Oneida® Air Systems

OWNER'S MANUAL

BenchTop DC™
Personal Dust Collector
#XBZ000100

Appearance may vary slightly

Table of Contents

System Start-Up Information

⚠ **MAKE SURE TO READ AND UNDERSTAND THE INSTALLATION AND MAINTENANCE INSTRUCTIONS AS WELL AS ALL RECOMMENDED SAFETY PRACTICES.**

⚠ WARNING ⚠

1. THIS UNIT IS NOT RATED FOR USE IN COMBUSTIBLE ENVIRONMENTS.
2. This equipment incorporates parts such as switches, motors or the like that tend to produce arcs or sparks that can cause an explosion.
3. To reduce the risk of Electric Shock, DO NOT use outdoors or on wet surfaces.
4. Exhaust air should not be vented into a wall, a ceiling, or a concealed space of a building.
5. To reduce the risk of injury from moving parts - unplug BEFORE servicing.
6. Use this equipment for dry material collection only. DO NOT use for liquid or gas vapor collection.

⚠ FIRE HAZARDS ⚠

1. Wood shaping and cutting processes generate wood chips, shavings and dust. These materials are considered combustible. Air borne wood dust below 420 microns in size (0.017 of an inch) in certain concentration ranges when ignited can deflagrate (burn quickly). An ignition source such as a spark or ember can ignite a dust mixture resulting in an expanding flame front, which can cause an explosion if tightly contained. A disturbance that raises a cloud of accumulated fine dust can raise additional dust clouds, which can cause a series of explosions that can level an entire building. Until this type of fire has been witnessed, it is difficult to believe the devastation. This type of fire is rare but worth safeguarding against.
2. The best way to avoid a wood shop fire is to keep the shop clean. A shop ankle deep in dust with layers of fine dust everywhere is an accident waiting to happen. A good dust collection system reduces overall fire hazards but also adds new concerns. A fire hazard is still present. Combustible material is now in the dust collector and storage container.
3. DO NOT use this product to collect flammable dust or flammable vapors! - Fire or explosion may occur!
4. NEVER collect sparks from a bench grinder into a wood dust collector.
5. NEVER introduce sparks or sources of ignition into the dust collector.
6. Keep portable fire extinguishers handy.
   a. The ABC type (dry chemical) is generally a good choice for small wood shops.
   b. Additional information on portable extinguishers can be found in NFPA 10 (Standard for Portable Fire Extinguishers).
7. DO NOT overload woodworking equipment, especially sanders. Excessive frictional heat can spontaneously ignite dust.
8. Sparks can be generated in several ways:
   a. High speed sanders and abrasive planers may strike foreign material.
   b. Saws and edgers may strike foreign material and create a red-hot metal fragment.
   c. Knots in hardwood can create frictional sparks.
   d. Check wood stock for old nails and screws which can create red hot metal fragments.
9. DO NOT allow accumulation of layers of fine dust on horizontal surfaces (especially overhead lights, electrical boxes and fuse panels which can ignite dust.)
10. UNPLUG UNIT BEFORE SERVICING OR CLEANING

# System Specifications and Dimensions

OPERATION	
Airflow	535 CFM
Horsepower	0.3HP
Phase	Single-Phase
Voltage	110V
Cycle	60HZ
Amperage Draw	3A
On/Off Switch	Analog Variable Speed Control
Power Cord Length	6'
Plug Type	NEMA 5-15P
Noise Level	62.5 to 74 dBA
SYSTEM DIMENSIONS AND CONSTRUCTION	
Primary Build Materials	Cold Rolled Steel with a powder-coated finish
Overall Weight	20 lbs
Pre-Filter Dimensions	16 x 24-1/4 x 1/2"
Main Filter Dimensions	16 x 25 x 3"
Outer Filtration / Material	MERV 5 / Polyester
Main Filter Filtration / Material	MERV 15 / Synthetic

Nominal dimensions shown. Dimensions subject to slight variations in manufacturing.

