Kalstein

Laminar flow cabinet

Model YR05739

Instruction Manual

Thank you very much for purchasing our Kalstein´s Laminar Flow Cabinet Model YR05739.

Please read the “Operating Instructions” and “Warranty” before operating this unit to assure proper operation. After reading these documents, be sure to store them securely together with the “Warranty” at a hand place for future reference.

 Warning: Before operating the unit, be sure to read carefully and fully understand important warnings in the operating instructions.

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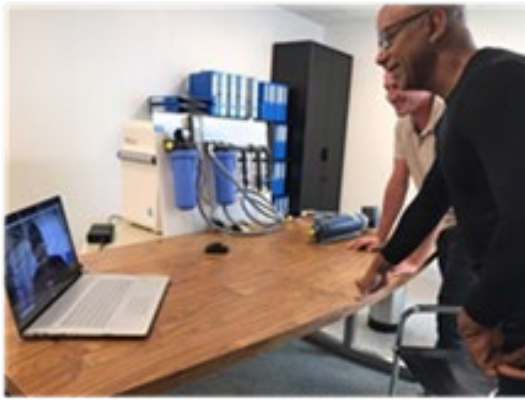

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Thanks to your purchase, a donation will be made to a non-profit foundation that fights against breast cancer and helps most vulnerable communities.

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YR05739 Laminar flow cabinet

1、Product features

1. Adopting arbitrary positioning sliding door system

2. The shell is made of cold plate electrostatic spray, and the work surface is SUS304 brushed stainless steel, which is corrosion-resistant and easy to clean.

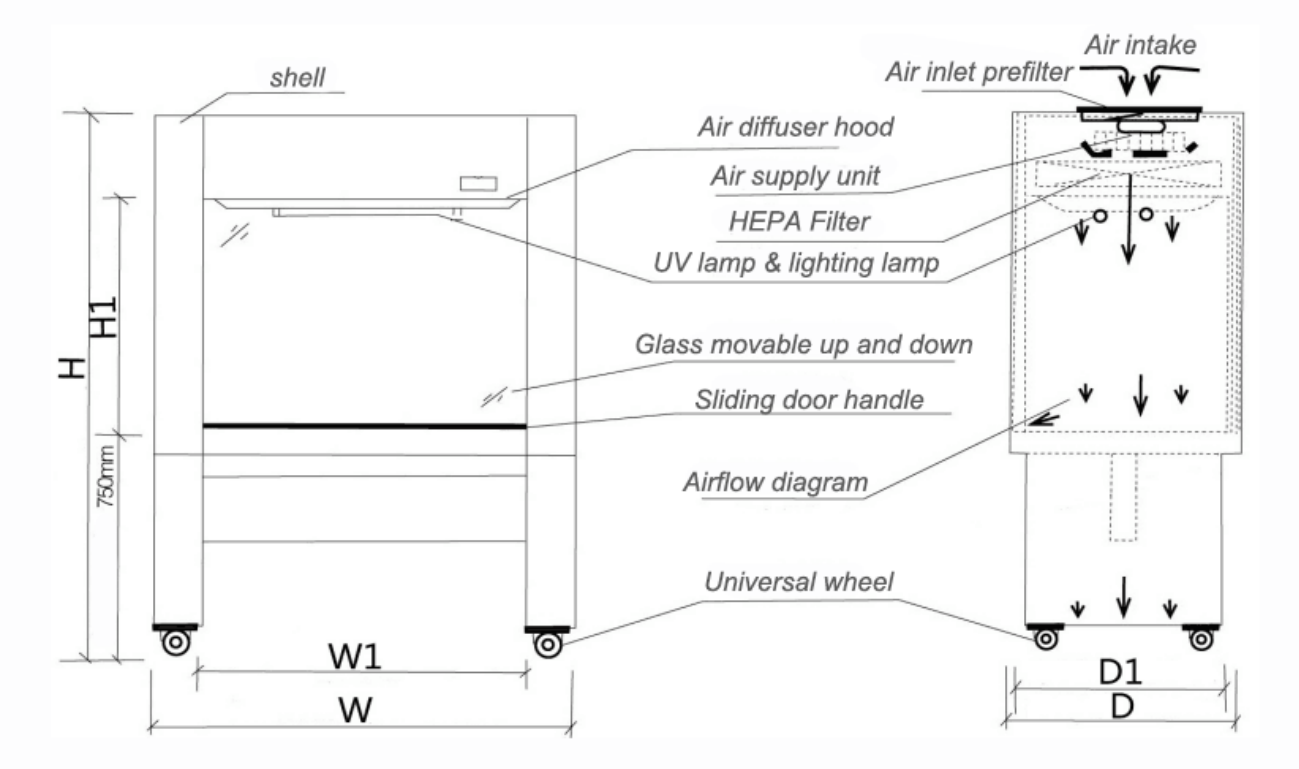
3. Safety interlocking of lighting and sterilization system

