STAINLESS-STEEL ELECTRIC-HEATING DISTILLING APPARATUS User Manual （WATER-CUT AUTOMATIC-CONTROL）

DRAWELL
Artist of Science

Please read operating manual before installation and operation.

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I、SYNOPSIS

This series apparatus takes tap water as source water to produce pure water by mode of electric heating distilling. It's ideal for clinics, hospitals, laboratories, and pharmaceutical units, or for chrome-plating use, etc.

This series apparatus has been improved design by adopting "liquid-level sensor" to control water level, which can prevent heating element(s) from being injured due to water cut.

Its speciality is the product is well made of $1Gr_{18}Ni_9Ti$ fine and specially treated stainless-steel material, which not only ensure the good quality of the distilled water, but also longer the life-span of the apparatus.

We pay much attention to quality administration, and our product manufacturing strictly conforms to the requirements of all technical process.

II、STRUCTURE

This product is composed of evaporating boiler, condenser, and the electric control panel.

1、 Evaporating boiler: made of fine $1Gr_{18}Ni_9Ti$ stainless-steel thin plate. Process: rolling, elongation, & advanced welding. Water (in the boiler) over the level-limit would spill out itself. Rubber sealing ring available between the boiler &the lid. Inside the lid there is a water fender, which can effectively defend water drops coming with steam to injure, distilled water quality. To scour out the boiler acid or alkaline lotion are recommended to use. A drain cock is available in the right side of the boiler for user to drain the remainder (water) at any time.

2、 Condenser: made of $1Gr_{18}Ni_9Ti$ stainless-steel thin plate & pipe. Its advanced structure makes high heating exchange rate & convenience of detaching for cleaning.

3、 Electric Control Panel: controls the heating element(s) via "liquid-level sensor". Once water is running out of the evaporating boiler, the device automatically cuts off power, while light & sound warnings give out; heating go on working as water level is up to the requirement. It's very clear that power heating, & water-cut can be displayed by indicators.

III、HOW TO USE

- Put the cable to the power distributor. Make sure the local voltage same with the apparatus requirement.

Each phase of the input wire can beat not less than the load of the related single phase of the apparatus. The power distributor should be set a switch, which is not allowed to be "on" right now. **Connect a grounding wire from the grounding end of the apparatus to the tap water pipe.**

- Get through water source way as per the indication of the sketch.
- Close the draw-off valve.

- Release (open)the water source valves. The tap water enter into the condenser through the control valve, then return to the funnel, & pour into the evaporating boiler.
- When water flows out of the mouth of the funnel, then you can push on the switch on the power distributor board. Now the indicators of "power", & "heating" are on which means the evaporating boiler is heating.
- When water level is not up to the set requirements, the less-water indicators are on as well as the power indicator, & buzzer sounds at the same time.

- When water in the boiler is boiling, you can adjust the intake control valve or the water source valve for the purpose of adjusting the intake volume of the cooling water. Meanwhile please watch the production of the distilled water & the valves released much or less, which are for the purpose of producing more possible distilled water.
- Hose for distilled water cannot be too long, the proper length of which is it just can be put into the mouth of the ware. Hose should be washed clean by distilled water before use, & it should be unblocked.

Ⅳ、MAINTENANCE

- Wash clean the inner body of the apparatus before each time's using. Drain the inside water & replace with fresh water, or the scale may have influence on water quality & on its working effect.
- Substances in the water deposit after water evaporates. Especially when tap water's quality is not so good, the deposited scales would stick on boiler's walls, surface of the heating pipes, inner & outer walls of the condenser, etc. After long time, the deposits obstruct the fluent flow of water & cause poor condensation, which lower water production. The deposits would also shorten heating element's life due to heat gathering on. So the above-mentioned scales should often be cleared.

How to clear: Firstly clean the surface dirt with brush, then wash clean with weak base or its lotion if necessary.

Be careful: do not brush clean it too hard, or components may be injured.

