

Biological Safety Cabinet Class II A2

Model YG0168-B (SS) - YG0168-E (SS)

## **Instruction Manual**

Thank you very much for purchasing our Biological Safety Cabinet Class II A2 Model YG0168-B (SS) - YG0168-E (SS)

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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# Scope of application

Full Stainless Steel Biosafety Cabinet, with front window operation port. The operator can operate in the safety cabinet through the front window operation port to protect personnel, products and environment during operation. Working environment:

✓ Only applicable indoors:

✓ Ambient temperature: 15 35 "C.

✓ Relative humidity: < 75%.</p>

✓ Atmospheric pressure range: 70kPa 106kPa.

✓ Power supply: 220V 50Hz.

Parameter / Model	YG0168-B (SS)	YG0168-C (SS)	YG0168-D (SS)	YG0168-E (SS)	
Rotated Voltage	220 V				
Rooted Frequency	50HZ				
Number Of People	SINGLE PERSON		DOUBLE		
Overall Dimension	1000*765*2000MM	1200*765*2000MM	1500*765*2000MM	1800*765*2000MM	
Operating Space	800*630*700MM	1000*630*700MM	1300*630*700MM	1600*630*700MM	
Rated Power	1100W		1800W		
Total System Exhaust	360M3/h		500m3/h		
UV Lamp Power	30w		40w		
Fluorescent Lamp Power	12w*2(LED)		16W*2 (LED)		
Average Falling Wind Speed	0.33+-0.25M/S				
Average Suction Wind Speed	0.53+-0.25M/S				
Filtration Efficiency	HEPA (ULPA) High Efficiency Filter, FOR 0.3 U M (0.12) Particle Filtration Efficiency > 99.999% (99.9995%)				
Noise	<67 Db (A)				



## **Essential Parameters**

- ✓ Type A2, 30% efflux, 70% internal recycling
- ✓ Height from tabletop to ground: 850mm (size can be customized and modified according to requirements)

#### **Biosafety**

Personnel safety: tested by potassium iodide (KI) method, the protection factor of the front window operating opening should not be less than IX 105

Product safety: bacterial count < 5 CFU/time

Safety of cross contamination: bacterial count < 2CFU/time.

Structural and functional characteristics:

- 1.Biosafety cabinet.
- 2. The cabinet body is designed with a 10 \* tilt angle, which conforms to the principle of ergonomics, has a larger angle of view, is convenient to operate and more humanized.



## Structural and functional characteristics

- 1. Biosafety cabinet.
- 2. The cabinet body is designed with a 10 \* tilt angle, which conforms to the principle of ergonomics, has a larger angle of view, is convenient to operate and more humanized.
- 3. The three side wall panels of the exposed working area of the safety cabinet are made of high-quality 304 4 stainless steel integrated structure, which can be cleaned inside and is easy to clean.
- 4. The working area is surrounded by negative pressure on four sides (left and right sides, rear and bottom), which is more protective and safer.
- 5. The worktable is made of high-quality 304 H stainless steel and adopts a basin-shaped design. Even if the waste liquid overflows in the experiment, it will not flow into the liquid accumulation tank for easy cleaning.

#### Note:

- ✓ The power consumed by the power supply includes the power of loading the operation area (the load cannot exceed 500W).
- ✓ The company reserves the right to change the design of products. The design of the product is subject to change without notice.
- 6. Fume casters design: casters and supports are integrated. The safety cabinet can be safely moved by casters and can also be fixed and leveled by adjusting the casters" feet.
- 7. The cabinet body and bracket can be separated, and the bracket height can be customized and modified according to the actual situation.
- 8. Reasonable structure design: the maintenance and replacement of the filter and fan of the safety cabinet can be carried out in front of the safety cabinet, which is more convenient and faster.
- 9. Front window airflow partition design: prevents airflow from leaking through the side wall and upper side of the front window, making the test safer.



#### 10. Perfect alarm system:

- ✓ Alarm when the glass door is not at a safe height: the safe height of the glass door is 200mm.

  When the front side of the safety cabinet is higher or lower than the safe height, the safety cabinet will give an audible and visual alarm.
- ✓ Filter pressure prompt: When the resistance of the filter increases, the safety cabinet will display data prompt.

#### Ultraviolet light source

The ultraviolet lamp tube is located inside the operation area to ensure that the ultraviolet light can fully illuminate all spaces in the operation are fully disinfected.

## Floodlight

LED fluorescent lamps are used for lighting. Ensure that the average illumination in the operation area meets the standard requirements.

# External surface and glass door cleaning

Any kind of non-abrasive household detergent, wipe it with soft cotton cloth or towel.

### Comprehensive maintenance period

It is recommended that the comprehensive maintenance interval is one-year or 1000 working hours.



## Maintenance method

#### 1. Daily or weekly maintenance

- ✓ Disinfection and cleaning of operation area.
- ✓ Clean the external surface and glass door around the operation area.
- ✓ Check whether the various functions of the equipment are abnormal.
- ✓ Record this maintenance.

