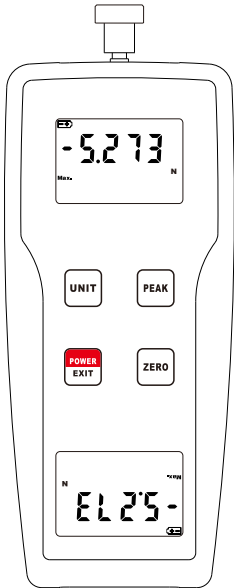


19. Accessories list

Optional Accessories	Measurement bracket
	3 x10 screw 4
	Use the books
	brush
Standard Accessories	Phillips screwdriver
	The power adapter

Grain feed grain hardness tester
FG-104G



You buy the material grain hardness RongChang word ii, mark to see you in the field of precision measurement before I took a step. This table is a computer as the core of testing tool, if the operation technology is proper, its robustness for many years. Before use, please read this manual and properly deep tube where easy to access.

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The book points out the important matters to prevent accidents and the method of using the instrument. Please read this manual carefully before using it, and keep it properly after reading it for re-reading

- B. If it is to test the impact load, please select the model with the maximum load twice that of the impact load to be tested.

12.2 Warning:

- A. During destructive testing, protective masks and gloves should be worn to prevent human body from being injured by flying substances during testing
- B. Do not use fixtures that have been damaged or severely bent. Self-made jig please refer to the relevant parameters in this manual (the company has all kinds of jig, customers can purchase according to need).
- C. Do not use the instrument beyond the maximum range, otherwise, sensor damage or even accidents may occur.
- D. When the test value exceeds 110% of the range, the buzzer will beep continuously. At this time, please remove the added load quickly or reduce the load

12.3 Safety Matters

- A. When using the power adapter, do not use A power supply other than the rated voltage. Otherwise, electric shock or fire may occur.
- B. Do not pull out or insert the plug with wet hands, otherwise it may cause electric shock.
- C. Do not pull the power cable of the power adapter out of the plug to avoid electrical shock.
- D. Please clean the machine with a soft cloth. Soak the cloth in water soaked with detergent and wring it out before removing dust and dirt. Note: Do not use volatile chemicals to clean the unit (such as volatile agents, thinners, alcohol, etc.)
- E. Do not operate the device in the following environments
 - ① Humid environment ② dusty environment
 - ③ Where oil or chemicals are used ④ Where there is a seismic source
- F. After use, please put the tension gauge in the equipped portable case to protect the test shaft from external impact force
- G. The product is a liquid crystal display, high-precision integrated electronic product, do not hit, squeeze, after use, please put the product in the equipped portable box.
- H. Do not disassemble, repair or modify the unit, which may cause permanent failure of the instrument.

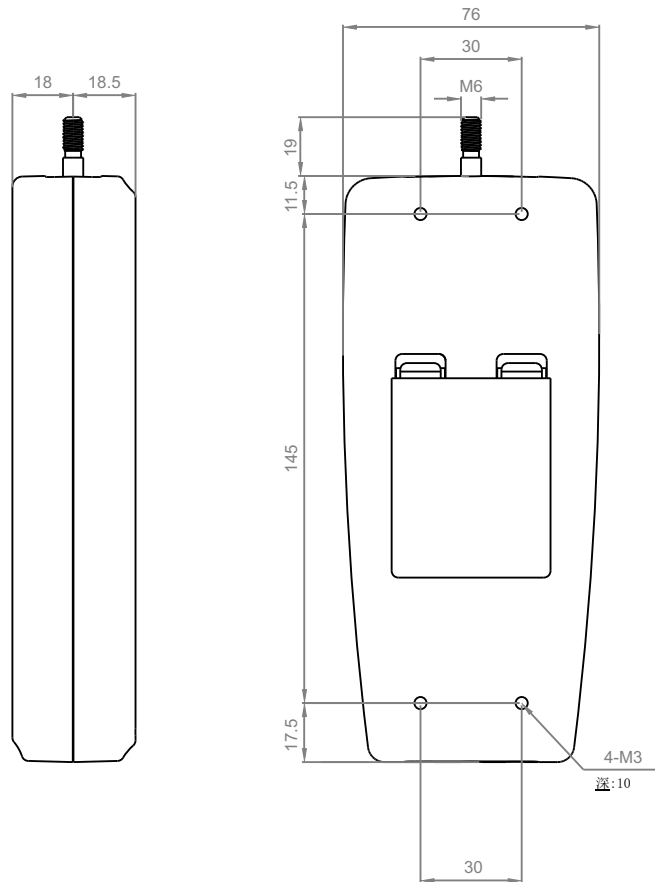


Figure 6 Appearance and installation dimensions

11 Replacing a battery

11.1 If the battery voltage is too low, a battery symbol will appear on the display, indicating that the battery needs to be replaced.

