



Gaotiejian

GTJ-LBY Concrete Thickness Tester
Operation Manual

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Chapter 1 Instrument Functions and Introduction

1.1 Introduction to the instrument

The GTJ-LBY Floor Thickness Tester is a portable, non-destructive testing method for testing the thickness of concrete or other non-ferromagnetic media; in use, the launch probe and the receiving probe are placed on the opposite test surfaces of the floor, respectively. The electromagnetic field is transmitted and received separately, and the instrument tests the thickness of the floor according to the received signal strength.

The product complies with the "Construction Quality Acceptance Specification for Concrete Structures" (GB 50204-2015) and the requirements for the floor thickness detector.

1.2 features and features

GTJ-LBY floor thickness tester can achieve thickness test of concrete or other non-ferromagnetic media;

1. It can accurately test the thickness of the floor and has high detection accuracy;
2. Store test results by component number, perform basic analysis on stored data, and give preliminary statistical results;
3. The instrument can communicate with the computer, use Windows software for data analysis, and generate test reports.

1.3 technical parameters

| name | | Technical indicators |
|------------------------------|------|---|
| Specification model | | GTJ-LBY |
| Test thickness range (mm) | | 40mm ~ 820mm |
| Allowable maximum error (mm) | ±1mm | 40mm ~ 500mm |
| | ±2mm | 501mm~600mm |
| | ±4mm | 601mm ~ 700mm |
| | ±8mm | 701mm ~ 800mm |
| Data storage capacity | | 200 components or 30,000 measuring points |
| LCD resolution | | 160×128 |
| power supply | | lithium battery |

1.4 Notes

1. Please read this manual carefully before using the instrument.
2. Working environment requirements: ambient temperature -10 °C ~ 40 °C; relative humidity <90% RH; no strong alternating electromagnetic field should not be exposed to direct sunlight for a long time; when used in humid, dusty, corrosive gas environment, the necessary protection should be taken Measures.
3. Storage environment requirements: ambient temperature -20 °C ~ +60 °C; relative humidity <90% RH; stored in a ventilated, cool, dry environment, not long-term direct sunlight; if not used for a long time, should be regularly powered on and check.
4. Avoid water ingress.
5. Shockproof : Prevent violent vibration and shock during use and handling.

Chapter 2 Instrument Description

2.1 instrument system structure and button description

The instrument is mainly composed of a main body, a transmitting probe, a receiving probe and an extension rod.

2.1.1 host

Keyboard description:

| button | Function Description |
|-----------|---|
| Option | Turn the backlight on/off |
| storage | Save current input parameters or test results |
| | Cursor up or increasing the number, later with the place |
| | Cursor left after use left in place |
| | Cursor right, after using the right place |
| | Cursor down or the number decreases, since with the place of |
| return | Cancel the current operation, return to the previous interface, and use the back button instead |
| determine | Confirm selection of project or confirmation of test results |

Baffle socket description:

| socket | Function Description |
|---------|---|
| switch | Rocker switch for powering on/off the main unit |
| sensor | Connect the receiving probe |
| USB | Can be connected to a computer via a USB cable, the test data to the computing unit |
| 8.4V/2A | Connect the charger to charge the built-in battery pack |

2.1.2 Transmitting probe

The Transmitter Probe is a self-contained unit powered by a built-in rechargeable lithium battery that is primarily used to emit a stable alternating electromagnetic field.

1. Switch: The ship type switch is used to turn on/off the power of the transmitting probe.

2. Power socket: The circular hole is the power socket. Connect the input plug of the transmitter probe power adapter (8.4 V / 2 A) to the 220V AC power supply, and the output plug is connected to this port to charge the transmitter probe battery.
3. Power indicator: It is used to transmit the probe power supply indication. When the power switch is turned on, the light is on. When the power is insufficient during the working process, the light is gradually extinguished.
4. Charging indicator: When this light is on, it indicates that the built-in lithium battery should be charged.
5. Extension rod interface: The top end groove of the emitter head is an extension rod interface for connection to the extension rod. Connect the top of the extension rod to the extension rod and rotate the extension rod lock nut .

2.1.3 Receiving probe

The receiving probe is used to receive electromagnetic signals, which must be connected to the host by signal lines during detection. The top of the receiving probe has a metal 3-pin socket . When testing, insert the small red dot (or small protrusion) of the plug of one end of the signal wire into the red dot (or groove) on the metal 3-pin socket to ensure locking.

2.1.4 extension pole

The extension rod is mainly used to connect to the launching probe, and its length can be adjusted according to the height of the floor. The extension rod consists of three sections, each saving 50cm, which can be partially or fully deployed by the lock.

