

YD-1 Tablet Hardness Tester



Instructions:

YD-1 Tablet Hardness Tester are instruments for detecting breaking hardness of tablet. The tablet is loaded and pressed artificially. It has high accuracy press sensor and hardness data is displayed on LED. It tests tablet hardness continuously. Test data is displayed and locked automatically, so can test be reset and cycled. Automation:auto-test, auto-diagnose, auto-alarm.

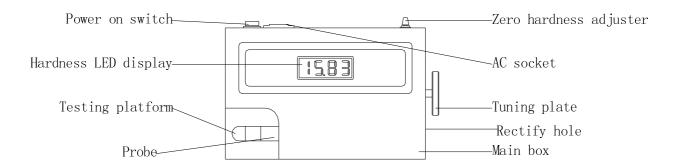
Technical Parameters:

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Model	YD-1
Hardness Testing Range	(2-199.9) N
Hardness Testing Accuracy	Max. $\pm 0.05 \text{ N}$
Tablet Diameter Testing Range	(3-20) mm
Power	220V/50Hz/0.01Kw
	OR
	110V/60Hz/0.01Kw
Packing Size	400×265×185 mm
Packing Weight	7 Kg

YD-1 Tablet hardness tester consist of main box, control system, sensor, transmission part, probe part, printer etc. and centrally controlled by precision auto-control system consisted by micro-P. It has features of high-auto-operation, simplified control, and convenience for operation, high accuracy, high sensitivity, concision style and lower noise.

YD-1 Tablet hardness tester consist of bottom, main box, front panel, rear panel etc.





Front panel includes:

- Hardness LED display
- Product
- Manufacturing Test Rear panel includes:
- Power on switch
- AC socket(fuse jack included)
- Zero hardness adjuster
- Name plate

Function Description

- Hardness LED display
 - 4 digital LED display hardness value of test, unit is N.
- Zero hardness adjuster

Zero adjuster, to offset hardness value to zero. Turn adjuster clockwise, the value is up, otherwise the value is down.

Power on switch

Power on switch is main power switch, in on position, tester is in stand by status, OFF position, tester stop working.

Before connecting to AC power, please ensure it's in OFF position!

AC socket

Ac socket is connected to the power supply with power cord offered in this tester.

Fuse is under the ac socket, attached one 1A fuse and backup one is offered. This is to prevent damage to this tester in suddenness case happened.

Please make sure ac power supply is connected properly!

When change fuse, make sure same spec part is used for tester safety!

Transmission Parts



Transmission Parts are made up of tuning plate, transmission devices and etc. used for squeezing the tablets. Turn the transmission plate counterclockwise the probe goes to left and the squeezing force increase; turn the plate clockwise, the probe goes right and the squeezing force decreases.

Probe Parts

Probe parts are made up of probe and testing platform. The probe is connected to the sensor and the testing platform is used for holding the tablets. Be extraordinary careful and make sure the force applied on the probe is no more than $196\,\mathrm{N}$.

Specification

Hardness range: $0 \sim 196 N$ ± 0 . 5 N Hardness accuracy: Moving distance of probe: 20 mm ± 0 . 1 mm Error of Moving distance: > 24 h rContinues working time: 2 2 0 V / 5 0 H z / 1 0 W Power: $2 8 0 \times 1 8 0 \times 1 1 0 M M^{3}$ Dimension: Weight: 5 K G

Environment Requirement

Usage temperature $+18 \text{ °C} \sim +28 \text{ °C}$ Store temperature $-10 \text{ °C} \sim +50 \text{ °C}$ Humidity $20 \text{ %} \sim 80 \text{ %}$

Power Supply

Range of input power supply $2\ 2\ 0\ V \pm 1\ 0\ \%\ V\ A\ C$ $5\ 0\ H\ z$ Max input power $1\ 0\ W$

Installation

Checking

Open package, take out manual, tester, and accessories, and check items per packing list, any mismatch/damage happened, please contact marketing department immediately.



Tester Settle

Tester must be placed in stable work station/ table and put damping pad between table and tester.

