

Electronic Density Meter

Operation

manual

I . Principle:

The direct reading gold detector JL3002SD/JL6002SD is based on GB/T533, ISO2781, astmd297-93, DIN 53479, ASTM D792, D618, D891, ISO1183, GB/T1033, ASTM d792-00, JISK6530, ASTM d7992-00, and JISK6530, using the water displacement method of the alkimide.

II . Purpose:

This machine is mainly used in pawn shop, precious metal recycling, jewelry silver building... And other industries. Accord with GB/T1423 precious metal purity determination method.

III. Instruction

Mode	JL3002SD	JL6002SD	JL3005SD	JL1203SD
Capacity	300g	600g	300g	120g
Weighing accuracy	0.01g	0.01g	0.005g	0.001g
Density accuracy	0.001g/cm ³	0.001g/cm ³	0.0001g/cm ³	0.0001g/cm ³

1: Component parts

- ① Host
- ② Measurement units
- ③ Sink
- ④ Weighing weight
- ⑤ Anti-floating frame
- ⑥ Tweezers
- ⑦ Net ball
- ⑧ Sample cup
- ⑨ Power



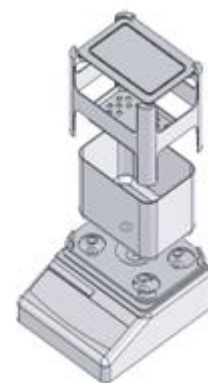
2: Control panel description

	Power function
	Print function
	Measurement data conversion function

	Memory function
	Long press : Set function Short press : Return function
	Long press : Calibration Short press : Zero function

IV: Installation

1. Adjust the 4 pins to determine the level of the host, and determine that the sensor platform and the water container support base are not in contact.
2. Add distilled water (product that has not been tested) and put it on the support seat of the water container.
3. The measuring platform is placed on the sensor platform and the bottom of the measuring platform is placed correctly on the sensor platform, and the measuring column is lowered into the water. When a bubble is attached to a measuring sling, the bubble can be removed using a titration straw.



Note: when installing the density measuring platform, you should force the tray below, and then put it on the sleeve to prevent the force from crushing the sensor.
Thermostat: power condition, AC 100V, 50Hz or 220V, 60Hz.

1. This instrument is a visual density device. When the power is plugged in and the power is turned on, it will be stable for about 30 minutes. Once this process is completed, the power will be turned off in real time, and the density circuit will remain stable.
2. If "-- -- --" cannot be converted to 0.000g/0.00g. This represents zero drift or wind. According to the zero key, the display is 0.000g/0.00g. If not, please correct it again. (please refer to the calibration section)

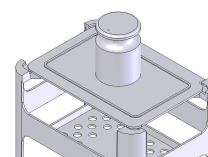
V: Calibration

The following situations need to be calibrated:

1. First time to use
2. When the visual density tester is moved away
3. When the surrounding environment changes
4. Regular adjustment

One point calibration:

- 1: Connect to the power, warm up for at least 30 minutes, when display "0.000" g.
- 2: Now show "0.000", press "Zero" key after show "CAL"
- 3: Now show "300.000" flashing, put 100g weight on the pan (any weight is OK, 100g weight as example), after show "100.000" finish calibration.



Four points calibration:

- 1:Connect to the power, warm up for at least 30 minutes, when display "0.000" g.
- 2:Turn off the machine.
- 3: Press "Zero" key while turn on the machine, after show "CAL" remove "Zero" key.
- 4:Now show "300.000" flashing, put on 300g weight on the pan ,after show "300.00" remove the weight, now show "200.00", put on the right weight on the pan until show "0.000", finish calibration.

Temperature and solution compensation setting

The apparent density of the sample to water can be measured by the tester when the water equivalent solution is used. The apparent density varies according to the water temperature. Therefore, it is necessary to take water 4℃ apparent density 1.0000 as the basis for temperature compensation. For the water temperature compensation coefficient, the machine has been stored in the Celsius 0~100 memory value. The apparent density of the sample can be set according to the temperature of the water.

When the machine show "0.00" g, long press "SET" key to enter measurement parameter setting. Press "SET" key to modify setting parameters, press "Print" key to SET shifting parameters, press "Enter" to enter the next setting, and press "Zero" key to exit setting mode.