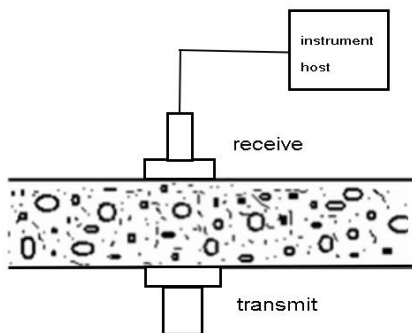
2.1.5 Other accessories

1. Walkie-talkie: For on-site inspection, communication between testers to quickly locate the test area.

2. Signal line: It is used to connect the probe to the host and has metal plugs at both ends.
3. Charger: Used to charge the internal battery of the host or transmitter.
4. USB cable: for data transmission.

2.2 Working principle

The instrument uses the principle of electromagnetic wave amplitude attenuation to test the thickness of the floor. The transmitting probe emits a stable alternating electromagnetic field. According to the electromagnetic theory, the intensity of the electromagnetic field decreases with increasing distance. The receiving probe connected to the host receives the electromagnetic field and tests the thickness of the floor according to the strength of the electromagnetic field.



During the test, the transmitting probe is placed on one side of the floor to be tested (ie, the bottom surface), and its surface is in close contact with the floor; the receiving probe is placed on the opposite side of the floor to be tested (ie, the top surface), as shown, receiving The probe moves near the position corresponding to the transmitting probe to find the current minimum effective value. The floor thickness value is the minimum value in the above process.

Chapter 3 Instrument Operation Instructions

3.1 Preparation before testing

1. Determine the test location: After surveying the test site, determine the location of the test points and agree on the test sequence (as shown in Figure 3.1).

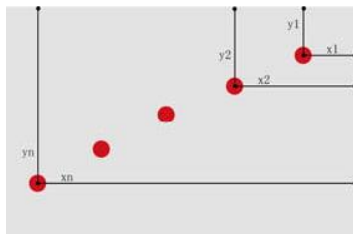


Figure 3.1 Schematic diagram of measuring points

Note: The test point should be as far as possible from large metal objects such as steel beams, and the distance is more than 10cm.

1. Connecting the extension rod: Connect the top of the extension rod to the extension rod of the transmitter probe and rotate the extension rod to tighten the nut.
2. Connect the instrument: Connect the host to the receiving probe with a signal cable.

3.2 Instrument operation

3.2.1 boot

The rocker switch according to one side with "1", the instrument display boot interface (Figure 3.2):

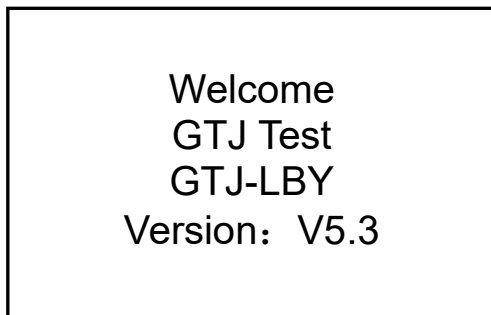


Figure 3.2 boot interface

After 3 seconds, the instrument automatically enters the function selection menu interface (as shown in Figure 3.3). Use the up and down keys to select a function item, and press the **OK** key to enter the function item.

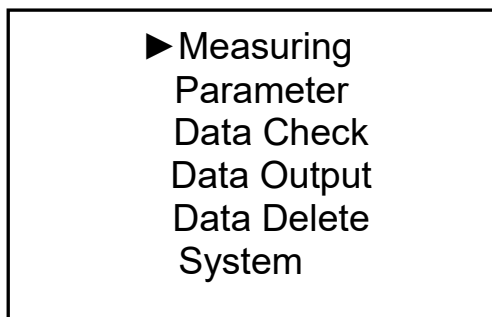


Figure 3.3 Select menu interface

Note: The LCD backlight can be turned on or off with the **Memory** button.

3.2.2 Test Status

Before the test, ensure that the launching probe works normally. Adjust the length of the extension rod according to the height of the floor. Support the launching probe on the floor of the floor to be tested, so that the surface of the probe is tightly attached to the lower surface of the floor. Use the walkie-talkie to inform the upstairs testers that they are ready.

