

Serial Number: _____
(Required for Warranty)



HEPA TOWER

Installation and Operation Manual



Thank you for purchasing an
DuraVent® HEPA TOWER.

Your HEPA TOWER has been designed to quietly
filter the air in a room for many years to come.

Please take a few minutes to read over this manual and its accompanying documents.
Before placing this unit, inspect it for any damage that may have been sustained during shipping.
DO NOT USE DAMAGED EQUIPMENT. If you suspect this unit was damaged during shipping,
contact DuraVent technical support by phone at **1.800.835.4429**, or email at **hepatower@duravent.com**.

THEORY OF OPERATION

DuraVent's HEPA Tower was designed to greatly minimize exposure to airborne pathogens, pollen and dust by quietly filtering the air in the room. The design intent was to create a mobile HEPA filter unit that would quietly filter any room, work space, office space, conference room or waiting room to minimize the airborne transmission of viruses, viral particles, and removal of pollen, fungal spores and dust, that can accumulate in indoor air. This portable unit recirculates and filters the air (HEPA=99.95%) in the space it has been placed. It works by pulling in contaminated air from low in the room, passing the air through a Merv 11 pre-filter and Medical Grade HEPA Filter and pushing the air up high thus creating an airflow pattern (High to Low) that reduces human exposure to contaminants.

The HEPA TOWER Design Requirements:

- Pre-filter: High quality MERV 11 pre-filter
- This HEPA Filter is rated at 99.95% efficiency [individual test certificate] which offers 99.95% arrestance at 0.3 micron particle size. HEPA standard uses 0.3 microns as the "lowest point". This means that the filtration efficiency increases for particle diameters both less than and greater than 0.3 microns.
- ECM Motor (High Efficiency) to quietly produce high volume airflow in ten speed steps (with optional remote control) capable of medical grade room air changes per hour.
- Adjustable Louvered Air Exit, which allows you to direct the filtered air in 4 directions to create the optimum airflow pattern through the room. Correct Air Flow will minimize Low Flow Areas in the room.

PURCHASE OPTIONS (not included)

A wireless remote is an available accessory option for DuraVent's HEPA Tower. The wireless remote is NOT included as part of this fan's standard control package. The yellow manual included with these accessories provides specific instructions for the installation and operation of the remote.

If purchased, the wireless remote receiver is connected to the fan electrical box at the blue RMT RJ45 port. Installation means removal of the rear panel, installation of the remote receiver and blue Cat5E cable, a operational test and reinstalling the rear panel.

SAFETY INFORMATION

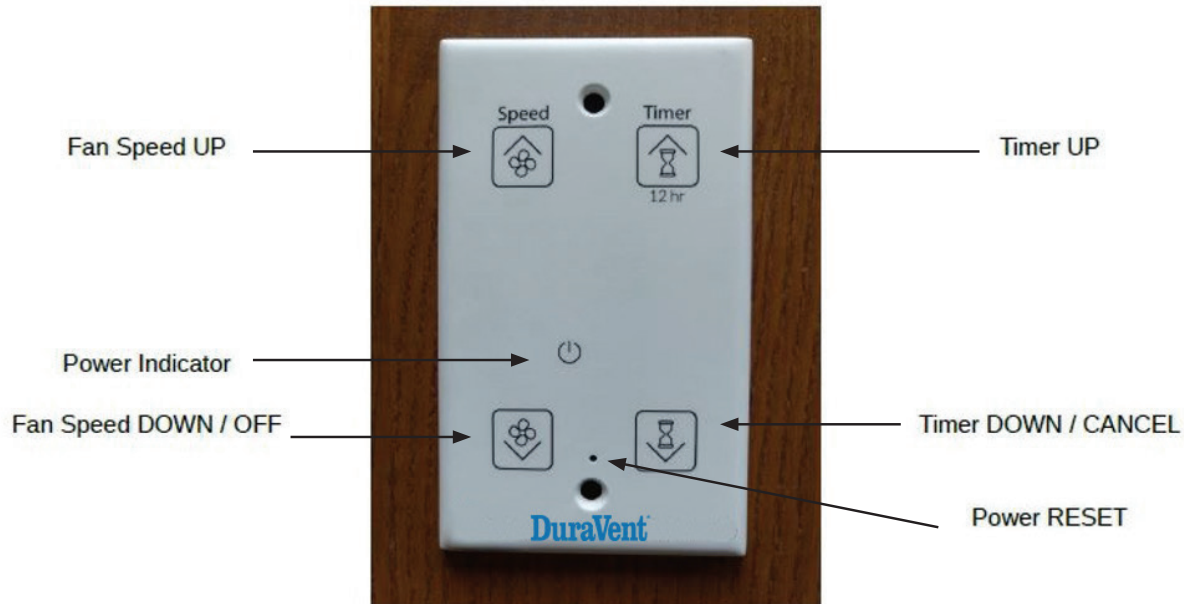
- The HEPA TOWER does NOT remove gasses.
- The HEPA TOWER is not for use in professional kitchens.
- Before servicing the Tower, unplug the fan from the wall receptacle to reduce the risk of damaging circuit boards, fire, electrical shock, or injury.
- A used HEPA Filter should be treated as "infected" or contaminated and discarded taking precautions. Avoid touching the filter material.
- Perform periodic checks of the air flow pattern, physically feel air moving in and out of the HEPA Tower and around the room.
- When installing a new HEPA Filter avoid touching the filter material as this may damage (create a hole in) the HEPA Filter and thus nullify the HEPA standard.