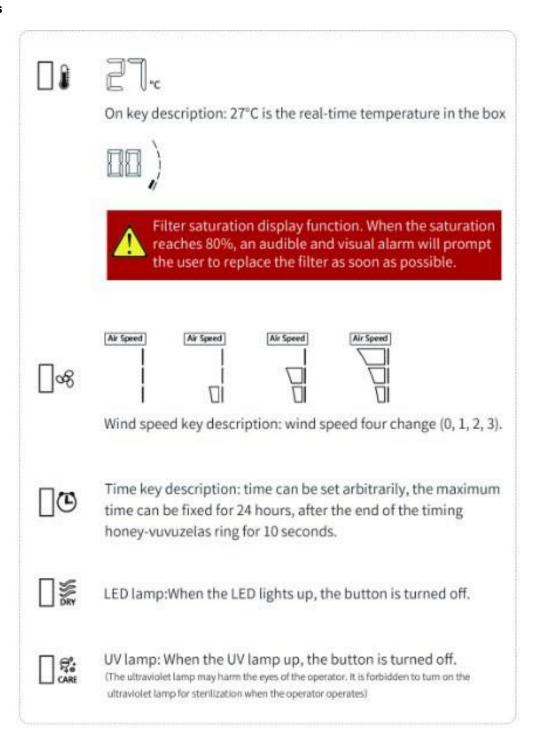
#### 2. Monthly maintenance

External surface and glass cleaning.

- ✓ For the working surface of the equipment and the inner wall surface of the operation area (excluding the uniform air screen at the top of the operation area). The inner surface of the glass door should be wiped with 70% medical alcohol or 1:100 diluted household sodium carbonate (0.05% sodiumhy pochlorite), and then wiped again with sterile water to remove residual chlorine:
- ✓ Check whether the various functions of the equipment are abnormal.
- ✓ This maintenance is recorded.
- ✓ Annual maintenance
- ✓ Check that the tightness of the two conveyor belts of the front glass door drive device is consistent.
- ✓ Check the ultraviolet lamp and fluorescent lamp.
- ✓ Apply for testing the overall performance of the safety cabinet every year to ensure the safety of the safety cabinet. The user shall be responsible for the testing cost.
- Record this maintenance.

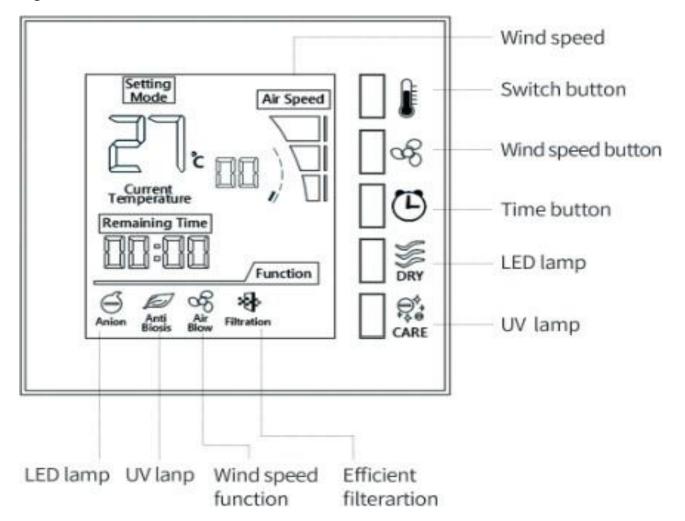


#### Remarks





#### **Digital Panel**





## Matters needing attention

- 1. Before connecting the AC power supply, ensure that the voltage of the power supply is consistent with the input voltage of the safety cabinet and the voltage is stable, the power supply voltage must be reliably grounded, and ensure that the rated load of the power socket is not less than this requirement: this safety cabinet uses a grounding plug with a third pin, which can only be used with a grounded power socket, which is a safety device. If the plug cannot be inserted into the socket, please ask an electrician to install a grounded power socket.
- 2. Slow movement: in order to avoid affecting the normal air flow, the frost should be small when the operator moves his arms in and out of the safety cabinet The heart maintains the integrity of the air flow at the front opening, and the arms should enter and exit the front opening slowly and vertically. Hand and arm extension Enter the 1II-A2 safety cabinet and wait for about one minute to complete the adjustment of the safety cabinet and let the air inside "sweep through "After the surface of the hands and arms, you can start to process the articles. All necessary the articles are placed in the safety cabinet to minimize the number of times when the arms enter and exit the front opening.
- 3. The principle of movement in different sample cabinets: when two or more items in the cabinet need to be moved, the principle of moving low polluting items to high polluting items must be followed to avoid large area pollution of the inside of the cabinet caused by the moving of high polluting items. The principle of slow movement should be followed when moving articles
- 4. Parallel placement of articles: In order to avoid cross contamination between articles and articles, articles placed in the cabinet should be placed horizontally as far as possible to avoid cross contamination in the return air process, and at the same time to avoid blocking the back return air grille and affecting the normal air path.
- 5. During the use of the equipment, do not put soft and fine articles (such as soft issues) on the table, so as to prevent them from being sucked into the negative pressure air, duct and fan by the suction port and affecting the operation of the equipment.
- 6. The maximum weight of articles placed in the cabinet shall not exceed 23Kg/25X25cm.



- 7. Avoid vibration: try to avoid the use of vibration instruments (such as centrifuges, vortex oscillators, etc.) in the cabinet, because vibration will shake off the particulate matter accumulated on the filter membrane, resulting in the reduction of the internal cleanliness of the operating area. At the same time, if the balance of the front operating surface fails, the safety cabinet will pollute the operator.
- 8. Open fire prohibited: open fire is prohibited in the safety cabinet! During the use of open fire, the air flow in the safety cabinet will be disordered and the filter will be damaged. High temperature sterilization is required during the experiment. It is strongly recommended to use infrared sterilizer.
- 9. High-efficiency filters have their service life. With the extension of service life, dust and bacteria accumulated in the filter will lead to an increase in the pressure loss of the high-efficiency filter. When the pressure increases to an alarm sound, contact our company's service department in time to replace the high-efficiency filter, otherwise the safety performance of the equipment will be affected. The replaced filter shall be treated as medical waste.

