*TIPS:

This device is equipped with rechargeable battery.If you receive the product and can not startup,please connect with the adapter for charging before use.

Specific Declarations:
Our company shall hold no any responsibility resulting from using output from this product as an direct or indirect evidence.
We reserves the right to modify product design and specification without notice.

Standard: **Q/HTY 005-2017**
Version: **2110B-EN-00**

wintact®

MODEL:**WT2110B**

Coating Thickness Gauge

Instruction Manual

Vertital color-screen high-definition display

Horizontal color-screen high-definition display

CONTENTS

A .Introduction

This product is a color-screen portable coating thickness gauge with high-definition display, which can quickly, non-destructively and accurately measure non-magnetic coating thickness on magnetic metal substrates and non-metallic coating thickness
measurement on non-magnetic metal substrates. At the same time it can automatically identify magnetic metal substrate and non-magnetic metal substrate, and is widely used in manufacturing, metal processing industry, chemical industry,commodity inspection and other testing areas.

B .Functions

- Menu operation and color-screen HD display.
- Thickness measurement of non-magnetic coating on magnetic metal substrate surface and non-metallic coating on nonmagnetic metal substrate .
- Two measurement methods: single measurement, continuous measurement.
- Three calibration modes: basic, offset, zero calibration.
- Metric/imperial unit and storage function.
- Screen rotation, charge protection, multi-interface displays,screen brightness selection.
- Automatic shutdown.
- Bluetooth function(go with corresponding APP).
- USB transport data(operating with PC software).
- USB rechargeable.

C .Name of Parts

① Up button: switch measurement modes and increase calibration data
② Down button: switch measurement units and reduce calibration data
③ Menu and On/Off
④ Return
⑤ Confirm
⑥ LCD display
⑦ USB charging interface
⑧ Battery door
⑨ Test probe

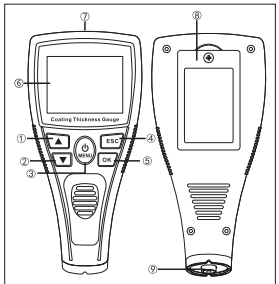


Figure 1

D .Description of charging function

1.Battery life indicator " " 2.Normal charging " "
3.Charging complete " " 4.Charging without battery " "
5.During charging, the product has temperature protection, with protection range 3 °C ~ 45 °C or so. If the temperature is out of protection range, " " will show up and charging will be stopped.
6.If charging temperature exceeds the protection range during shutdown, the meter screen will light up for 1 second every 10 seconds.

* Warning:
The charging function is only for rechargeable batteries. Disposable batteries is prohibited from charging!

E .Measurement Interface Instruction

1. Measurement Instruction:
After turning on the instrument, lightly press the test probe on the tested substrate under measurement interface. The measured value is the thickness of coating on the substrate.

2. Measured Values:
a.The title bar shows the title and battery state of the interface.
b.Yellow number is the measured thickness.
c.Num is the times of measurement.
d.SNG is the selected measurement mode (SNG is single measurement and CTN is continuous measurement).
e.Fe on the upper right is the measured substrate (Fe is for magnetic metal substrate;nFe is a non-magnetic metal substrate).
f.The green icon on the lower right is measurement unit.

3. Measured values and trend chart:
a. The trend chart below is the trend of the last 20 groups of data.
b. The trend chart shows the high and low limit values.

4. Measured Values and Statistics:

a.Dif :Difference value compared to the last measurement
b. Avg:Average value
c. Max:Maximum value
d. Min:Minimum value
e. High:High limit
f. Low:Low limit
g. Sdev:standard deviation
h. CV%:coefficient of variation

Note: The standard deviation and coefficient of variation are calculated for the last 100 measured data.

5.Measured values vs. past values view:

This interface shows the last 12 measured data.

6.Measured Values and Bar Graph:

a.The bar graph shows the proportion of the measured value in the measurement range.
b.The bar chart shows the high and low limits.
c.The measured data forms up green bar graph in the range of high and low limit values.
d.The measured data forms up red bar graph when exceeding high and low limits.