Select **Start Test** to enter the test interface, as shown in Figure 3.4. When determining the test area, one tester holds the host on the top surface of the tested floor, and another tester holds the launch probe on the underside of the tested floor. The bottom tester informs the top tester through the walkie-talkie to support the launch probe on the floor to be tested. The surface of the probe is closely attached to the bottom surface of the floor; the tester closes the receiving probe to the top surface of the floor, moves the receiving probe near the position corresponding to the transmitting probe, and observes the change of the signal value. The area with strong value is the test area.

| | |
|---------------------------------|---|
| Com.Name 00000 | 2020-04-02 |
| Des.THK. 100mm | 00000 |
| Com.Type CIP | Cur.THK. > > > mm |
| Saved 0000 | Eff.THK. mm |

Figure 3.4 test interface

The figure above is divided into three parts. The left part shows the basic information of the current component and the number of data storage of the current component. The upper part of the right side shows the system date and time, and the lower part shows: the first line value is the current signal value, that is, the size of the signal received by the receiving probe. The larger the signal value, the smaller the thickness, and vice versa. The thickness of the current i.e. the current channel number of a thickness corresponding to the value. The effective thickness is the current minimum thickness during the test.

In order to quickly and accurately test the thickness of the object to be tested, the receiver should be moved quickly before the formal test to find the approximate location of the smallest area (the strongest signal value). Then, in this region, a slow back and forth movement of the receiving probe, to find the current value of the thickness of the small (or signal maximum) position, then this position is the position of the probe and the receiving of the positive sonde i.e. the value of the slab thickness. The operator can save the current effective thickness value by pressing the **storage key**. At this time, the value below the **storage number** will be increased by one, and the **effective thickness** will be updated; press the **option key** to clear the existing **effective thickness** value and redisplay the minimum value of the current thickness.

Select **Start Test** from the main menu. If the data is already stored in the current component, and the operator does not modify the current component name, the interface shown in Figure 3.5 will appear. To continue adding point data, click the **OK** button. If you need to reset the component information, click the **Back** button, then select the **parameter setting** option in the main menu to enter the parameter setting interface and reset the component parameter information.

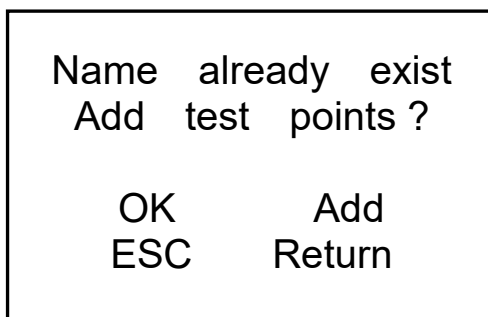


Figure 3.5 test waiting interface

Note: When storing data under the current component, if the number of storage reaches 9999, the screen will display “Data storage reaches the maximum value, please create a new component”. In this case, press the Back key to exit the interface, then select the parameter setting option in the main menu to enter the parameter setting interface and reset the component parameter information.

3.2.3 Parameter Settings

When the parameter setting option is selected in the main menu interface, the interface shown in Figure 3.6 below is entered.

| | |
|----------|-------|
| Com.Name | 00000 |
| Des.THK. | 100 |
| Com.Type | CIP |

Figure 3.6 Parameter Settings

Modifications to the component name , design thickness, and component type can be made in the parameter setting interface . Left , and right keys to move the cursor to the parameter to be changed, the , lower bond modification. The component name setting range is 0-49999, and the design thickness setting range is 0-899mm. The types of components are cast-in-place and prefabricated.

After setting the parameters, you need to press the store button or the OK button to save and exit the setup interface. Pressing the Back button in the settings interrupts the settings and returns to the main menu.

Note: You can set up to 200 components. When the component reaches 200 , the component name storage is full. At this time, the data should be transferred to the computer and the data should be deleted. The designed thickness of the tested component must be 40. Between -8 2 0, if it is greater than 8 2 0 or less than 40, "Please return to reset component preset thickness" will be displayed when entering the test interface.

3.2.4 Data View

When the main menu interface selects the **data viewing** option, it will enter the interface shown in Figure 3.7 below. The component numbers are displayed in reverse order of storage, that is, the last stored component number is displayed first. The data of the component is displayed in the order of storage, that is, the component data stored first is displayed first. When there are no components in the instrument, "No Data" will appear on the screen.

| <u>Select Com.Name</u> | | |
|------------------------|-------|-------|
| <u>00001</u> | 00000 | 00010 |
| 10000 | 00012 | 00013 |
| 00008 | 00006 | 00004 |
| 00005 | 00003 | 00011 |
| 00007 | 00017 | 00016 |

