DENSITY BALANCE

INSTRUCTION

Density balance use high precision weighing sensor and testing device, Its have units convention storage and calculating function.The detection instrument is widely used in scientific research institutions and enterprises

Ⅰ Model specification and index

MODE	CAPACITY	READABILITY	PANSIZE
XY300-2Cm	310g	0.01g	160x70mm
XY600-2Cm	610g	0.01g	160x70mm

Ⅱ Working Condition

Working Temperature: 0°～50°C,   Maximum Consumed Power: 5W

Temperature Fluctuation: 5°C/h,   Power Supply: 110V, 50HZ/60HZ

Comparative Humidity: 50％～85％

Ⅲ Operation Requirements

1.Power on and adjust the level in the center;

2.Warm up the balance more than 30 minutes;

3.Use the standard weight to check the balance,if need calibration please seven point;

4.If the balance can't work,please contact us as soon,and please do not dismantled by youself.

5.Please read the manual before use,please do not put on the weight beyond the capacity.

Form two：The density of some solid material

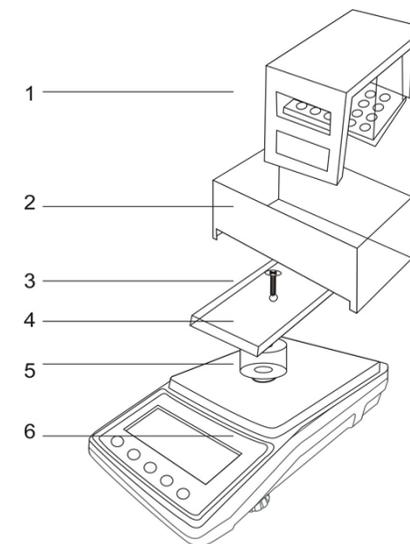| S-SD	Name	Density（D）
01	Wax	0.9
02	Aluminum	2.7
03	cuprum	8.9
04	Steel	7.8597
05	Silver	10.5
06	Lead	11.3
07	Gold	19.3
08	Osmium	22.5
09	The custom stored	
10	Custom settings	

XV Packing list

Balance---1 set   Instruction---1   Pan---1   Power adopter---1

Standard weight---1   The warranty card, certificate---1   Density apparatus---1

XVI Installation diagram

The installation sequence:

1-2-3-4-5-6

1.Density frame   2.The sink

3.Screw   4.Tray

5.The heighten post

6.Density Balance

IX Density testing mode

The unit D means g/cm3.

The default mode is solid density mode.

Press"UNIT"for long time and enter to the

density test mode,The display will show：

Press"UNIT"for short time,and choose the

Solid、liquid、dust、soa(Absorbent)、

Solid density setting(ssd)、

Liquid density setting(sld)：

Press"ENTER"to enter the density testing.

Solid	g
Liquid	g
dUSt	g
SOA	g
SSd	g
SLd	g

In this situation press "CAL"will back to

The weighing state;

X OPETEATE

1.Solid density testing

 *When it show Solid ,press"ENTER"for short time;

  *Then it show: Solid-1,when it display 0.00g,put the things on the pan,when it goes stable,then press"ENTER",and take away the things;

  *Then the balance will show:Solid-2,when it display:0.00g,put the things inside the liquid,when the weighing goes stable,then press"ENTER";

  *Then the balance will show Solid-3,and display the density value.

Press"CAL",go back to the step one；

2.Liquid density testing

*Setting the solid density for test the liquid,please check the No IX.

*When it display Liquid ,press"ENTER";

*Then it will display Liquid-1,when it show 0.00g,put on the solid which you know the density on the pan,when it goes stable,

Press"ENTER",and move away the solid;

*then it display: Liquid-2,when it show 0.00g,put it inside the liquid,when it goes stable,

Press"ENTER"when it show: Liquid-3 ,and it will show the density,the density unit is:D means g/cm3;

Press"CAL",and it will go back step one.

*Under the testing state,press"CAL",go back to step one.