F .Calibration Operation

1.Basic calibration:

a. Prepare the calibration plate and calibration base, enter calibration menu and select basic calibration.
b. According to the instrument instruction, place the corresponding calibration plate for calibration.

c. After calibration is completed, "calibration complete" will show up at the bottom of the screen and the instrument will return to the previous interface.
d. After the calibration is complete, you can go back to measurement interface and perform measurement.

2.Offset Calibration:

a. Enter calibration menu and select Offset Calibration.
b. Measure the thickness of single point by following the instruction at the bottom of the screen.
c. Pick up the instrument and press Up/Down button to adjust the value.
d. Press OK when the adjustment is completed. "Calibration complete" will show up at the bottom of the screen and the instrument will return to the previous interface.
e. After the calibration is complete, you can go back to measurement interface and perform measurements.

3.Zero Calibration:

a. Enter calibration menu and select zero calibration.
b. Press the instrument lightly on the substrate as instruction at the bottom of the screen.
c. The instrument will automatically calibrate to zero point.
d. "Calibration complete" will show up at the bottom of the screen and the instrument will return to the previous interface.
e. After calibration is complete, you can go back to measurement interface and perform measurements.

Note: If the measured value turns to silver gray after zero calibration, the measured value is negative. If 0.241mm is calibrated to zero, the measured value will be displayed as silver gray when the original zero point is measured again.

G .Calibration Operations

1.Enter limit value interface to select limit value adjustment.
2.Adjust high limit value according to the screen instruction.
3.Short press Up/Down button to or long press Up/Down button to adjust high limit value.
4.After adjusting high limit value, press OK button and then start adjusting low limit value.
5.Short press Up/Down button to adjust low limit value or long press Up/Down button to adjust low limit value.
6.After adjustment is complete, press OK button to go back to previous interface.

H.Storage Management

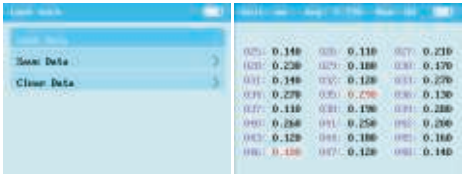
1.Review

a.Press OK button under measurement interface to enter into review menu.

b.Choose Check function under Review menu to view the last measured 100 data.

c.Choose Save function under Review menu to save the measured data (the last 100 data).

d.Select Clear function under Review menu to clear the measured data.



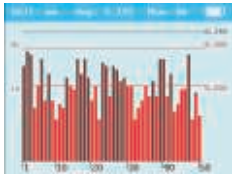
2.Data browsing:

a.The title bar of browsing interface displays selected unit,average value, and the number of saved data.

b. The maximum and minimum values of saved data are marked in red.

c.In the lower part of histogram displays icon of data, and the set high and low alarm values are in the middle.

d.The data column above or below alarm value is red.



e.The black line and data at the top are the interval of histogram.

3.Storage space:

a.The storage space is divided into 100 storage areas. Each storage area can store up to 15 data.

b. Storage with less than 15 data will occupy one storage area, and data storage with more than 15 data and less than 100 data will occupy multiple storage areas.

I.Measurement View

1 Press Up/Down button under measurement interface to switch measurement view.

2.If a measurement view is set to be closed, this view is skipped when you press Up/Down button under measurement interface.

3.If measurement view options are all off, the instrument automatically opens measurement view options.

J.Settings

1.Screen rotation under measurement: after startup, the screen will only rotate under the measurement interface.

2.Bluetooth: turn on the Bluetooth key until the icon "▬" appears on the title bar, then use a phone APP to search the Bluetooth (MyCTG) and connect it.

3.Restore factory settings: restore default settings and clear calibration data.

