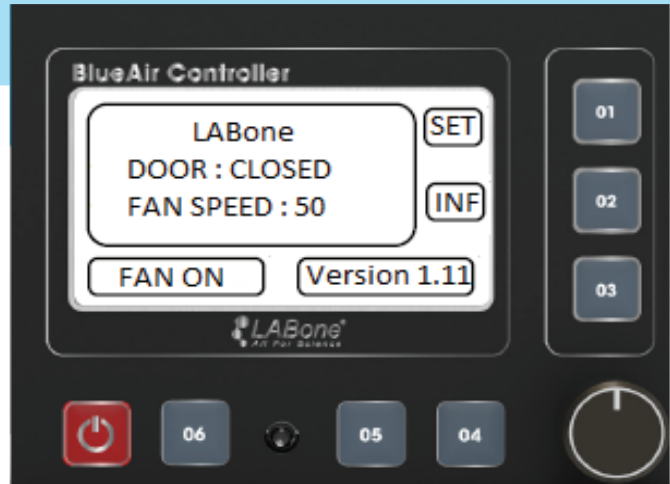## Horizontal Laminar Flow Cabinet With Prevent
# HUYAir HLFP

WARNING

⚠

▶ Safe working height: Open the window about 20cm high, too high or too low is unsafe.

▶ This is not a chemical storage cabinet; after use, please move the chemicals out of the cabinet and clean it before turning off the cabinet following the procedure below.
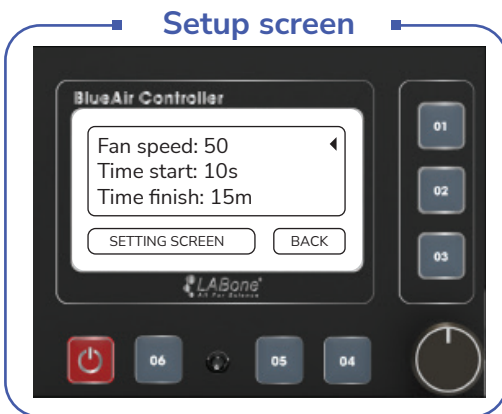
CHEMICAL SPILL HANDLING INSTRUCTIONS

▶ Stop the work process if possible.

▶ Check for spills. If the spilled substance is hazardous, wear appropriate protective equipment.

▶ Remove any broken pieces from the spill and carefully wipe the spilled substance to prevent contamination.

▶ Use absorbent pads or towels to cover the spill and then saturate it with 10% bleach. Wait for 15 minutes before cleaning the spill area and the surrounding area (including equipment) with an appropriate disinfectant solution. Typically, a 1% iodophor disinfectant solution (such as Wescodyne or equivalent) is effective against most viruses, fungi, bacteria, plant pathogens, and non-enveloped amoebae.

▶ After the spill has been cleaned up, remove the old gloves and use new ones. Disinfect the biosafety cabinet workspace for 5 minutes. Sterilize all contaminated materials. Radiation decontamination can be performed if contamination occurs on inaccessible surfaces.

Main screen

QUICK OPERATING INSTRUCTIONS
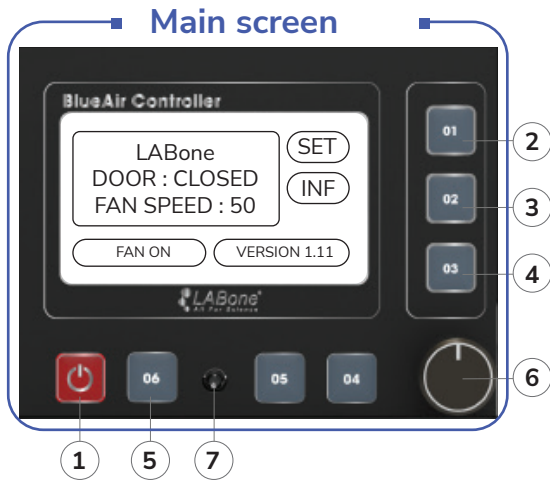
1. ON/OFF Button: Power On/Off.

2. Button 1 (SET): Parameter Adjustment Button.

3. Button 2 (INF): Software Information.

4. Button 3 (BACK): Go Back.

5. Button 6 (FAN): Turn On/Off the Fan.

6. SELECT Button: Increase or decrease device parameters, and when pressed, the adjusted parameters will be saved.

7. Indicator Lights: Indicate the device's status. When operating normally, the light will be green, and it will change color in case of alerts or errors.
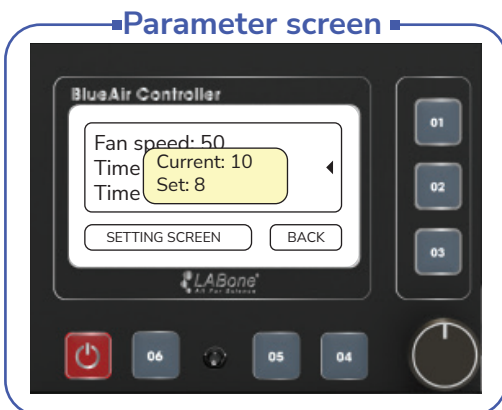
Setup screen

Fan speed: *Adjust the fan parameter.*
Time start: *The UV lamp activation time from when the button is pressed ranges from 1s to 60s.*
Time finish: *The UV lamp operating time until it automatically turns off ranges from 1m to 240m.*

SETTING | SPECIFICATIONS OF THE FAN

Step 1: Press button 01 (SET) on the main screen interface | display the setup screen.
Step 2: Rotate the Select knob to choose the FAN SPEED item you want to adjust the fan parameters for.
Step 3: Press the Select button to enter the parameter settings - Display parameter screen.
• Current Line: The current value.
• Set Line: The value being adjusted.
Step 4: Continue to turn the Select knob to change the value you want to adjust.
Step 5: Press the Select button to save the value.
Step 6: To return to the main screen, press the BACK button (button 3).