START-UP AND OPERATION

Before starting this Fan for the first time, verify that:

1. The HEPA Tower is standing on its wheels
2. The HEPA Tower's power cord has been plugged into a ground tested, 120-volt outlet with uninterrupted power.
3. The area in front of the towers inlet (grille) is as unobstructed as possible.
4. The Air Exit Louvers have been adjusted for proper Air Direction (see operational tips)

When running the HEPA Tower for the first time, make sure to observe it turning on, running at all of its speed settings, and turning off, also verify Timer works at 1 Hour Setting.



As shown above, there are four "buttons" on your fan's control interface:

When the Digital Touch Controller (DTC) is connected to power, a red LED will illuminate. See the Power Indicator shown above.

The DuraVent Unit has ten speed settings. Turn on the fan by touching FAN UP or TIMER UP. The fan will start at minimum speed. Green LED's will illuminate to indicate the speed setting.

If the Fan was turned on by TIMER UP, the timer will be set to one hour and blue LED's will illuminate to indicate the timer setting. Press or hold FAN UP to increase the fan's speed to maximum. Press or hold TIMER UP to increase the length of time the Fan stays on in one hour increments until the desired time, or the maximum time of 12 hours, is achieved.

If the fan is already operating at minimum speed, touch FAN DOWN/OFF to turn off the fan; any time remaining on the timer will be canceled. If the fan is at maximum speed, press or hold FAN DOWN/OFF to decrease the speed to minimum and once again to turn the fan off.

Press or hold TIMER DOWN/CANCEL to reduce the time on the timer by one hour increments until the desired time is achieved or the timer is canceled. When the timer expires, the fan will turn off automatically. If the timer is canceled, the fan will remain on at its current speed.

