User Manual



Please read the manual before installation and operation.

Drawell International Technology Limited

Chongqing Drawell Instrument CO,.Ltd

Add:Suite 2705, Building No.12, Shiyou Road No.1, Yuzhong District, Chongqing, China Tel: 0086-023-63268643

Shanghai Drawell Scientific Instrument Co.,Ltd

Add: Suite 1117, Lane 561 Xiu Chuan Rd., PuDong New Area, Shanghai, China

Web: www.drawell.com.cn

Email: sales05@drawell.com.cn

I Instruction

1. Security

Please reading the following before you use the Moisture analyzer



- a. The instrument can use for test the moisture of the sample, each improper operation may result in personal injury and equipment damage
- b. Please access the AC power accordance with the manual;



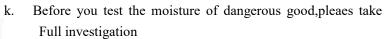
- c. Please make sure the power cord does not interfere with people action;
- d. Do not use the instrument under the hazardous, wet or unstable environment;
- e. Unplug the power before you clean the analyzer;
- f. Please keep enough space around the instrument, and keep the top of the space at least 1m;
- g. During a special experiment, please wear protective equipment by youself;
- h. Please do not change the instrument's components and any other aspects.

 Maintenance of this equipment by the factory authorized professionals.

Moisture analyzer use Halogen lamp.



- i. Do not put the flammable materials around the instrument;
- j. Do not touch the halogen lamp when it on working. Special attention to the dangers of some sample;





Inflammable and explosive materials: Heating the inflammable and explosive materials will produce flammable gases or vapors, so need to lower the temperature in a dry environment. In case of fire or explosion.

Toxic and corrosive substance: Keep the samples of toxic or corrosive ingredients in well-ventilated environment.

Above the sample test will be particularly careful, for any damage caused by your own risk

How to use printer

Please choose the printer which is suitable for our moisture balance.

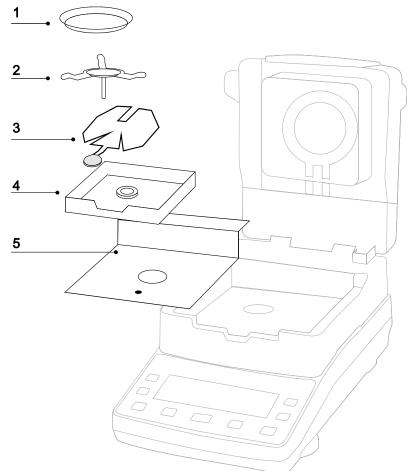
After finish the moisture test, such as the need to print the test report may be as follows:

- 1).Press "menu"for long time until show the "print" and release(if no released, it will show "T" it means continuous output.
- 2). Then the display will show L-C (Chinese) or L-E (English) select Print language, according to the "up" or "down" button to select the print language. Press "Enter" to enter the next step.
- 3). Then you can choose 1-5 to check the result you want to print, 1 means latest one. And press "enter" to confirm the result
- 4). The printer will print the test report automatic.
- 5). Please do not press any key on the print panel.

Tips:

- 1. Warm-up the analyzer 30 minutes and take the first time calibration;
- 2. After the end of a water calibration experiments (see 3.6);
- 3. Each time the switch machine, please interval of 5 seconds;
- 4 .Cover the heater, do not leave the weight on the pan, or halogen lamps will be crushed;

Schedule: assembly drawing



Please installation the instrument according the picture Installation order from top to bottom: 1 --2--3--4--5

- 1. Aluminum scale pan
- 2. The triangle scale frame
- 3. Scale pan brackets
- 4. Wind cover
- 5. Stainless steel plate

II.Installation

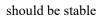
2.1 Standard Packing List

Please check whether the packaging and accessories is complete when you open it

Standard	Quantity	Note
Moisture Analyzer Mainframe	1 set	
Wind Cover	1 piece	
The sample pan holder	1 piece	
Tray handle	1 piece	
Power cord	1 piece	
Aluminum sample pan	1 set	50pcs
100g standard weight	1 piece	
Product Manual	1 piece	
Product certification	1 piece	
Warranty card	1 piece	

2.2Operating Requirement





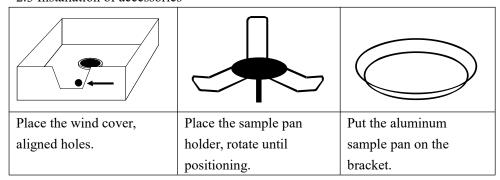


dry, without strong vibration, without strong magnetic field.



of the environment

2.3 Installation of accessories



2.4 Adjust the level and connect the power



There are two feet in front of the instrument, adjust it and keep the instrument level.



Connect the instrument with power, put one side of power cord



Please warm up more than 30minutes for keep it stable and accurate.

III Operation

3.1.Display



3.2.Icon Introdution

%----The percentage of dry weight **m** %----The percentage of moisture

gGram

188℃----Temperature

88:88T ---- Time set and heat time

----Heated mode

----Standard mode

----Rapid heating mode

Gentle heating mode

Stop heated mode

3.5 Calibration

When the instrument error or improper operate. Calibration weights can be adjusted with accuracy.

Press "Reset" key and does not release until it display"-cal-",

Then flashing "100.000", put on the calibration weight, then it will display "= =

until it display "100.000" remove the weight, it will display "= = = = = ="again, Waiting it show" 0.000 ", the calibration is completed.