SETTING | UV LAMP SPECIFICATIONS

Step 1: Press button 01 (SET) on the main screen interface | display the setup screen.
TIME START: The UV lamp activation time from when the button is pressed ranges from 1s to 60s.
TIME FINISH: The UV lamp operating time until it automatically turns off ranges from 1m to 240m.
Step 2: Rotate the Select knob to choose the parameter you want to adjust.
Step 3: Press the Select button to enter parameter setup - Parameter display screen.
• Current Line: The current value.
• Set Line: The value being adjusted.
Step 4: Continue to rotate the Select knob to change the value to the desired setting.
Step 5: Press the Select button to save the value.
Step 6: To return to the main screen, press the BACK button (button 3).

Parameter screen

• NOTE: The UV lamp only operates when the operation door is completely closed, and at that time, the lamp will illuminate, and the fan will turn off.

OPERATING STEPS

Step 1: Turn on the power switch, then run the fan for 5 minutes to remove any residual dirty air from the previous work.

Step 2: Turn off the fan, clean the inside of the cabinet. (Refer to the Cleaning section)

Step 3: Turn on the fan and start working.

Step 4: After finishing work: Clean the inside and outside of the cabinet. After running the fan for an additional 5 minutes, turn off the fan and power to complete the work process.

CLEANING

▶ As recommended, the cabinet should be continuously operated to maintain cleanliness.

▶ Disinfect the surfaces of all tools/equipment with Isopropyl Alcohol (IPA) 70% before taking them out of the cabinet. IPA 100% should not be used because it evaporates very quickly before having sufficient contact time.

▶ It is advisable to leave the fan on during this cycle.

▶ Clean the working surface, the interior walls of the cabinet, and the collection tray with water and a mild antiseptic. Any cleaning agents containing chlorine bases may corrode the steel used in the cabinet. Therefore, if using a cleaning agent, any residue of it must be removed using a fabric and a non-corrosive cleaning agent such as Isopro-pyl Alcohol (IPA) 70%. Regular cleaning behind the door frame is also necessary.

▶ Thoroughly rinse off the cleaning agent with water. Ensure there is no residual cleaning agent left.

▶ Wipe the work surface, side walls, interior walls, and collection tray with Isopropyl Alcohol (IPA) 70% or any of the following cleaning agents:

- 1N hydrochloric acid
- 1N sodium hydroxide
- 1% quaternary ammonium compound
- 5% formaldehyde
- 5,000 ppm hypochlorite
- 2% iodophor
- 5% phenol
- 70% ethyl alcohol

▶ Run the fan for 5 minutes to clean the air of any contaminants in the work area. Open the door -> UV light will not illuminate -> close the door.

CAUTION

▶ Do not place the cabinet where there is direct airflow (fan, air conditioning...) into the cabinet's door, as the strong external airflow may affect the airflow inside and contaminate the samples.

▶ Do not place the cabinet too close to the wall, at least 10 cm away from the wall.

▶ Power supply 220V/50-60 Hz.

▶ Do not plug too many devices into the cabinet's internal socket at the same time to avoid overloading.

▶ Wash your hands thoroughly using antibacterial soap. Wear gloves to protect your hands. Gloves should extend beyond the wrist of your lab coat. Double gloves may be necessary for high-risk environments.

▶ The door must be closed before the UV light can turn on.

▶ Open the door completely. Disinfect the working surface and the inside surface of the door thoroughly with 70% alcohol or other disinfectant depending on the materials used in the cabinet. Disinfect the UV light surface and electrical sockets. Do not use any disinfectant containing chlorine as it may corrode the stainless steel surface.

▶ Disinfect the surfaces of all instruments before they are brought into the work area. While loading materials/equipment into the cabinet, arrange them so that the movement of contaminated items on clean items is minimized.

▶ After all tools/equipment have been arranged, adjust the door to its normal operating position and start the fan for 5 minutes to clean the contaminated working area when the fan is not running.

▶ Ensure that the air intake grids in front and behind are not obstructed by hands or any other objects.

▶ Disinfect surfaces before removing any potentially contaminated items from inside the cabinet.

▶ Slowly and controlled work within the cabinet. While placing or removing objects from the working area, move your hands in and out of the working area slowly, and your right hand should be perpendicular to the plane of the working area. Rapid arm movement can disrupt the airflow, allowing contaminants to escape from the cabinet. Make sure you have disinfected the surface before removing your arms from the cabinet.

▶ Place disruptive devices (if any) such as centrifuges, blenders, or sound generators towards the back of the cabinet. Stop other activities when any of these devices are operating.

▶ Please note that these instructions are a translation and may need to be reviewed for clarity and to ensure they are consistent with your specific use case and equipment.