test" screen by default, as shown in Figure 2.

In this page, the user can test the standard sample and the test sample, view measured value and difference of the tested standard sample, and view analysis result and check if the sample is qualified or not. Save and print the test results.

Target Sample Testing

In the Main Menu, use "Up" or "Down" to select the "Measurement" icon, and press "Enter" to navigate to the Measurement screen. The system displays the "Target" screen by default, as shown in Figure 4. Press "Test" to test the target sample; when you hear the "beep" sound, the test is completed, and you can view the test results. Use "Up" or "Down" to "Save" or "Print" the test results.

TARGET	Txxx GU Single
Sample	
Save	60°：100
Print	
Exit	

Figure 4

Save: After the test is completed, use "Up" or "Down", and select "Save" to save the test results. Press "Enter" to confirm. A popup is displayed as shown in Figure 5.

Edit the
Target name
Input name：
T048

YES   NO

Figure 5

Use "Up" or "Down" to select the Target name, and press "Enter" to confirm. Use "Up" or "Down" to modify the corresponding numerical value and character (numerical range is 1−9, letters are a−z), and press "Enter" to confirm. After you complete editing, press "Test" to exit editing, and then confirm the modification.

Print: Use "Up" or "Down", and select "Print". Press "Enter" to confirm.

Sample Testing

After completing the above target sample test, use "Up" or "Down" to move the "▬" cursor to the "Test Sample". Press "Enter" to confirm, and navigate to the "Test Sample" screen as shown in Figure 6. The current sample test data is displayed. Press "Test" to test the sample. When you hear the "beep" sound, the test is completed, and the Gloss Meter's test result is displayed. Similar to the target sample, the test sample's name is displayed as "S×××".

SAM Txxx	Sxxx GU TOL2.0 Single
Target	M-value D-value Judge
Save	
Print	60° 101 0.8 Pass
Exit	

Figure 6

You can also conduct gloss measurement in the "View" screen. Use "Up" or "Down" to select the existing target sample, and press "Enter" to navigate to the selection menu. Select "Import Target", as shown in Figure 7. The system navigates to the "Test Sample Measurement" screen for this test sample, as shown in Figure 8. Press "Test" to conduct measurement.
The gloss measurement is completed after you hear the "beep" sound, and test results can be viewed. Press "Test" to conduct new gloss measurement.

Figure 7

Figure 8

Note: Please set tolerance before gloss test. (See Settings – Measurement Settings – Tolerance) as shown in Figure 9 and 10.
In the "Test Sample Measurement" screen, use "Up" or "Down", to "Print", "Save" the test results and "Exit", and press "Enter" to confirm. Saving the test sample is the same as that for target sample.
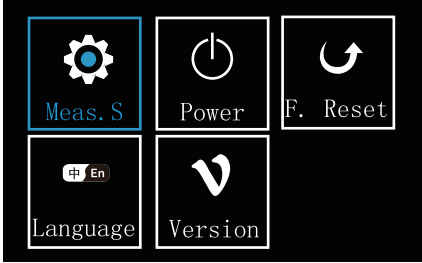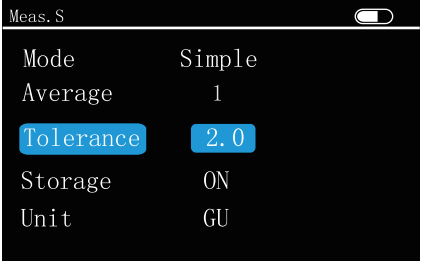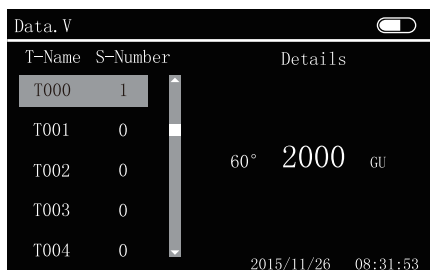

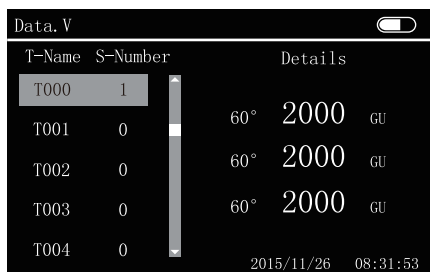Figure 9

Figure 10

Data View

In the Main Menu, use "Up" or "Down" to select the "Data View" icon, and press "Enter" to confirm, and navigate to the "Data View" screen, as shown in Figure 11. The user can view saved standard and test samples' information in this screen.
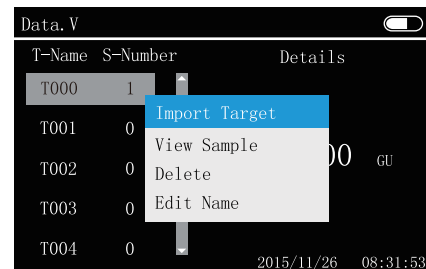
Figure 11

Figure 12

Use "Up" or "Down" to select the appropriate Target sample to be viewed, and press "Enter". A drop-down menu is displayed as shown in Figure 13. Use "Up" or "Down" to select the appropriate option. The options are: "= Target", "View Sample", "Delete", and "Edit Name".