*** Note: If untouched after a moment the selection LED's will dim.**

**** Note: If the Fan is on without a timer, the fan will run indefinitely.**

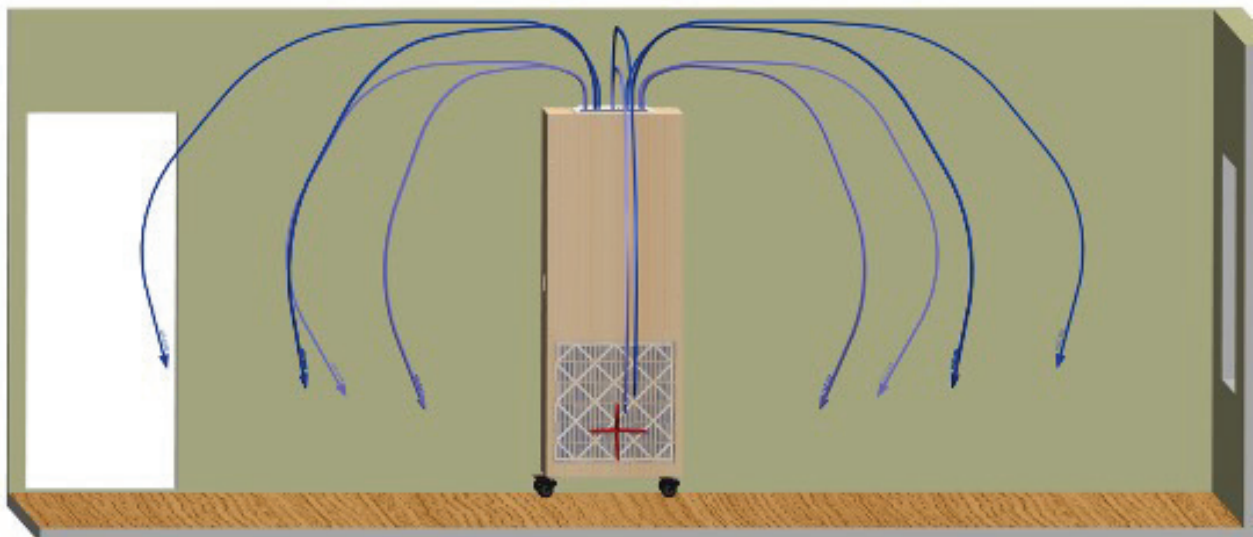
OPERATING TIPS

- Make sure the Pre-Filter and inlet Grille are installed correctly. Change the Pre-Filter and HEPA Filter when loading requires.
- Use your HEPA Tower's fan higher speed settings to clean your room quickly, then switch to its lower settings to run it quietly and efficiently through the day.
- The Front of the Tower MUST remain unobstructed, with no objects closer than 24" to the face of the Inlet Grille.
- Airflow through the room is very important and some time should be taken to visualize airflow patterns to find the best spot for the Tower. Note: Since the Inlet Grille of the Tower is low to the ground it is wise to place the tower with it's back against a wall leaving the Inlet Grille open to the entire room and minimizing the airflow dead zone behind the unit.
- You can control where your tower's airflow is directed by adjusting the louvers on the Air Exit Grille (on top of the Tower) and increasing the speed of the fan. Visualize the path air will travel from the Air Exit Grille to the far corners of the room, downward over the floor and back into the Tower Inlet Grille. (see Airflow in a room below)
- Objects in the room will "interfere" with (or redirect) the airflow. An open door or window can change the airflow pattern.

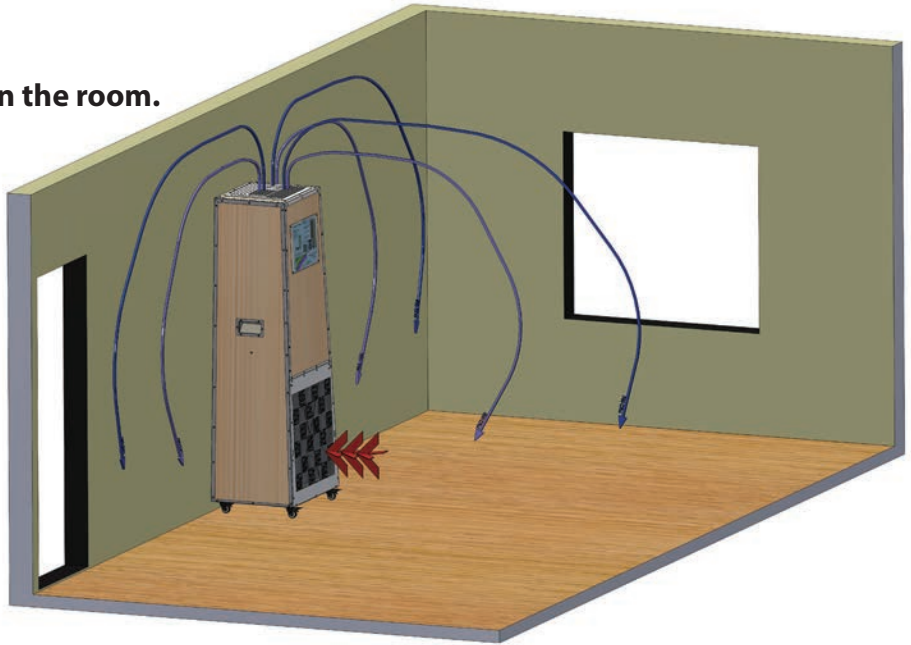
AIRFLOW IN A ROOM

This room simulation shows the HEPA Tower (back against the wall) placement and shows a possible airflow pattern. These images can be used to comprehend the flow through a space.