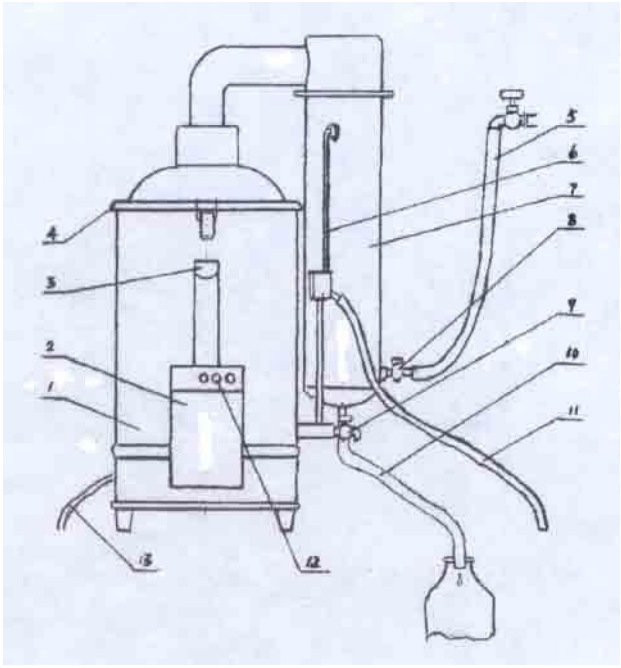
- The apparatus's heating element is the immersing heating pipe, whose heat-generate body is made of nickel-chrome alloy, which is inside the copper tube. In case of water cut-off, the heating fails to be absorbed by water, the copper shield will be broken due to overturned. That's why the heating element must be immersed in the water when the apparatus is working.
- The specially assigned staff should operate the apparatus. If change a person, maintenance details should be clearly handed over.
- Have a routine check of the electric panel.
- To ensure safety, water is not to pour into the electric control panel during wash clean & use.
- When users need to replace heating elements for maintenance, please see that the washer at the connecting joints to be no leakage or the insulating material maybe punctured if the electrified end of the heating pipe is with water drops on. Connecting joints of all the wires are to tighten by nuts, or sparks may happen to burn injure end of heating pipe.
- Newly bought apparatus should be wash cleaned, and then it should be electrified for 2 hours for evaporating. Then put it into real use (washing process can be done as per the fore-mentioned indication).

Ⅴ、SPECIFICATION

Models	DZ5Z	DZ10Z	DZ20Z
Water produce	5L/hr	10L/hr	20L/hr

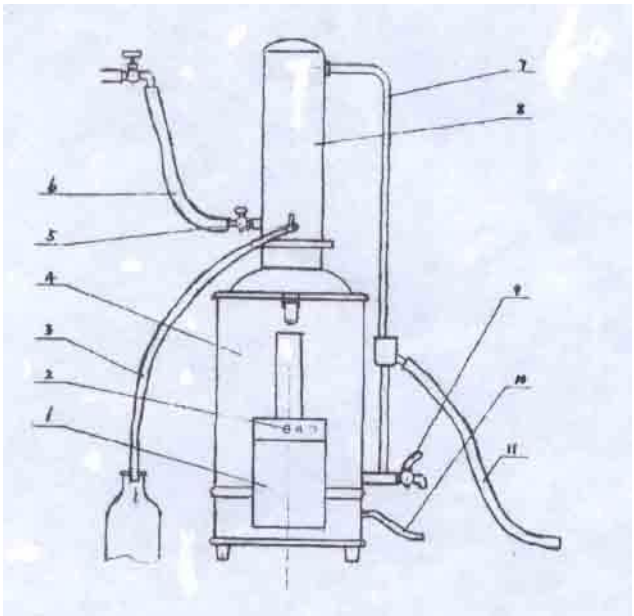
Power consumption	4.5kVA	7.5 kVA	15 kVA
Input power	220V	380V	380V
Size of packing(L×W×H)	35×26×78	42×30×90	50×35×80
Gross weight	8kg	10kg	13.5kg

Ⅵ、 (a)SKETCH FOR INSTALLATION(20H/L):