25-1/2" W

9-3/4" D

16-1/2" H
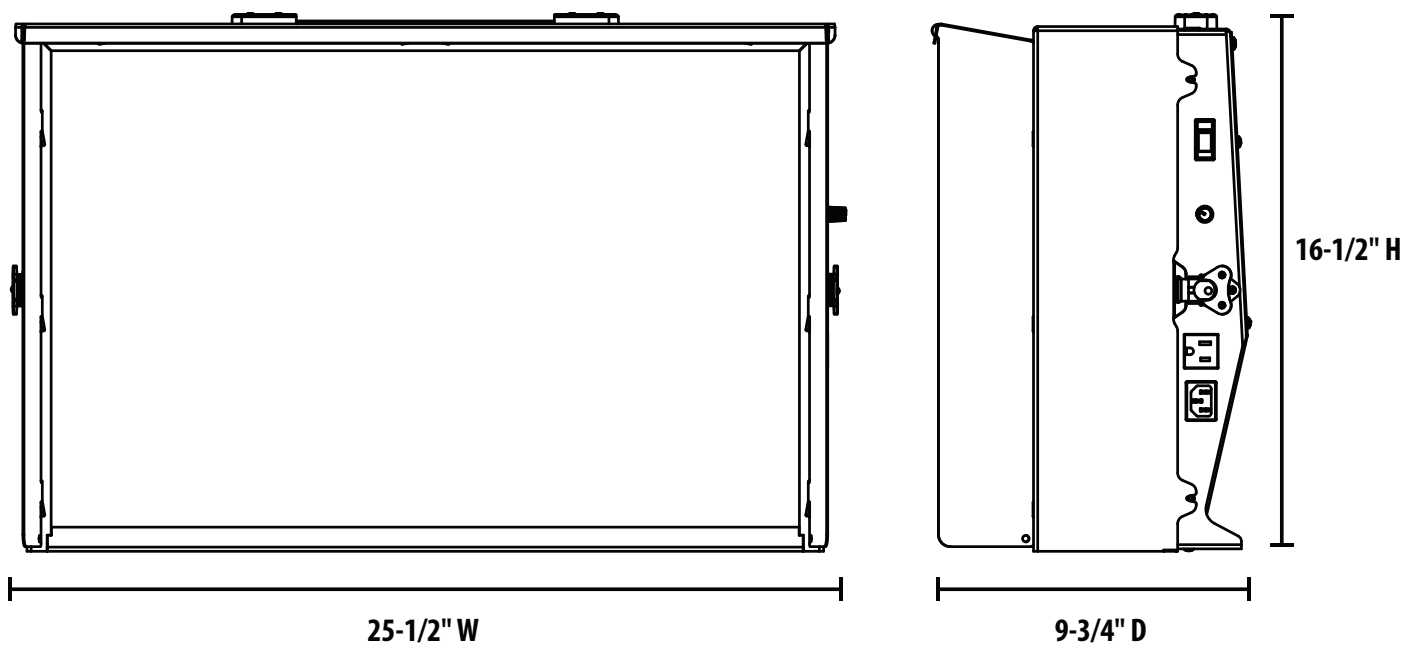
System Contents

> If you cannot find an item on the list, examine the packaging materials very carefully for nested items. Please note that certain components have been pre-installed. There may be hardware leftover.

ID	Part number	Part description	Qty
A	XBZ000100	BenchTop DC Assembly	1
B*	BTB000100	Fan Assembly	1
C*	FCS000001	Main Filter	1
D*	FCS162503	Pre-Filter	1
E*	RBB000100	Frame Assembly	1
F	BTV000001	Left Vane	1

ID	Part number	Part description	Qty
G	BTV000003	Top Vane	1
H	BTV000002	Right Vane	1
I	RGC062524	24" Cork Strip	1
J	RGC012515	1-1/2" Cork Strip	2
K	WCW000007	AC Cord	1

Please unpack the parts carefully and confirm you have received each item listed here.
*Components are pre-installed at the factory and are listed here for maintenance and convenience. The pre-installed components will be referred to as the BenchTop DC Assembly (A).

System Contents (Continued)
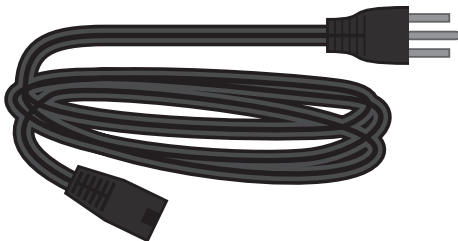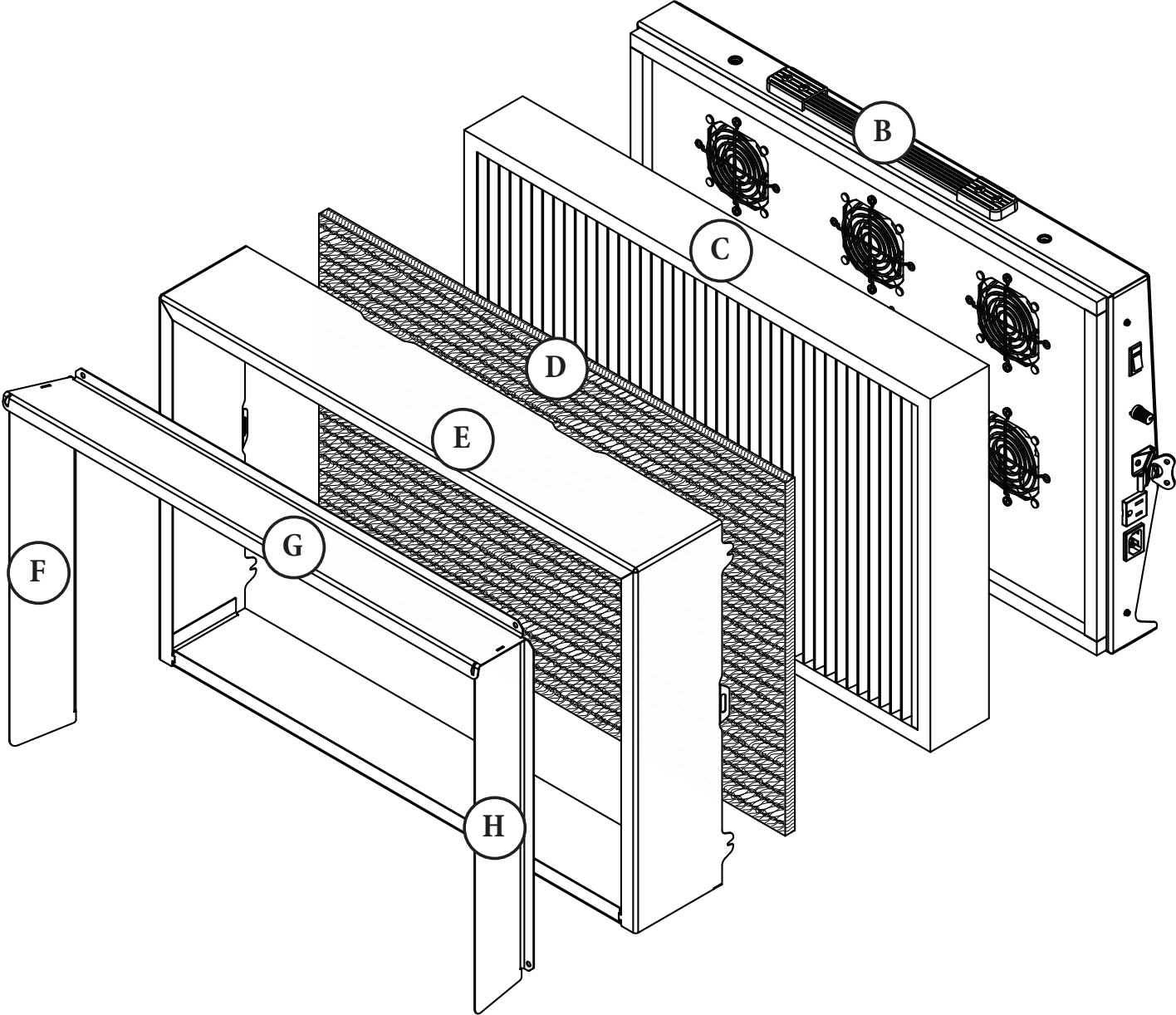
Assembly Instructions