4. Digital display LCD control interface, three speeds adjustable for fast, medium and slow, UV lamp timing, more user-friendly design

5. The vertical quasi-closed table top and the formation of a downward flow air curtain in the operation room can effectively prevent the input of external air and the operation area is clean

6. Equipped with HEPA high-efficiency air filter, with primary filter for preliminary filtration, which can effectively extend the service life of the high-efficiency filter

7. Meet the safety requirements of various medical equipment



YR05739 Schematic

2、Technical parameter

Model / parameter		YR05739
Cleanliness level		Class 100@≥0.5μM (US Federal 209E)
Number of colonies		≤0.5pcs/dish·h（Φ90mm dish）
average wind speed		0.25~0.45m/s
noise		≤62dB（A）
Vibration half peak		≤5μM（x、y、z direction）
Illuminance		≥300Lx
power supply		AC single phase220V/50Hz
Working area	W×D×H	880×650×580
Overall dimension	W×D×H	1040×720×1600
Applicable number		Single person- Double side
High efficiency filter specification and quantity		865×555×50×①
Specification and quantity of fluorescent lamp/ultraviolet lamp		12W×①/20W×①

3、Structure

The purification workbench is composed of several major components such as a cabinet, a fan, a high-efficiency filter, and an operation switch. The box body is made of cold-rolled plate, and the surface is sprayed with plastic. The purification unit adopts a fan system with adjustable air volume. By adjusting the working state of the fan, the average wind speed in the clean working area can be kept within the rated range, and the service life of the high-efficiency filter can be effectively extended.

4、Working principle

The air passes through the primary filter, is pressed into the static pressure box by the centrifugal fan, and then blown out from the air outlet after being filtered by the high efficiency filter to form a clean air flow. The clean air flow flows through the area to be purified at a uniform cross-sectional wind speed, and the area is The dust is taken away, thus forming a highly clean working environment.

5、Install and use

The location of the workbench should be in a clean room (preferably in a primary clean room with a level of 100,000 or 300,000). Plug in the power supply and turn it on according to the function shown on the controller. The working area and shell of the clean bench should be carefully cleaned before starting up to remove dust on the surface. Normal operation and use can be carried out ten minutes after starting up.

6.Maintain

1. According to the actual use, the primary filter is removed and cleaned regularly. The cleaning cycle is generally 3-6 months. (If it is not cleaned for a long time, dust accumulation will affect the insufficient air intake and reduce the cleaning effect.)

2. When the ideal cross-sectional wind speed cannot be reached after the normal exchange or cleaning of the primary filter air filter, the working voltage of the fan should be adjusted to achieve the ideal uniform wind speed.

3. Generally, when the working voltage of the fan is adjusted to the highest point after the eighteenth is used, when the ideal wind speed is still not reached, it means that the high-efficiency filter has too much dust (the filter hole on the filter material has been basically blocked, and it should be updated in time) , Generally, the service life of high-efficiency air filters is 18 months.

