



Please read user's manual before
operating equipment

Original Instructions

LABCONCO CORPORATION

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User's Manual

Protector® Benchtop Evidence Drying Cabinets



Register this product

Protector® Benchtop Evidence Drying Cabinets

2023—Present

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Protector® Evidence Cabinets carry a five-year warranty from date of installation or six years from date of shipment from Labconco, whichever is sooner. Warranty is non-transferable and only applies to the owner (organization) of record.

Buyer is exclusively responsible for the set-up, installation, verification, decontamination or calibration of equipment. This limited warranty covers parts and labor, but not transportation and insurance charges. If the failure is determined to be covered under this warranty, the dealer or Labconco Corporation will authorize repair or replacement of all defective parts to restore the unit to operation. Repairs may be completed by 3rd party service agents approved by Labconco Corporation. Labconco Corporation reserves the rights to limit this warranty based on a service agent's travel, working hours, the site's entry restrictions and unobstructed access to serviceable components of the product.

Under no circumstances shall Labconco Corporation be liable for indirect, consequential, or special damages of any kind. This warranty is exclusive and in lieu of all other warranties whether oral, or implied.

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Do not return goods without the prior authorization from Labconco. Unauthorized returns will not be accepted. If your shipment was damaged in transit, you must file a claim directly with the freight carrier. Labconco Corporation and its dealers are not responsible for shipping damages.

The United States Interstate Commerce Commission rules require that claims be filed with the delivery carrier within **fifteen (15) days** of delivery.

Limitation of Liability

The disposal and/or emission of substances used in connection with this equipment may be governed by various federal, state, or local regulations. All users of this equipment are required to become familiar with any regulations that apply in the user's area concerning the dumping of waste materials in or upon water, land, or air and to comply with such regulations. Labconco Corporation is held harmless with respect to user's compliance with such regulations.

For additional questions or support:

Labconco Customer Care +1 (816) 333-8811

Labconco Technical Support (800) 821-5525

Hours 7:30 a.m.-5:30 p.m. CST

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1: Introduction

Congratulations on the purchase of a Labconco Protector Evidence Drying Cabinet (EDC). The cabinet is designed to protect you, and the room environment from biohazardous aerosols and offensive odors while drying evidence. The Protector Series cabinet is the result of years of experience in manufacturing laboratory equipment, and users like you suggested many of its features to us.

This Evidence Drying Cabinet (EDC) models offer many unique features. To take full advantage of them, please acquaint yourself with this manual and keep it handy for future reference.

About This Manual



This manual is written for the installer, servicer, and user of this product.

This manual contains important operation and safety information. When you see a symbol, such as the INFO symbol to the left, pay close attention to the information provided. Before installing or operating this product, you must read Section 3: Safety Precautions.

Contents Included

The following items are packaged with the product.

- User's Manual Thumb Drive
- Product Registration Card
- Power Cord
- Hex Key
- Security Tags
- UV Security Lock Keys

The location of these items and additional details are found in [Section 4: Installation](#).

Verify that all of these items are included with the EDC.

If you did not receive one or more of the components listed for the cabinet, or if any of the components are damaged, contact Labconco Corporation immediately for further instructions.

2: Before You Install

Before you install the product, the site should be prepared for installation. Examine the location where you intend to install it. You must be certain that the area is level and of solid construction. In addition, a dedicated source of electrical power must be located near the installation site.

Location Requirements



Note: The Benchtop Evidence Drying Cabinet is equipped with leg levelers to ease level cabinet installation. It should be placed onto a flat surface for proper cabinet alignment and door operation.

Clearance Requirements

A minimum clearance of at least 6 inches (150 mm) is suggested on the top and both sides of the product for service. There should be 36 inches (914 mm) of clearance at the front of the cabinet to allow the door to swing open without hitting any obstructions.

See [Appendix B: Dimensions](#) for overall product dimensions.

Electrical Requirements

The product models have the following electrical requirements.

Catalog Number	Typical Operating Current (Amps)	Electrical Circuit Requirements*	
33900-00	6A	115 VAC, 60 Hz, 6A	1 Phase
33900-01	3A	230 VAC, 50/60 Hz, 3A	1 Phase

*Electrical Requirements, 'V' = VAC (Voltage with alternating current), 'A' = Amperes

A dedicated outlet with an appropriate circuit breaker should be located as close as possible to the product (6 feet or 1.8 meters maximum). Consult your local electrical codes for properly rated circuit breakers. For safe operation, the dedicated outlet must provide a protective earthing ground connection to the product.

Exhaust Requirements

If you intend to connect the cabinet to the optional Exhaust Connection Kit, first examine the location to ensure that it accommodates the cabinet's exhaust duct kit. The area directly above the cabinet's exhaust should be clear of structural elements, water and utility lines, or other fixed obstructions. There should be enough clearance to accommodate a 5-inch diameter duct. For further information about the cabinet's exhaust system requirements, please refer to [Appendix D: Accessories](#).

3: Safety Precautions

Before unpacking, installing, operating, maintaining, or servicing this equipment, read the following safety warnings and precautions.

Avant le déballage, l'installation, le fonctionnement, l'entretien ou la maintenance de cet équipement, lire les avertissements de sécurité et les précautions d'emploi.



CAUTION – See Manual. When this symbol is on the equipment, it indicates a caution that is detailed in this manual.

MISE EN GARDE – Voir le manuel. Lorsque ce symbole est apposé sur l'équipement, il renvoie à une mise en garde détaillée dans ce manuel.

Typographical Conventions



DANGER – An imminently hazardous situation which, if not avoided, will result in death or serious injury.

DANGER – Situation dangereuse imminente qui, si elle n'est pas évitée, peut entraîner la mort ou des blessures graves.



CAUTION – Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or damage to property.

MISE EN GARDE – Signale une situation potentiellement dangereuse qui, si elle n'est pas évitée, peut provoquer des blessures mineures à modérées ou des dommages matériels.



NOTE – Advice or suggestions to help the process.

REMARQUE – Conseils ou suggestions pour le déroulement du processus.



BURN RISK (HIGH TEMPERATURE) – Air or components that will be very hot. Take care not to touch these defined areas. Failure to avoid these areas may result in moderate to severe injury.

RISQUE DE BRÛLURE (TEMPÉRATURE ÉLEVÉE) – Air ambiant ou composant devenant très chaud. Veiller à ne pas toucher ces zones délimitées. L'absence de précaution pour éviter ces zones peut entraîner des blessures modérées, voire graves.



EXTREME COLD (LOW TEMPERATURE) – Air or components that will be very COLD. Take care not to touch these defined areas. Failure to avoid these areas may result in moderate to severe injury.

FROID INTENSE (TEMPÉRATURE BASSE) – Air ambiant ou composant devenant très froid. Veiller à ne pas toucher ces zones délimitées. L'absence de précaution pour éviter ces zones peut entraîner des blessures modérées voire graves.



PINCH POINT – Areas or components that can pinch or cut. Take care not to touch these defined areas.

POINT DE PINCEMENT – Zones ou composants présentant un risque de pincement ou de coupure. Veiller à ne pas toucher ces zones délimitées.

MOVING PARTS – Areas or components that contain moving parts. Take care not to touch these defined areas.

PIÈCES MOBILES – Zones ou composants contenant des pièces mobiles. Veiller à ne pas toucher ces zones délimitées.



RISK OF ELECTRICAL SHOCK – The specified procedure or area poses a risk of electrical shock. ALWAYS disconnect main power cord or electrical supply before proceeding.