⚠️ **FOR YOUR OWN SAFETY, DO NOT CONNECT THE MACHINE TO THE POWER SOURCE UNTIL THE MACHINE IS COMPLETELY ASSEMBLED. PLEASE ALSO MAKE SURE THAT YOU READ AND UNDERSTAND THE ENTIRE INSTRUCTION MANUAL.**

1 Install the Cork Strips (I, J) to the BenchTop DC Assembly (A):

a. Turn the BenchTop DC Assembly (A) upside down [FIG. 1a]. Clean and dry the bottom thoroughly.

b. Align the 24" Cork Strip (I) along the front edge of the BenchTop DC Assembly as shown in [FIG. 1b]. Peel the backer tape off and adhere to the BenchTop DC Assembly (A)

c. Align the 1-1/2" Cork Strips (J) along the left and right edge of the BenchTop DC Assembly as shown in [FIG. 1C]. Peel the backer tape off and adhere both pieces to the BenchTop DC Assembly (A). Turn the unit right-side up.

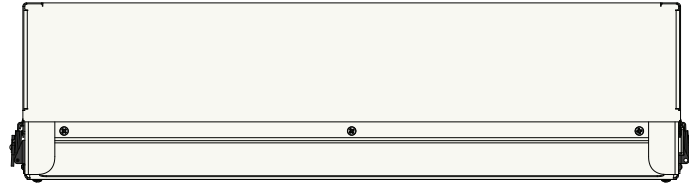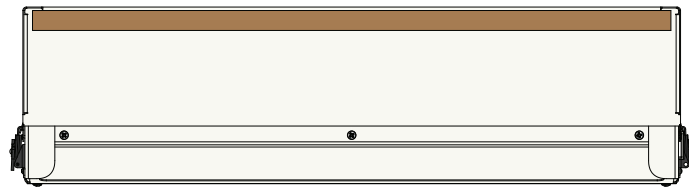*Note: Press each piece firmly onto the bracket to ensure a long-lasting seal.*
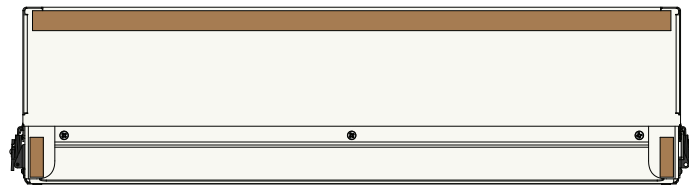

FIG. 1a

FIG. 1b

FIG. 1c

2 Insert the Top Vane (G) between the Frame Assembly (E) and Pre-Filter (D) as shown in [FIG. 2]. The Top Vane will be held in place by the Pre-Filter pressing on it until the remaining Vanes are installed.
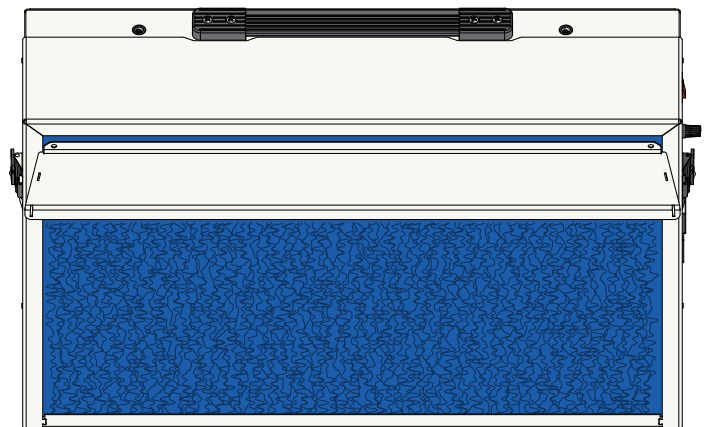

FIG. 2

Assembly Instructions (Continued)

3 Install the Left and Right Vanes (F, H) to the BenchTop DC Assembly (A):

a. Locate the lower notches on the front of the Frame Assembly. [FIG. 3a]

b. Slide the Right Vane (H) between the Frame Assembly (E) and Pre-Filter (D) at an angle so that it slips under the Top Vane (G) and settles into the lower right notch as shown in [FIG. 3b].

c. Rotate the Right Vane (H) so that it is vertical and perpendicular to the Top Vane (G). Align and insert the two tabs of the Right Vane (H) into the two corresponding slots of the Top Vane (G). Press down firmly so that both components clip into position [FIG. 3c].

d. Mirror Steps a-c for the Left Vane (F) on the other side of the Frame Assembly.

