DRI-EAZ®

Owner's Manual DefendAir® HEPA 500 Air Cleaner

230v Model

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Owner's Manual
DefendAir® HEPA 500 Air Cleaner

230-volt model

READ AND SAVE THESE INSTRUCTIONS

Use and Operation

⚠ WARNING

FIRE AND ELECTRIC SHOCK HAZARD

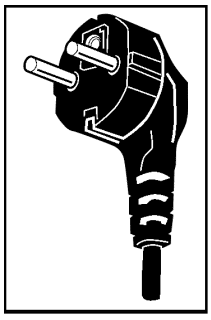
Unit must be electrically grounded.

- Do not use with an adapter

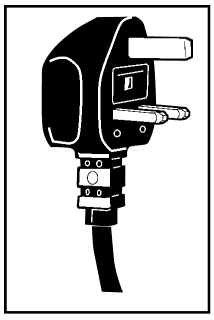
Keep wiring and motor dry.

- Do not operate in standing water
- If electrical components become wet, allow them to dry completely before using.

Read and understand manual before use.



EU Plug



UK Plug

Introduction

The DefendAir® HEPA 500 is a portable filtration system that draws air in from the surrounding environment and passes it through an advanced filtration system. The unit removes airborne particles like dust, mold spores, pollen, pet dander and miscellaneous debris.

How the DefendAir® HEPA 500 Works

The HEPA 500 uses an efficient mix of airflow and filtration to create “cleaner” air. The unit’s maximum 421 CFM motor draws air into two types of filters--a prefilter and a HEPA filter. The first stage of filtration captures larger particles, and the second stage of filtration captures much smaller particles down to 0.3 microns.

What makes the Dri-Eaz DefendAir HEPA 500 unique is its Clean Air Delivery Rate (CADR) capability. CADR is an Association of Home Appliance Manufacturers’ (AHAM) rating that tells you how efficiently the machine and filter work together to remove particles from the air at the airflow rate you’re using.

You can use the DefendAir HEPA 500 for mold remediation and/or water damage restoration. ***The unit is not intended for asbestos remediation.***

Getting to Know Your New DefendAir Hepa 500

Location of key features

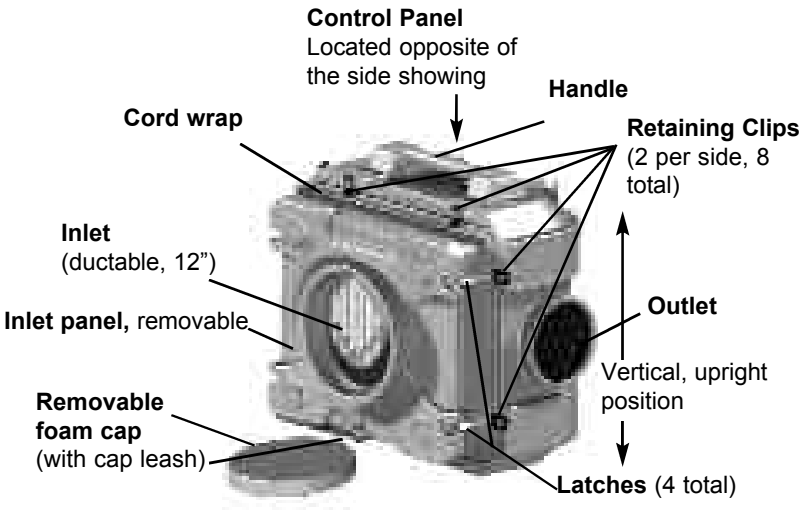


FIGURE 1
HEPA 500

⚠ WARNING

CONTAMINATION HAZARD

Wear HSE-recommended protective gear (or your country's equivilant safety regulatory body) when changing filters.

Change filters after every remediation job.

Change HEPA filter when the filter indicator light comes on.

Dispose of used filters according to your local regulations.

Read and understand manual before use.

