

**LANGRY**

**Digital Concrete Test Hammer**

**HT225-NB**

**Operating Instructions**

**JINAN LANGRUI DETECTION TECHNOLOGY CO.,LTD.**

## PREFACE

Your choice of the products made by Jinan Langrui Detection Technology Co., Ltd. ( LANGRY ) is greatly appreciated. We are committed to deliver you excellent products and satisfied sales services. Please carefully read the instructions prior to use.

1. The instructions are prepared to provide the correct and complete descriptions of related products and data. However, we do not guarantee that there are no errors or omissions. Therefore, we will not bear responsibilities for any resulting consequences.

2. LANGRY keeps the right of updating the instructions without prior notice.

3. LANGRY bears no responsibilities for possible losses from data deviation or incorrect testing conclusion arising from instrument failure and other errors.

4. When the instrument is put into operation, it means that you have carefully read and had full picture of all terms in the instructions, and you have fully agreed to all the terms in the instructions.

5. LANGRY will not bear responsibilities for all the signed agreements violating the statement during the sales and services process not involving LANGRY.

Testing data processing basis: synchronous built-in "Technical specification for inspecting of concrete compressive strength by rebound method" (JGJ/ t23-2011)、 EN 12504-2 and ASTM C 805.

## Technical Parameters

Memory quantity: 240 components  
Standard impact energy: 2.207 J  
Spring stiffness: 785±30.0N/m  
Pointer length: 20.0 ± 0. 2mm  
Friction of pointer: 0.65 ± 0. 15N  
Spherical radius of bouncing rod: 25±1.0mm  
Operating length of spring: 61.5±0.3mm  
Take off position of Bounce hammer: scale "0" + 1  
Rebound number on anvil:80±2  
Consistency of sampling indication:  $\leq \pm 1$   
Working temperature: - 4 °C ~ + 40 °C  
Display: 3.12 "OLED  
Communication rate: 115200bps  
Battery power supply: 2300 ma lithium ion battery

## Operating Instructions

### 1 KEYS

 KEY:Performed the confirmation or cancel selected command

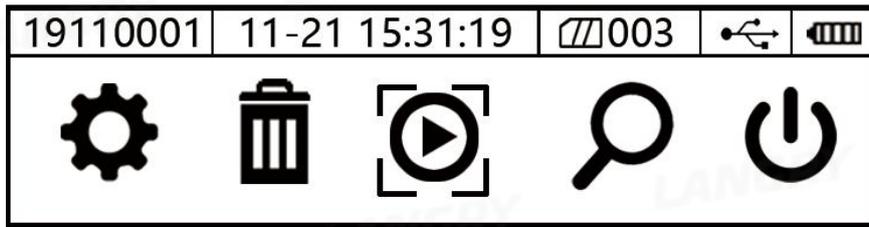
 KEY:Generally used for direct return or exit operations

    KEY: In general, it is used to move the cursor in the screen and adjust the value of the selected position item.

**KEY:For on / off operation, long press 2s to start**

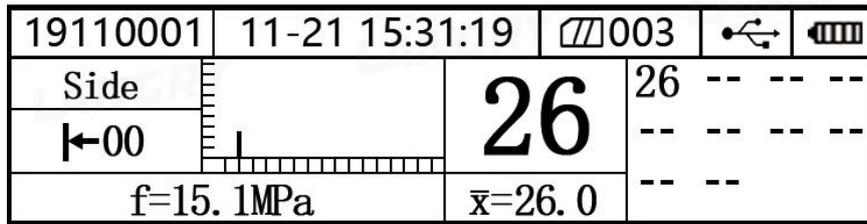
### 2 Interface Design

All functions of the instrument are started from the main menu interface.  
The main menu contains five sub modules: setting, deleting, sampling, viewing and shutting down.

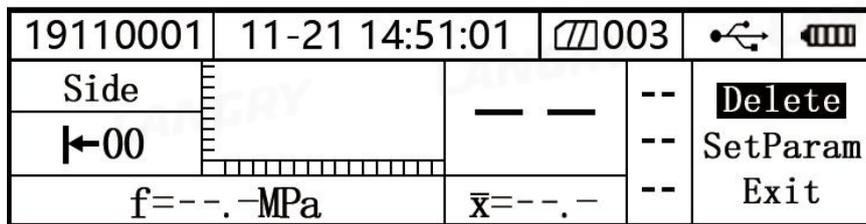


## 2.1 Sampling Interface

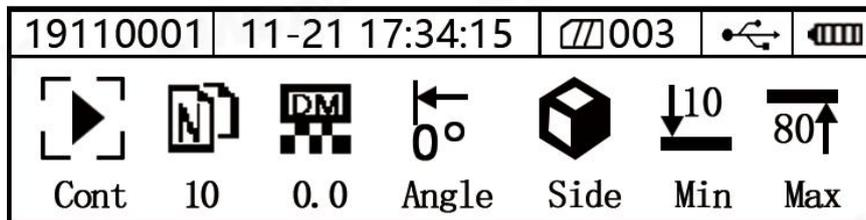
In the main menu interface, select the sampling icon, Press the **OK** key to enter the sampling interface.



Sampling interface button **C** key Pop-up Menu as shown in the figure, The first item is to delete the last rebound value; the second item is to set parameters; the third item is to exit sampling, At this time, press the **C** key to return to the sampling interface to continue sampling.



Press the **▲** **▼** key to select the second item, Press the **OK** key to enter the sampling parameter setting interface.



