



CDCLarueTM
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500 Series Operation & Service Manual

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To learn more about our products and
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NEVER STOP TO UNCLOG FILTERS AGAIN!

Congratulations, you have purchased the latest innovation in commercial vacuum and dust recovery equipment. This manual will help you to get the most from your purchase.

Pulse-Bac® 500 Series Vacuum is shipped free from defects; however you should make an initial inspection to ensure that no damage has occurred during shipping and familiarize yourself with the operation and proper use of your new Pulse-Bac®.

Safety is paramount when operating any machinery. Safety is a combination of common sense and staying alert when operating industrial equipment. Read this operator's manual and understand it. The following safety rules should be observed when operating the vacuum.

Safety Signal Words used in this Manual and their meaning are as follows:

DANGER: Means if the safety information is not followed, it is likely that the operator or by-standers risk of being seriously injured or killed is very high.

WARNING: Means if the safety information is not followed, the operator or bystanders could be seriously injured or killed.

CAUTION: Means if the safety information is not followed the operator, or by-stander may be injured or the vacuum machine maybe damaged

WARNING: Preventing electrical shock

To reduce the risk of fire, electrical shock, or injury, read and understand the owners manual and all labels on the Pulse-Bac® before operating. Use the Pulse-Bac® only as described in this manual.

Your Pulse-Bac® is designed to vacuum dry material only. Never use the machine to vacuum liquids of any kind.

CAUTION: Reducing static shock

Static Shocks are common and occur in dry areas or when the relative humidity of the air is low. Be aware of low humidity conditions and if static shocks are persistent, use a static reduction vacuum hose to reduce static shock. CDCLarue recommends anyone using a Pulse-Bac® for collecting wood dust to always use a static reduction hose. Keep in mind wood particles create static electricity even when the humidity is normal.

Unpacking & Checking Carton Contents:

- Remove the vacuum and all the contents of the shipping carton or cartons.
- Check each item against the packing list.
- Contact your delivery company if any items are damaged or missing. If you require additional assistance contact CDCLarue customer services at 866.954.9700

CAUTION: Proper Extension cord use.

It is very important to use the proper extension cord with power tools, the performance and life of the equipment depend on it. Using an improper extension cord can cause the equipment to malfunction and become damaged. It can also cause harm to the operator. Listed below are the recommended extension cords for different lengths for use with your Pulse-Bac®. Do not use any other size of extension cord with your Pulse-Bac® but the sizes listed below.

Extension Cord Length	Wire Gauge (AWG)
0—25 Ft.	14 Gauge
25—50 Ft.	12 Gauge

PB-500 Series Limited Warranty

Pursuant to the specific terms and conditions set forth herein, CDCLarue Industries, Inc. ("CDCLarue") warrants all products manufactured by CDCLarue™ for a period of one (1) year from any defects in materials and workmanship arising under normal usage and care. Components manufactures offer separate warranty periods. The aforesaid warranty shall extend only to the original purchaser of the product and all CDCLarue Distributors based on the original date of purchase, but under no circumstances shall the warranty extend past thirteen (13) months from CDCLarue original shipment date, regardless of to whom the shipment was sent or when the purchaser purchased the product. The original date of purchase will be the date indicated on a bill of sale or receipt.

The purchaser's remedies under the aforesaid warranty and CDCLarue total obligation under the aforesaid warranty is limited to repair or replacement of any and all parts or components covered under this limited warranty at the sole discretion of CDCLarue. The product or products must be returned to CDCLarue place of business, along with a copy of the bill of sale or receipt indicating the original date of purchase, and all freight costs associated with the return of the product or products to CDCLarue for repair or replacement and subsequent freight costs associated with the return of the product or products to the purchaser will be the sole responsibility of the purchaser. In the event that the original date of purchase cannot be determined by a bill of sale or receipt, then the original shipment date according to the records of CDCLarue shall be used as the original date of purchase. This limited warranty is not transferable or assignable. This limited warranty shall not apply if the product or products have been abused, misused, altered or damaged by purchaser or a third party. IN NO EVENT WILL CDCLARUE BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, INCIDENTAL, SPECIAL, PUNITIVE OR OTHER DAMAGES OR FOR ANY CONTINGENT LIABILITY ARISING OUT OF THE FAILURE OF OR USE OF ANY CDCLARUE PRODUCT, INCLUDING BUT NOT LIMITED TO LOST PROFITS AND/OR LOSS OF INCOME, WHETHER OR NOT CDCLARUE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE, AND REGARDLESS OF WHETHER ANY REMEDY SET FORTH HEREIN FAILS OF ITS ESSENTIAL PURPOSE.