11.2 Open the battery cover and take out the battery.

11.3 Install the battery correctly according to the label on the battery box.

11.4 if in a very long period of time don't use this instrument, please take out the battery, in case the battery decay and damage the instrument.

12.1 Precautions :

A. Incorrect operation may damage the instrument or result in serious accidents. This suggests that

1.Introduction

FM-104G series grain feed granule hardness tester is a kind of digital display grain feed granule hardness tester newly designed and developed by our company. It has the advantages of high precision, easy operation and convenient carrying. The scientific use test range is 10%-100% of the full scale. The metrology department recommends not to use less than 1% of the full scale. At the same time, after the instrument and the tested object are in place, press the ZERO (ZERO) key to clear the ZERO to eliminate the weight of the fixture and so on.

2. Features

- * High precision and high resolution.
- * Digital display, ignore the difference. * N(Newton), kg(kg), 1B (pounds), g(grams) four measuring units for choice, mutual conversion.
- * Peak hold function. Maintain peak display until manually reset.
- * Green environmental protection, can be set 10 minutes no operation automatic shutdown; It can also be manually shut down.
- * Can be powered by alkaline batteries; Can also be connected to 5V DC power supply.

3. Technical Parameters

Test scope	0-20Kgf, 0-196N, 0-4426F
The resolution	0.01Kgf, 0.1N, 0.0126F
Diameter of the test range	15mm
Precision	Plus or minus 0.5% FS (range) + 1 digital peak
Unit	kgf, gf, N, Lbf
Can be measured value	Peak, instantaneous value.
According to	Four big liquid crystal, the direction, double screen
Shutdown mode.	Close automatically or manually shut down 10 minutes
Backlight	backlight.
Allow the load	150% F.s (super 110% E.s, beeping alarm).
The power supply	Section 2 battery 5 or 5 v dc power supply
Working temperature	0~40° C
Working humidity	<80%
The work environment	Around the source and the corrosive medium
Turnning	390g
Size	211x80x36mm

8.A unit conversion function

Mode or peak in real-time measurement mode, press UNIT (UNIT), UNIT of measure conversion can be realized.

9.Installation And Testing

- 1, open the instrument battery box, 2 5 batteries installed correctly.
- 2, the instrument with four 3 * 10 screws installed on the bracket.
- 3, select the unit of measure (kg/N/Lbf) after completion of choice, in use process not to switch back and forth
- 4, click on the PEAK, "Max" appears on the display, and then press the ZERO key (ZERO) ZERO, the display number is "0", can be normal test.
- 5, the handle clockwise rotating disk, the probe moving up to the appropriate location: to place the object to be measured between the probe and the test bed; Then the disc handle counterclockwise, the probe moves down, to the object to be tested on extrusion, the pressure increase gradually, when the measured object by extrusion, display shows pressure value maximum and be locked. The display shows the numerical hardness value for the item. After pressing the ZERO key again, display shows as "0", can make the test again, and so on.
- 6, after the test, the probe with brush and turn off the power supply and test bed clean.



4.3 the operation key

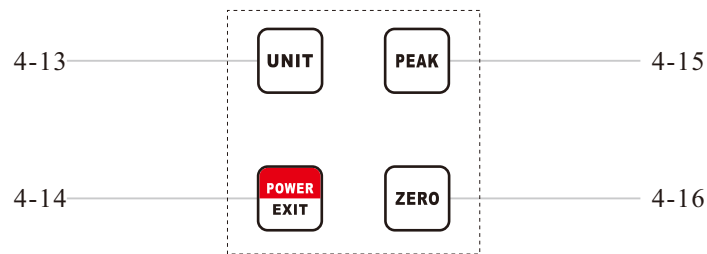


Figure 4 operation buttons

Operation buttons function

4-13 units keys (UNIT)

It is a key unit conversion, used as an operating unit conversion.