RISQUE DE CHOC ÉLECTRIQUE – La procédure ou la zone spécifiée présente un risque de choc électrique. TOUJOURS débrancher le cordon d'alimentation secteur ou l'alimentation électrique avant toute intervention.



FLAMMABLE / NO SOLVENTS – Do not place flammable liquids or solvents in this product.

INFLAMMABLE / PAS DE SOLVANTS – Ne placez aucun liquid inflammable dans cette produit.



LIFTING HAZARD – Do not lift or move this equipment without assistance.
DANGER DE LEVAGE – Ne pas soulever ou déplacer cet équipement sans assistance.



MAGNETIC FIELD IN USE – Magnets or magnetic field present.
CHAMP MAGNETIQUE UTILISE – Présence d'aimants ou de champ magnétique.



DO NOT TOUCH – Components or areas indicated are sensitive and will suffer damage if touched. Take care not to touch these defined components or areas. Failure to avoid these areas will result in damage to the product.
NE PAS TOUCHER – Les composants ou les zones indiquées sont sensibles et subiront des dégâts s'ils sont touchés. Veiller à ne pas toucher ces composants ou zones délimité(e)s. L'absence de précaution pour éviter ces zones endommagera le produit.



TOOL REQUIRED – Tool required to access specified area.
OUTIL NÉCESSAIRE – Outil nécessaire pour accéder à la zone spécifiée.

General Safety Precautions

Follow all the safety precautions described in this section.



Before removing any panels, which require a tool for removal, ALWAYS disconnect the main power cord or electrical supply. Failure to remove all electrical power before proceeding will result in moderate to serious injury, death, or damage to property.



Avant le retrait d'un panneau nécessitant l'utilisation d'un outil, TOUJOURS débrancher le cordon d'alimentation secteur ou l'alimentation électrique. Le non-respect de la consigne consistant à couper complètement l'alimentation électrique avant toute intervention peut entraîner des blessures graves, la mort ou des dommages matériels.



Never contact moving parts with your person. Failure to avoid moving parts will result in moderate to serious injury, death, or damage to property.

Ne jamais toucher les parties mobiles. Le non-respect de la consigne consistant à éviter les pièces mobiles peut entraîner des blessures graves, la mort ou des dommages matériels.



Never misuse this product. Never disable, override, or otherwise bypass safety guards, panels, switches, sensors or alarms. Doing so will result in moderate to serious injury, death, or damage to this product or property.

Ne jamais utiliser ce produit à mauvais escient. Ne jamais désactiver, annuler ou contourner les capots, panneaux, interrupteurs, capteurs ou alarmes de sécurité. Ceci entraînerait des blessures graves, la mort ou des dommages matériels à ce produit ou à d'autres biens.



If the unit is not operated as specified in this manual it may impair the protection provided by the unit.

Si l'unité n'est pas utilisée comme spécifié dans ce manuel il peut diminuer la protection fournie par l'unité.



Do not position the unit so that it is difficult to operate the main disconnect device.

Ne placez pas l'appareil de sorte qu'il est difficile de faire fonctionner le dispositif principal de déconnexion.



Do not lift or move this equipment without assistance.

Ne pas soulever ou déplacer cet équipement sans assistance

Safety Precautions for this Product



Do not use any detachable power cord that is not adequately rated for the unit.

Ne pas utiliser un fil électrique amovible qui n'est pas du tension nominale de l'appareil.

4: Installation

With the installation site properly prepared, you are ready to unpack and install the Evidence Drying Cabinet (EDC). This section covers how to:

- Unpack and move the cabinet.
- Install the cabinet.
- Connect the electrical supply source.

Step 1: Unpacking the EDC



The following tools are required to unpack and install the equipment:

- Box Knife or Scissors
- Two 1/2" Wrenches
- Flat Blade Screwdriver
- #2 Phillips Screwdriver
- 1/8" (3mm) drill bit and drill



Note: The EDC weighs approximately 375 lbs. (170 kg). The shipping pallet allows for lifting with a mechanical lift truck or floor jack. If you must lift the product manually, use at least (3) persons and follow safe-lifting guidelines. **The cabinet is very heavy, use a mechanical lift and safe moving practices at all times.**



The following safety precautions must be followed by all personnel unpacking the equipment.

- Wear safety glasses
- Wear gloves.
- No loose fitting clothes.
- Wear close-toed shoes.
- Follow safe-lifting practices (do NOT attempt to lift this product without specialized lifting equipment certified to lift up to 1000 lbs.)

Carefully remove the outer carton and inspect the EDC for damage that may have occurred in transit. If the product is damaged, take pictures of the product and the outer packaging, and notify the delivery carrier immediately. Retain the entire shipment, including outer packaging, intact for inspection by the carrier.



Note: United States Interstate Commerce Commission rules require that claims be filed with the delivery carrier within fifteen (15) days of delivery.

Do not return goods without the prior authorization of Labconco. Unauthorized returns will not be accepted.

If the product was damaged in transit, you must file a claim directly with the freight carrier. Labconco Corporation and its dealers are not responsible for shipping damages.

Do not discard the carton or packing material for the product until all of the components have been checked, installed and tested.

Remove the outer layer of shrink wrap on the EDC to access the shipping brackets & parts described in the following sections.

Step 2: Preparing the Evidence Drying Cabinet for Operation

1. Remove the tie and/or tape securing the door, and the filters on top of the unit.
2. Ensure that the transport brackets have been removed from the front of the cabinet liner.
3. Using a step ladder, remove the tape and/or packaging material around the top of the unit.
4. There is also a lower door restraint that must be removed. To remove, pivot the bottom of the restraint outward and then lift the restraint.
5. Plug the power cord into the back of the cabinet, and then into an appropriate outlet. Install the Key into the UV Security lock on the upper panel.

Initial Operation

Prior to use with evidence, you should perform the following operational tests to ensure the cabinet is operating properly:

- **Airflow Smoke Pattern Test**
 - ✓ With the cabinet fan ON, introduce smoke (from a chemical smoke stick, etc.) into the prefilter at the bottom of the door(s). The smoke should flow directly into the cabinet, and then into the upper prefilter located at the top of the cabinet liner. The smoke should move from the door to the intake prefilter in approximately 5 seconds or less. If the smoke does not flow as described, see “[Setting the Speed Control](#)” in Section 7.

- **UV Light and Interlock Tests**
 - ✓ With the door closed, turn the “Fan/UV Light” switch to “UV” and the “UV Security Keylock to “ON.” The UV light will then turn on. Open the door, and the UV light will turn off. Close the door, and the UV light should relight. Turn the UV Security Keylock to the “OFF” position, and the UV light will turn off. If the UV light does not work as described, then call Labconco’s Product Service Department at 1-800-522-7658 or 816-333-8811.

5: Performance Features & Safety Precautions

The Protector Evidence Drying Cabinet (EDC) operates using the following principles:

- Directional airflow.
- Prefiltration of large particulates by an inlet prefilter (in the door) and an exhaust prefilter (in the top of the liner).
- Filtration and retention of particulates by a High Efficiency Particulate Air (HEPA) filter.
- Adsorption of organic (odorous) chemicals by a granular activated carbon filter.