THE WARRANTIES CONTAINED IN THIS LIMITED WARRANTY ARE IN LIEU OF ALL OTHER WARRANTIES. EXCEPT AS EXPRESSLY SET FORTH ABOVE, CDCLARUE EXPRESSLY DISCLAIMS AND NEGATES ALL REPRESENTATIONS OR WARRANTIES, WHETHER EXPRESS OR IMPLIED, IN FACT OR IN LAW, RELATING TO THE PRODUCTS (INCLUDING WITHOUT LIMITATION (A) ANY IMPLIED OR EXPRESS WARRANTY OF MERCHANTABILITY, (B) ANY IMPLIED OR EXPRESS WARRANTY OF FITNESS FOR ANY PURPOSE, (C) ANY IMPLIED OR EXPRESS WARRANTY OF CONFORMITY TO MODELS OR SAMPLES OF MATERIALS, (D) ANY IMPLIED OR EXPRESS WARRANTY REGARDING THE CONDITION OF THE PRODUCTS AND (E) ANY IMPLIED WARRANTY ARISING FROM COURSE OF PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE

Printed Circuit Board Replacement:

Disconnect the Pulse-Bac® from the electrical power source. Remove the top cover assembly by removing the four 1/4"-20 Cap Nuts holding it to the base plate. Disconnect the six 18 gauge wires from the printed circuit board. **(Refer FIGURE 5: PCB REPLACEMENT)** . Install the new PCB by aligning the four mounting holes with the mounting bosses on the electrical panel and secure the PCB with four screws.

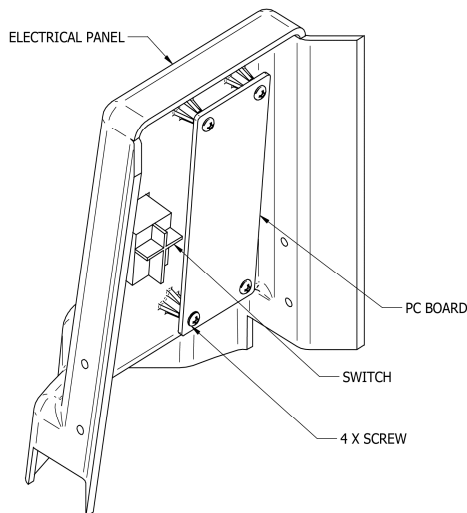


Figure 5 PCB Replacement

Trouble Shooting:

- 1. Unit will not start:** Check the power source at the electrical outlet. Check cord cap for proper connection. Check to see the switch is in the **ON** position and light is on.
- 2. Units Lift & CFM are low:** Check to see if vacuum head is properly aligned on the tank and the seal is in good condition. Check to see if filters have become saturated with debris. Check to see if Pulse Bac® filter cleaning system is operating correctly. Check inlet and hose for obstructions.
- 3. Dust coming out of head:** Check to see if filters are Installed properly and seals are in good condition. Check filters for tears or cuts. Check to see if filters are saturated.
- 4. Motor is not working:** Check power to unit. Check power switch,. Check motor.

For assistance call CDCLarue
Service Department at 866.954.9700

Introduction to the PB-500 Series:

The PB-550, PB-565 and PB-575 are products from CDCLarue™ 500 Series. Every Pulse-Bac® vacuum and dust recovery system is designed for applications that require different levels of lift (suction) and CFM (flow rate). The 500 series from CDCLarue is designed to be used with hand held power tools or general clean up and comes with our exclusive Pulse-Bac® Automatic Self-Cleaning Vacuum Control Technology, capable of preventing the filters from clogging and losing lift during operation, along with additional features not found on other competitors products. The 500 series of dust vacuums from CDCLarue are designed to be used with hand held power tools to capture, collect and control dust or for every day clean up of dry non-combustible materials. The 500 series are Hepa certified dust vacuums and can be used to capture dust from lead Paint, Concrete, Drywall, Stone, Masonry, Wood, Fine powders, Asbestos, Fiberglass, Plastics, Metals and any other dry non-combustible material.



Model	PB-550 PB -565 PB-575
Filtration System	Pulse-Bac Self-Cleaning
Voltage	120 V AC 50/60 Hz
Current	10.2 Amps Max
CFM	125
Lift	89"
Dimensions (PB-550)	15.27 W x 16.65 D x 25.62 H
Weight	30 lbs.