The HEPA Tower's fan speed allows for audible and airflow adjustments. The higher the speed, the higher the airflow through the Tower. The image below shows the changes in airflow pattern with a higher velocity. Note that the higher CFM airflow representation penetrates further into the room.

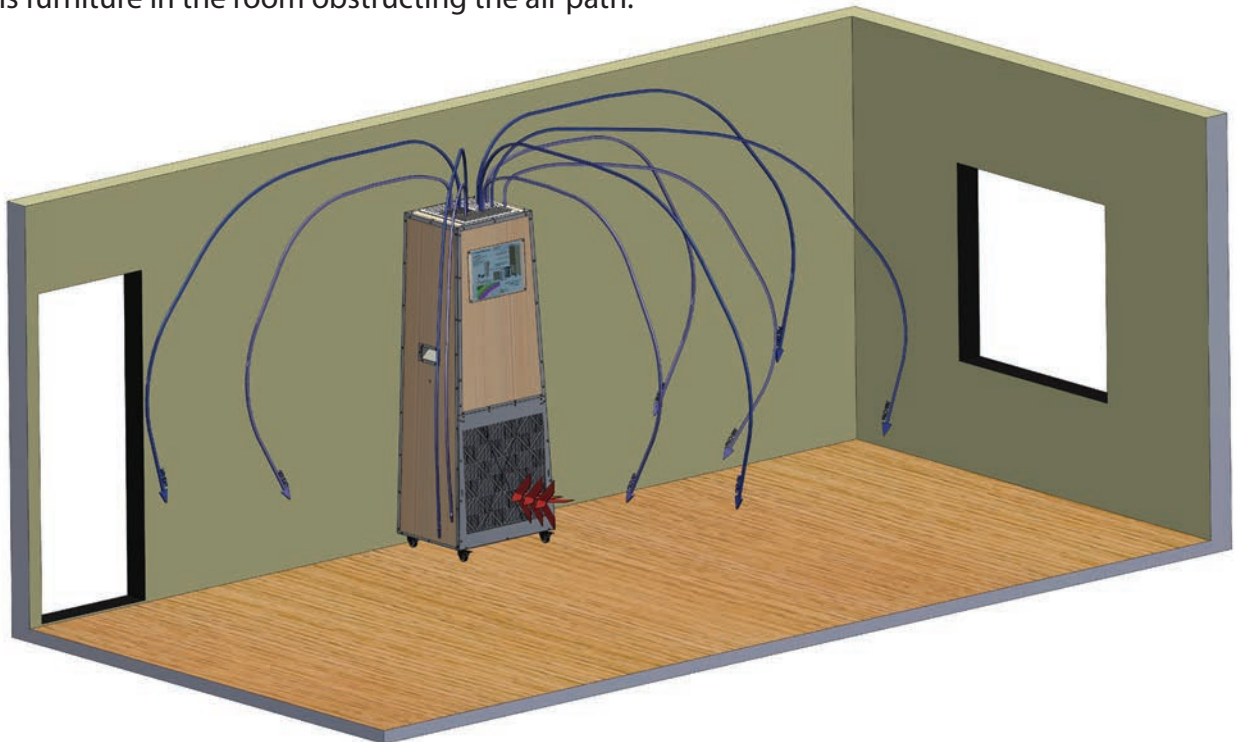


Higher CFM airflow reaches further in the room.



Dead zones or area's of air stagnation occur:

- in upper and lower corners of a room.
- behind the HEPA Tower, more so if not placed against a wall.
- when the airflow is too low for the room size.
- when there is furniture in the room obstructing the air path.



Proper operation and placement of the HEPA Tower can be achieved by applying the basic information, previously described. Physically “feeling” the reach of the airflow and direction should give the operator a good idea about the airflow through the room. Use speed adjustment in conjunction with a directing the exhaust louvers to create a proper airflow path that fills the room flowing from high to low.