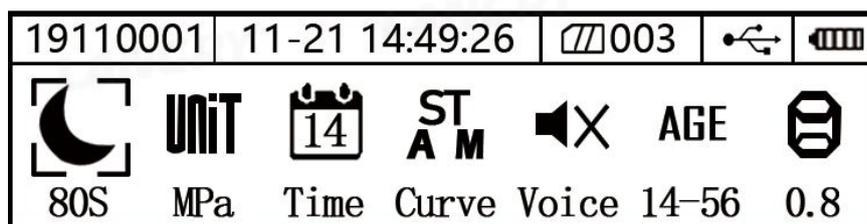
The sampling parameter setting menu includes: continue sampling, number of measuring points (American Standard and European standard are not allowed to be modified), carbonization value, Impact Angle, detection surface, Allowable minimum and maximum.

Press the **[c]** key on the sampling parameter setting interface to return to the sampling interface.

After the completion of sampling, the system alarms and automatically jumps to the sampling completion interface. The component data is saved. Press the **[c]** key to switch to the sampling selection interface. Select continue sampling or modify parameter sampling by **[▲]** **[▼]** key. At this time, press the **[c]** key to return to the main menu interface.

## 2.2 System Setup Interface

Select the Settings icon in the main menu interface, press the **[OK]** key to enter the system setting interface. There are 7 options. They are backlight delay, unit, system time, curve, voice switch, age, Correction factor of test block size.



Backlight delay can be adjusted by **[▲]** **[▼]** key, and the range is 20s-80s.

Compressive strength units: MPa, psi and kgf / cm<sup>2</sup>.

Select the time icon, press the **[OK]** key to enter the system time adjustment interface. When adjusting the time, press the **[◀]** **[▶]** key to select the part to be adjusted. Press the **[▲]** **[▼]** key to adjust the value. After adjustment, press the **[c]** key to return to the system setting interface.

Curve Settings can be selected as JGJ23-2011, ASTM C 805, EN 12504-2, and custom curves. If set as a custom curve, the maximum number of sampling points can be set to 400 during sampling.

Need to slow down the Recoiling speed when the voice is turned on.

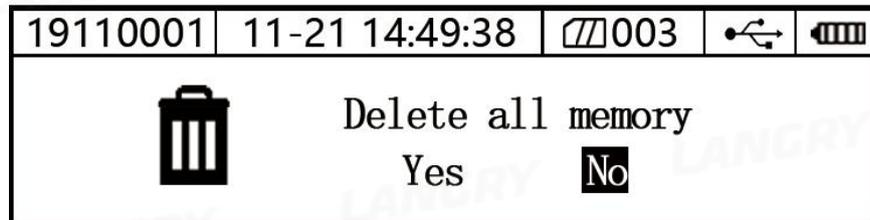
There are two options for age: 7 days and 14-56 days.

There are three correction factors of test block size according to different sizes: 1.0, 0.95 and 0.8. After the calculation, the strength

value is corrected.

### 2.3 Deleting Data

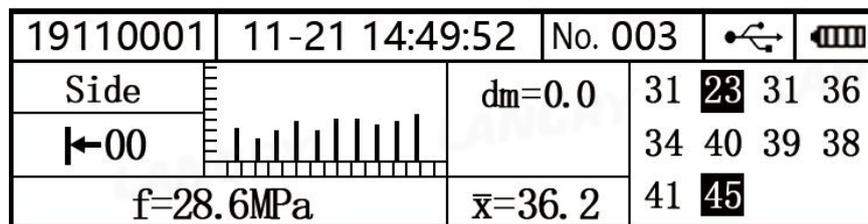
After the delete icon is selected in the main menu interface, Press the **OK** key to enter the deletion confirmation interface.



Once this command is executed, all component data in memory will be deleted and cannot be recovered. For the sake of insurance, The instrument will be confirmed by a confirmation screen, so be careful!

### 2.4 Viewing Interface

After the view icon is selected in the main menu interface, Press the **OK** key to enter the viewing interface.



The viewing interface is the same as the sampling completion interface. The third item in the in the status bar of the interface is the number of current components.

Press the **▲** **▼** key to increase or decrease the number of current components, in order to view all component data.

Press the **OK** key in the viewing interface to select the carbonization depth value.

Press the **▲** **▼** key to change the carbonization depth value.

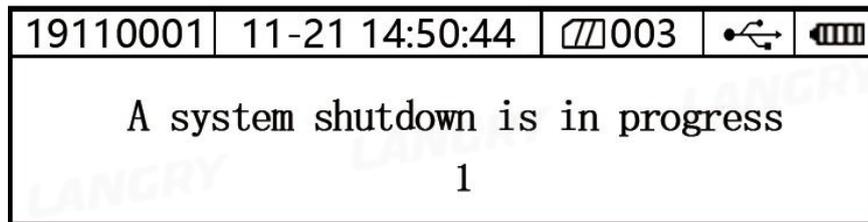
Press the **C** key in the viewing interface to return to the main menu interface.

## 2.5 Shutting Down.

After the shutdown icon is selected in the main menu interface.

Press the

 key and the system will prompt to shut down. If you forget to shut down, the system will shut down automatically after the shutdown delay, and give alarm prompt. Press any key at this time to cancel the shutdown.



## Manufacturer warranty

LANGRY guarantees that the tool is free from defects in materials and manufacturing processes when it leaves the factory, and the warranty is valid only if the user correctly installs, operates, maintains and cleans the tool in accordance with Langry's operating instructions.

The warranty covers the free replacement or repair of damaged parts during the whole service life of this tool. If the parts need to be repaired or protected due to normal wear and tear, they are not covered by the warranty.

Other claims are not covered by the warranty unless there is a different provision under the specific law of the customer's country. In particular, langry shall not be liable for any direct, indirect, incidental or inevitable damage, financial loss or additional expenses caused by or related to the improper use or abuse of this tool. Expressly exclude implied warranties of merchantability and fitness for a particular purpose.

In case of repair or replacement, the tool or relevant parts shall be sent to Langry's market organization immediately after the failure is determined.