IV Technical parameters

Mode	DSH-10A-10	DSH-50A-5	
Specification	110g/10mg	110g/5mg	
Readability	10mg	5mg	
Pan size	Ф 90		
Heating mode	Halogen lamp		
Display	LCD		
Temperature Setting	40°C~199°C		
Time Setting	1~99 minutes		
ATRO	100%~999%		
ATRO	0%~999%		
History store	15 set		
Power supply	220V		

when flashing .Press"UP"or"Down"to choose the stop mode.and press "ENTER" confirm, Parameters are defined, and go to the next parameter (temperature) setting.

3.5.4 Heating Temperature Setting

The instrument temperature setting range is from 0-199 degrees. Press the "MENU" to enter the parameter setting mode, press the "ENTER"

key until the **188°** flashing, Press"UP"or"Down"to choose the temperature.and press "ENTER" to go to next setting(time setting)

Icon 188° will transform other temperature when its heating.

3.5.5 Heating time setting

1. Just choose timing stop mode need set the stop time.

Press the "MENU" to enter the parameter setting mode, press the

"ENTER" key until the **88:88T** flashing , Press"UP"or"Down"to choose the temperature.and press "ENTER"

- 2, Heating cycle: Just gentle heating mode need choose heating cycle
- 3.6 For example:
- a. sample: water,
- b. Press the "MENU" to enter the parameter setting mode, choose the

(, temperature: 120°C, Press "ENTER" go to weighing state

c. Put a dry paper on the pan, and press"Tare" clean the weight.

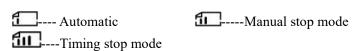
Put on the 3g water on the paper,until the readability stable.

Press" **START / STOP** " begin test.

Waiting for it sop.look the result.

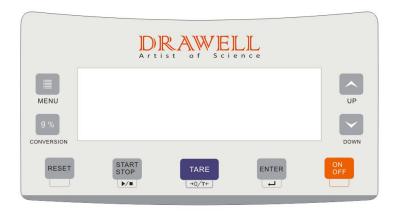
The m% will be 100%.

Weighing error or sample weight deficiency can lead to the result of the test a deviation



E---- Heated state

3.3. Keypad



NAME	Key features	
ON/OFF	Power on / off, Just off the internal DC power supply	
START / STOP	Start heated/ stop heated	
TARE	Weighing peeled, Settings exit	
MENU	Enter the setting menu	
CONVERSION	Switching measurement results	
ENTER	Confirm the current setting, go to next	
RESET	Return to the weighing mode (short press), calibration balance (long press)	
DOWN	Reduce	
UP	Add	

- 3.4 First testing
- 1. First test, if not change the temperature and time settings, the moisture meter defaults to factory defaults.
- 2. Put empty sample pan on the holder (see section 2.3).
- 3. Press the "TARE" to clean weight.
- 4.Put the sample on the pan (Sample weight should be heavy than 1g, the general 3-5g).
- 5. Close the heating cover, press the "Start / Stop" button to start the test. At this point, heated tube lights, fans turn on, heated symbol in the upper left flashing. While rolling on the screen displays the current temperature, has been heating time, moisture content of the current sample.
- 6. End of the test, heated lamp automatic shut off, the buzzer alarm. Then the sample is displayed on the moisture content, heating time, current temperature and the parameter setting mode.

Note: Don't touch the sample plate, the temperature is too high now.

7 Press the "Reset" button, the instrument returns to weighing mode.

- 3.5 Parameters Setting
- 3.5.1 Heated parameter storage and recall
 - a. The instrument can store a total of 16 0-F group of heated parameters. Each group can set the heating method, stop mode, time and time test parameters.
 - b. In weighing mode, press the "Settings" button to enter the parameter setting mode, then store the address number (the number show the highest bit) is flashing. Press "down" or "up" key to select the desired address number, the 0 is the factory setting,1-F for the user store.
- c. The memory address number 0 means factory settings, then click "ENTER" button to exit the settings back to weighing mode. At this point heated mode is the factory defaults.
- d. When the memory address range for the 1-F any one number, press "ENTER" key, and enter the parameter setting after the completion of a parameter (heated mode, stop mode, time mode) setting. Press the "TARE" key, the address number of the test parameters have been stored.

This mode is the factory setting, suitable for most samples. Heating temperature can be set, the sample is heated to a temperature, and keep to the test ends automatically.

b. Rapid heating mode: (1)

This mode is suitable for samples with higher moisture content. You can set the heating temperature, heating the temperature will exceeds the set value, the future will be reduced to the set temperature and hold until the test ends automatically.

- c. Gentle heating mode: ()
 - This mode is suitable for low moisture content, surface casing is easy to form, easy to burn the sample. From the heat began to rise to the long time required to set temperature, heating up even slowly. Heating time user selectable.
- d. Press the "MENU" to enter the parameter setting mode, press the "ENTER" until the heating mode, the icon flashes "UP"or"Down"choose the mode you need and press "ENTER"confirm.
- 3.5.3 Stop mode setting:
- a. Automatic stop mode:

Heating the sample within the specified time during the weight loss of less than 2mg will automatically stop when the test. This mode after 15 seconds in the heating effect.

- b. Manual stop mode: (Sample heating process is the continuing until the press the "start/stop" button to end testing.
- c. Timing Stop Mode: (fill)

 Stop time set by the user, the sample heating process is continued until the end of the heating time to set the value of the test.

Press the "MENU" button to enter the parameter setting mode, press the "ENTER" key until the shutdown mode

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