HEPA TOWER SPECIFICATIONS

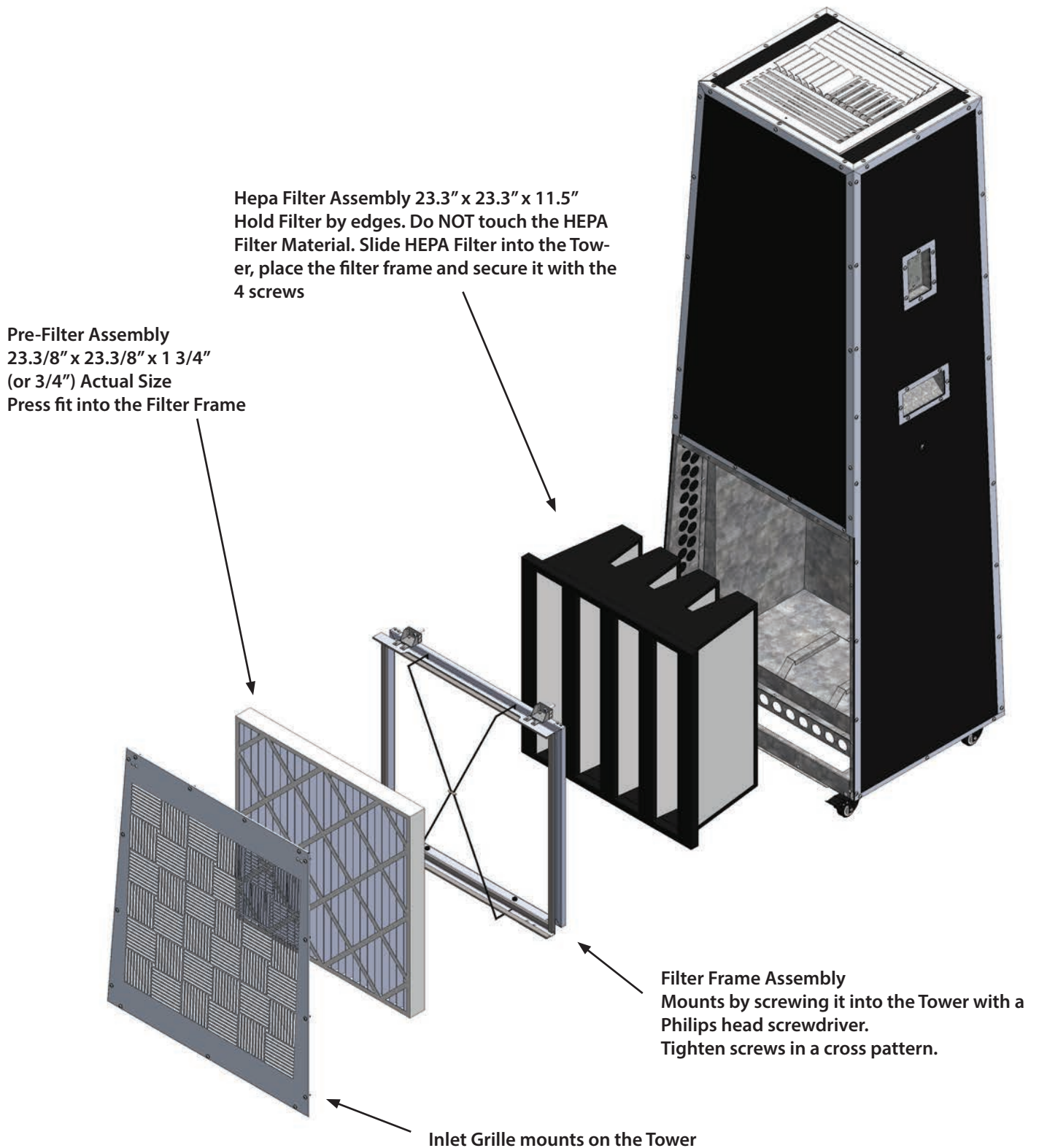
Dimensions:	77 3/8" High x 27" Wide x 20 3/8" Deep
Weight:	172 lbs
Electrical:	120VAC, 60 Hz, Single Phase, 2.5A
Tested Airflow:	62 / 1300 CFM (Low / High)
Tested Power:	10 / 272 Watts (Low / High)
Tested Noise*:	42 / 59 dBa (Low / High)
Controls:	Low Voltage, Digital Touch Controller, Optional Wireless Remote.
Speed Settings:	10
Timer:	12 Hours, in increments of 1 Hour.
Warranty:	3 years mechanical & structural parts, 1 year control parts.