Clean tester periodically to prevent dusty affect normal operation.

Connect To The Power Supply

Link the socket & ac power supply source with attached power cord.

Offset Adjustment

Zero Hardness Adjustment

Turn on the instrument and pre-heat the machine for about 20 minutes. Adjust the Zero hardness adjuster till the number in the hardness LED display is 000.0. Turn the hardness adjuster clockwise the number displayed increases. Turn the hardness adjuster counterclockwise the number decreases.

Hardness Value Is Rectified

- ① Tear the circular Grey membrane on rear board, show hardness value rectify- regulator.
- 2 Install weight hook to the rectify hole in machine left side.
- ③ Erect the tester left on the table and support with hands, make the weight hook outside table.
- ④ Power on the tester, adjust the zero-regulator on the rear panel to make the hardness displayed 000.0N.
- ⑤ Load standard weights 10KG on the hook and it must display 98N (±0.5N).Don't over load please.
- ⑥ If display were wrong, adjust the rectify- regulator to make the hardness displayed 098.0N $(\pm 0.5\text{N})$.
- Remove the 10KG weights and adjust the zero-regulator to make the hardness displayed 000.0N.
- 8 Repeat steps 6 7 until the hardness displayed 000.0N when unload and 098.0N.
- (9) unload the weight hook, paste the circular Grey membrane on the rectify- regulator.

Operation

Power On

Turn the power switch to ON position, the indicator light, initialize the tester for 10



minutes, then it's readiness.

Pre-heated for 1 minute, the system is at the initial state. The system should be adjusted to display 000.0 in hardness indicator if necessary. 20 more minutes later the system is at testing state with a sound of beeping and ready for testing.

Test

Turn the tuning plate clockwise and move the probe right to proper position. Put the tablet to be tested on the testing platform and turn the tuning plate counterclockwise carefully. The number displayed on the hardness indicator increases along with the probe squeezing the tablet. The number on hardness indicator reaches the biggest at the time the tablet is to be broken. The system will lock the number and beep sounds, the number on the LED indicator is the hardness of the sample. About 10 seconds later, the beeper stops sounding and the system is ready for the next test.

Power Off

Turn switch to OFF position, the indicator is off, tester stop.

Demonstration

- ① Power on and preheat the tester.
- 2 Zero adjustment.
- 3 Place the tablet on the test plate, begin test.
- 4 Read the hardness.
- ⑤ Same with above portion repeat 2-4 steps.
- © Turn off the tester after test completed.

Maintenance

Must clean box and parts periodically, do not use steel brush, it result in damage to the tester.

After testing every time, pls. Clean rotation parts and ensure dry to avoid damage to the tester.

Troubleshooting

Can not power on

Check whether the voltage is OK and fuse is OK, please refer to the rating marked in nameplate while installation.



If the tester does not work after checking above items, please don't repair it by yourself, contact our market department please.

Product Quality Guarantee

- This quality guarantee covers the scope of YD-1 Tablet hardness tester.
- Start from purchasing date; warranty period is one year.
- This quality guarantee is effective from receiving registration card filled by users.
- During warranty, we offer free charge service for troubleshooting in normal cases, but for any cases caused by flood, fire, earthquake, or other calamity, is excepted.
- During warranty, in one of the following cases, we will charge for material/service:
- No product quality guarantee, mismatch with this guaranty or wrong record/remark.
- Damages caused by unusual working environment.
- Damages caused by disassembly, install, extend, move or modify without our permission.
- Damages caused by repairing without our permission.
- Keep this guarantee in proper place and any other issue is provided.

Using Instruction

- Proper operation & maintenance will prolong the working time of the instrument. Please follow the manual's instruction carefully.
- When the power supply is unstable, pls. Use AV regulator. Pay special attentions to the information related to power supply, temperature, humidity in the manual.
- Always keep the instrument cleaning. Disassembly/move any parts of the tester is prohibited.
- In case of trouble present, pls. Stop using, call us or dealer for help.