*Under the testing state,press"UNIT",means tare the weight.

XI Density Setting

*The default liquid density is：0.998229g/cm3,（20°C water）,solid density：7.8597g/cm3,（Standard steel）

The liquid buoyancy due to the temperature change,so each 1°Cchange,the liquid will change 0.02%.so please check the item "XIII"for adjust it：

1.Solid Density Setting

*Choose the mode to: SSd ,according the item IX,means the solid density choose.

*Press"ENTER",it will show: S-Sd-XX,press"COU"to change the solid ,,XX ,01-10,

Means 10 kind of solid density;

*Press"ENTER",to choose the density you need,the testing will base on it.

S-Sd-9is customer storage

S-Sd-10 is customer setting,press"UNIT"and setting ,press"CAL"to change the digit,press"ENTER"and"COU"to change the number,when finish the setting,press"CAL"enter and then press"CAL"go back..

2.Liquid Density Setting

*Choose the mode to: SLd ,according the item IX,means the liquid density choose.

*Press "ENTER",it will show: S-Ld-XX,press"COU"and choose the liquid kind,,XX ,there are 01-10,means 10 kinds of liquid density;

*Press"ENTER",to choose the liquid density,for testing base on.

S-ld-9 means customer storage.

S-ld-10 means customer setting,

Press"UNIT"begin to setting,press"CAL"to change the digit,press"ENTER"and"COU"choose the number,when it finish.press"CAL"enter,and press"CAL"go back..

*Note：under the testing state,press"CAL",will back to up menu.

XII Temperature Setting

Under the weighing state,

Press"ENTER"+"COU",until it show"1d" （there have 1d-100d） 100 temperature can be choose,d means water temperature.1℃ =0.002g/cm3,please choose the temperature according real state.

Press"COU"and"CAL"adjust the temperature,press"ENTER"enter,auto back ,power off will reset to the factory setting,20°C water density 0.998229g/cm3.

XIII Printer

Press "COU" to print the result after finish the testing.

XIV Standard density choose

You can choose the suitable thing to test other things density!

Form One：Standard liquid density

S-LD	Name	Density（D）
01	Gasoline	0.70
02	Alcohol	0.79
03	Kerosene	0.80
04	Water（20°C）	0.998229
05	Water（4°C）	1.0000
06	Honey	1.40
07	Bromide（0°C）	3.12
08	Mercury	13.60
09	Customer Storage	
10	Customer Setting	

IV Weighing

1、Warm up and let balance stable and display"0".

2、Put the things on the pan,and it will display the weight of the things.

V Unit choose

There are 3 units can be choose,press"UNIT "can choose the units：g\oz\ct

VI Tare

(1) If there i→0/T←tainer on the weighing tray, the balance displays the weight of container.

(2) Press "   "and then "0.00" will be displayed.

(3) Place the thing into container and the balance will display the weight of thing.

(4) On the density test situation, the UNIT is the tare function

VII Calibration

(1) Calibration Requirements

When distinct error appeared in the weighing of balance, the balance shall be calibrated to make weighing accurate. Calibrated balance shall be placed on the stable working platform without the influences from the vibration of air current and strong electromagnetic wave. The calibration results will be more accurate after turn on and warm up for more than 20 minutes .

(2) Calibration Procedure

Turn on the balance it shall display the weighing mode as "0.00", then press the "Calibration" button until shows "CAL", then release. Display blinkingly the standard weight value and then place same value standard weight; The "= = = = = =" will be displayed; then display stably weight value and remove weight.   then "= = = = = =" will be displayed. the "0.000" will be displayed. The calibration is finished.

VIII Density Testing Mode

(1) Fix up the testing device.Put on the water inside the sink.

(2) Press the "UNIT" until the display show the density and release,then choose the solid, then press enter to begin solid density test

(3) Put on the weight on the upper pan then the display will show the solid weight, then press enter to next step,move away the weight and then put inside the water then the display will show the weight ,then press the enter again,then the display will show the result.