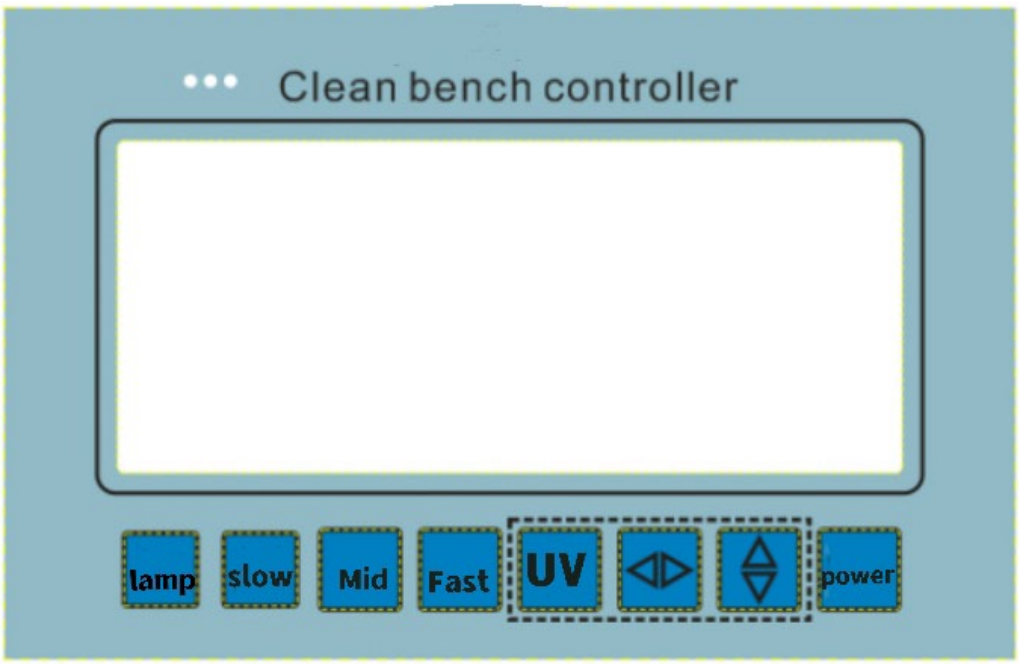
4. When replacing the high-efficiency air filter, pay attention to whether the model, specification and size are correct (configured by the original manufacturer), follow the arrow wind direction device, and pay attention to the surrounding seal of the filter, absolutely no leakage occurs.

7.General faults, causes, and troubleshooting methods

Failure phenomenon	Reason	Discharge method
The main power switch can not be closed, automatically trip	1. The fan is stuck and the motor is blocked, or there is a short circuit in the circuit	1. Adjust the position of the fan shaft, or replace the impeller and bearing, and check whether the circuit is in good condition.
Low wind speed	1. Too much dust in the primary filter.	2. Check the insulation resistance of the circuit and components to the shell point by point according to the wiring diagram, and repair the insulation failure.
The fan does not turn	2. The high efficiency filter fails.	1. Clean the primary filter.
Fluorescent light does not light up	1. The contactor does not work.	2. Replace the high-efficiency filter.

8、Instructions for use of clean bench controller

A.Controller operation diagram:



B. Instructions for use

1. Press the "Power" button, the meter is powered on and self-checking starts. At this time, the backlight is on and all displays are turned on; after 2 seconds, the self-checking ends and the meter enters the normal control state.
2. In the power-on state, short press the "Power" button to power off the meter and cut off all outputs at the same time.
3. Press the "illumination" button to turn on the light; (the light and the germicidal lamp cannot be turned on at the same time, so if the original germicidal lamp is on, the instrument will control to turn off the germicidal lamp first, and then turn on the lamp after one second).
4. Press the "slow gear" button to turn on the fan slow gear function; (the three states of slow gear, middle gear, and fast gear cannot be valid at the same time, so if the original fan is running in the middle or fast gear mode, the meter will control to turn off the fan first. After one second, turn on the fan slow function).
5. Press the "mid-range" and "fast-range" buttons, the function description is the same as the "slow-range" button.
6. Press the "Sterilization" button to turn on the germicidal lamp; (if the original lamp is turned on, the lamp will be turned off first, and then the germicidal lamp will be turned on after one second).

When the sterilization lamp is turned on, if the sterilization timing function is turned on, the sterilization timing function will be activated synchronously; when the sterilization timing is up, the meter will automatically turn off the sterilization lamp.

Note: The method of turning on the sterilization timing function is as follows:

A、 Long press the "Sterilization" button for more than 3 seconds, the meter enters the sterilization timing setting, and the last digit of the sterilization timing data flashes at this time. Release the button

at this time.

B、 Press the "◁▷" key to move the set digits cyclically; (when the set digits are valid, it will be displayed in flashing form).

C、 Press the "△▽" key to make a cyclic change of the current flashing digit value.

D、 The two points in the middle are the "second" point, which flashes once every 1 second; the first two digits of the "second" point are the timing "hour" value, the two digits after the "second" point are the "minute" value, and the "minute" value is the maximum setting The value is "59" points;

E、**When the setting is completed, short press the "Sterilization" button. If the setting value is greater than zero, the sterilization timing function is turned on, and if the setting value is equal to zero, the sterilization timing function is turned off.**

1.Safety door detection: When the safety door "limit switch" on the control panel is pressed, the "status display" area of the instrument will change from the "normal" state to the "alarm" state, and the "alarm" font flashes. At the same time the buzzer sounds.

When the "limit switch" is restored, the alarm is released, the display returns to "normal", and the buzzer is turned off at the same time.