Figure 3.7 Component Name Display

Operation prompt the user to move the cursor arrow indicates a direction, only when the "arrow" indicates the user may press the keys to select the front member, only the "down arrow" represents press the key behind the selection means, the direction of the double arrow represents two can be selected, when the member is not more than 15 (i.e., no more than one), suggesting no "arrow"; the press left , and right member number key to select to view, press OK key to

enter the data interface member (FIG. 3.8 Show). At this time, the statistical information of the stored data in the selected component is displayed on the upper part of the screen. The first row displays the component name and the number of test points, the second row displays the design thickness and type, and the third row displays the average value and the maximum value. The fourth line shows the pass rate and minimum value. The operation prompt arrow represents the same meaning as above. When the number of measurement points is not more than 16, the arrow prompt does not appear; according to the "arrow" prompt, press the up and down keys to scroll through the page to view the component data. If you want to view the test date of the data on the data interface Press the OK button to return to the data interface automatically after the test date is displayed. Press the Back button to return to the Select Component Name screen. Repeat the above operation to view the data of other components. After viewing the results, press the Back button to return to the main menu interface, and then press the Back button to return to the main menu interface.

| | | | |
|-------|-------|------|------|
| Name: | 00000 | NUM | 0006 |
| THK: | 100 | Type | CIP |
| AVE: | 146 | MAX | 184 |
| Pass: | 0.0% | MIX | 132 |
| | 184 | 167 | 165 |
| | 132 | 184 | 167 |

Figure 3.8 Component Data Interface

3.2.5 Data transmission

It is recommended to transfer data after each test or when there is too much data stored in the instrument. The method is as follows:

1. Connect the instrument and computer with a USB cable;

2. Right click on the computer and select Device Manager and click the small triangle icon in front of the port to see if there is a COM port other than COM1.
3. Open the floor thickness detection software in the PC ;
4. Click Tools - Data Transfer ...;
5. Select the correct serial port (non- COM1 COM port) , and click to open the serial port button, the gray area below will prompt "Serial port X is ready, please send data...", click to start transmission ;
6. Turn on the instrument and enter the system main menu interface.
7. Select the data transfer submenu and press the enter key;
8. Press the instrument's OK button (as shown in Figure 3.9)
9. Wait until the data transfer is complete.

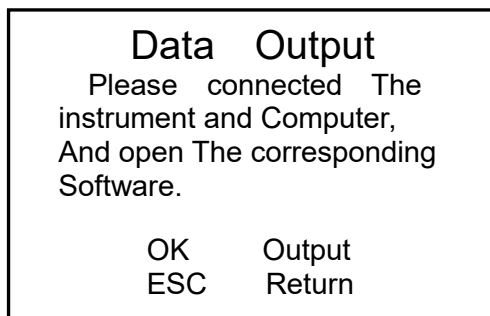


Figure 3.9 Data Transmission

During the data transmission process, the instrument interface will prompt "Transfer is waiting...". After the data transmission is completed, the instrument interface will prompt "Transfer Complete" and automatically return to the main menu interface.

What needs special attention is :

- (1) When the user uses the USB data cable for transmission, first install the driver (the installation program is included on the CD). When connecting to the PC for the first time, follow the prompts to install it.
- (B) must first open the data transfer interface in the software on the computer and select the serial port of the transmission, then open the instrument for transmission, otherwise the transmitted data will be incomplete.
- (3) After the data transmission is completed, the instrument returns to the main menu interface. The user can perform data subsequent analysis processing on the computer side and generate a test report.
- (4) Before going to the site for testing, in order to ensure the integrity of the existing data and ensure sufficient storage space, please send the useful data in the instrument to the computer, and then clear the data in the instrument.

3.2.6 Data deletion

The operation method is as follows:

1. Select **Data Delete** on the main menu screen and enter the submenu interface.
2. Look carefully at the on-screen prompts (shown in Figure 3.10) and follow the prompts.
3. Press the **Back** button to return to the main menu without deleting the data.
4. Press the **OK** button to start deleting the data and display "Deleting please wait...". After all the data in the instrument is deleted after a few seconds, "Delete Completed" will be displayed, and then automatically return to the main menu interface.

Note: This instrument can save 200 components. When there are 200 components in the test, please pass the data to the computer and then clear the data.

Please do not shut down during the data deletion process. If it is wrong, please turn it back on and delete it again, otherwise it will cause storage error.

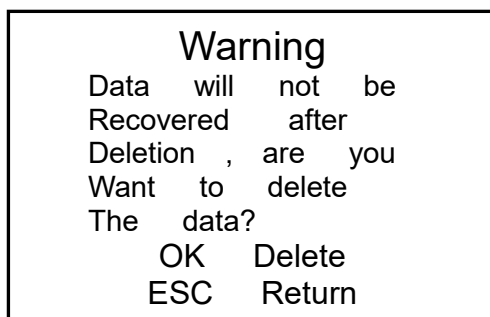


Figure 3.10 Data Clearing

3.2.7 System Settings

When the main menu interface selects the **system setting** option, it will enter the interface shown in Figure 3.11. This function is used to set the instrument date, time, and button sound.