K.Technical Parameters

Measurement range	0~1500μm/0~59mil/0~1.5mm
Resolution	(0.1μm(<100μm),1μm(≥100μm))/ 0.1mil/0.001mm
Measurement error	≤150μm , ±5μm
	>150μm , ±(3%H+1μm)
Minimum diameter of magnetic metal substrate	12mm
Minimum thickness of magnetic metal substrate	0.5mm
Minimum radius of curvature for magnetic convex substrate	2mm
Minimum radius of curvature for magnetic concave substrate	11mm
Minimum diameter of non-magnetic metal substrate	50mm
Minimum thickness of non-magnetic metal substrate	0.5mm
Battery	3x1.2V NiMH battery (weight 36.5g) or 5V1A power adapter
Size	70.30*38.6*149.59mm
Weight	136.9(including battery)

L.Attention

1.Keep the probe away from the measured substrate when starting up.

2.After startup, ERR1 or ERR2 indicates probe error.

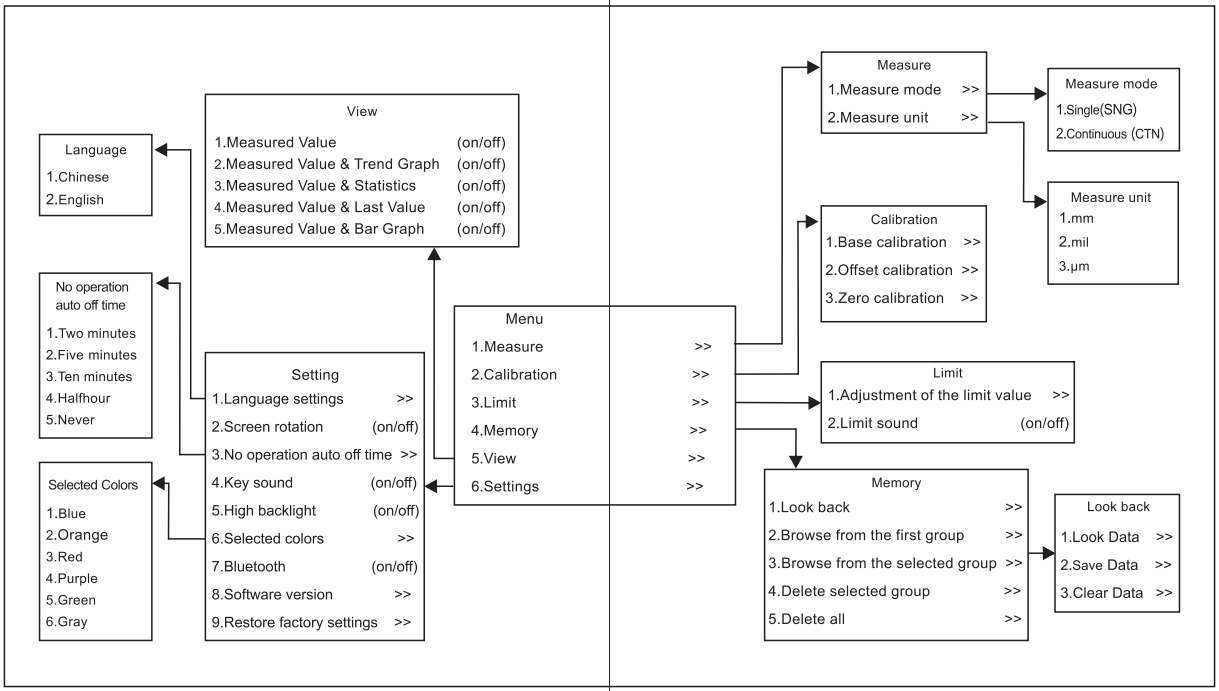
3.After startup, ERR1 or ERR2 indicates substrate error.

4.During measurement, "----" indicates that the substrate is not calibrated.

5.During measurement, "-OL-" indicates data overflow.

6.Do not press the sensor with your finger or other object into the instrument, because this operation may damage the sensor parts and the instrument.