14-14 POWER button (POWER): it is a key to power on

14-15 PEAK key (PEAK) It is to maintain models and real-time measurement of peak switch button.

14-16 ZERO keys (ZERO)

The operation of the instrument zero button.

5, start-up and shutdown of the instrument

5.1 the instrument on After installed the battery or connect the ac POWER, the POWER (POWER/EXIT) boot/return key.

5.2 equipment shutdown

5.2.1 manually turn it off On, press and hold the POWER/return key (POWER/EXIT) about 2 seconds, the display appears on the "055" loosen the button, when the instrument is turned off.

5.2.2 Automatic shutdown: The instrument will automatically shut down after no button operation for 10 minutes.

6, According to the requirements, after the instrument is installed at the measuring position, press the ZERO key (ZERO) to adjust the ZERO. The value displayed on the monitor is 0

7, real-time measurement and peak mode The instrument can be set up two kinds of measurement model, the real-time measurement models and peak. When there is no peak indicator displays "MAX", for the real time measurement model, test values along with the change of load change; Press PEAK (PEAK), PEAK value indicator "MAX", for PEAK holding pattern, as shown in the test of the maximum value of tests.

4. Structure.

4.1 The Overall Structure

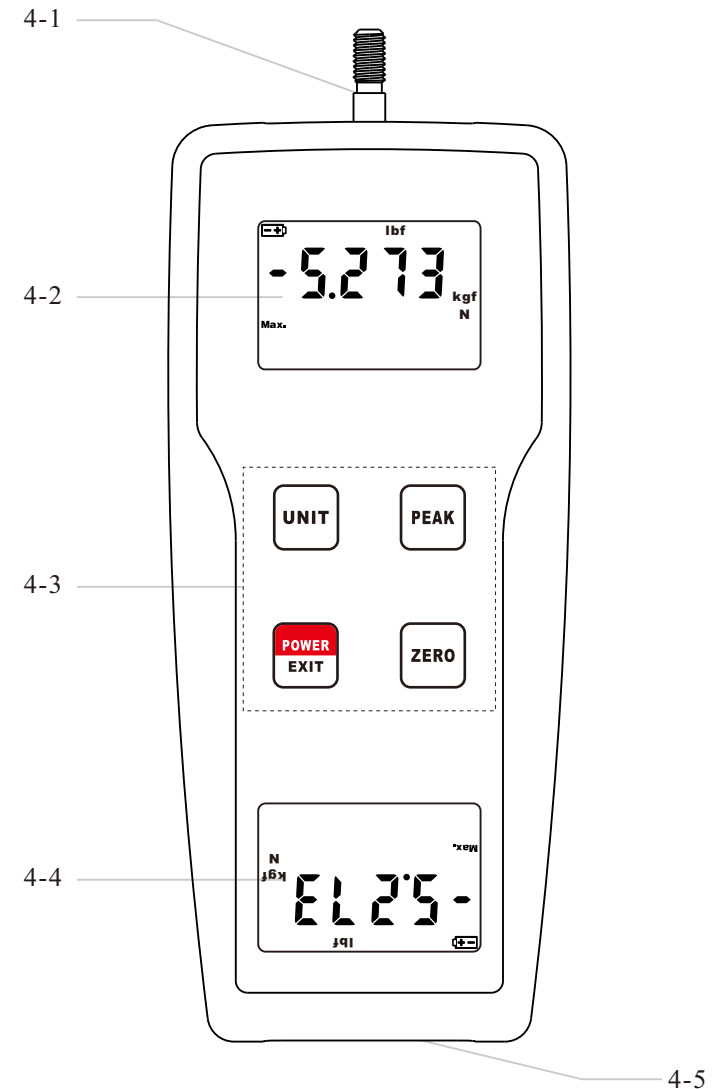
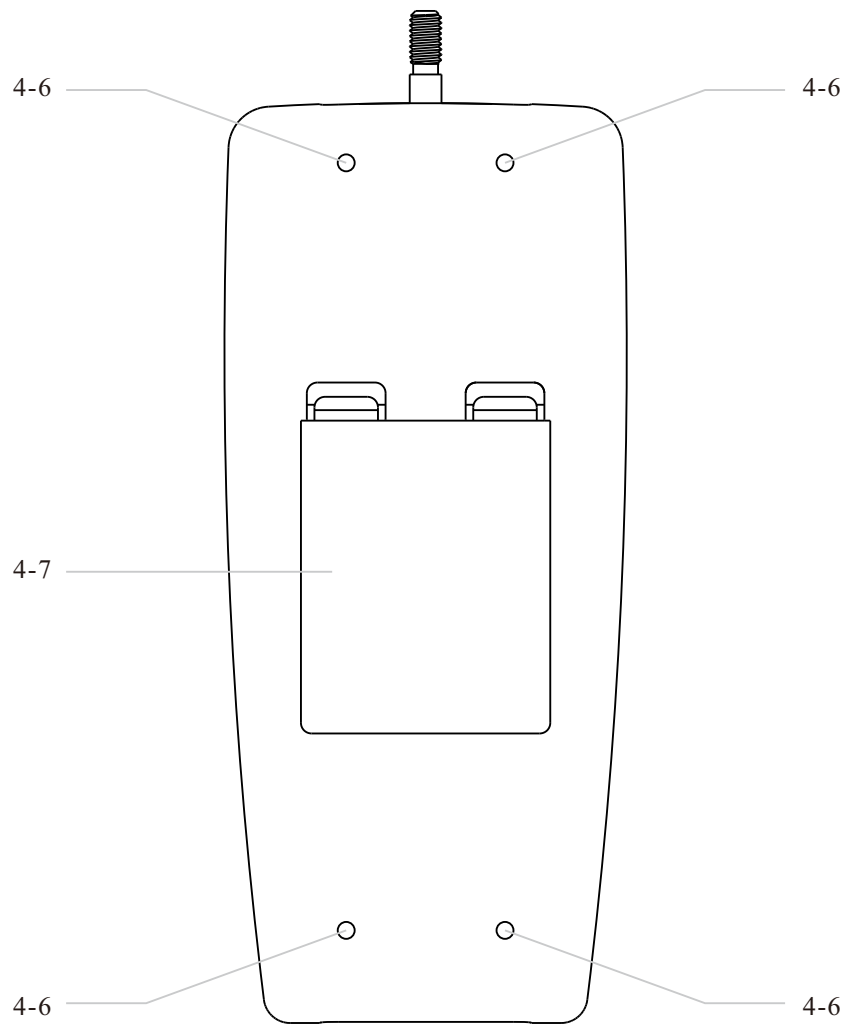


