

Aspen 200 Powder Safety Workstation

Operation Manual

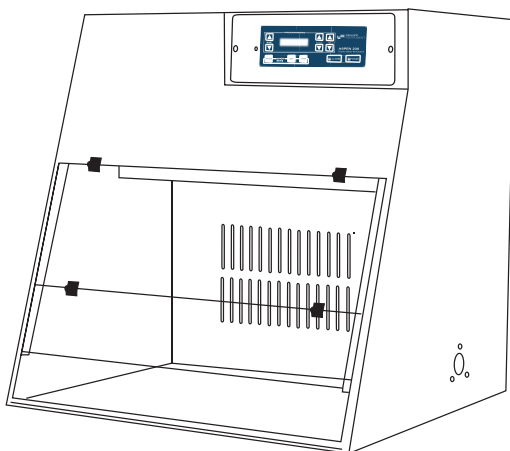


Table of Contents

Disclaimer	1
Specifications	1
Getting Started	
Installation Instructions	2
Assembly	2
Operation	
Programming Keys	3
Blower and Air Flow Monitor	3
HEPA Filter	4
Time/Date	4
Light	5
Lab Timer	5
Maintenance	6
Menu Tree	8
Accessories	9
Warranty Instructions	9
Shipping Claims	9

Disclaimer

Your Aspen 200 workstation was shipped with the HEPA filter(s) installed. The HEPA filters protect the operator from particulate but **will not protect the operator from any chemical fumes or vapors**. The HEPA filters must be changed on a scheduled basis. Refer to the "MAINTENANCE" section of this manual.

Specifications

Unit Specifications	32"	48"
Outside Dimensions (W x D x H)	32 x 33 x 30"	48 x 33 x 30"
Inside Dimensions (W x D x H)	31 x 20 x 22"	47 x 20 x 22"
Weight	150 lbs.	250 lbs.
Low Air Flow Alarm	Audible/Visible	Audible/Visible
Volume of Filtered Air	250 CFM	300 CFM
Linear Face Velocity	80 FPM	80 FPM
Voltage	110V or 220V	110V or 220V
Current	3.0A/1.5A	6.0A/3.0A
Power Consumption	330W	660W
Speed Selection	Variable Speed	Variable Speed
Top and Base Material	Polypropylene	Polypropylene
Front Panel	Polycarbonate	Polycarbonate

Filter Specifications

Prefilter Weight: 9 oz. (32"); 11 oz (48").

Prefilter Dimensions (W x D x L): 23 x 1 x 11" (32"); 41 x 1 x 11" (48")

Primary & Back-up HEPA Filter Weights: 9 lbs. (32"); 11 lbs. (48")

Prefilter Dimensions (L x W x D): 24 x 12 x 3" (32"); 42 x 12 x 3" (48")

Getting Started

Thank you for choosing this Denver Instrument product. This workstation is designed to give you years of service.

First, check the contents of the shipping carton. You should have the following:

- Operation Manual
- Power cord

Next, follow the instructions for installing your workstation. To take advantage of its many features, carefully read your Operation Manual. It contains step-by-step procedures, examples, and other vital information.

Finally, remember to return your completed warranty card within ten days and retain a record of all purchase information.

Installation Instructions

When choosing a location to set up your new workstation, observe the following:

- This workstation should not be installed near doors, windows or air conditioning/heating/ventilation systems
- Air must be allowed to circulate freely around the workstation.
- For adequate exhausting, allow at least 3" between the back and top of the workstation and any overhead cabinets or shelving .

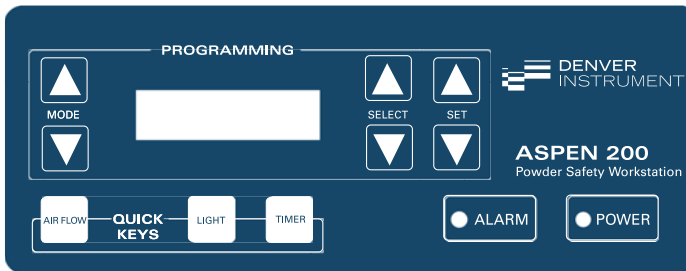
Assembly

1. Place the workstation on the assembled cart or the counter.
2. Remove the prefilter for inspection before use. Refer to the "MAINTENANCE" section of this manual for complete instructions.
3. Connect the supplied power cord to the workstation and then to the power outlet. Flip the main power switch of the workstation, located above the power inlet. This will activate the main power. The screen on the keypad should light up and display the time and date.
4. Press the **POWER** button on the keypad. This will activate the controls for the workstation. If the blower does not automatically turn on, press the quick key labeled AIR FLOW. If the blower still does not activate contact Denver Instrument.



A 3" overhang of the workstation off the front of the countertop is acceptable. Any more overhang requires extra support.

Operation



Programming Keys

MODE - Allows the operator to navigate between different screens.

SELECT - Allows movement within each program screen. The user modifiable portions of the screen will blink.

SET - Allows operator to adjust the user definable settings.

ALARM - Allows deactivation of the audible alarm but keeps the visible alarm armed.

