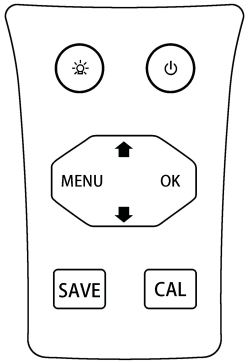
Structure

Figure1 Structure



Power
Backlight
SAVE Save
MENU Menu/Back
CAL Calibrate
OK Confirm
Down
Up

Figure2 Keypad

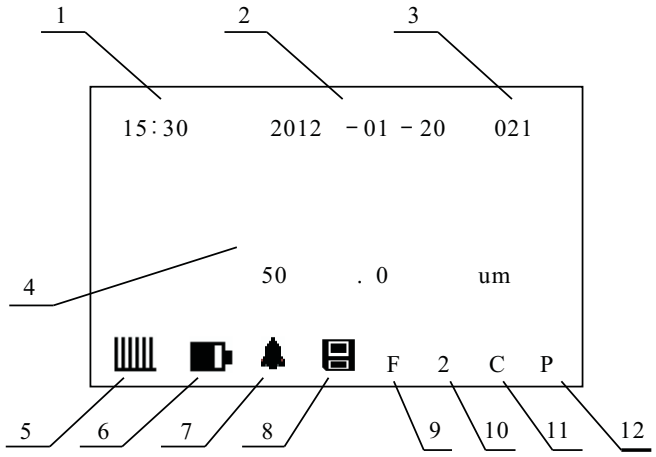


Figure 3 LCD display

1. Time
2. Date
3. Storage
4. Measurements
5. Coupling Status
6. Battery Indicator
7. Alarm Sign
8. Auto-save
9. Probe Type
10. Two points calibration
11. Temperature compensation
12. Measure Mode

Quick Operation

1) Power on: Install the battery and press ⏻ key. Do not touch the probe to any metal material before the probe type indicator "F" or "N" is shown.
2) Check the battery information, and change the battery if necessary.
3) Choose correct calibration base which is included in the package, the rectangle base is for F probe, the round base is for N probe.

Press the key "Save" for about two seconds to switch the storage mode between "Manually" and "Automatically"

2 View data

1) Press the key "MENU" to choose the tab "FILE", and press the key "OK" to view enter the data.
2) Press the key "↑" or "↓" to look over the data.
3) Press the key "SAVE" to delete selected data.
4) Press the key "CAL" to calculate the statistics for all data in active file, which includes maximum, minimum, average and standard deviation.
5) Press the key "OK" to send all data in active file to PC or portable printers.
6) Press the key to return.

Connect to PC

1) Download the driver and test software from our website http://www.accud.com/softwared.php.
2) Install the driver and the test software
3) Choose correct communication port
4) Enter the menu to "Send Data" to collect on PC

Probe selection

Coating / Base	Non-magnetic Coating of Organic material (Such as: paint, enamel, plastic, anodizing, etc.)	Non-magnetic Coating of Organic material (Such as: Chromium, zinc, aluminum, copper, tin, silver)
Magnetic metal such as iron and steel	F type probe Measure range: 0～1500 μm	F type probe Measure range: 0～1500 μm
Nonferrous metal such as Copper, aluminum, brass, zinc, tin, etc.	N type probe Measure range: 0～1500 μm	N type probe (only for Chromium on Copper) Measure range: 0～40 μm

e. Press the key “OK” to confirm, press the key “ MENU ” to cancel; press the key “CAL” to clear the previous zero calibration information.

② Two-points calibration

In order to get high accuracy in small range , you can choose two calibration foils which the thickness are closed to the measured coating thickness.

a. Set two-point calibration “on” from system setup menu.
b. Perform one-point calibration on the thin foil.
c. Measure the thick foil, and the screen display <×××μm>.
d. Press the key “↑”or the key “↓” **before lift up** the probe to enter “two-point calibration” mode.
e. Lift the probe and press the key “↑” and “↓” to correct the thickness value.
f. Press the key “OK” to confirm, press the key “ MENU ” to cancel; press the key “CAL” to clear the previous zero calibration information.

Save and View Data

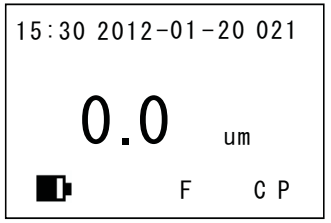
Active file can be set or erased by the following steps:

a) Active file can be set or erased by the following steps:
b) Press the key “menu” in the main interface, and choose the tab “FILE”.
c) Press the key “↑” or the key “↓” to switch the active file from file1 to file 5.
d) Press the key “Save” to delete the data in active file.
e) Press the key “ok” to view the data which is saved in the file.