Figure 13

Get Target: The test sample can be tested against the standard sample in this screen. Press "Test" to conduct multiple sample tests, and "Save" or "Print" test data.

Figure 14

View sample: View test records of all test samples for the selected target sample. Use "Up" or "Down" to select the test sample, and press "Enter" to confirm, as shown in Figure 15. A drop-down menu appears. You can choose the option to "Delete Selected Test Records", "Delete All and "Edit Name".
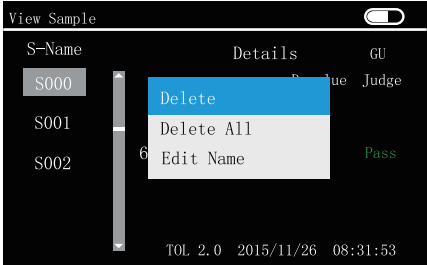

Figure 15

Delete: Deletes all testing records of the test sample.
Delete All: Delete testing records of all test samples for the target sample.
Edit Name: Please refer to (Test - Target Sample Test, Save, Edit Name) for more details.

Settings

From the "Main Menu" select the "Settings" icon, and press "Enter" to confirm, and navigate to the "Settings" screen, as shown in Figure 16. Use "Up" or "Down" to select the appropriate options: "Measurement Settings", "Time Settings", "Power Management", "Factory Reset", "Language Selection" and "Version Information", and then press "Enter" to confirm.
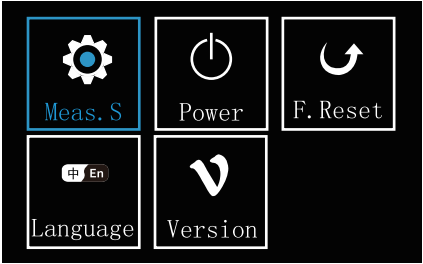

Figure 16

The following are specific settings of all "Settings" functions.

Measurement Settings

Use "Up" or "Down" to select "Measurement Settings" icon, and press "Enter" to navigate to the "Measurement Settings Interface", as shown in Figure 17.

Figure 17

Use "Up" or "Down" to select the appropriate setting and press "Enter" to confirm.

Select Mode: Press "Enter" to select "Statistics" or "Simple" mode.

Average Number: Press "Enter" to select, and use "Up" or "Down" to change
              the value. Press "Enter" to confirm.

Tolerance: Press "Enter" to select, and use "Up" or "Down" to change the value.
          Press "Enter" to confirm.

Automatic Save: Press "Enter" to select "ON" or "OFF".

Unit Selection: Press "Enter" to select "GU" or "REF".

Power Settings

Use "Up" or "Down" to select the "Power Settings" icon, and press "Enter" to navigate to the "Power Settings" screen, as shown in Figure 18.
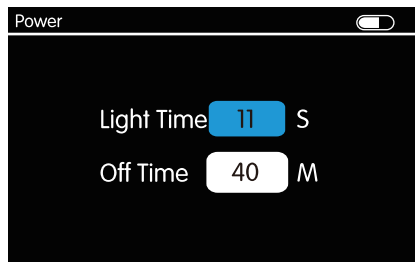

Figure 18

In the "Power Settings" screen press "Up" or "Down" to move the " ▭ " cursor to the appropriate value, then press "Enter". The " ▭ " highlighted value can now be adjusted. Use "Up" or "Down" to modify the " ▭ " highlighted number, and adjust the backlight switch–off and shutdown time. The backlight switch off time range is 0–60 seconds, with an interval of 5 seconds; and the shut down time range is 0–60 minutes, with interval of 1 minute. After all changes are completed, press "Enter" to confirm.