POWER - Turns on/off power to the controller and its keys. This DOES NOT cut off power to the entire workstation.

Blower and Air Flow Monitor

To view the number of hours the blower has ran:

1. From the main display, press MODE down arrow key and the blower run hours will be displayed.
2. Press MODE several times to return to main display.

To set the face velocity alarm limit:

1. Press MODE down arrow until "Alarm Set" is displayed on the top line.
2. When "Air Flow" is selected press SET key until the desired low face velocity level is displayed.
3. Press MODE several times to return to main display.



Note:

When the air flow goes below the set value the alarm will sound.

To set the air flow using Air Flow Manager:

1. Press MODE until "Blower" is displayed on top line.
2. Press SELECT until the numeric air flow setting is flashing.
3. Press SET to set desired air flow in linear feet per minute.
4. Press MODE several times to return to main display.



Note:

Allow 5 minutes for blower to adjust output.



Note:

Air Flow Manger will automatically adjust to maintain this air flow even as environmental or filter conditions change.



The air flow has been set to 80 linear feet per minute and, for most applications, does not need to be adjusted.

To set the air flow to manual mode:

1. Press MODE until "Blower" is displayed on top line.
2. Press SELECT until "Auto" is flashing.
3. Press SET so "Man" is displayed.
4. Press SELECT until manual percentage is shown.
5. Press SET to set desired percentage of blower output.
6. Press MODE several times to return to main display.



Allow 5 minutes for blower to adjust output.

Primary HEPA Filter

To view the number of days until the filter is 18 months old:

1. Press MODE down arrow key until "Filter" is displayed on top line.
2. The number of days until 18 months expire is displayed.
3. Press MODE several times to return to main display.

To set the filter serial number after primary HEPA has been changed:

1. Press MODE down arrow key until "Filter" is displayed on top line.
2. Press SELECT down arrow until serial number is displayed.
3. Press SELECT so "Reset" is displayed.
4. Use SET key to set the last two digits of the serial number and press SELECT.
5. Use SET key to set the middle two digits and press SELECT.
6. Use SET key to set the first two digits and press SELECT.
7. Press MODE to return to main display.



The first filter serial number has already been entered prior to shipment. For every new HEPA filter installed a new filter serial number must be entered.

Time/Date

To set time and/or date:

1. Press MODE down arrow until "Time/Date" is displayed.
2. Press SET to change the hours to the current hour.
3. Press SELECT up arrow to move to the minutes.
4. Continue using SET to change the flashing digits and SELECT up arrow to move to the next field until hours, minutes, seconds, am/pm, month, day and year are properly set.
5. Press MODE several times to return to main display.

Light

To view the number of hours the light has been on:

1. From the main display, press MODE down arrow key until "Blower" is shown on top line.
2. Press SELECT down arrow to show light information.
3. Press MODE several times to return to main display.

To change the light:

1. Use a flat-head screw driver to remove the screws on the front light panel. Be careful not to over-rotate the screw heads.
2. Remove the panel.
3. Remove the old light and replace with new light.
4. Reattach panel tightening the screws only with fingers.

Lab Timer

The lab timer can be set to monitor time of a lab event.

To set the time for the lab timer:

1. Press MODE arrow until "Timer" is displayed in the top line.
2. Press SELECT until "OFF" is flashing.
3. Press SET so "On" is flashing.
4. Press SELECT until the hours digits are flashing.
5. Press SET until the desired number of hours are displayed and then press SELECT to move to minutes.
6. Press SET until the desired numbers of minutes are displayed and then press SELECT to move to seconds.
7. Press SET until the desired seconds are displayed.
8. Press MODE several times to return to the main display.

To start lab timer:

1. Push the TIMER quick key. The time will start counting down.
2. When time is up the alarm will sound, alarm button will flash and "Timer" will be shown on display.
3. Push the TIMER quick key to reset and restart countdown.

Maintenance

Prefilters

Prefilters should be checked every month. In most cases, they should be changed every 1 to 3 months. Prefilter replacement is required when discoloration occurs or when the low air flow alarm comes on.

To check the prefilter:

1. Look through the sash to the inside of your workstation. The prefilter and prefilter grid are located at the back of the workstation.
2. Look through the slats on the prefilter grid. If the prefilter is discolored (the original color is green), replacement is needed.

To replace the prefilter:

1. Don the proper personal protection equipment for handling the substance that has been used inside the workstation (refer to MSDS sheets).
2. Turn the workstation on and make sure that the blower is running.
3. Place an appropriate poly bag on the base of the workstation. You will place the saturated prefilter inside the bag and seal it before removing it from the workstation.
4. Remove the 4 black knobs or 6 polypropylene clips that hold the prefilter in place. This will expose the clogged prefilter. Do not remove the prefilter from the workstation.
5. Remove the prefilter from the prefilter grid and place it inside the poly bag. Wipe any residue off of the prefilter grid and base of the workstation. Place the rag inside the bag with the prefilter and seal the bag. Dispose of the prefilter in accordance with your local guidelines for the substances that have been used inside the workstation.
6. Inspect the HEPA filter for blockage. If replacement is needed, refer to "HEPA Filter Replacement".
7. Place the new prefilter into the prefilter grid and secure into place with the 4 black knobs or 6 polypropylene clips.
8. Dispose of your PPE in accordance with your local guidelines for the substances that have been used inside the workstation.