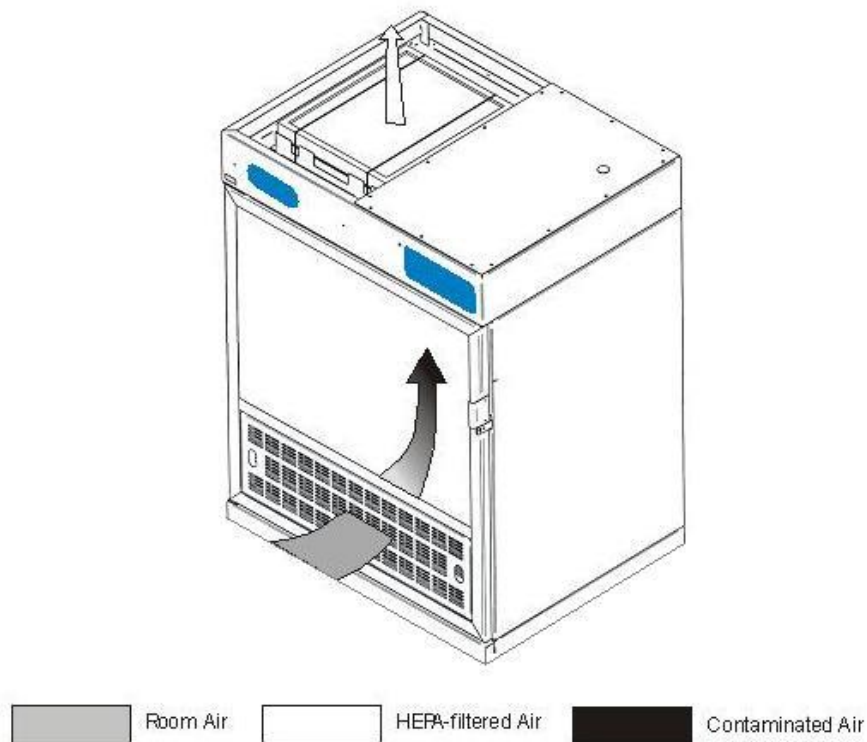
The major components in the cabinet are:

- The prefilters.
- The blower to move air through the cabinet.
- The HEPA filter.
- The granular activated carbon filter.

Directional Airflow

Directional airflow plays a critical role in EDC performance. Air is drawn into the inlet prefilter, located on the bottom of the door(s). The filtered air then flows upwards through the liner, passing over the evidence to be dried. Before leaving the liner, the air then passes through the exhaust prefilter, which is designed to protect the HEPA filter from large particulates and may be removed to examine it for the collection of evidence. The air is pressurized by the blower, and then forced through the HEPA and carbon filters, to remove biohazardous particulates and odorous chemicals, respectively. This is illustrated in Figure 5-1.

Figure 5-1



Optional Evidence Prefilters

Optional Evidence Prefilters can be fitted on the inside (cabinet side) of the door prefilter (located on the front of the door) and cabinet prefilter (located on the inside top of the liner). These thin prefilters are designed for single use, to be removed after the evidence has dried. After removal, the Evidence Prefilters can be examined for trace evidence, or stored with the evidence in a sealed bag for future reference. See Appendix A for reorder part numbers.

Prefilters

Both the door prefilter (located on the front of the door) and cabinet prefilter (located on the inside top of the liner) are disposable, polyester particulate filters. Both filters have a Minimum Efficiency Reporting Value (MERV) of 11, meaning they remove 65-79% of particles 1.0-3.0 microns in size, and more than 85% of particles 3.0-10 microns in size. See Appendix A for reorder part numbers.

HEPA Filters

HEPA filters are disposable, dry-type particulate filters. The filter material or media is typically made of borosilicate microfibers formed into a thin sheet, in a process similar to the production of paper. This sheet is folded or pleated to increase its surface area. The pleats are held in place by aluminum diffusers or by beads of glue that add rigidity to the media pack. The pack is then set into a frame and sealed as shown in Figure 5-2.

The HEPA filter manufacturer establishes the efficiency of the filter by challenging it with an aerosol of known particle size. The number of particles that penetrate the filter are quantified, and this establishes the efficiency of the filter. The filters used in the evidence drying cabinets are at least 99.99% efficient in removing particles 0.3 micron.

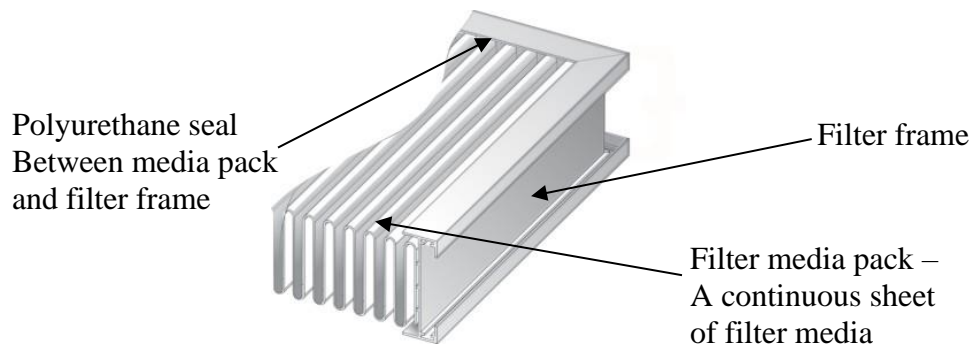


The HEPA filter media is very fragile. DO NOT touch the media. If you think the media of a HEPA filter is damaged, DO NOT USE THE CABINET. Call Labconco's Product Service Department at 1-800-522-7658 or 816-333-8811.



Note: HEPA Filters are only effective against particulate material. Gases will pass through the filter.

Figure 5-2



Blower

The blower assembly pulls room air into the intake prefilter on the front of the door(s), through the liner and exhaust prefilter, and then forces it through the HEPA and granular activated carbon filter. The EDC uses a motorized, backward curved fan for quiet, energy efficient operation.

Cabinet Air Intake and Exhaust

In order to operate properly, the air intake at the bottom of the door(s), the exhaust prefilter area in the top of the liner, and the top surface of the activated carbon filter must be unobstructed. Blocking or restricting any of these areas or allowing the prefilters to become excessively loaded with dust can adversely affect the performance of the cabinet.

Ultraviolet (UV) Lamp

The optional UV lamp generates a primary wavelength of light of 254nm. A secondary emission is in the visible (blue) wavelength, resulting in the characteristic blue color while operating. UV light with a wavelength of 254 nm is biocidal, primarily by creating thymine dimers in DNA. These dimers prevent the correct transcription of the DNA into RNA, resulting in cellular death or viral inactivation. In order to be effective, the UV light must directly strike the nucleic acid, and its effectiveness can be diminished or negated by dissolved proteins or metals, or by other UV-opaque substances protecting the target nucleic acid.

Because of its limitations, UV light should be used as an adjunct to good surface disinfection practices. In order to get optimum performance from the UV light, it should be replaced after 6,000 hours of operation or less, and the exterior surface of the lamp should be kept clean and free of dust.



Note: UV irradiation is absorbed by the tempered safety glass of the door. Independent research has shown that the level of UV irradiation on the outside of the cabinet's door is equal to background radiation levels.



Note: The UV sensitivity of a target organism varies, depending on the UV output of the lamp, the genus and species of the organism, the medium the agent is suspended in, etc. Contact the Health and Safety Officer at your facility for UV light use and recommendations.

Safety Precautions

For All Models:



NEVER expose ANY EVIDENCE, plastic or coated materials to ultraviolet (UV) radiation. Never bypass the UV safety interlock that only allows the UV light to work when the door is closed. UV exposure to the skin is hazardous and can result in serious eye or skin injury.



NEVER expose UV Lamp or UV Lamp connections to liquids.