* Tested at 45° and 1 meter from source

MAINTENANCE

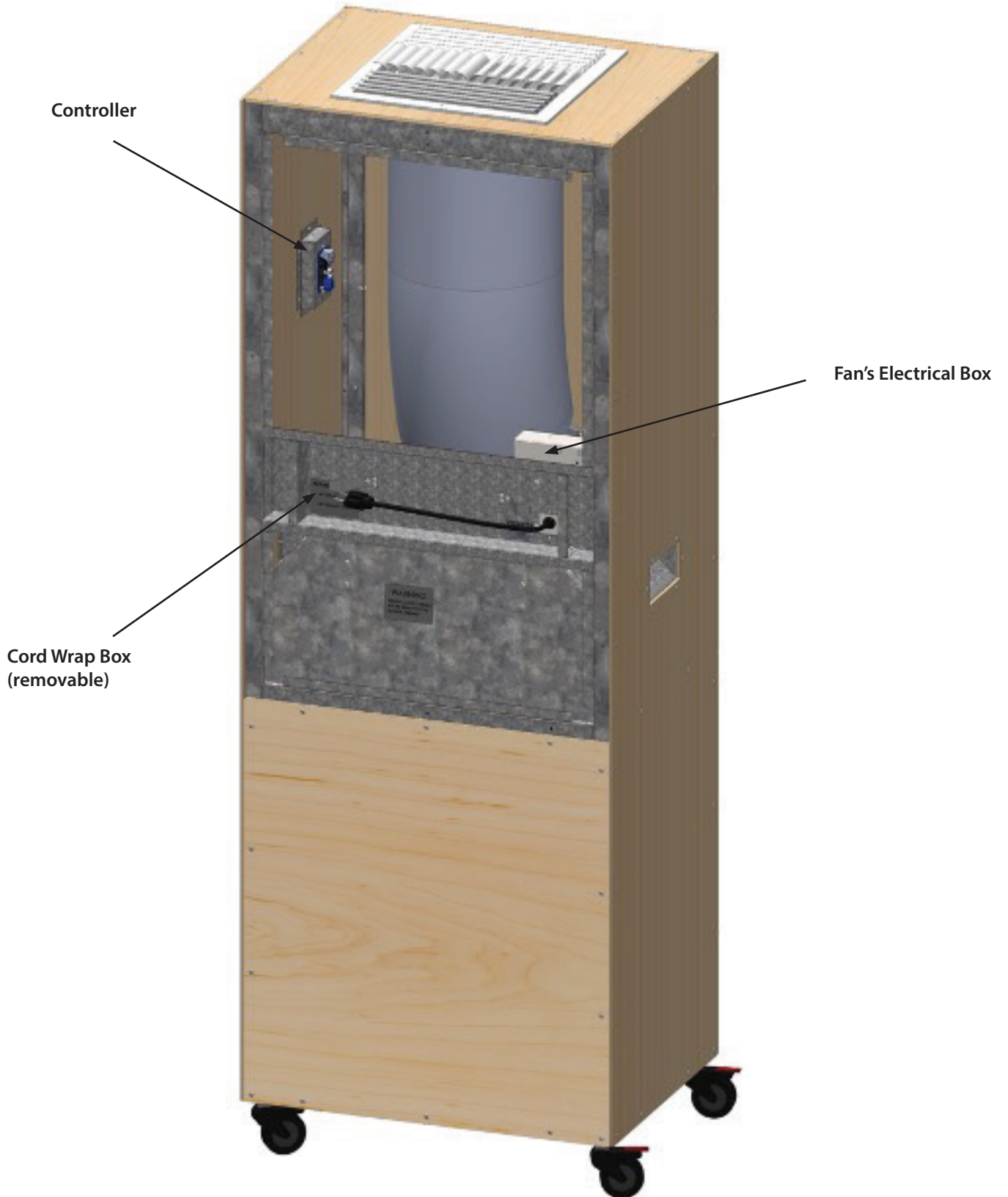
- Replace The Tower's Pre-Filter every 2-3 Months.
Actual Size: 23 3/8" x 23 3/8" x 1 3/4" (or 3/4") MERV11 Filter.
- Check HEPA Filter airflow and visually check Filter surface (do not touch) to determine when needing replacement. Estimate 2-3 years depending on conditions.
Actual Size: 23 3/8" x 23 3/8" x 12" (H13) HEPA-Filter.
NOTE: Consider a used HEPA Filter "contaminated" and discard with care!
- Clean exterior paneling / wheels using mild soap and a clean cloth.
- Visually inspect the unit, wheels, paneling, air-inlet grille and air-exit louver for proper functioning and fit.