M.Menu Chart


Menu
1.Measure >>
2.Calibration >>
3.Limit >>
4.Memory >>
5.View >>
6.Settings >>
Measure
1.Measure mode >>
2.Measure unit >>
Measure mode
1.Single(SNG)
2.Continuous (CTN)
Measure unit
1.mm
2.mil
3.μm
Calibration
1.Base calibration >>
2.Offset calibration >>
3.Zero calibration >>
Limit
1.Adjustment of the limit value >>
2.Limit sound (on/off)
Memory
1.Look back >>
2.Browse from the first group >>
3.Browse from the selected group >>
4.Delete selected group >>
5.Delete all >>
Look back
1.Look Data >>
2.Save Data >>
3.Clear Data >>
View
1.Measured Value (on/off)
2.Measured Value & Trend Graph (on/off)
3.Measured Value & Statistics (on/off)
4.Measured Value & Last Value (on/off)
5.Measured Value & Bar Graph (on/off)
Setting
1.Language settings >>
2.Screen rotation (on/off)
3.No operation auto off time >>
4.Key sound (on/off)
5.High backlight (on/off)
6.Selected colors >>
7.Bluetooth (on/off)
8.Software version >>
9.Restore factory settings >>
Language
1.Chinese
2.English
No operation auto off time
1.Two minutes
2.Five minutes
3.Ten minutes
4.Halfhour
5.Never
Selected Colors
1.Blue
2.Orange
3.Red
4.Purple
5.Green
6.Gray

N.APP and PC download

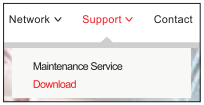
1.MyCTG APP download cell phone APP

MyCTG with scanning the corresponding 2-dimensional code ☞

Android(Baidu) Android(Google) iOS

Note: MyCTG only support operating systems of android 9.0 or above or the iOS 9.0 or above.
Before connection with cell phone APP please go to the Setting of Menu and activate the Bluetooth function.

2.Download of PC
(1)Web: *http://www.wintact.net*
(2)Installation package: setup_MyCTG.zip
(3)Download
①With a browser to enter into website *http://www.wintact.net*. And find the download address in Download Center of Technology Support in navigation bar, then click the "⊙" to download.
②After decompression, double click the install software setup_MyCTG.exe, then select the install path and click Next.



Note: support on the OS above .net Framwork 4.6.1 framework such as WIN7/WIN8/WIN10

O.Operation instruction of MyCTG(Android version)

1.Main interface
(1)Bluetooth icon on the left upper conner
Click the cion to enter into Bluetooth search and the blue icon denotes the success of connection while the red one failure.
(2)Double arrow icon on the right upper conner
⊗ Clear: to clear all the data measured currently.
⊙ Save: to save the data currently and the saved data can be reviewed in the catalogue interface.
ⓘ More: to enter into more interfaces.
(3)File icon on the right upper conner
(4)Start: click to measure
(5)The upper half are the values measured and the lower half is the trend graph for the values.

2.Interface for Bluetooth search
(1)Click the search key on the right upper corner to search Bluetooth device.
(2)Click the corresponding Bluetooth device to connect.

3.Catalogue interface:
Click the edit key on the right upper Conner to conduct multiple deletion.

4.Data interface:
(1)Save the data curve table and find the list with right slip.
(2)Data export: Exporting the data to the cell phone memory in format of PDF and Excel.

5.More interfaces:
(1)Unit shifting
(2)Adjusting limit values
(3)Retrieving data saved
(4)File management.

6.Unit setting

7.Limit value setting

P.Operation instruction of MyCTG (iOS version)

1.Main interface

(1)Click the Bluetooth icon on the left upper corner to enter into bluetooth search interface

(2)The "+"icon on the right upper corner.

Clear: to clear all the data measured currently.

Save: to save the data currently and the saved data can be reviewed in the catalogue interface.

More: to enter into more interfaces.

(3)File icon on the right upper conner.

(4)Start: click to measure

(5)The upper half are the values measured and the lower half is the trend graph for the values.

2.Interface for Bluetooth search
(1)Click the search key on the right upper corner to search Bluetooth device.
(2)Click the corresponding Bluetooth device to connect.