Ensure that the cabinet is connected to electrical service in accordance with local and national electrical codes. Failure to do so may create a fire or electrical hazard. Do not remove or service any electrical components without first disconnecting the cabinet from electrical service.



NEVER use this cabinet as a chemical storage cabinet.

When handling evidence, or working in the cabinet, always wear appropriate personnel protective equipment.



NEVER attempt to dry evidence containing flammable gases or solvents in the cabinet. An open flame should NOT be used in the cabinet.



HEPA filters only remove particulate matter. Operations generating volatile toxic chemicals are prohibited. The media of the filter is fragile and should not be touched. Avoid puncturing the HEPA filter during installation or normal operation. If you suspect that a HEPA filter has been damaged, DO NOT use the cabinet; contact Labconco at 800-821-5525 or 816-333-8811 for further information.

The HEPA filters in the cabinet will gradually accumulate airborne particulate matter from the items placed in the cabinet. The rate of accumulation will depend upon the cleanliness of the air, operating time and the nature of items being dried in the cabinet.



Do not operate the cabinet without all of the appropriate filters in place. If an odor is detected coming out of the granular activated carbon, it needs to be replaced.



The weight limit for the fold down shelves is 15 lbs (6.8 kg) each, and the floor of the cabinet and lower storage area is 20 lbs (9.1 kg). The weight limit for the hanging rod is 20 lbs. (9.1 kg).



When surface disinfecting the cabinet:

- Always wear appropriate personnel protective equipment.
- NEVER use high pressure water to clean the liner; this practice could generate biohazardous aerosols.
- NEVER spray disinfectants into the blower intake at the top of the liner; this may damage the blower.
- Avoid splashing the disinfecting solution on skin or clothing.
- Ensure adequate room ventilation.
- Carefully follow the disinfectant's safety instructions.
- Always dispose of disinfecting solutions in accordance with local and national laws.
- **DO NOT allow bleach or disinfectants with high concentrations of free chlorine to contact the stainless steel components of the cabinet for a long period of time. Free chlorine will corrode stainless steel after extended contact.**

When handling used filters or prefilters, always wear appropriate personnel protective equipment.

6: Performance Features and Safety Precautions

Fan/UV Light Switch

The cabinet Fan/UV Light switch is located on the upper front of the cabinet, as shown in Figure 6-1. Turning the switch to the “Fan” position starts the blower, drawing air in through the cabinet. Turning the switch to the “UV On” position will allow the UV light to turn on when the door(s) is closed, and the UV Security lock is in the “ON” position.

UV Security Lock

The UV security lock, located to the right of the Fan/UV Light switch, allows the user to lockout the UV, preventing its operation. Before evidence is loaded into the cabinet, it is recommended that the lock be turned to the “OFF” position, and the key removed. This will prevent the accidental activation of the UV light while evidence is drying. The key should be stored in a convenient, secure location, known to all of the users to prevent its loss. Recommended locations include hanging from the bar at the top of the liner, or in the lower storage area.

Filter System Light

The Filter System Light will illuminate if the differential pressure across the filters becomes excessive. If lit, first inspect or replace the two prefilters. If lit with clean prefilters, replace the HEPA filter.



NOTE: If the Filter System Light illuminates during use, finish the drying of the evidence in the cabinet, and then correct the problem before using the cabinet again.

Figure 6-1



Shelf Operation

The three drying shelves on the left side wall can be positioned horizontally to dry small pieces of evidence, or swung down, against the left side wall of the liner, if needed. To position the shelves in the up (horizontal) position:

1. Pivot the desired shelf until it is above horizontal (the frame of the shelf is higher than the retaining clip on the back wall of the liner).
2. Push the shelf back all the way.
3. Slowly lower the shelf to a horizontal position, ensuring that the frame of the shelf engages the retaining clip on the back wall of the liner. The shelf is now ready to use.

To fold the shelf down (vertical position):

1. Lift up on the rear frame of the shelf, to release it from the rear retaining clip.
2. Pull the shelf towards the front of the liner and allow the shelf to swing down into a vertical position.

Drying in the Cabinet

Start-up

- Turn off UV light and turn the UV Security switch to “OFF”. Remove the key and store it in a safe place.
- Ensure the drain strainer is in place.
- Turn the switch to “Fan”.
- Check the condition of the prefilters. If your protocol requires the use of evidence prefilters, ensure a new set of both door and cabinet prefilters has been properly installed, according to the instructions in [Section 6: Performance Features & Safety Precautions](#). Note if the Filter System light is on.
- Wash hands and arms thoroughly with germicidal soap.
- Wear a long-sleeved lab coat with knit cuffs and over-the-cuff rubber gloves. Use protective eyewear. Wear a protective mask if appropriate.

Wipe-Down

- Open the door to its fully open position.
- Wipe down the interior surfaces of the cabinet with 70% ethanol, or a suitable disinfectant, and allow it to dry.



CAUTION: Do not use bleach on the stainless steel liner. Use disinfectants compatible with stainless steel.

Loading Evidence

- Load the evidence so that air flows around all surfaces. Do not overload the cabinet. Do not place objects directly against the side walls.
- Do not obstruct the intake prefilter (bottom of the door(s)) or the exhaust air discharge, on top of the cabinet.
- Large objects should not be placed close together.
- Slowly close the door(s) and use a padlock (not supplied) or secure it with a chain of custody seal.

Unloading Evidence

- Wear a long-sleeved lab coat with knit cuffs and over-the-cuff rubber gloves. Use protective eyewear. Wear a protective mask if appropriate.
- Carefully remove objects in the cabinet. Evidence that was considered biohazardous when loaded should be handled as biohazardous. If your protocol required the use of evidence prefilters, remove them now and store them appropriately.

Wipe-Down

- Wear a long-sleeved lab coat with knit cuffs and over-the-cuff rubber gloves. Use protective eyewear. Wear a protective mask if appropriate.
- Wipe down the interior surfaces of the cabinet with 70% ethanol, or a suitable disinfectant, and allow to dry.
- Inspect and clean the prefilters at the bottom of the door(s), and at the top of the liner.
- Dispose of rubber gloves appropriately and have lab coat laundered properly.
- Wash hands and arms thoroughly with germicidal soap.

Shutdown

- Close the door. If UV disinfection is desired, insert the UV Security Lock Key, and turn it to the “ON” position. Turn the Fan/UV Light switch to “UV”. The UV light will light.
- Turn the UV Light off after an appropriate disinfection time, typically 1-8 hours.

7: Maintaining the Cabinet

This section details the maintenance required for optimal operation of the Evidence Drying Cabinet (EDC).

Maintenance Safety Precautions



The following tools and supplies are required to maintain the equipment:

- #2 Phillips Screwdriver
- 70% alcohol solution (or other approved surface disinfectant)
- Paper Towels



The following safety precautions must be followed by all personnel maintaining the equipment.

- Wear safety glasses, and/or additional eye and face protection as required by your Health & Safety Department.
- Wear gloves, and/or additional skin protection as required by safety instructions for cleaning/disinfecting chemicals used. Consult your Health & Safety Department for additional skin protection requirements.
- No loose fitting clothes.
- Wear close-toed shoes.
- Although the service operations detailed in this section do not involve access to areas of the product with moving or electrical parts, should you remove any panels that expose moving or electrical parts, you must follow these instructions before doing so:



- Disconnect main power cord or electrical service connection.
- Never touch moving parts such as fan blades or blower wheels.



- Never touch the HEPA (or ULPA) filter media. Touching the media will damage it, and result in a failure of the filter to function properly and maintain safe conditions.