Note: Make certain the two tabs on both the Left and Right Vane are seated securely in the slots of the Top Vane.
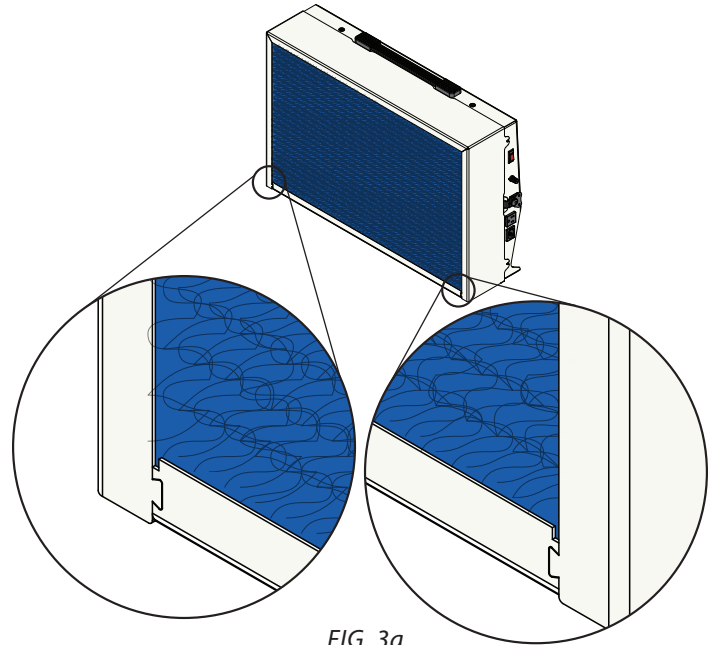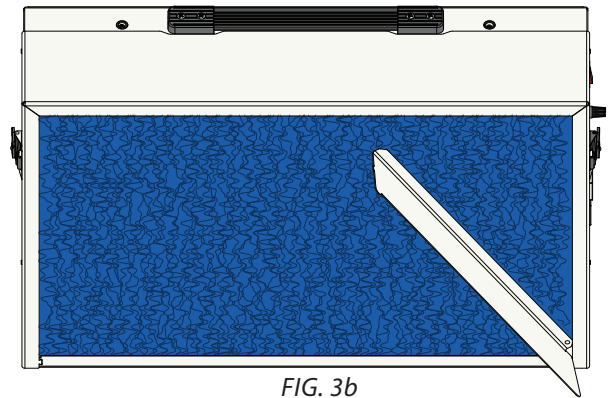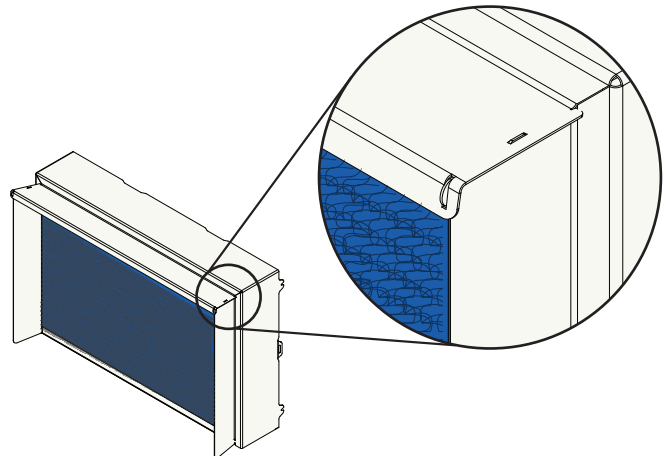

FIG. 3a

FIG. 3b

FIG. 3c

Assembly Instructions (Continued)

⚠ **THIS MACHINE MUST HAVE A GROUND PRONG IN THE PLUG TO HELP ENSURE THAT IT IS GROUNDED. DO NOT REMOVE GROUND PRONG FROM PLUG TO FIT INTO A TWO-PRONGED OUTLET! IF THE PLUG WILL NOT FIT THE OUTLET, HAVE THE PROPER OUTLET INSTALLED BY A QUALIFIED ELECTRICIAN.**

4 Plug the female end of the AC Cord (K) into the BenchTop DC Assembly (A) male port. Make certain that the power switch is in the off position and then plug the AC Cord into an AC power source (wall outlet) [FIG. 4].

Note: We recommended that you work close to the front of the unit to ensure the best dust collection possible. This unit is not meant to replace other source collection devices, such as built in dust ports or bags. It is meant to supplement those tools and create a cleaner zone of air around the user.

FIG. 4

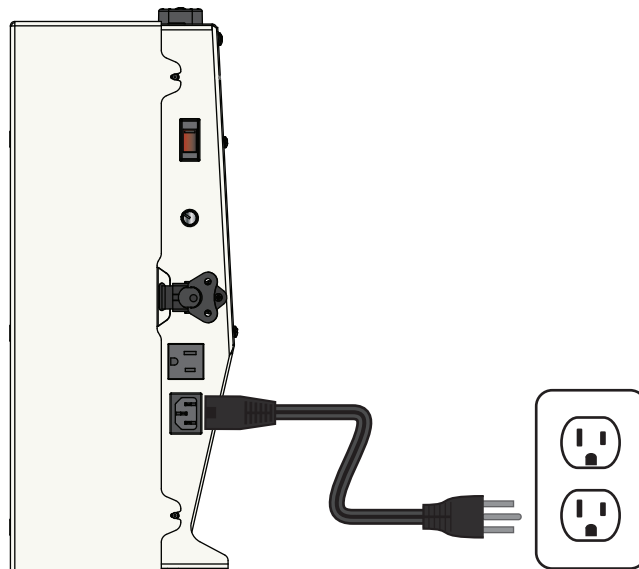**5** Press the switch to the RESET position [FIG. 5a]. The fan speed can be adjusted as needed using the knob below the switch [FIG. 5b].
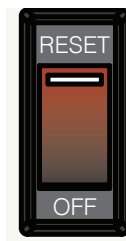
FIG. 5a

FIG. 5b

6 Tools can be plugged into the accessory port and should not exceed 10 amps [FIG. 6].

Note: Tools plugged into the accessory port will remain powered on even when the BenchTop DC's power switch is in the OFF position.
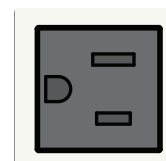
FIG. 6

Features

Reinforced Carry Handle

Makes the unit easy to move.

Switch

Illuminates to indicate when the unit is on.

Variable Fan Speed Control

Adjusts the fan speed to meet the needs of any application.