AIR-INLET FILTER SECTION



ACCESS PANEL

HEPA Tower Rear Top (Access) Panel Removed



TROUBLESHOOTING

Before servicing your HEPA Tower, unplug the Tower to reduce the risk of electrical shock, injury, fire, and/or circuit board damage.

Your DuraVent HEPA Tower has been factory tested. If you encounter problems with the unit, please take a few minutes to run through the following troubleshooting procedures before calling for technical support.

NOTE: a “kinked” CAT5E Cable may cause all of the listed symptoms. Use a second short cable and plug the wall switch (controller) directly into the W/S port on the fan to rule out a cable issue before proceeding.

Symptom: Unit does not start

Possible causes: No power to unit or kinked Ethernet Cable

Suggestion 1: Is the Red LED on the DTC** on? Reset the DTC Power (see Start-Up & Operation).

Suggestion 2: Check the re-settable circuit breaker on fan’s electrical box.

Suggestion 3: Using another CAT5 Cable and connect it to the W/S port on the fanbox and the DTC.

Suggestion 4: Check power (115VAC) at the electrical outlet, inside the fan’s electrical box wiring at both the power supply (115VAC) and the SCAB* (24VDC inside the fan’s electrical box).

** DTC = Digital Touch Controller

Symptom: Audible “click” but Fan does not start.

Possible causes: Wiring issue between SCAB* and Fan

Suggestion 1: Open Fan’s electrical box and check for power (115VAC) at the fan’s power wires.

Suggestion 2: Check for pwm (control 0-24VDC, 80Hz PWM) signal at fan’s control wire connections on the SCAB*.

* SCAB = Simple Controller Attic Board / FAN BOX MOUNTED BOARD

Symptom: Wireless remote does not Operate.

Possible causes: Battery, RF interference.

Suggestion 1: Check transmitter’s battery for power. Replace if necessary.

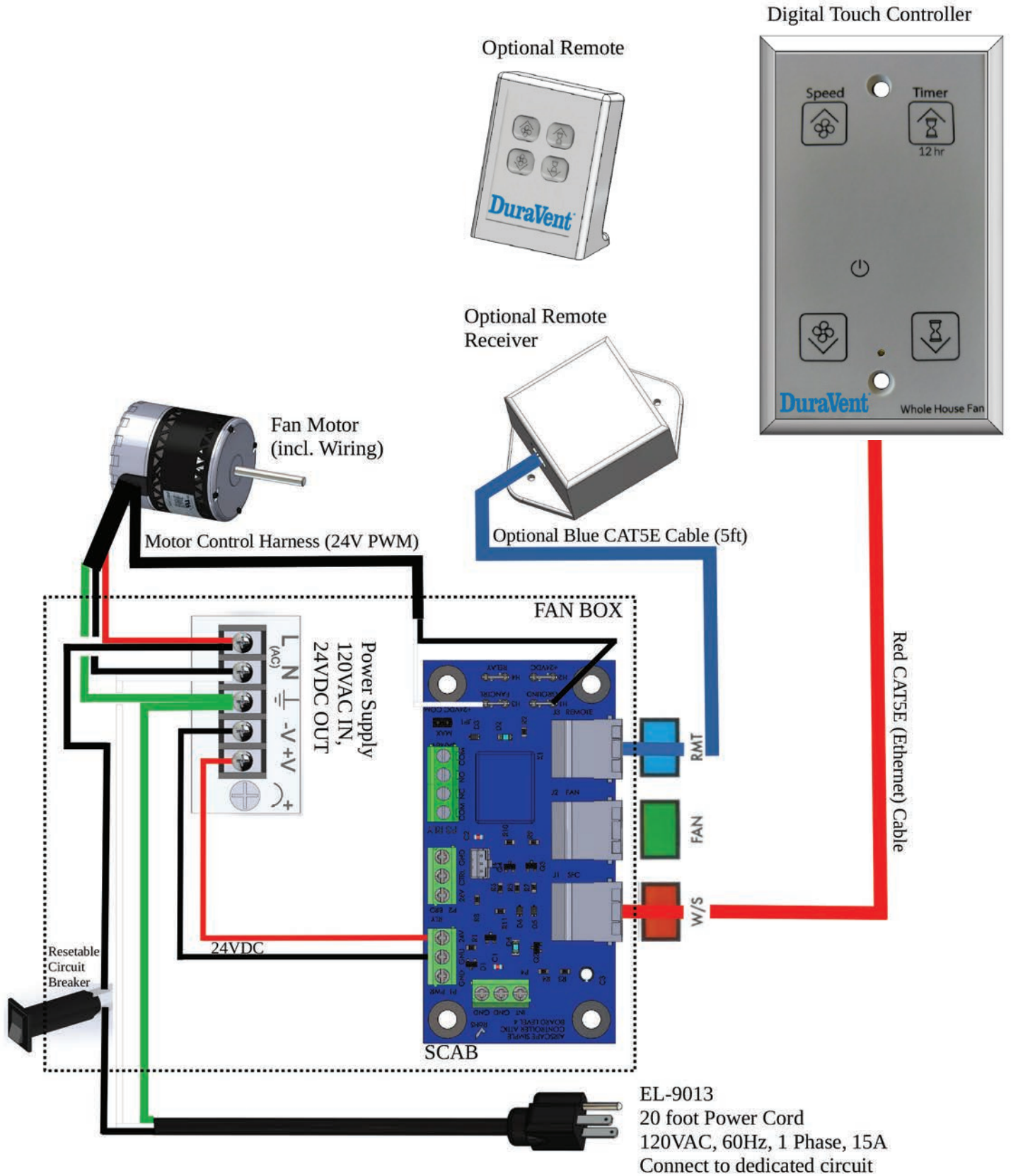
Suggestion 2: Check to see if LED on the remote receiver is lit. Open the cover and see if internal LED’s respond by pressing a button on the remote.