The common service operations necessary to maintain the EDC for peak performance are listed below.

Routine Maintenance Schedule

Activity	Maintenance Frequency		
	Weekly	Monthly	Annually
Disinfect interior surfaces (with suitable chemical disinfectant).	•	•	•
Clean door and surface of UV lamp with appropriate glass cleaner.	•	•	•
Operate cabinet blower, noting if the Filter System Light turns on.	•	•	•
Ensure the cabinet water shut off valve is in the off position.	•	•	•
Using 70% alcohol solution, wipe down cabinet exterior.		•	•
Check prefilters, replace both if needed.		•	•
Replace HEPA and granular activated carbon filters, if needed.			•
Have the cabinet recertified by a qualified technician.			•

Service Operations

Door Evidence Prefilter Replacement:

1. Pull the prefilter frame(s) straight away from the door(s), as shown in Figure 7-1.
2. Wearing appropriate gloves and working on the inside surface of the prefilter frame(s), carefully pull out the Evidence prefilter(s). The Evidence prefilter(s) can now be examined for trace evidence or stored with the evidence in a sealed bag for future reference.
3. Examine the door prefilter(s). If contaminated from the evidence drying operation, or from dust, replace with a new one(s), such that the orange side of the prefilter(s) faces you (away from the front of the prefilter frame).
4. Press the prefilter frame(s) back into the door, engaging the fastener strips.

Figure 7-1



Door Prefilter Replacement:

1. Follow Steps 1, 3, and 4 above.

Cabinet Evidence Prefilter Replacement:

1. Open the cabinet's glass door(s) and locate the cabinet prefilter frame on the upper right side of the liner. See Figure 7-2.
2. To access the prefilter, loosen the captive thumbscrew until it is released. The front of the prefilter frame will swing down.



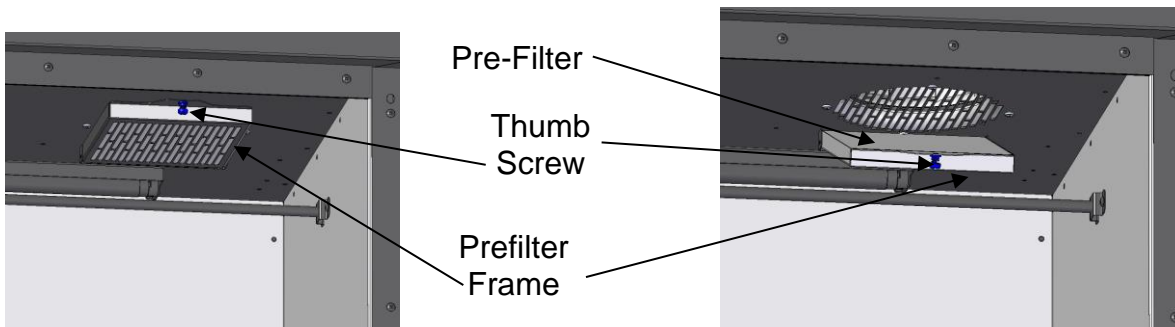
NOTE: The prefilter frame can be removed from the cabinet for easier prefilter examination and removal. With the front thumbscrew released, and the front of the prefilter frame tilting downward, remove it by lifting the back of the frame up slightly, and then gently pull the frame straight out of the cabinet.

3. Wearing appropriate gloves, and working on the prefilter frame, carefully lift out the prefilter, and then the evidence prefilter. The evidence prefilter can now be examined for trace evidence or placed in a sealed plastic bag for future examination.
4. Examine the cabinet prefilter. If it is contaminated from the evidence drying operation, or from dust, replace it with a new one, such that the orange side of the prefilter is up (away from the bottom of the prefilter frame).
5. Reinstall the prefilter frame, and hand tighten the thumbscrew.

Cabinet Prefilter Replacement:

1. Follow Steps 1, 2, 4 and 5 above.
2. Place the new prefilter so that the orange side of the prefilter faces up.

Figure 7-2



Granular Activated Carbon and HEPA Filter Replacement:

1. Use an appropriate stepladder to gain access to the top of the EDC and release the two bungee cords securing the granular activated and carbon and HEPA filters, as shown in Figure 7-3.
2. When handling used filters or prefilters, always wear appropriate personnel protective equipment.
3. Lift the granular activated carbon and HEPA filters straight up and out of the cabinet top.
4. Install the replacement filters, with the HEPA filter below the granular activated carbon filter. The gaskets on both filters should be on the lower (bottom) surface.
5. Reinstall both bungee cords to secure the filters in place. The unit is now ready to resume operation.
6. Filters should be disposed of properly. HEPA Filters should be treated as a biohazard.

Unhook the bungee cord from the front of the unit, and then lift the filters straight up to remove.

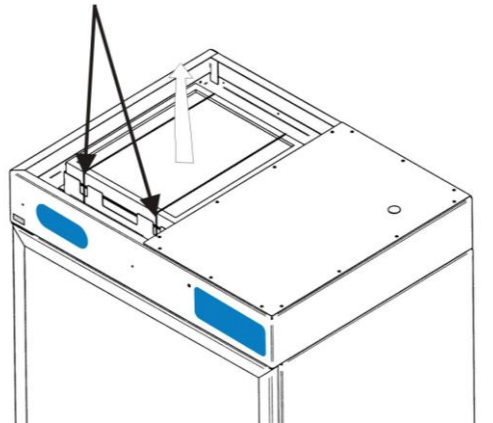


Figure 7-3

Changing the UV Lamp:



NOTE: For optimum performance, the UV lamp should be changed on an annual basis.



NOTE: The UV lamp and the work area of the cabinet must be thoroughly decontaminated before removing the lamp.

1. Unplug the cabinet and open the door(s).
2. Thoroughly surface decontaminate the UV lamp and the work area of the cabinet.
3. Remove the UV lamp by rotating it 90 degrees and lifting it straight up and out of its sockets.
4. Install new lamp by reversing the removal procedure.



THE LAMP(S) IN THIS PRODUCT CONTAIN MERCURY

Manage in accordance with local disposal laws. DO NOT place lamps in trash. Dispose as a hazardous waste. For information regarding safe handling, recycling and disposal, consult www.lamprecycle.org

CETTE LAMPE DANS CE PRODUIT CONTIENT DU MERCURE

Éliminez ou recyclez conformément aux lois applicables. Pour de l'information concernant des pratiques de manipulation sécuritaires et l'élimination sécuritaire et le recyclage, veuillez consulter www.lamprecycle.org

Resetting a Circuit Breaker:

To reset any of the circuit breakers located on the top rear of cabinet, depress the white button until it resets.