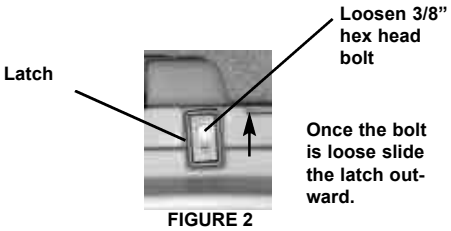


FIGURE 2
Loosening the latches

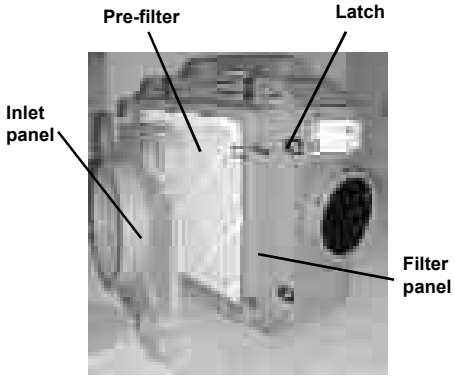


FIGURE 3
Pre-filter

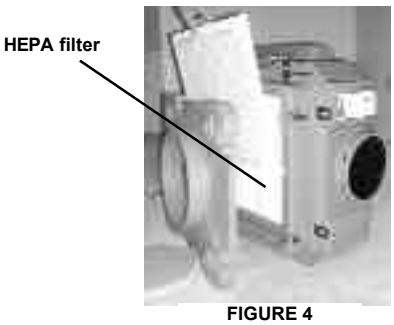


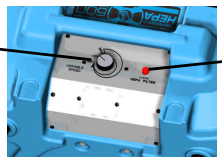
FIGURE 4
HEPA filter

Operating Instructions

Setup

1. Unwrap the cord wrap completely
2. Place the HEPA 500 upright (vertical with handle at the top)
3. Plug in to a standard 230 volt outlet. Each HEPA 500 needs 1.5 amps to operate.
4. To switch the unit on, locate the control panel and turn the variable speed switch clockwise to start the unit (see "Control Panel" below). Then select either a maximum (421 CFM) or down to a minimum (331CFM) airflow rate. To maintain the optimal CFM, consult the IICRC S520 standards, 10.3.1. See this manual's "Resources" section (pg.5) for how to get an S520 Standards Guide.
5. The HEPA 500 is multi-positional. For more information, see "Specialized Features" on page 4.

The Control Panel



Variable Speed Control
Note that the MAX setting is located immediately left of the OFF button, and the MIN setting requires an almost 360 degree clockwise turn.

Change Light
The change light illuminates when you need to change the HEPA filter.

The Filters

About the filters
The HEPA 500 utilizes a 2-stage filtration system designed with the most advanced HEPA filtration technology available. The first stage utilizes a pre-filter (Figure 3), and the second a HEPA filter (Figure 4). The pre-filter captures larger particles, and the HEPA filter captures 99.97% of smaller particles down to 0.3 microns.

For environments with a high volume of aerosolized particles, you can use 2 pre-filters to extend the life of the HEPA filter. See "Maintenance" for how often to replace filters.

Changing filters
1. With a 3/8" wrench, loosen the 8 latches holding the inlet panel in place. See Figure 2.
2. Slide the latches outward, away from the center of the inlet panel.
3. Remove the inlet panel.
4. Remove used filters and replace.

See "Maintenance" for how often to replace filters.

How to get replacement filters
Call Dri-Eaz at 0800-542-9609, or 1908-611-211.

Applications for the DefendAir Hepa 500

Primary Uses

The primary uses for your DefendAir HEPA 500 are:
- Water damage restoration
- Mold remediation (including creating a negative air environment)

Other uses include fire damage restoration, dust control, odor control and sewage remediation. To learn more about these, contact Dri-Eaz at 0800-542-9609.

Use for Water Damage
In a standard Category 1 water damage situation, place the DefendAir HEPA 500 in the middle of the affected area. Utilize airmovers to lift particles into the air. The HEPA 500 filters the air in the affected area to reduce particle levels during the restoration process.

Mold Remediation

In most cases, the remediation process requires containment of the affected area. Containment prevents the spread of mold spores and other bioaerosols. Only a professional with specialized training in remediation and containment techniques should use the HEPA 500 (or any negative air machine) for remediation. For more information about proper remediation techniques, consult the *IICRC S520: The Standard and Reference Guide for Professional Mold Remediation.* You can get a copy and learn more through the IICRC at *(*360) 693-5675. You can also contact the Dri-Eaz Education Department for technical advice or to learn more about educational opportunities at 0800-542-9609.

Formally trained remediation professionals

Run the HEPA 500 as a negative air machine without interruption for the duration of every remediation job. The HEPA 500 filters 99.97% of particles 0.3 microns and larger, such as mold spores and fungi.

⚠ WARNING

BREATHING HAZARD

When using the HEPA 500 in a containment area, turn off all sources of power to open combustion appliances such as fireplaces, boilers, furnaces, water heaters and HVAC systems to avoid the risk of backdrafting deadly carbon monoxide fumes.

If the Filter Change Light illuminates during the remediation process, immediately change the HEPA filter. See "Changing Filters" and “Maintenance” for more information.

To create a negative air environment

You can install the DefendAir HEPA 500 outside a containment area to draw air out of an affected area. (See Specialized Features below.)

⚠ WARNING

TIPPING HAZARD

When stacking units, beware of tipping.

Do not stack more than 2 units on top of each other.

Falling equipment could cause bodily harm.

Read and understand manual before use.

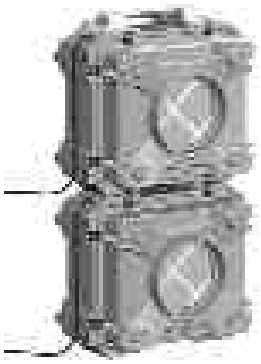


FIGURE 6
Stacking 2 units

Specialized Features

Removable intake panel for remediation professionals

The DefendAir HEPA 500 has a specialized feature to assist containment (Figure 7). There’s a removable panel on the intake side of the unit. Lift the 8 latches to release the panel as shown in Figure 3. Install the HEPA 500 outside the containment area to draw air out. Cut a hole in the containment plastic the size of the unit’s inlet, insert the inlet into the plastic, and seal the circumference tightly with duct tape (no air should be able to pass through). A tightly sealed containment area will aid in creating an effective negative pressure. Use a manometer to monitor air pressure. Manometers are available at most equipment supply houses.