1. Date, time setting

Press **Left**, **Right** keys to select the bit to be modified, press **on**, **down** keys to modify the time or date.

1. Button sound setting

During the test, the tester can switch the button sound according to the usage habits. Press **Left**, **Right** keys to move the cursor to adjust the sound options, press **down** the sound off, press **the** sound turned on.

After setting, press the **OK** button to save the set parameters and return to the main menu.

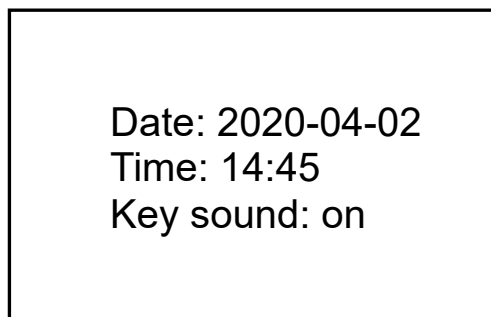


Figure 3.11 System Settings

1. Press the **Back** key during setup to exit the setup and return to the main menu.

Chapter 4 Quick Start

4.1 Test preparation

Determine the test position → connect the extension rod → connect the main unit and the receiving probe → turn on the power of the transmitting probe → close the surface of the transmitting probe to the bottom of the floor → turn on the power of the instrument. See 2.1 for details.

4.2 Setting parameters

After the instrument starts, enter the main menu interface → set the project name → set the component name → set the design thickness of the floor to be tested → select the type of floor. See 3.2 for details.

4.3 Start the test

After setting the parameters, press the **OK** key to enter the test interface → determine the test area → determine the test point → read the test results → store the test results → test the other test points until all the test points of the component are tested. See 3.2.2 for details.

4.4 Data View

After the test is completed, press the **up** and **down** keys to move the cursor, data view → select the component name → component information. See 3.2.4 for details.

4.5 data transmission

Connect the instrument and computer with USB data transmission line → Run data transmission software → Set data type, select port → Select data transmission menu item in the main menu interface → Transfer confirmation → Start transmission → Transfer completed. See 3.2.5 for details.

4.6 Data Analysis

Open the floor thickness test data file (GLB file) in the "thickness detection data processing software" → set the project information, component information, etc. → perform evaluation → save file → print output → generate test report.

Chapter 5 Maintenance and Maintenance

5.1 Check before use

Check whether the host and the transmitting probe are fully charged, and the host enters the detection state. The transmitting probe is gradually approached to the receiving probe to check whether the signal value changes normally.

5.2 cleaning

Do not put the instrument and accessories in water or use a damp cloth to scrub! Do not scrub the instrument and accessories with organic solvents! Wipe the instrument and accessories with a clean, soft, dry cloth. Please clean the socket with a clean, soft brush.

5.3 battery

The main unit is powered by a built-in dedicated rechargeable lithium battery. It takes about 3 hours to fully charge the battery. It can work continuously for more than 18 hours when it is fully charged . When the instrument is low, the instrument will alarm (buzzer sounds) and must be charged. Test again.

The transmitter probe is also powered by a built-in dedicated rechargeable lithium battery. It takes about 1.5 hours to fully charge the battery. It can work continuously for more than 20 hours when it is fully charged . When the “charge reminder” light on the transmitter is lit, it should be charged as soon as possible.

The instrument and the probe are not used for a long time, and the rechargeable battery will naturally discharge, resulting in a decrease in power consumption, and should be recharged before use. During the charging process, the power adapter will have a certain amount of heat, which is a normal phenomenon. It should be well ventilated and easy to dissipate heat.

5.4 Transmit and receive probes

Stronger shock or vibration can cause the performance of the probe to drop or be damaged, so the probe should be prevented from falling from a height or being pressed under a heavy object.

Chapter 6 Precautions for on-site inspection

When using the GTJ-LBY floor thickness detector for on-site inspection, in order to make the test results more accurate, certain detection methods and principles should be followed, otherwise large deviations will occur. The following should be noted in the test:

1. The extension rod is firmly coupled to the launch probe to ensure that the launch probe does not fall from high altitude during use, resulting in damage to the launch probe.
2. During the test, it should be ensured that the surface of the transmitting probe always adheres to the bottom surface of the member to be tested (floor, etc.), otherwise the test value will produce an error.
3. During the test, ensure that the instrument and the transmitter are fully charged, otherwise errors may occur. When the instrument is low in power, the instrument will alarm (buzzer sounds long). When the transmitter probe is low, its power indicator will go out. At this time, it should be charged as soon as possible. **If you test while charging, the test value will produce an error.**
4. When testing in the field, the test points should try to avoid the steel bars. When it is found that the test value of a certain measuring point is different from the value of other measuring points (or design thickness value), it may be the influence of steel bar, and should be tested with another measuring point.
5. When testing in the field, the test points should be as far away as possible from the wires.
6. When testing in the field, the test points should be as far away as possible from other ferromagnetic media.
7. Avoid use in strong magnetic fields, such as large electromagnets, transformers, etc.