3.Catalogue interface:
(1)Click the edit key on the right upper Conner to conduct multiple deletion.
(2)For the group of the data marked with "real time" are the data manually saved during the main page is loading its just-in-time data, and those marked with “stored” are data manually retrieved in More Pages.
(3)Left slip the group of data to delete or share the data with third party in format of Excel.

4.Data interface:
(1)The data saved in form of a table in order of sequence/thickness/unit.
(2)The number of current data in a group appears on the right upper corner of the screen.

5.More interfaces:
(1)Unit shifting
(2)Adjusting limit values
(3)Retrieving data saved

6.Unit setting

7.Limit value setting

Q.Operation instruction of MyCTG (PC version)

1.Operation instruction

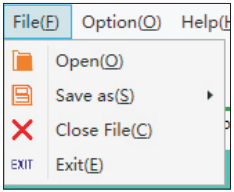
(1)Plug-n-play ports for easy selection. For real time measurement please be sure that the product is connected with the PC(the Connected appears on the left lower corner while the ready appearance suggests being not connected yet).

(2)Gray icon suggests that it cannot be operated currently.

2.Menu bar

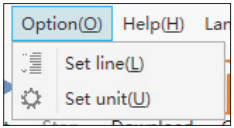
(1)File

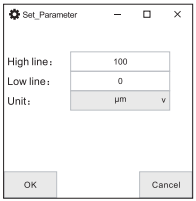
Press the keys of "Alt + F +up/down" and "Enter" to select among Open/Saved as/Close file/Exit.
Or operate with mouse.



(2)Selections

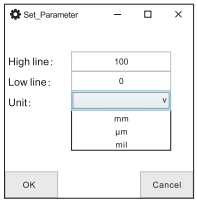
Press the keys of "Alt + O + up/down" and "Enter" to select between Standard Line Setting and Unit Setting.
Or operate with mouse.





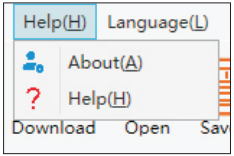
◀Standard Line Setting

Unit Setting▶



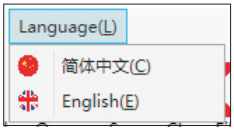
(3)Help

Press the keys of "Alt + H + up/down" and "Enter" to select between About the App and Help.
Or operate with mouse.



(4)Language shift

Press the keys of "Alt + L + up/down" and "Enter" to select between Simple Chinese and English.
Or operate with mouse.



3. Button bar

(1)Start:Press Start to measure after connection with PC and synchronize the data with PC

(2)Pause:Press the key to pause the real time measure and stop record the data.

(3)Download:To download the saved data when the product is not connected with PC. If the data is not saved it appears as shown in Figure 3-1. When the data is saved , click the Download and it will be displayed in File bar. Every download of the data will create a new panel point at the bottom of the file which contains all groups of the data saved by the product and it is defaulted to display the last data in form of table/ bar chart /line chart as shown in Figure 3-2

(4)Open:Can only open files of .ctg

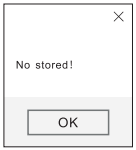
(5)Save:Can only save files of .ctg and customizing the save path.

(6)Close file

(7)Input xls:Allowable of inputting files of .xls only

(8)Output xls:Allowable of outputting files of .xls only, and customizing the output path and open the file with EXCEL.

(9)Exit:Close the software



▲ Figure 3-1

Figure 3-2▼

4.Measure display

Click Start key to measure and Receiving appears on the right upper corner of the Measure interface and record the data at the same time as shown in Figure 4-1. Click Pause key to pause the measurement and Receiving Pause appears on the right upper corner of the measure interface as shown in Figure 4-2.