Suggestion 3: Temporarily replace the CAT5 Ethernet cable.

Suggestion 4: Check for red LED response on DTC when pressing the remote buttons.

If problems are encountered, please take a few moments to run through the troubleshooting procedures described on the blue Warranty Card. If these suggestions do not work, contact DuraVent technical support 1.800.835.4429, or email at hepatower@duravent.com for further assistance.

ELECTRICAL SYSTEM SCHEMATIC SIMPLIFIED (HPT-MA-4-1)



DuraVent, Inc. (“DuraVent”) provides this one year from date of shipment warranty on all branded DuraVent HEPA Tower products. Subject to the limitations set forth below, DuraVent warrants that its products will be free from defects in material or manufacturing, if properly installed, maintained and used. This Warranty is transferable from the original purchaser to each subsequent owner during the warranty period. This warranty does not cover normal wear and tear, filters other than defects in manufacturing, smoke damage or damage caused by fires, acts of God, or any product that was: (1) purchased other than from an authorized DuraVent dealer, retailer or distributor; (2) modified or altered; (3) improperly serviced, inspected or cleaned; or (4) subject to negligence or any use not in accordance with the installation instructions included with the product as determined by DuraVent.

Operation instructions are available online at www.duraventfiltration.com or contact our Customer Service Department 1-800-835-4429 or hepatower@duravent.com.

All warranty obligations of DuraVent shall be limited to repair or replacement of the defective product pursuant to the terms and conditions applicable to each product line. These remedies shall constitute DuraVent’s sole obligation and sole remedy under this warranty. This warranty provides no cash surrender value. The terms and conditions of this warranty may not be modified, altered or waived by any action, inaction or representation, whether oral or in writing, except upon the express, written authority of an executive officer of DuraVent.

DuraVent must be notified and given the opportunity to inspect defective product prior to replacement under the terms of this limited lifetime warranty. All warranty claims must be submitted with proof of purchase. Labor and installation costs are not covered under this warranty.

To obtain warranty service contact:

DuraVent Warranty Service, 877 Cotting Ct., Vacaville CA 95688, or call 1-800-835-4429.

WHERE LAWFUL, DURAVENT DISCLAIMS ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL DURAVENT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR SPECIAL DAMAGES OR DIRECT OR INDIRECT LOSS OF ANY KIND, INCLUDING BUT NOT LIMITED TO PROPERTY DAMAGE AND PERSONAL INJURY. DURAVENT’S ENTIRE LIABILITY IS LIMITED TO THE PURCHASE PRICE OF THIS PRODUCT. SOME STATES DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE.

For the most up-to-date installation instructions, please visit www.duraventfiltration.com

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Manufactured in Vacaville CA and Albany NY