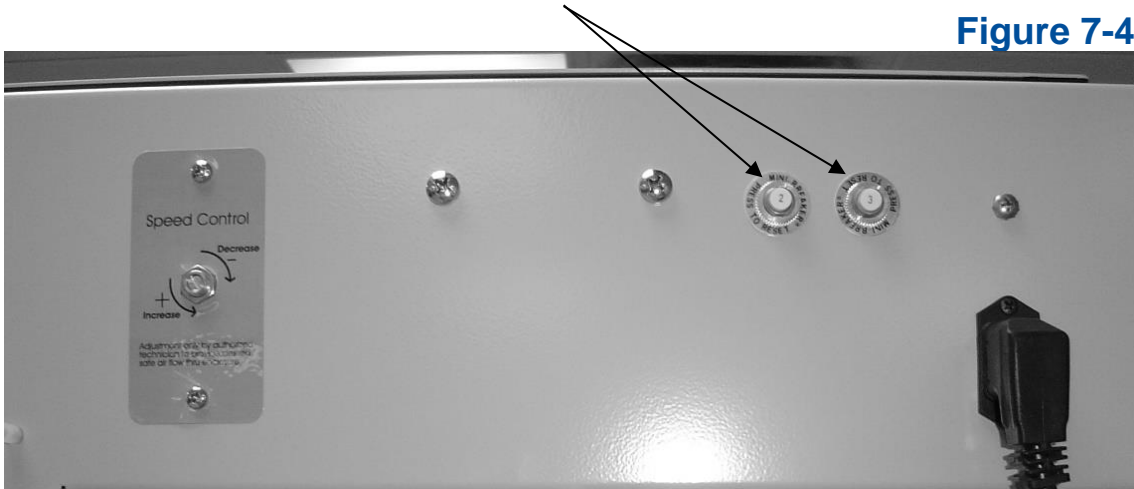


Figure 7-4

Setting the Speed Control:

Adjustment of the speed control varies the volume of air drawn through the liner while the unit is operating. Ideally, smoke released into the intake prefilter should traverse the liner and be drawn into the exhaust prefilter in approximately 5 seconds or less.

Using a small screwdriver, adjust the speed control to give the required face velocity. See Figure 7-4 to locate the speed control. The air velocity is increased by turning the speed control counterclockwise. Turning clockwise will decrease the velocity.

Adjusting the Filter Light Pressure Switch:

1. Using a flat head screwdriver, locate and remove the hole plug from the top of the EDC. Refer to 7-5 & 7-6 for a visual.

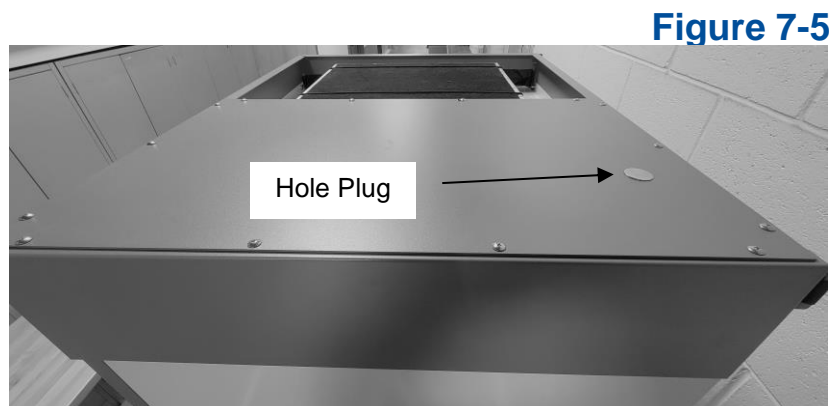


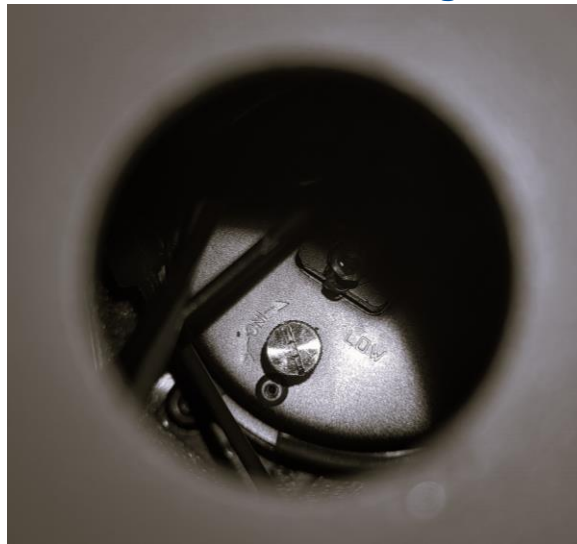
Figure 7-5

Figure 7-6



2. After removing the hole plug, locate the pressure switch dial which can be turned using the same flat head screwdriver. Refer to 7-7 for a visual.

Figure 7-6

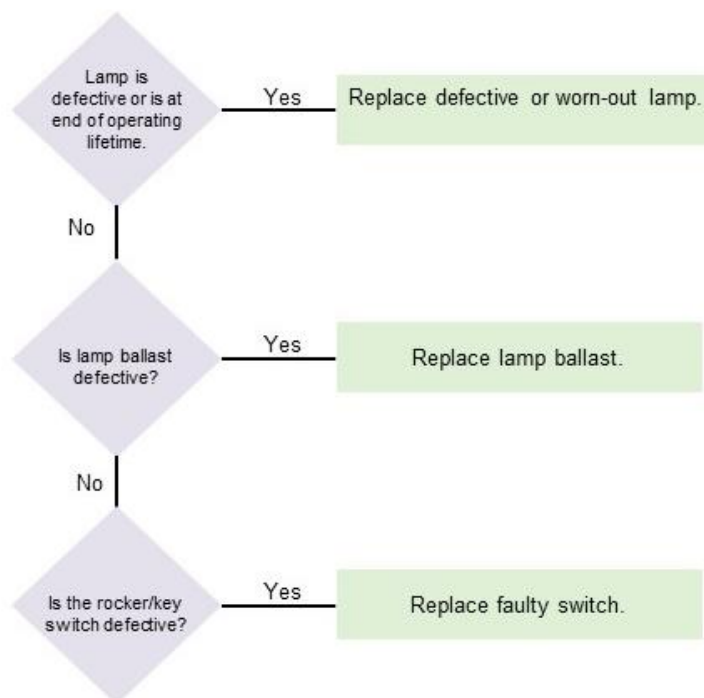


NOTE: Turning the dial clockwise will increase the threshold for the pressure light to turn on. This will increase the longevity of the filter. Turning the dial clockwise will increase the sensitivity of the pressure switch and in turn decrease the longevity of the filter.