8. The ambient temperature used by the floor thickness detector should be 0 °C ~ 40 °C. If the ambient temperature is outside this range, the thickness detection value may have errors. Especially when testing components with thickness greater than 400mm, the influence of ambient temperature is greater.

9. When testing a single measurement point, it is best to follow these steps:

1) **Determining the test area:** During the test, one tester holds the host on the top surface of the tested floor, and another tester holds the launch probe on the underside of the tested floor. The tester informs the following personnel through the walkie-talkie to support the launch probe on the floor to be tested. The surface of the probe is closely attached to the bottom surface of the floor to be tested; the tester will close the receiving probe to the top surface of the floor to be tested, and move the receiving probe at the position corresponding to the transmitting probe to observe the change of the signal value, and the area with strong value is Test area.

2) **One scan:** Determine a line L1 in the test area (as shown in Figure 6.1), and scan the receiving probe along the line L1 in the direction of increasing the signal value. When crossing the position P1 of the vertical point of the L1 and the transmitting probe The beeping prompt (while the panel LED is on), at this time, the receiving probe moves in the opposite direction along the line to find the position where the current value coincides with the automatically interpreted thickness value (or the peak value of the signal value), that is, point P1.

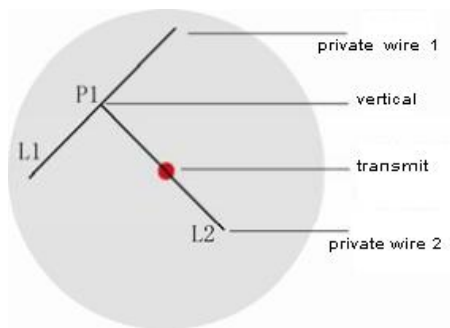


Figure 6.1 Test schematic

- 3) **Secondary scanning:** the vertical line of the measuring line L1 at the point P1 is the measuring line L2, and the receiving probe is scanned in the direction in which the signal value of the L2 is increased. When the position where the L2 intersects the transmitting probe is crossed, a beep sounds (At the same time, the panel LED indicator is on), and the automatic interpretation of the thickness value is the result of the floor thickness test.

Chapter 7 Floor Thickness Analysis Software

7.1 Software Introduction

The data file tested by the GTJ-LBY floor thickness detector processed by the floor thickness measurement analysis software. Can run on Windows operating system.

The processing of the software complies with the "Code for Acceptance of Construction Quality of Concrete Structures" (GB 50204-2015).

The software is mainly composed of eight parts: title bar, menu bar, toolbar, component display area, component information area, data area, image display area and status bar, as shown in Figure 7-1.

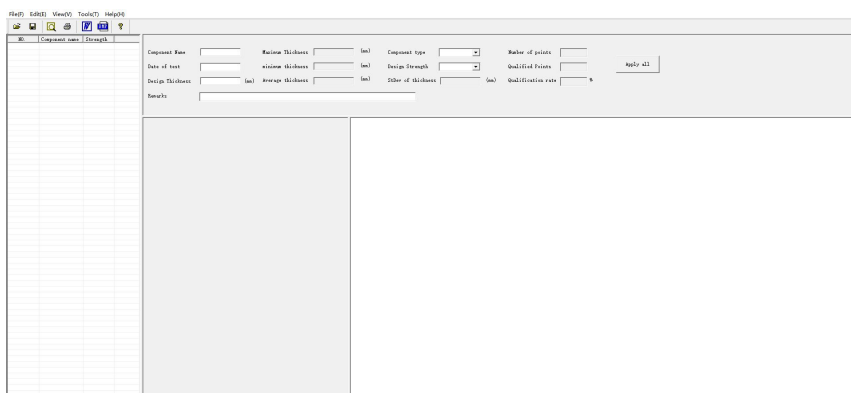


Figure 7-1 Floor thickness measurement software interface

◆◆ The title bar displays the software icon, the current window name, and three standard Windows application buttons from left to right. The three standard Windows application buttons are -
---Minimize button, □--- maximize button, ✕close program button.

◆ The menu bar consists of five drop-down menu items, as shown in Figure 7-2. Clicking on each menu item will bring up a drop-down menu, each corresponding to a set of functions. The submenu items of these five menu items

contain all the functions of the software. When some menu items are grayed out, this function is invalid in the current state.