Primary HEPA filter

The HEPA filter must be changed at least once every 18 months, or whenever it is clogged. The frequency with which the filter must be changed depends upon usage. OSHA and the American Conference of Government Industrial Hygienists (ACGIH) have published guidelines for Threshold Limit Values (TLV's) of exposure to chemicals and particulate. Local regulations may also contain specific TLV's. It is the express responsibility of the user to follow these regulations.

If the level of the substance being used exceeds the published LTLV's prior to the annual change date, the HEPA filter must be changed. If the filter is changed prior to the annual date, it should be changed every 18 months from this new date.

To remove the spent primary HEPA filter:

1. Don the proper personal protection equipment for handling the substance that has been used inside the workstation (refer to MSDS sheets).
2. Turn the workstation on and make sure that the blower is running.
3. Place 2 appropriate poly bags on the base of the workstation. You will place the saturated prefilter inside the bags and seal it before removing it from the workstation.
4. Remove the 4 black knobs or 6 polypropylene clips that hold the prefilter in place. This will expose the clogged prefilter. Do not remove the prefilter from the workstation.
5. Remove the prefilter from the prefilter grid and place it inside the poly bag. Wipe any residue off of the prefilter grid and base of the workstation. Place the rag inside the bag with the prefilter and seal the bag.
6. With a small wrench, remove the 1/4 - 20 hex nuts and remove the filter frame and HEPA filter.
7. Place the spent HEPA filter into the second poly bag. Wipe any residue off of the filter frame and any other obvious areas. Place the second rag into the bag and seal the bag. Dispose of both bags in accordance with your local guidelines for the substances that have been used inside the workstation.

To install the new HEPA filter:

1. Remove the HEPA filter from the packaging. Visually inspect the HEPA filter for rips in the filter media.
2. Place the filter into the filter frame with the gasket and screen side facing away from you.
3. Place the filter hold down frame over the HEPA filter and secure it with hex nuts.
4. Place the new prefilter into the prefilter grid and secure into place with 4 black knobs (white-hinged slides on 48" models).
5. Dispose of your PPE in accordance with your local guidelines for the substances that have been used inside the workstation.
6. Follow instructions for entering filter serial number on page 4.



Note:

Proper PPE should be worn at all times, during maintenance of the Aspen 200 Workstation.



Note:

Record the serial number of the replacement HEPA before installation.

Menu Tree

MODE	SELECT
Main Display	Air Flow Rate Timer Current Back Pressure
Blower Hours	Light Hours
Filter	Days Remain Filter Serial Number
Alarm Enable	Air Flow Filter B.P.
Alarm Set	Air Flow Filter B.P.
Time/Date	
Lab Timer	
Blower	Auto Manual

Accessories

A complete line of electrodes are available from Denver Instrument. Please contact your dealer or Denver Instrument for more information.

- Prefilters for 32" (Pack of 12) 6009.1
- Prefilters for 48" (Pack of 12) 6010.1
- HEPA Filter for 32" 6011.1
- HEPA Filter for 48" 6012.1
- Stationary Cart for 32" 6013.1
- Stationary Cart for 48" 6014.1
- Mobile Cart for 32" 6015.1
- Mobile Cart for 48" 6016.1

Warranty Instructions

1. Please return the prepaid, pre-addressed Purchase Registration Card to Denver Instrument Company promptly upon your purchase of the Denver Instrument product. The return of the card is not a condition precedent to warranty coverage.
2. If you have any questions about a Denver Instrument product, please contact the nearest Denver Instrument office as listed on back cover.
3. If it becomes necessary to return your Denver Instrument product for service, you must obtain a "Return Authorization Number". Please pack the product securely in its original approved packing carton or an other suitable container. Include your Return Authorization Number on the shipping label. Shipping charges must be fully prepaid.

Shipping Claims

If a shipment is received with visible damage, be certain to make a notation on the delivering carrier's receipt and have thier agent confirm the damage on your receipt. Otherwise, the damage claim may be refused.

If concealed damage or pilferage is discovered, notify the carrier immediately and retain the entire shipment intact for inspection. Interstate Commerce Commission rules require that the claim be filled with the carrier within 15 days after delivery.



Note:

Denver Instrument Company and its dealers are not responsible for shipping damage. The recipient must file claims directly with the freight carrier.



North and South America:

**Denver Instrument Company
1855 Blake St., Suite 201
Denver, Colorado 80202
1-800-321-1135
Tel: 303-431-7255
Fax: 303-423-4831**

U.K. and Ireland:

**Denver Instrument Company
Denver House, Sovereign Way
Trafalgar Business Park
Downham Market
Norfolk PE38 9SW England
Tel: 44 136 63862 42
Fax: 44 136 63862 04**

Europe, Asia and Australia:

**Denver Instrument GmbH
Robert-Bosch-Briete 10
37079 Gottingen Germany
Tel: 49 551 20977 31
Fax: 49 551 20977 39**

www.denverinstrument.com