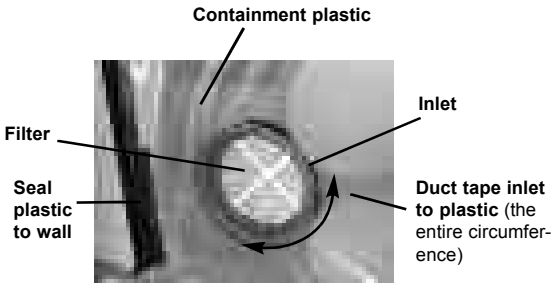


FIGURE 7
Containment (view from inside containment area)

Multi-Positional

You can stack and operate up to two HEPA 500s vertically. The handle of one unit fits into bottom of another unit (see Figure 6). You can also stack them horizontally for space-saving storage, or operate a unit with its outlet facing upward.

Resources
- Dri-Eaz Guide to Airscrubbing, call Dri-Eaz at 0800-542-9609.
- *S520: The Standard and Reference Guide for Professional Mold Remediation,* call the IICRC at 360-693-5675 (USA).
- Institute of Inspection, Cleaning and Restoration Certification (IICRC), 360-693-5675.
- Dri-Eaz website and Virtual Training Center (VTC) at www.dri-eaz.eu.com
- Dri-Eaz Education Department, 0800-542-9609
- Contact the Health and Safety Executive for respirator and respirator filter information at 08701-545500, or visit www.hse.gov.uk/pubns/wis14.pdf for an instruction sheet. You can also contact NIOSH in the US at 1-800-35-NIOSH.

Maintenance

MAINTENANCE INTERVALS

⚠ WARNING

ELECTRIC SHOCK HAZARD

Unplug the DefendAir HEPA 500 before performing maintenance.

Before Each Use

⚠ WARNING

CONTAMINATION HAZARD

Always wear Health Safety Executive (or your country's equivilant safety regulatory body) recommended respirator and personal protective equipment when removing or replacing filters, or when cleaning the DefendAir HEPA 500.

⚠WARNING

Electric Shock Hazard

Unplug unit before performing any maintenance.

Never use a water hose or pressure washer to clean electrical components; water could enter the electrical compartment causing a shock hazard.

Follow cleaning instructions in manual.

- Inspect the electrical cord for damage. Look for fraying, cuts, etc. Do not use the unit if you find any. Call Dri-Eaz for the nearest Service Center.

When using the DefendAir HEPA 500 for water damage restoration:

- Inspect pre-filter before each use. Look for accumulated dust and dirt that could restrict airflow through the filter into the unit. If any is visible, change out the pre-filter.
- Replace the HEPA filter when the Change Indicator Light comes on.

Note:To be assured of true HEPA filtration, change the HEPA filter after every water damage job, or when the indicator light comes on; whichever occurs first.

When using the DefendAir HEPA 500 for remediation:

After every job

- Replace both the filters to prevent cross-contamination.
- Clean the unit thoroughly (vacuum and damp wipe per *IICRC S520*, 10.11) after each job before removing it from the containment area to avoid cross-contamination. Pay particular attention to the area around the air intake. Let the unit dry before installing clean filters.

TROUBLESHOOTING

For any problems not listed below, call at 0800-542-9609, or 1908-611-211.

PROBLEM	CAUSE	SOLUTION
Unit does not operate	• No power to machine • Switch not turned on	• Plug in the unit; check power at outlet • Turn on the switch
Change light illuminated	• Primary filter is full • Air intake restricted	• Replace the filters; refer to Maintenance section • Eliminate bends/kinks in ducting, or remove ducting
Blower wheel not turning	• Obstructed blower • Loosen blower wheel set screw	• Remove obstruction • Tighten set screw

SPECIFICATIONS

MODEL	F284-230V	**CONTROLS**	TOUCHPAD
TYPE	230V	**FILTERS**	PRE-FILTER (P/N 13-00199) PRIMARY HEPA P/N (F321)
VARIABLE CFM	431-331 CFM	**HANDLE**	ROTOMOLDED
HEIGHT	62,5 CM	**HOUSING**	ROTOMOLDED
WIDTH	66,5 CM	**POWER 230V**	1,5 AMPS
DEPTH	46,2 CM	**CORD LENGTH**	7,6 M
USE WEIGHT	19,9 KG	**SAFETY**	CE LISTED
SHIP WEIGHT	20,9 KG	**FREQUENCY (HERTZ)**	50
COMPRESSOR TYPE	BTU ROTARY	**PROCESS AIR**	272 CMH