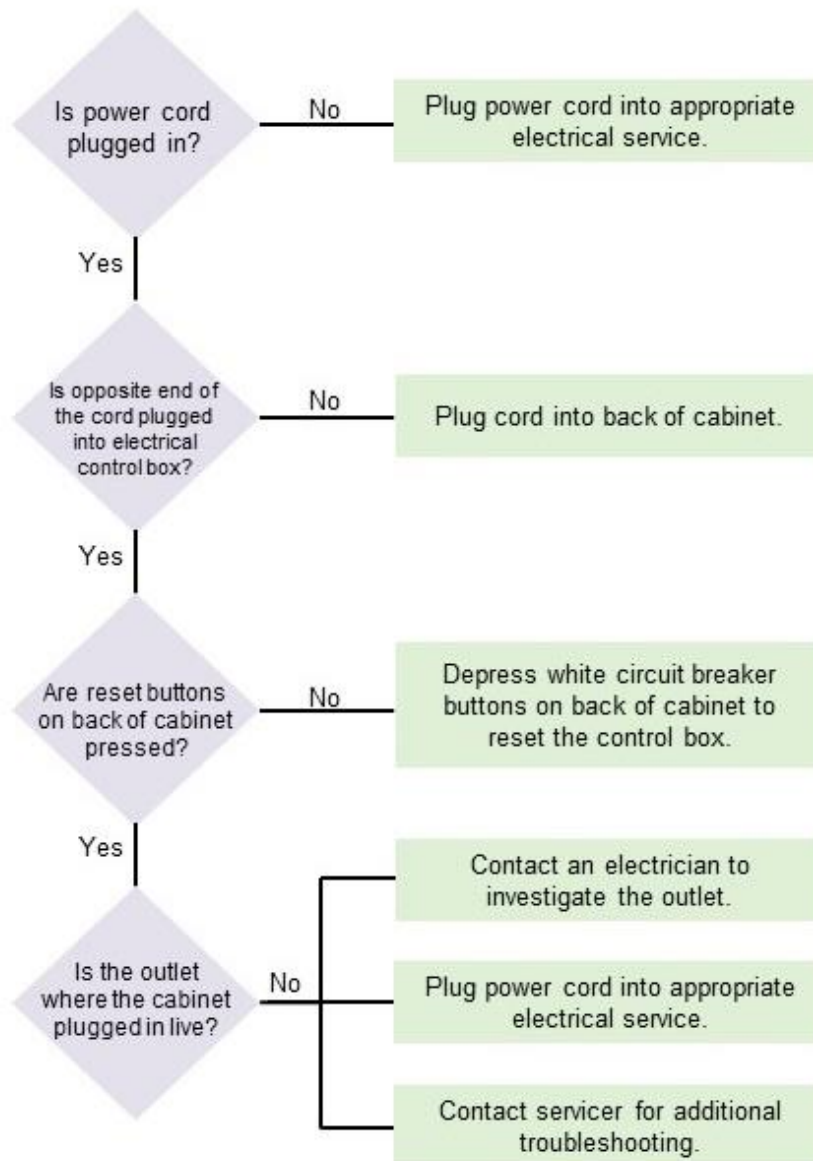
8: Troubleshooting

Refer to the following table if the cabinet fails to operate properly. If the suggested corrective actions do not solve the problem, contact Labconco for additional assistance.

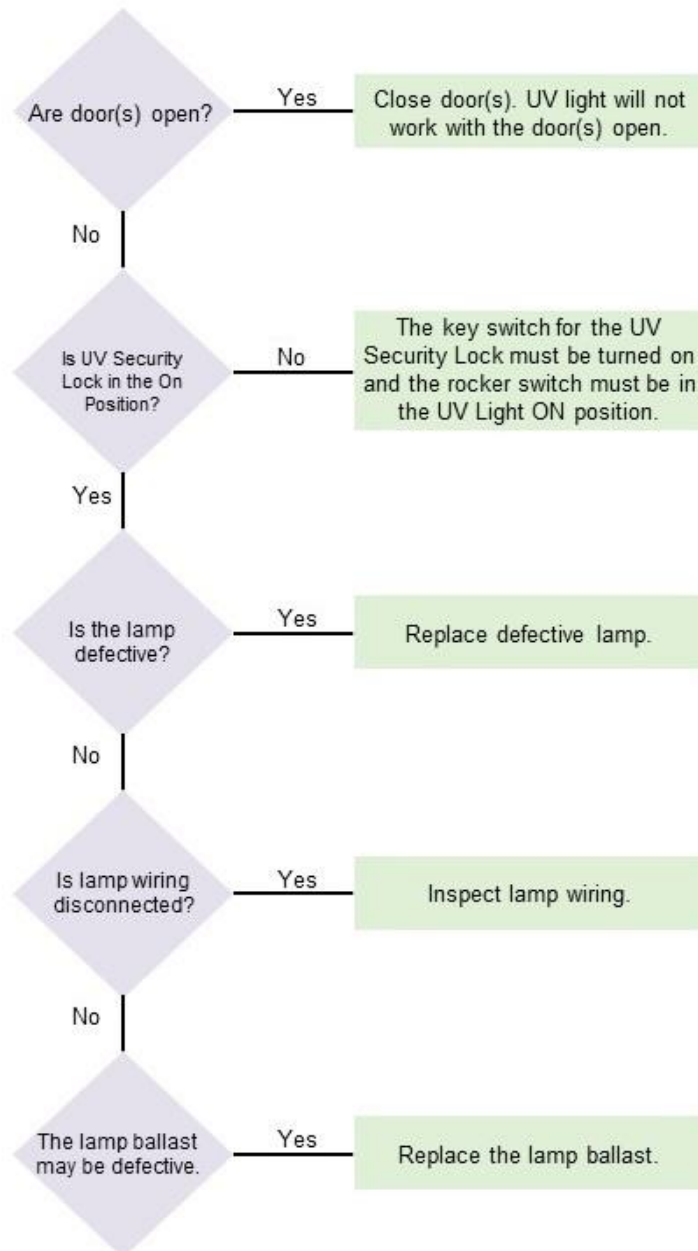
UV Light is dim or flickering:



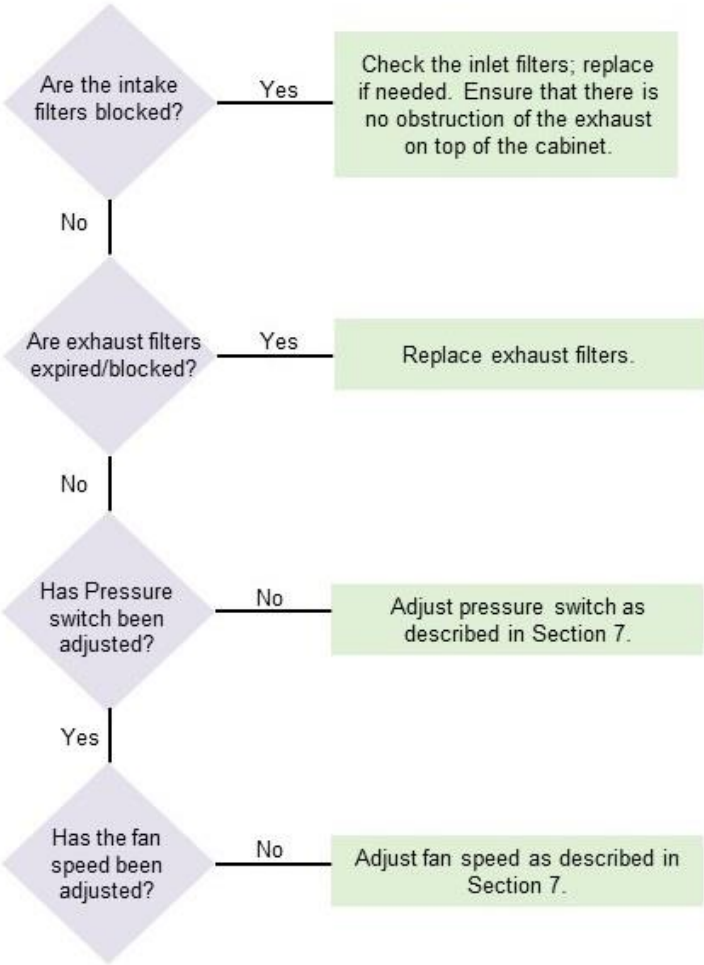
Cabinet Blower and/or lights will not turn on:



UV Light not working:



Filter System light is on/flickering:

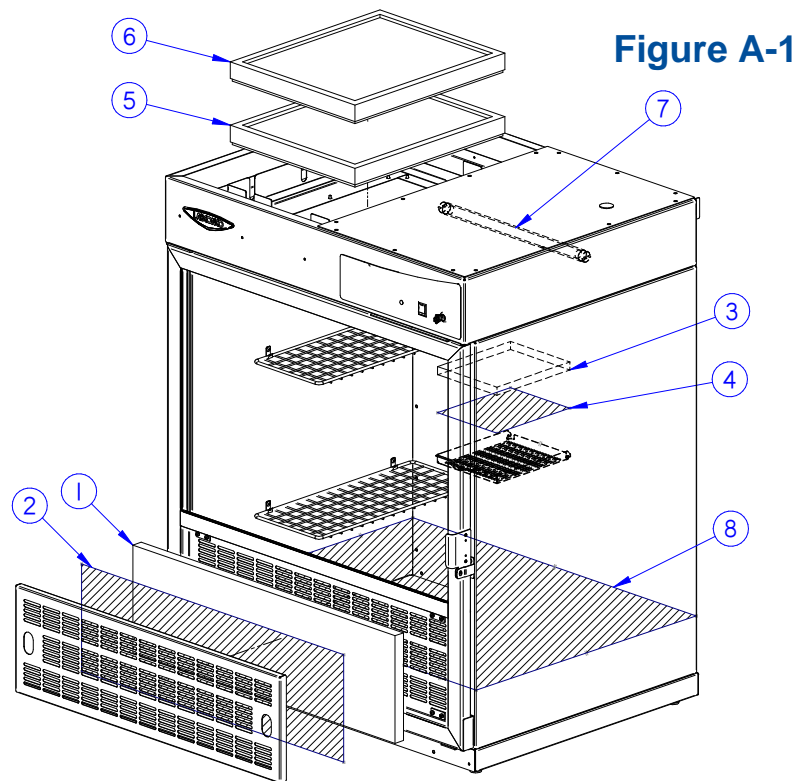


Appendix A: Parts List

Table A-1 indicates common parts that may need replacing.

Table A-1

Item	Quantity (EA per unit)	Part No.	Description
1	1	3872600	Door Prefilter, 3 FT package of 6 EA
2	1	3872601	Door Evidence Prefilter, 3FT package of 10 EA
3	1	3872700	Cabinet (top) Prefilter, package of 6 EA
4	1	3872701	Cabinet (top) Evidence Prefilter, package of 10 EA
5	1	6938100	HEPA Filter
6	1	6938200	Granular Activated Carbon Filter
7	1	1270100	Lamp, UV (UV Models Only)
8	1	3869800	Paper Liner, 3 FT package of 25 EA



Appendix B: Dimensions

Figure B-1 indicates the product dimensions. All dimensions shown in inches.

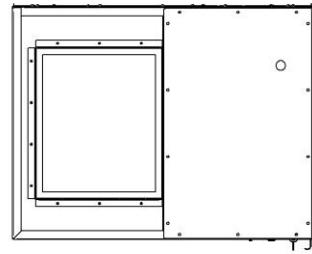
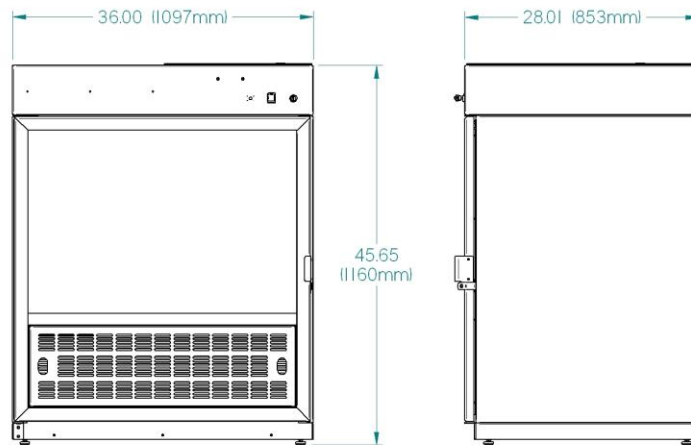


Figure B-1



Interior Dimensions:

36.0" (914 mm) H x 32.3" (820 mm) W x 26.5" (673 mm) D

Appendix C: Specifications

Power Data

Table C-1

Model #	Requirements	Energy Use
3390000	115 VAC, 60 Hz, 6 Amps	100W
3390001	230 VAC, 50/60 Hz, 3 Amps	100W

Environmental Conditions

- Indoor use only.
- Maximum altitude: 6562 feet (2000 meters).
- Ambient temperature range: 41° to 104°F (5° to 40°C).
- Maximum relative humidity: 80% for temperatures up to 88°F (31°C), decreasing linearly to 50% relative humidity at 104°F (40°C).
- Main supply voltage fluctuations not to exceed $\pm 10\%$ of the nominal voltage.
- Transient overvoltages according to Installation Categories II (Overvoltage Categories per IEC 1010). Temporary voltage spikes on the AC input line that may be as high as 1500V for 115V models and 2500V for 230V models are allowed.
- Used in an environment of Pollution degrees 2 (i.e., where normally only non-conductive atmospheres are present). Occasionally, however, a temporary conductivity caused by condensation must be expected, in accordance with IEC 664.

Appendix D: Accessories

Door Evidence Prefilters (# 3951802)

Package of 10 each Door Evidence prefilters. Evidence prefilters are single use polyester prefilters to be examined and or retained for trace evidence. Precut to fit the door prefilter frame. 1 lb. (0.5kg).

Cabinet Evidence Prefilters (# 3951803)

Package of 10 each Cabinet Evidence prefilters. Evidence prefilters are single use polyester prefilters to be examined and or retained for trace evidence. Precut to fit the cabinet prefilter frame. 1 lb. (0.5kg).

Door Prefilters (# 3872600)

Package of 6 polyester prefilters with a MERV 11 rating. Precut to fit the door of the cabinet. 1 lb. (0.5kg).

Cabinet Prefilters (# 3872700)

Package of 6 polyester prefilters with a MERV 11 rating. Precut to fit the inside top of liner. 1 lb. (0.5kg).

Starter Kit (# 3869900)

Includes many of the accessories needed to use the cabinet. 15 lbs. (6.8kg).

Included:

6-door prefilters

6-cabinet prefilters

1-door evidence prefilter (*qty. 2 on -10 & -20 kits*)

1-cabinet evidence prefilter

10-hanging clips

10-paper liners (die cut paper to fit the bottom of the cabinet) to collect material that falls from evidence. Paper is waxed on one side.

1-32 oz. (946 ml) bottle of germicidal cleaner with spray head.

Paper Liners (# 3869800)

A tube of 25 paper liners (die cut paper to fit the bottom of the cabinet) to collect material that falls from evidence. Paper is waxed on one side. 12 lbs. (5.5kg).

Paper Liners (# 3894200)

A package of 100 paper liners (die cut paper to fit the bottom of the cabinet) to collect material that falls from evidence. Paper is waxed on one side. 25 lbs. (11kg).

Security Tags (# 3902400)

Package of 100 each tamper-evident, labeled tags. Tags irreversibly indicate if the cabinet door has been opened during the drying cycle. 1 lb. (0.5kg).

Hanging Clips (# 3869500)

Package of 10 each hanging clips, that allow small articles to be hung from the cabinet's hanger rod or shelf. 1 lb. (0.5kg).

Germicidal Cleaner, Individual Wipes (# 3872400)

Package of 100 each individually packaged single use disinfectant wipes. 2 lbs. (1kg).

Germicidal Cleaner, Ready-to-Use Wipes (# 3872500)

Package of 90 ready to use disinfectant wipes, in a convenient dispensing tub. 2 lbs. (1kg).

Germicidal Cleaner, 32 oz. (946 ml) (# 3901800)

Bottle of liquid disinfectant cleaner. Includes a screw-on spray head dispenser. 2 lbs. (1kg).

Germicidal Cleaner, 1 Gal. (3785 ml) (# 3901700)

Bottle of liquid disinfectant cleaner, for refilling the spray bottle. 10 lbs. (5kg).