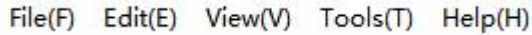


Figure 7-2 Menu bar

◆ The toolbar consists of a series of buttons, as shown in Figure 7-3. Each button implements a common function that has exactly the same functionality as the menu. If you mouse over a button, the function of the button is automatically displayed on the screen. When the button color is grayed out, it indicates that this function is invalid in the current state.

◆ The toolbar consists of a series of buttons, as shown in Figure 7-3. Each button implements a common function that has exactly the same functionality as the menu. If you mouse over a button, the function of the button is automatically displayed on the screen. When the button color is grayed out, it indicates that this function is invalid in the current state.

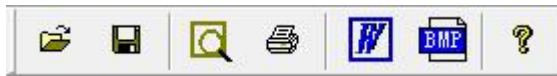


Figure 7-3 Toolbar

◆ The component display area shows all the components contained under the opened file.

◆ The component information area displays the details of the selected component.

◆ The data area shows the thickness data measured by the selected component.

◆ The image display area is an image drawn based on the data of the selected member.

◆ The status bar is used to display the status of the software running and some related information.

7.2 component display area

The component display area shows all the components contained under the opened file. Clicking on a component name with the mouse, the component information area, the data area, and the image display area (when a single component is displayed) will display the corresponding information of the component.

Click the box in front of the serial number with the mouse, and "√" will appear in the box. Batch processing and saving word documents operate on components that have "√" in the box .

7.3 Component Information Area

The component information area displays detailed information of the selected component in the component display area. The content of the edit box of the gray shading is calculated by the software according to the measured data, and the user cannot modify it; the content of the edit box of the white shading can be modified.

When **all the application** buttons are clicked in one component information area , the component information of other components will also become the same content.

7.4 data area

The data area shows the thickness data measured by the selected member in the component display area. The data of the white shading indicates data within the allowable error range; the data of the gray shading indicates data smaller than the allowable error range; and the data of the red shading indicates data larger than the allowable error range.

Double-click the cell where the data is located, you can modify the data, the software will recalculate according to the modified data, and the component information area and image display area data will also change accordingly.

7.5 image display area

The graphic display area is shown in Figure 7-4.

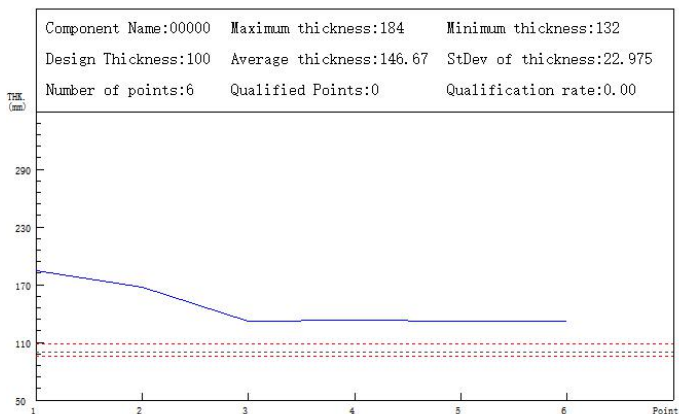


Figure 7-4 Image display area

The text portion above the image display area is the component information, and the lower graphic portion is the graphic drawn based on the measured thickness. Click **Edit - Options**. The Y axis (thickness) minimum value and the Y axis (thickness) maximum value in the option dialog box correspond to the Y axis range of the image display area. When the waveform image in the image display area is not easy to distinguish or exceed Y When the axis range is used, these two values can be corrected for better viewing.

The black dotted ordinate in the image represents the design thickness value, the red dotted ordinate represents the minimum and maximum values of the allowable error, and the blue curve ordinate represents the measured floor thickness value of the instrument.

7.6 menu bar

7.6.1 File menu

1. Open: Open the file you want to view and process.
2. Save: Save the modified data to the original file.
3. Save the selected component: Save the component with the "√" in front of the component to a file.
4. Save the bitmap: Save the image display portion of the component with "√" in front of the component.
5. Printing: Prints the component information, data, and images of the components with "√".
6. Print Preview: Shows the actual effect of printing.
7. Print Settings: Set the paper and orientation to be printed.
8. Exit: Exit the software.

7.6.2 Edit menu

1. Engineering information: Fill in the project information content and related detection information, as shown in Figure 7-5.