Figure 1 overall structure (positive)



The whole structure (figure 2) on the back

Structure that smart

4-1 Sensor Screw

The screw is the load sensing structure parts of the instrument.

4-2 Displays A

Used to display the readings, measurement unit, message during operation, etc.

4-3 Buttons Operation Area

Distribution by all operations by chain, and the whole not not answer the key

4-4 B operation done here.

Used to display the readings, measurement unit, message during operation, etc. Its main role is to reading in multiple directions.

4-5 power supply interface

Can be connected to 5 v dc power supply, dc power supply.

4 - 6 Fixed screw hole

It is also a fixed structural part of the instrument, which can be used to fix the instrument with other components.

4 - 7 Battery box on the back provides battery power.

4.2 Displayer

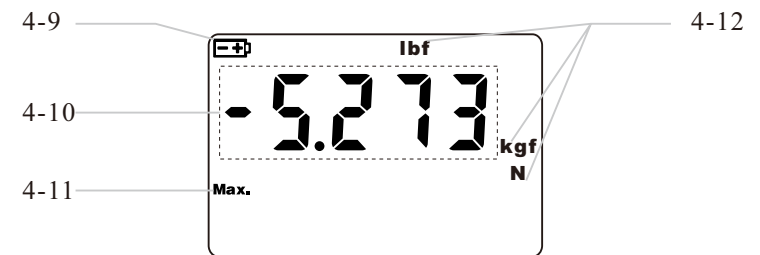


Figure 3 displays

Display function description

4-9 Battery Indicator "E+"

When the battery voltage is too low, in the upper left corner "E+", suggesting the battery voltage is not, the battery needs to be replaced.

4-10 Measuring Values

Thrust (pressure) in this machine, the default is positive (don't display "+"); Pull the default negative (display "-")

4-11 Peaks in f MAX.

When "MAX.", said peak holding pattern, screen shows the peak;
When does not display the "MAX", said the real-time measurement mode, screen display of numerical changes over load.

4-12 Unit Of Measure

Said that the current unit of measure, including "KGF", "N", "1 bf".
Show only one of these units.