Factory Reset

Use "Up" or "Down" to select the "Factory Reset" icon, and press "Enter" to navigate to the "Factory Reset" screen, as shown in Figure 19. Move the " ▭ " cursor (Press "Up" or "Down"), when the " ▭ " cursor moves to "Yes", press "Enter" to confirm, and conduct factory reset of all data in the memory. When the " ▭ " cursor moves to "No", press "Enter" to cancel and exit.
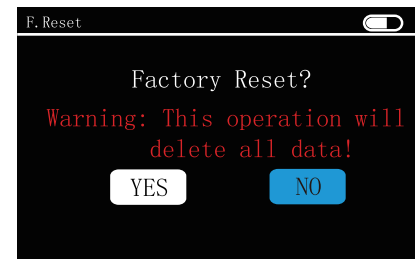

Figure 19

Language Selection

Use "Up" or "Down" to select "Language Settings" icon, and press "Enter" to navigate to the "Language Settings" screen, as shown in Figure 20. Use "Up" or "Down" to select the appropriate language, and press "Enter" to confirm. This device supports Chinese and English language.
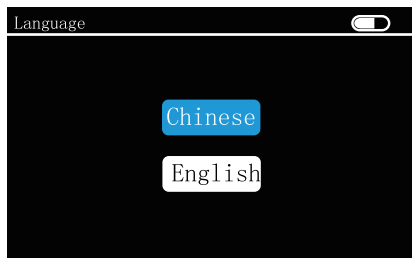

Figure 20

Version Information

Use "Up" or "Down" to select the "Version Information" icon, and press "Enter" to navigate to the "Version Information" screen. The Gloss Meter's detailed version information is displayed.
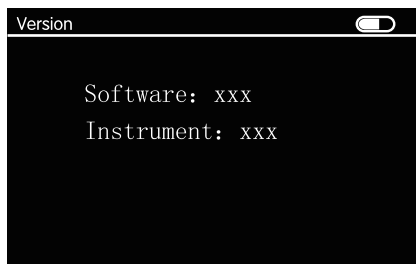

Figure 21

Calibration Screen

In the "Main Menu" screen, use "Up" or "Down" to move the cursor to the "Calibration" icon. Press "Enter" to confirm, and navigate to the Calibration screen, as shown in Figure 33. Press "Enter" for automatic device calibration. After successful calibration, the system automatically navigates to the "Main Menu" screen,as shown in Figure 23.
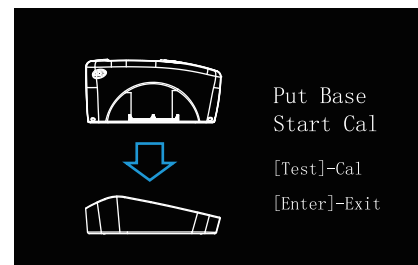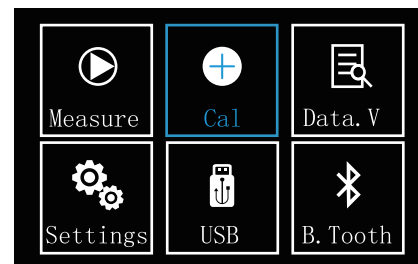

Figure 22

Figure 23

USB

In the "Main" screen, use "Up" or "Down" to move the cursor to "USB".

Press "Enter" to confirm and navigate to the "USB Communication" screen.

Use the USB cable included in the standard accessories to connect the device

to a PC, and install the driver following the on-screen prompts. After proper

installation, you can use the PC software for the device. If the USB cable is

not inserted into the USB port or USB cable has poor contact, please reinsert

into the USB port and ensure it is connected properly to use the PC software
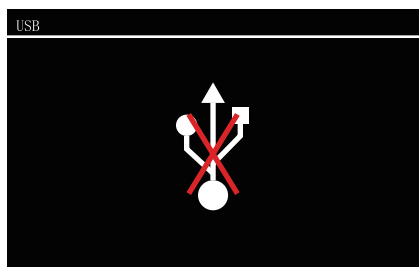
for the device.

Figure 24

Troubleshooting

The following are reference troubleshooting solutions for any abnormal situation:

Abnormal Situation	Handling Method
Device doesn't start	1. Check whether the device is connected to the external AC power adapter. 2. Check whether there is sufficient battery power; install or change the batteries, or connect to the power adapter.
Measurement data error or deviation from normal values	1. In such a case, conduct multiple measurements to ensure measurement accuracy. 2. Check whether the standard calibration board is clean, and press the device tightly into the base and recalibrate. 3. It is possible that the device is not pressed tightly against the measured object while measuring
USB connection not successful	1. Please confirm whether the cable is connected to the USB port is properly. 2. Please ensure the appropriate USB driver has been installed in your computer.
Calibration Fail	1.Check if the film on the bottom is taken out or not. 2.Check if calibration tile and instrument is well matched.

Company Statement

● Our company commits to our customers 1 year warranty period for our Gloss Meter series products from the date of the purchase, and our company shall be responsible to provide free maintenance for non-human caused malfunctions under normal usage. For malfunctions that are out of warranty period or caused by human factors, the company shall provide maintenance, and materials and repair shall be chargeable. (For detailed warranty information please refer to CHNSpec Warranty – Detailed rules and regulations)

● Our company shall not be responsible for any losses to or claims by a third party incurred by the use of this product.

● Our company shall not be responsible for damage or loss caused by data loss due to malfunction, maintenance or power outage. In order to prevent loss of important data, please backup all important data.

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