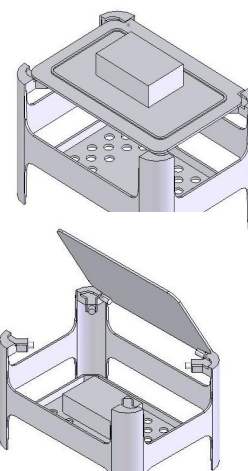
Settings menu menu menu:

Item	Parameter	Instructions
DDo DUP	0000	Upper limit, lower limit
℃	00.0	The current temperature
UDE	0.0000	The density of other liquids when other liquids are used as the measuring medium
LIT	0/1	Distilled water as medium/other liquid as medium

VI: Operating steps

Solid sample

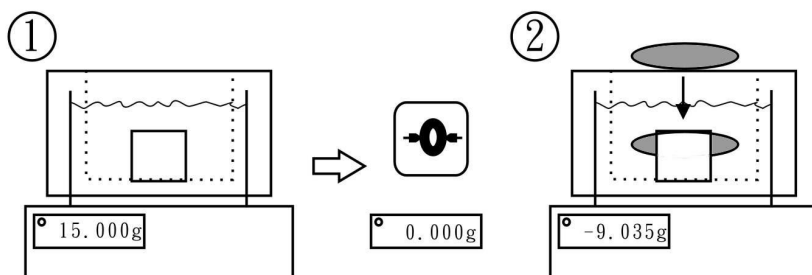
1. Turn o the machine, the status display area displays "AIR". The sample is placed on a measuring table in the air at zero point.
2. After stabilization, press "ENTER". Confirm the weight in the sample air.At the time, the "sav-a" is displayed, indicating that the weight in the sample air has been recorded.
3. The status display area displays "LIq". After the sample is removed and returned to zero, the sample is gently put into the lifting bar of the liquid.
4. After the numerical stability in the liquid, press "ENTER" to confirm. Show "sav-b", indicating the weight of the sample in the liquid.
5. Automatic display density value. Press "MODE" to switch the volume of the sample.
6. Press "PRINT" key print all data.
7. Press "SET" key to return.



Floating sample

You can measure the floating body with an anti-floating rack without having to prepare a medium solution lighter than the apparent density of water.

1. Put the anti-floating rack on the lifting bar in water and press Zero to deduct weight.
2. gets the weight in the air, put the sample under the anti-floating frame avoid sample was overturned, if the sample is less than $1.000 \text{ g} / \text{cm}^3$ density, then the samples will be under the anti-floating frame shows a negative value for floating body and weight.
3. Press Enter to calculate the density value.



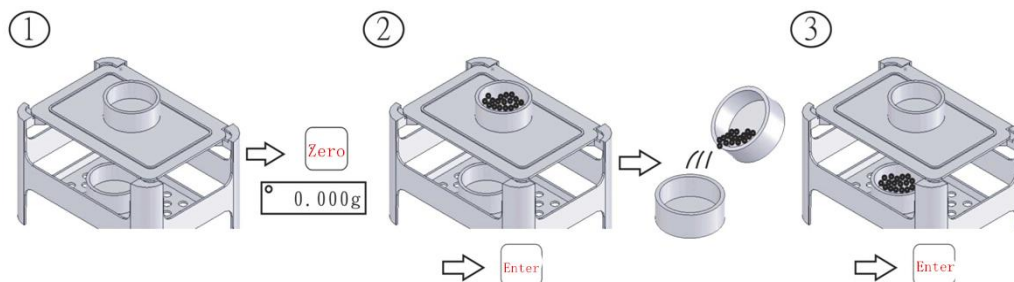
Particle sample

Preparation:

1. Change the liquid medium to alcohol (refer to temperature and solution compensation setting), for example, the surface tension of ethanol is low.
2. Set the density value of liquid media.
3. Prepare 1 measuring cup and 1 tea ball.

Steps:

1. Put one measuring cup on the measuring table, and put the tea balls on the lifting bar in the water. Press Zero to deduct two weights.
2. Confirm that the display screen is 0.000g. Put the particle in the measuring cup (A) and press Enter to remember the weight in the air.
3. Take out the tea ball (B) and carefully move the particles from the measuring cup (A) to the tea ball (B).
4. Carefully put back the tea ball (B) and the measuring cup (A) on the measuring table.
5. At this time, the value of the display screen is the weight of particles in water. Press Enter to remember the weight in water and get the value of apparent density. Press MODE key to switch density and volume, press SET key to enter the next sample test



VII: Maintenance

- (1) the JL3002SD must not be able to measure the weight of 300g; JL6002SD has no energy to measure the weight of 600g. And in the installation and use of the process, should avoid the machine stand beyond the pressure of power.

- (2) the appearance of this machine should be wiped with dry cloth, not to accumulate dust.
- (3) if the machine is not used for a long time, the water tank should be taken down.
- (4) this machine should avoid collision, extrusion and dampness. If it is not used for a long time, please remove the power source and cover it with dust cover.

VIII: Troubleshooting

(1) weight instability:

Removal method: remove the measuring platform and sink, and see if there is any foreign matter or water drop. If there is any foreign matter or water drop, please remove the foreign object or wipe it clean.

(2) if the number appears ----- -e.

If you do not return to zero, clear the object on the measuring table first and then contact the supplier to repair it.

(3) if there is a fault that cannot be eliminated by itself, do not open the machine without authorization, and contact the supplier to repair it in time.