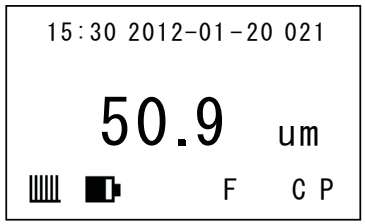
① Save data

Up to 100 results could be stored for each file, and the gauge provides five files in total.
The data can be stored by one of the following method:
Manually: Measure result can be saved by pressing the key “Save”
Automatically: Measure result is saved to the active file automatically. The auto-save indicator shows in status bar

4) Put the probe on the calibration base to check if the value is zero, if not, short press “CAL” key to set zero.
5) Choose correct calibration base which is included in the package, the rectangle base is for F probe, the round base is for N probe.
6) Measuring: Put the probe on the measured workpiece vertically. Then the thickness will be shown on the LCD screen when there is beep, and the measurement can lock after lift up the probe. Please note you should lift the probe 20mm height at least before next measurement, otherwise the accuracy is not good.



before measurement

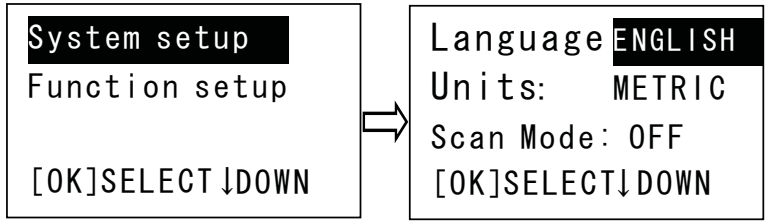


after measurement

System and function setup

① System setup

1) Press “MENU” key in the keypad to choose the tab “MENU”, and press the key to enter the setup menu.
2) Press the key “↑” or “↓” to choose the tab “System setup”, and press the key “OK” to enter the system setup menu.
3) Press the key “↑ “ or “↓” to choose the item, and press the key “OK” to switch the item.
4) Press the key “MENU” to escape



❷ Function setup

1) Press “MENU” key in the keypad to choose the tab “MENU”, and press the key to enter the setup menu.
2) Press the key “↑” or “↓” to choose the tab “Function setup”, and press the key “OK” to enter the function setup menu.
3) Press the key “↑” or “↓” to choose the item, and press the key “OK” to enter the item.
4) Press the key “↑” or “↓” to configure the item, and press the key “OK” to confirm.
5) Press the key “MENU” to escape.

❸ System menu explain

1) Language: set language, the default is English
2) Unit: choose unit “um” or “mil”
3) Scan Mode: choose the scan mode “on” or “off”, when it is active, the three readings will be shown on the LCD display every second. When it is disabled, the gauge can ignore error result automatically during multiple measurements and give the average value in final. The measuring time will increase about 2 seconds. But the accuracy will be much higher. So if you want to measure very fast, you can choose this scan mode, otherwise we suggest we disable it.
4) Alarm Mode: when is active, you can set high and low limits, when the value is not in the limit range, it will give “beep” for alarm
5) Diff. Mode: when is active, you can measure standard thickness and Press key ”ok”, the value is recorded. The next measuring value shown on the screen is equal to **real thickness- standard thickness**
6) Avg. Mode: when is active, you can set the average time, when the measuring times is same as the setting time, the average value will be shown on the screen.
7) Temperature: set Temperature compensation on/off, please always set “on”
8) 2-point CAL: choose one point calibration or two points calibration, when it is set “on”, means two points calibration
9) Beep: Make sound active or disabled.

4 Function menu explain

(1) Load Default: load the factory setting
(2) Send data: when the gauge is connected the PC, use this menu to transfer the data to PC.
(3) Erase file: Erase the one storage file
(4) Erase All data: Erase all storage data
(5) Set Precision: Adjust the accuracy and measuring time. When the value is bigger, the accuracy is better and the measuring time is longer.
(6) Set the threshold: Measuring threshold is the minimum deviation of the thickness for the measure. All the measure results that the variation is less than the threshold are ignored. for example you set “05”, that means the minimum deviation is 0.5um.
(7) Set margin: The default is “02”, we suggest you don’t change the value, but when you use the gauge in the magnetic filed, the measuring value is not stable, you need to set bigger value.
(8) Set Contrast: Set the contrast of screen.
(9) Set the standby time: the time when the gauge enters standby mode, press any key to return normal mode
(10) Set the power off time: If the time is set and arrived, the gauge will power off automatically after the backlight is blinking 6 times.

Calibration

The gauge has two calibration methods: one-point and two-point calibration.

1 One-point calibration

(1) **Zero calibration.**
Put the probe on the calibration base to check if the value is zero before measurement, if not, short press “CAL” key to set zero. Please note the ″Diff Mode″ should be disabled when make zero calibration.

(2) **One-point calibration.**
In order to get high accuracy, you can choose one calibration foil which the thickness is closed to the coating thickness.
a. Disable the Scan mode and “2- points” calibration
b. Long press the “CAL” key to enter “one-point calibration” mode.
c. Measure on a foil, and the screen display <×××μm>.
d. Bring up the probe, and press the key “↑” and “↓” to correct the thickness value.