Draw Latch

Ensures that the Fan Assembly and Frame Assembly remain firmly closed.

Auxiliary Power Outlet

Allows small hand tools and accessories to be powered through the collector.

IEC C14 Port

Accepts standard C13 power cord.
6' power cord included.

Maintenance

⚠️ **UNPLUG YOUR UNIT BEFORE SERVICING OR CLEANING.**

Replacement Filters
FCS000001, FCS162503

Proper filter cleaning should not be neglected as a dirty filter can significantly affect your BenchTop DC's performance. There are two filters in the unit 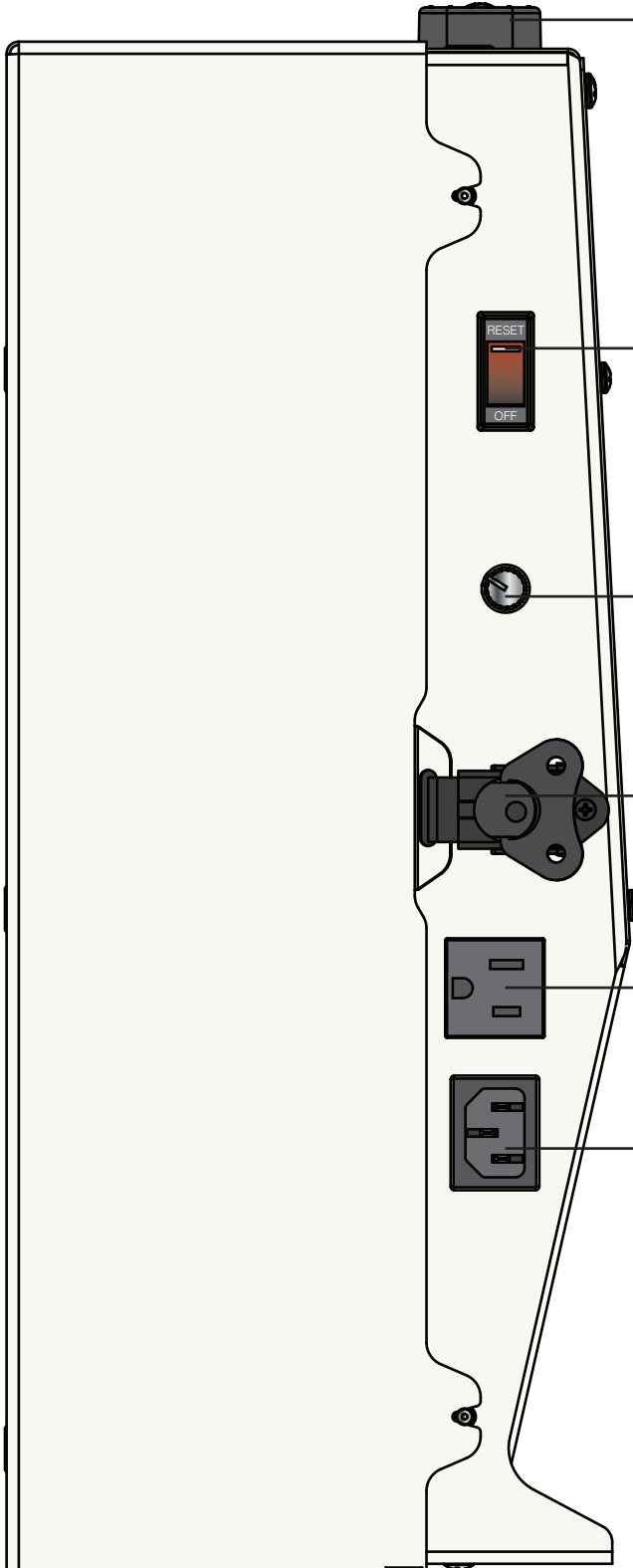that need to be replaced or cleaned regularly. If you notice that filters appear heavily soiled when you replace them, you should consider changing them more frequently. Many factors can affect how quickly filters get dirty.

Disassembly and Cleaning

1. WEAR A DUST MASK AND EYE PROTECTION.

2. Turn off and unplug the BenchTop DC and wait for the Fan Assembly to come to a complete stop and for the dust to settle.

3. Unlatch the two draw latches and slide the Frame Assembly (E) out and away from the Fan Assembly (B).
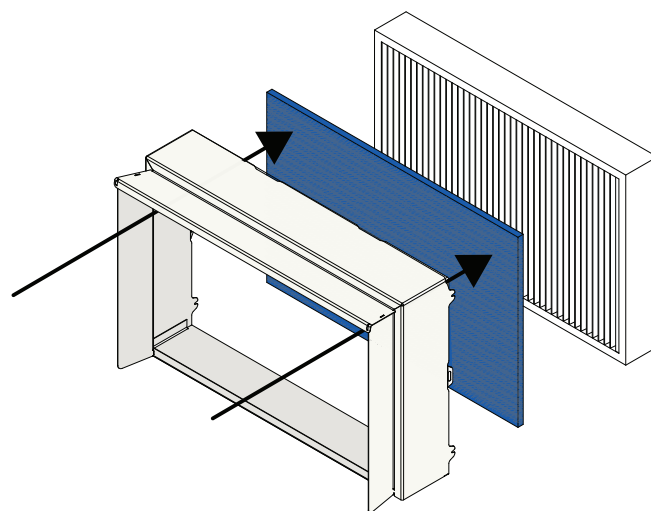
5. Check to make sure both filters are in good condition with no torn media or cracks or tears. For best performance, we highly recommend that you replace the Main Filter when it becomes too clogged to allow for adequate airflow. (See Recommended Accessories page 14 for the replacement filter part.)

6. The Main Filter can be cleaned by placing it into a plastic bag and lightly tapping the filter onto the floor. Dirt and debris will fall away from the filter for disposal. Attempting to clean the filter with a vacuum or air compressor may damage the filter media. The Main Filter is NOT washable.