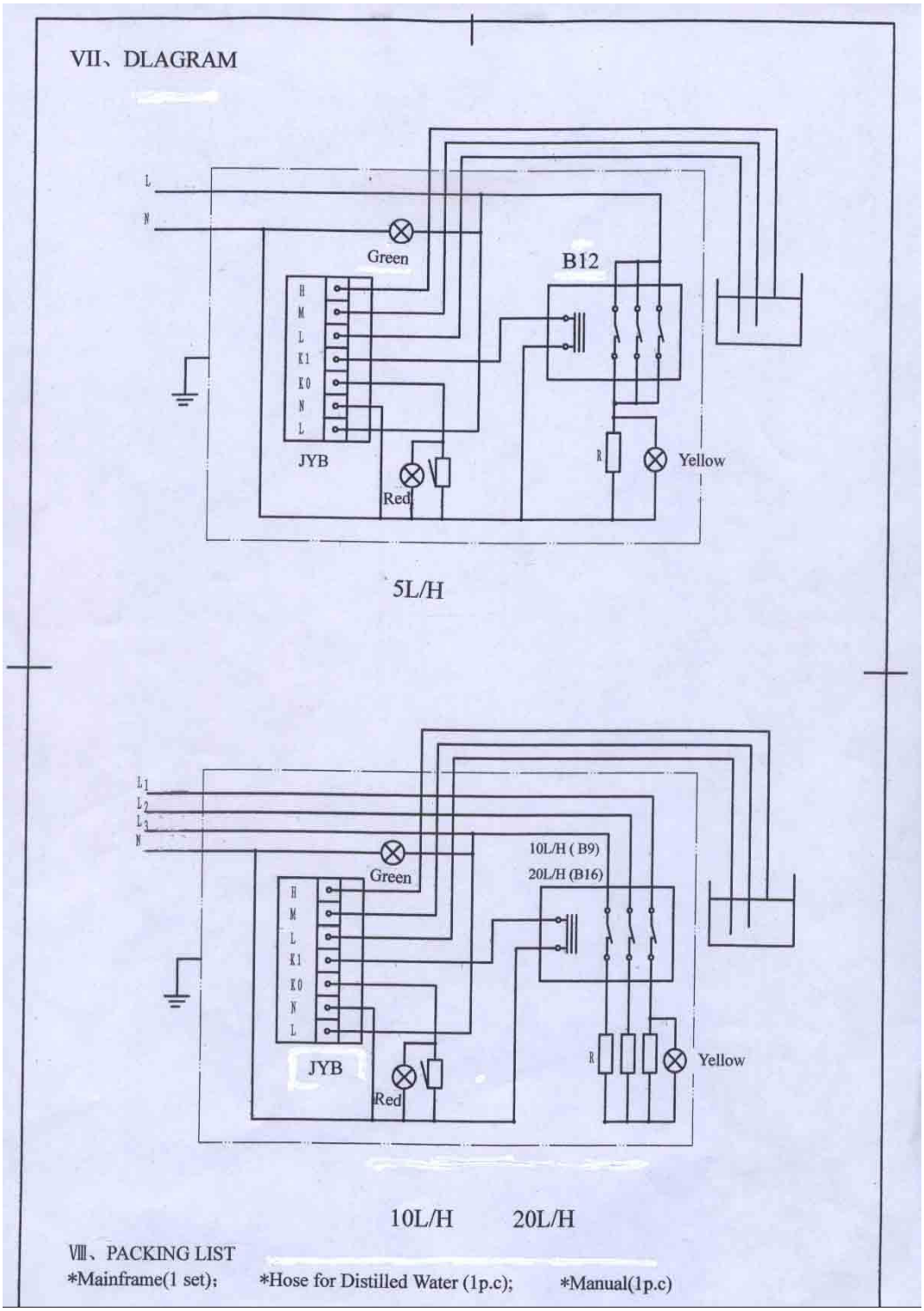
1. Evaporate drum
2. Electric control panel
3. Liquid-level sensor
4. Lid & sealing ring
5. Water-source valve & intake hose (users to arrange by them selves)
6. Return water pipe
7. Condenser
8. Intake control valve
9. Draw-off valve
10. Distilled water hose
11. Hose for spill water(users to arrange by then selves)
12. Indicator lamp
13. Cable

(b)SKETCH FOR INSTALLATION(10L/H& 5L/H):



1. Electric control panel
2. Indicator lamp
3. Hose for distilled water
4. Evaporate drum
5. Intake control valve
6. Water-source valve & intake hose (users to arrange by them selves)
7. Return water hose
8. Condenser
9. Draw-off valve
10. Cable
11. Hose for spill water (users to arrange by them selves)

Ⅶ、DIAGRAM


VII、DLAGRAM
L
N
Green
B12
H
M
L
K1
K0
N
L
JYB
Red
R
Yellow
5L/H
L1
L2
L3
N
Green
10L/H (B9)
20L/H (B16)
JYB
Red
R
Yellow
10L/H
20L/H
Ⅷ、PACKING LIST
*Mainframe(1 set);
*Hose for Distilled Water (1p.c);
*Manual(1p.c)

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