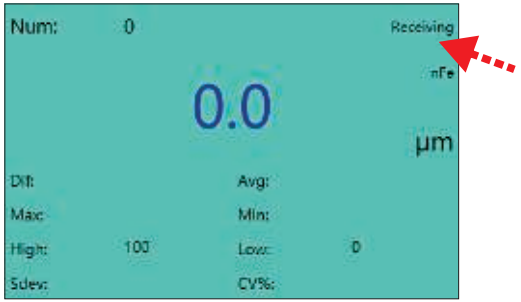


Figure 4-1

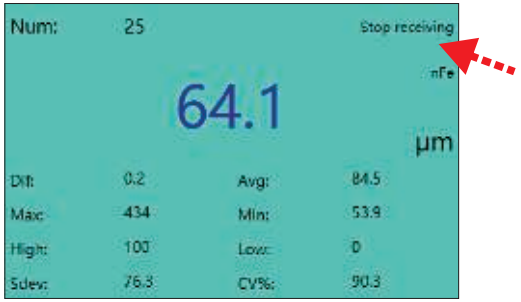
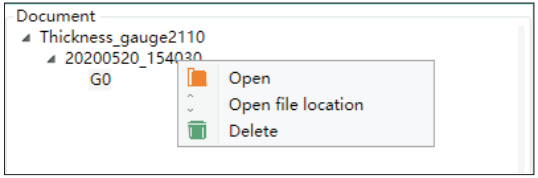


Figure 4-2

5.File

Click the panel point at the bottom of the file, and double click the left key of the mouse to open the file and select with right key: open - open the location of the file – delete(fails to delete the panel point of Thickness_gauge2110).



6.Statistic interface

(1)Table(Figure 6-1):

①Every resetting will renew the 2 columns of the value and unit.

②The time refers to the current PC time

③Draw the mouse to change the column width.

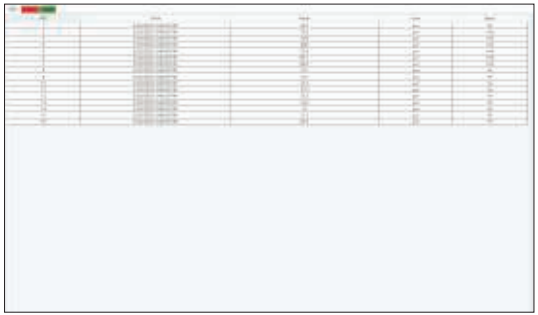


Figure 6-1

(2)Bar chart(Figure 6-2):

①Axis X denotes the number of times;Axis Y denotes the value of measurement.

②Red line:High standard line,Black line:Low standard line,Find the Selection

in Menu bar to set high/low standard line and review the data in them.

③Click the left key of the mouse and draw to zoom in the area selected while click the EXIT/FULL DISPLAY on the right upper corner to zoom out.

④Click the icon on the right upper corner to save/print current charts.

(3)Line chart(Figure 6-3):Identical with bar chart.

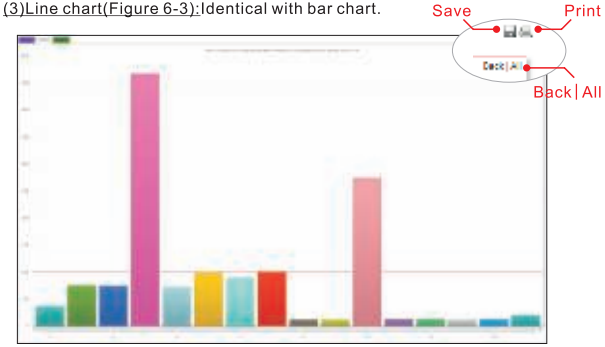


Figure 6-2

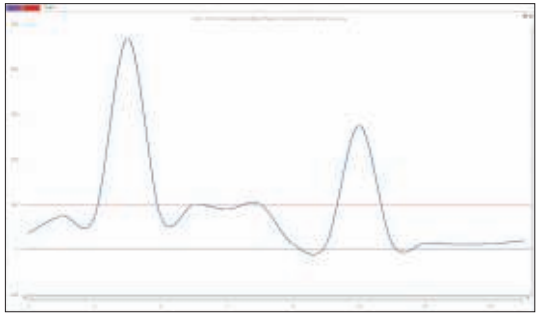


Figure 6-3

7.Status bar

*Status of connection with the product

(1)Not connected with product

(2)Connected with product:VID/PID contains the info of communication chips.