7. Rinse the Pre-Filter with water. The airflow of the Pre-Filter is bidirectional and can be rinsed in either direction. Do NOT use a high pressure nozzle or a power washer.

8. To speed up drying time, either air dry or blow excess water off the Pre-Filter using a hand-held, compressed air nozzle with a pressure between 30 to 60 PSI.

9. Dry Pre-Filter prior to returning it to service. It is NOT recommended to dry at temperatures above 225°F (107°C). The Pre-filter must be absolutely dry before re-use. Allow at least 24 hours of drying time. Protect the Pre-filter from dust during the drying process.
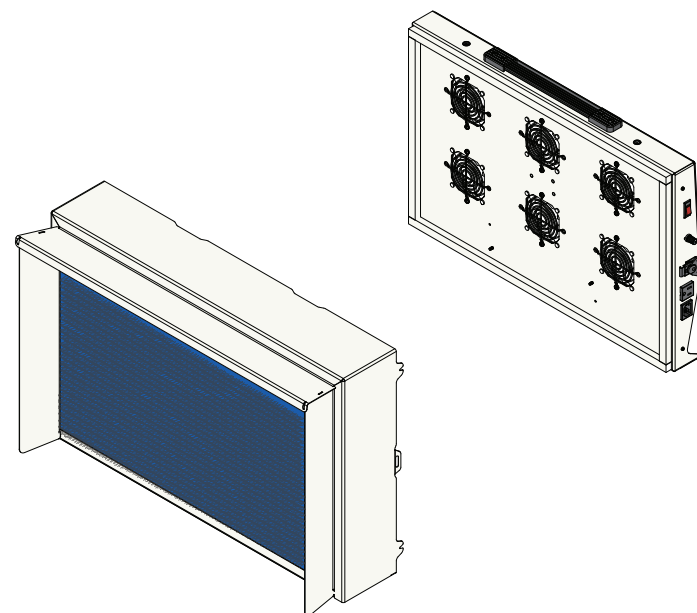
4. Remove the Pre-Filter (D) and Main Filter (C) by gently pushing the Pre-Filter out and away from the Frame Assembly.

Maintenance (Continued)

Reassembly

1. Place the Frame Assembly (E) face down and place the Pre-Filter (D) down inside of it.
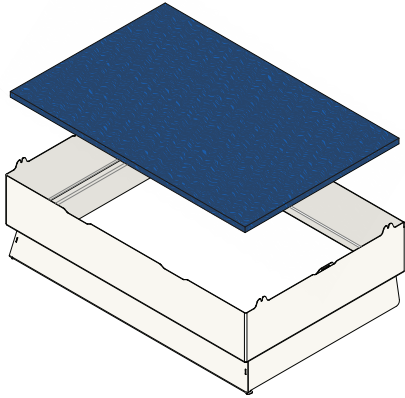
2. Note the airflow direction listed on the Main Filter (C). The arrow should be pointing toward the fans when installed.

AIR FLOW

16 X 25 X 3

FILTER INSTALLED
MONTH   DAY   YEAR
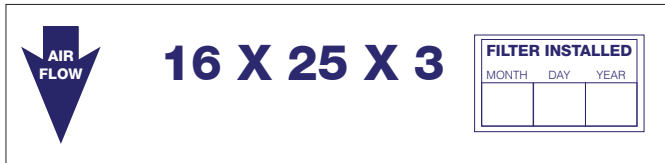
3. Push the Main Filter (C) into the Frame Assembly (E) up against the Pre-Filter (D) while taking care not to touch the filter media or damage the Main Filter's frame.
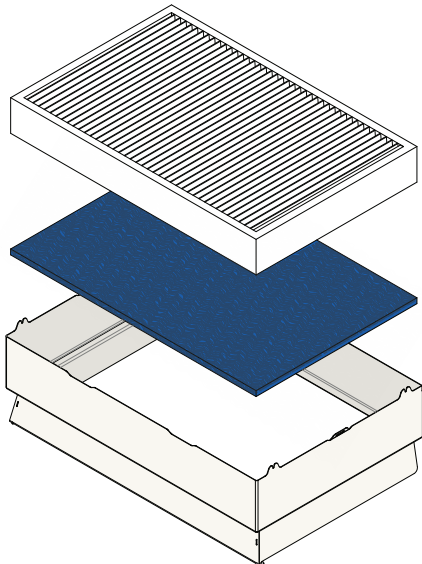
4. Align the Frame Assembly (E) and the Fan Assembly (B), making sure that the notches on the sides of the Frame Assembly engage the stop-studs on the sides of the Fan Assembly.
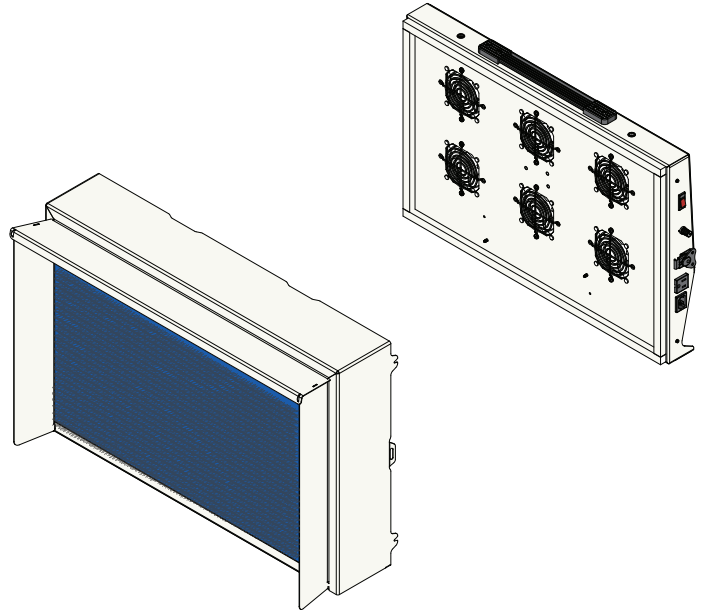
5. Hook the Draw Latches onto the Frame Assembly (E) and turn them clockwise to securely close the unit.
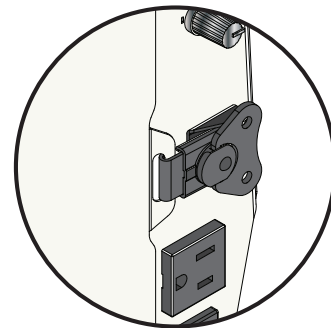
Troubleshooting