Project Information

Project Information Content

Project Name

Project address

Construction unit

Entrust Unit

Relevant detection information

Detection Unit

Unit qualification

Structure type

Inspection Date

Tester

Testing Instrument

Project Number

Remarks

OK CANCEL

Figure 7-5 Project Information

2. Remove widget: Delete the currently displayed widget.

3. Insert data: In the currently displayed component, insert data in the data area.

Click on any cell in the data area and click **Insert Data** to bring up the Insert Data dialog box, as shown in Figure 7-6.

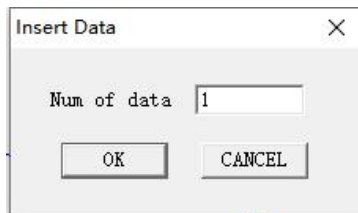


Figure 7-6 Inserting data

Enter the number of data to be inserted in the number of data. The default number is 1, click the **OK** button.

In the data area, the inserted data is behind the measured value and the value is 0. You can modify the data by double-clicking the cell in which the data you just inserted is located.

4. Delete data: Delete one or more data in the data area.

Mouse click on the cell where the data you want to delete is selected, or hold down the **Ctrl** key on the keyboard and click on multiple cells to select multiple cells. The selected cell is displayed in blue. Click **Delete Data** to delete the selected cell data.

5. Options: The evaluation rules and the Y-axis (thickness) minimum and maximum values can be modified, as shown in Figure 7-7.

Options

| Evaluation Rules | | |
|------------------|----------------------------------|----------------------------------|
| Component | Permissible lower deviation (mm) | Permissible upper deviation (mm) |
| CIP Board | -5 | 8 |
| CIP Wall | -5 | 8 |
| CIP Beam | -5 | 8 |
| CIP Column | -5 | 8 |
| PCC Board | -5 | 5 |
| PCC Wall | -5 | 5 |
| PCC Beam | -5 | 5 |
| PCC Column | -5 | 5 |
| PCC Truss | -5 | 5 |
| Other | -5 | 5 |

Y-axis (THK) min 50 (mm)

Y-axis (THK) Max 350 (mm)

Default

OK CANCEL

Figure 7-7 Options

Options include rating rules, Y-axis (thickness) minimum, and Y-axis (thickness) maximum.

The evaluation rule is a setting that allows the lower deviation and the upper deviation to be allowed for a plurality of component types.

The Y axis (thickness) minimum value and the Y axis (thickness) maximum value are set for the range of the Y axis in the graphic display area.

After clicking the **default value**, the evaluation rule and the Y-axis (thickness) minimum and maximum values become the default values. Among them, the default values of allowable lower deviation and allowable upper deviation in cast-in-place, cast-in-situ, cast-in-situ, and cast-in-place columns are -5 and 8 respectively; prefabricated panels, prefabricated wall panels, prefabricated beams, prefabricated columns, prefabricated The default values for the allowable lower deviation and the allowable upper deviation are -55 and 5, respectively. The default value of the Y

axis (thickness) minimum is 50, and the default value of the Y axis (thickness) is 350.

7.6.3 Viewing the menu

1. Single component: In the image display area, the image and information of a component are displayed.

2. Batch component: In the image display area, the image and comprehensive information of all components in front of the component are displayed.

Before the batch component, the component is selected. In the component display area, in front of the component to be displayed by the batch component, click “√”, click on the **batch component**, and the content in the image display area is to calculate and process all the selected components.

7.6.4 Tools menu

1. Data transmission: Transfer the data in the floor thickness detector to the host computer.

The data transmission process is detailed in 3.2.5 Data Transmission.

After the data transfer is complete, pop up the project dialog box you want to save, as shown in Figure 7-8.

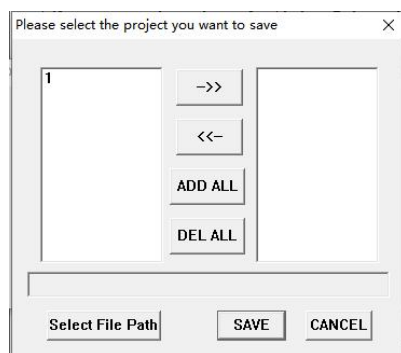


Figure 7-8 Please select the project to be saved

Use the mouse to click the position where "1" is located, when it is changed to blue shading, it is selected, click the ->> button; or directly click the all selection button, and the right edit box displays "1". Then click to select the file path, select the save path, click the save button, the project data can be saved successfully.

After the data is saved successfully, the Open File dialog box pops up, select the project file to be opened to view and analyze the data, or click the Cancel button to not open the project file.

2. Save the word document: Generate a test report for the selected component.

First, hit "√" before preparing the component to generate the test report, then click Edit - Project Information, fill in the project information, and finally click Save Word Document.

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