⚠ **UNPLUG YOUR UNIT BEFORE SERVICING OR CLEANING.**

PROBLEM	CAUSE	SOLUTION
System has Low or no Suction	Filter is clogged	1. See Filter Replacement section on page 10.
	Motors not working	1. Unlatch the two draw latches and slide the Frame Assembly (E) out and away from the Fan Assembly (B). 2. Visually inspect that all fans are spinning by switching the unit on/off. 3. If any fans are not spinning, turn off and unplug the BenchTop DC and wait for the Fan Assembly to come to a complete stop and for the dust to settle. 4. Remove back cover of the Fan Assembly with Phillips screw driver and check that the three wires are connected between each motor and control board; reattach wires as necessary.
Variable Adjustment Knob not Working	Loose Wire in the Fan Assembly	1. Turn off and unplug the BenchTop DC and wait for the Fan Assembly to come to a complete stop and for the dust to settle. 2. Remove back cover of the Fan Assembly with Phillips screw driver and check wiring connection between adjustment knob and control board.
Switch isn't working	Cord unplugged	1. Ensure the unit has adequate power supply . 2. Ensure the AC Cord is fully seated. 3. Turn off and unplug the BenchTop DC and wait for the Fan Assembly to come to a complete stop and for the dust to settle. 4. Remove back cover of the Fan Assembly with Phillips screw driver and check wiring connection power inlet and switch, between the switch and the power supply, and between the power supply and the control board.
The supplemental outlet isn't generating power to my attached tool	Loose Wire in the Fan Assembly	1. Turn off and unplug the BenchTop DC and wait for the Fan Assembly to come to a complete stop and for the dust to settle. 2. Remove back cover of the Fan Assembly with Phillips screw driver and check wiring connection between adjustment knob and control board.

💬 **If you continue to experience difficulty with your dust collector, call Oneida Air Systems' Customer Service Department at 1-866-387-8822 or e-mail support@oneida-air.com.**

F.A.Q.

Can I use 3rd party replacement filters?

Yes, the BenchTop DC uses a standard 16 x 25 x 3" MERV-15 filter that can be sourced from most hardware stores. Double check the new filter's size before purchasing or installing. Please see the Recommended Accessories section on page 14. Have spare filters on hand to not skip a beat.

Is this item suitable for fume evacuation?

No, the BenchTop DC is designed for airborne dust and particulate filtration. The Main Filter is not suitable for VOCs, acids, corrosives, or flammable fumes.

What particle size does it filter out?

The BenchTop DC's dual filtration system captures up to 95% of particles as small as 0.3 microns in diameter.

Does it come with a remote?

No, it doesn't come with a remote. Please see the Recommended Accessories section on page 14 for options.

Can I use it with an extension cord? Is there a maximum length?

Yes, check the amperage rating on your cord to determine the maximum length.

Will heat effect how the unit operates?

The BenchTop DC can operate in most common shop temperatures, however it should not be used in environments exceeding 104°F (40°C).

I want it to run continuously. Is there a recommended length of time to run it for?

The system can be run continuously as long as the environment's temperature does not exceed 104°F (40°C).

Can I use this system as an ambient air cleaner?

We do not recommend ambient cleaners because on their own they are not effective at reducing airborne particulate to acceptable levels; Dust collectors need to be very close to the source of the dust emission to be effective.

However, if you desire to hang the BenchTop DC from the ceiling, the unit includes two integrated threaded inserts. Your ceiling joist or similarly strong mounting surface must be capable of supporting 20 lbs of weight and you will also need to supply your own fasteners and hangers; we recommend 1/4"-20 eye-bolts with shoulder.

Recommended Accessories
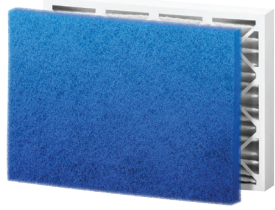
Filter Pack: Washable MERV 5 Pre-Filter and MERV 15 Deep-Pleated Filter
#FCS000100
- MERV 15 deep-pleated filter made of electrostatically charged synthetic materials that attract and capture most airborne particulates.
- Rigid MERV 5 open-cell polyester Pre-Filter serves to protect and prolong the lifespan of the Main Filter.

Gripple Hang-Fast Duct Hanging System
#AHD050000 (5') / #AHD100000 (10') / #AHD150000 (15')
- Simple and visually discreet solution for hanging heavy ductwork from the ceiling.
- Adaptable which allows the installer to position the hangers vertically or at an angle to the suspended object.
- Shown to reduce installation by up to 6 times compared to traditional threaded rod, chain or hanger strap.

Ductwork Hanger Strap - 100' Roll
#DPT240748
- Perforated metal strapping provides a cost-effective solution for supporting long ducting runs from your ceiling.
- Can also be used to secure ducting to walls or affixing dust hoods near tools for source dust collection.
- Features punched holes of alternating sizes for multiple fastener options.
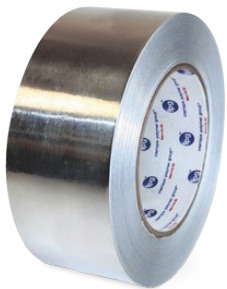
HVAC Aluminum Foil Acrylic Tape - 150' Roll
#ATF000000
- Engineered with an aggressive, long lasting, pressure-sensitive adhesive that demonstrates superior bonding when exposed to both sub-zero and elevated temperatures.
- The shiny, UV resistant foil backing offers an enhanced appearance, excellent reflective and flame retardant properties.
- Flexible to resist cracking and lifting around irregular or curved surfaces.

Industrial Grade Silicone Sealant
#ASC000000
- Provides a highly flexible, durable, and air-tight seal.
- Perfect for use with dust collection ductwork and fittings.
- Becomes transparent when cured for improved aesthetics.

Recommended Accessories (Continued)

115V iVAC Pro Automated Dust Control Switch
#ARS115200
- Includes 1 Remote Control with belt-clip.
- Switch receives signals from up to 40ft away in any direction.
- Set the dust collector to turn off after 5/15/45 seconds after all tools have been powered down to allow for complete cleaning.

iVAC Pro Tool Plus Automatic Power Sensor
#ARS000002
- Up to 8 tool sensors can be synced to the same switch.
- Transmits radio frequency signal to the iVAC Pro Switch from up to 40ft away.
- AUTO setting turns on the dust collector only when the tool is on. ON/OFF modes allow for direct manual control of the collection system.

Dust-Free Router Hood with Hose Whip
#AXH000200
- Lets you clean while you work, containing waste safely within your wet/dry vacuum.
- Eliminates downtime for cleanup and helps maintain a safe, healthy, and productive work site.
- Lessens wear and tear on expensive router bits by reducing material buildup.

Viper Vacuum Scraper Paint Removal Tool
#AXS001160B
- Collects chips, dust, and debris at the source, safely containing them in your wet/dry vacuum.
- Lightweight, ergonomic design, and highly textured grip.
- It's ideal for most scraping projects including paint, wood, glue, stucco, floors, boats, and even lead abatement/removal and lead RRP when connected to a HEPA-certified vacuum.

CleanShop 2.5" x 25' Vacuum Hose Accessory Kit
#ASK000000
- Turn your dust collector into a vacuum system with this complete hose accessory kit.
- Connects to 4" dia. ducting.
- Includes floor wand, crevice tool, brush, extensions and more.

Warranty Information

Limited Warranty – Activate online at <u>oneida-air.com/warranty</u>

Oneida Air Systems®, Inc. (OAS) warrants the BenchTop DC to the original purchaser for a period of 1 year from the date of purchase, unless otherwise specified. Items not manufactured by Oneida Air Systems are limited to their own manufacturer's warranties. All electrical items such as magnetic starters, remotes, sensors, pumps, bin sensors, bag grippers, etc. and accessories are limited to 90 days. Oneida Air Systems warrants that the product will be free from defects in materials and workmanship.

This is Oneida Air Systems' sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness for any particular purpose, are hereby limited to the duration of this written warranty. Oneida Air Systems does not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. This warranty does not apply to defects due directly or indirectly to misuse, negligence, accidents, abuse, repairs, alterations, improper wiring or lack of maintenance. In no event shall Oneida Air Systems' liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Oneida Air Systems shall be tried in the State of New York, County of Onondaga.

The buyer is cautioned to install and operate Dust Collectors in accordance with prescribed Federal, State, OSHA, NFPA, local codes and regulations. This equipment should be installed/wired by a licensed electrician following all applicable codes. Local codes can be significantly different from national codes. The customer assumes the responsibility for contacting their insurance underwriter with regard to specific application requirements of venting or if additional fire protection and safety equipment may be required. Oneida Air Systems shall in no event be liable for death, injuries to persons or property, or for incidental and contingent, special, or consequential damages arising from the use of our product.

Oneida Air Systems makes every effort to accurately represent our products and prices, however Oneida Air Systems reserves the right to make changes to products and prices at any time. As a manufacturer, Oneida Air Systems reserves the right to change product specifications at any time in an effort to achieve better quality products.

⚠️ **ONEIDA AIR SYSTEMS SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL AND CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCT.**

SAFETY WARNING - PLEASE READ

Before Purchasing or Installing a dust collection system the buyer is cautioned to do so in accordance with prescribed Federal, State, Local, OSHA, NFPA, and any other applicable codes or regulations relating to the type of dust(s) you are collecting.

SOME TYPES OF DUST UNDER CERTAIN CONDITIONS HAVE THE POTENTIAL TO BE EXPLOSIVE.

Oneida Air Systems is not responsible for how the dust collector is used or installed. Dusts with deflagration or explosion risks, such as wood dust, may require additional safety equipment including but not limited to; venting, spark detection, suppression systems, back draft dampers or may require installation in an outside location or in a protected area away from personnel. The customer assumes the responsibility for contacting their insurance underwriter with regard to specific engineering controls or application requirements. We suggest you reference NFPA 664, 654 and 68 codes for more information. Oneida Air Dust Collection Systems may not be suitable for some applications and are not designed to be used in explosive atmospheres. Oneida Air Systems equipment should only be installed and wired by a licensed electrician following all applicable local and national electrical codes.

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are: Lead from lead-based paints; Crystalline silica from bricks, cement and other masonry products; Arsenic and chromium from chemically-treated lumber; etc.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. Oneida Air Systems recommends using additional approved safety equipment such as an approved OSHA and NIOSH dust mask or respirator.

Notes

Oneida® Air Systems

The Industry Leader in Dust Collection

Thank you for your business!

Regardless of where you purchased your system, if you have any questions or issues with missing / damaged parts, please call Oneida Air Systems first to let us help resolve your problem. We fully stand behind the quality of our products and place the utmost value on the satisfaction of our customers.

We want to do everything possible to make your purchase and experience with Oneida Air Systems a good one!

Customer Service Dept.
1-866-387-8822 • support@oneida-air.com

1001 West Fayette Street, Syracuse, NY 13204 U.S.A.
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