Patents and Awards:

- US Patent # 7082640B2, other patents pending.
- World of Concrete Most Innovative Product (2005, 2006, 2007, 2008 & 2009) Rental Equipment Register's Innovative Product of the Year, 2004.



Operation:

The PB-500 Series comes fully assembled and ready to operate, all you have to do is plug it in and turn the power switch on. The PB-500 series dust vacuums operate on a 110 V AC 50/60 Hz voltage. Listed below are some safety tips while using Pulse-Bac® vacuum equipment.

CAUTION: Safety tips for proper usage

- Never operate in a wet environment.
- Never operate with an ungrounded power source.
- Never operate with an improper or ungrounded electrical extension cord.
- Never operate unattended.
- Never vacuum hot ashes or combustible materials.
- Never operate in conjunction with any ungrounded equipment.
- Always use a proper 120 volt 20 amp electrically protected outlet to operate.
- To reduce risk of electrical shock, do not expose to rain and always store indoors.
- Never operate the Pulse-Bac® dust vacuum in the presence of explosive vapors.
- Always unplug the Pulse-Bac® when not in use and before servicing.
- Turn your Pulse-Bac® off before unplugging from the power source.
- Never operate the Pulse-Bac® from a generator that is not grounded.

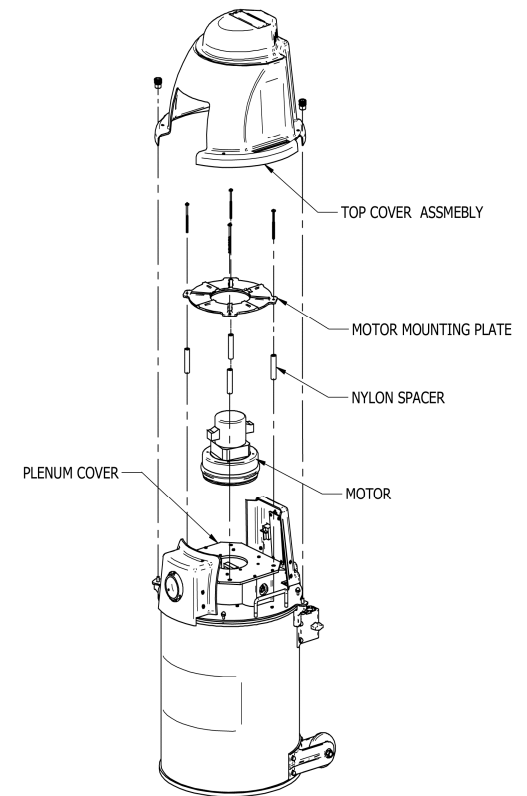
Motor replacement:

To replace the motor assembly on a PB-550 / PB-565 / PB-575 follow the instructions below.

Motor Removal:

- Disconnect the Pulse-Bac® from the electrical power source.
- Remove the top cover assembly by removing the four 1/4"-20 cap nuts holding it to the base plate. (Refer to figure 5 Motor Replacement).
- Disconnect the motor by unplugging the motor's Molex power connector. Remove the four # 10-32-2.5" screws securing the motor.
- Remove the four # 10-32-2.5" screws securing the motor.

Figure 5 Motor Replacement



New motor installation:

- Place the new motor on the plenum cover so that the center of the motor is aligned with the center of the plenum cover.
- Place the motor mounting plate on motor so that the 4 pins on the plate are aligned and embedded in the 4 pin holes on the motor and the 4 mounting holes are aligned with the threaded inserts in the plenum cover.
- Secure the motor mounting plate in place with 4 screws.

For assistance call CDCLarue
Service Department at 866.954.9700

Hepa Filter Replacement :

- Turn the switch to the off position and unplug the power cord.
- Remove the 4 x Nuts, # 10-32 Acorn, holding the top Cover.
- Unplug the wiring connections connecting the motor to the electric board (PCB).
- Remove the 4 x Screws, # 10-32-2.5", holding the motor mounting plate. This will allow you to remove the HEPA filter. place the new HEPA Filter in place of the old one.
- Place the motor mounting plate on the filter such that the four holes on the plate are aligned with the stand-offs.
- Fasten the 4 x # 10-32-2.5" screws to the motor mounting plate to securely hold the HEPA filter and motor in place. Re-connect the PCB then Install the top cover and securely hold it in place with 4 x Nuts, # 10-32 acorn nut.

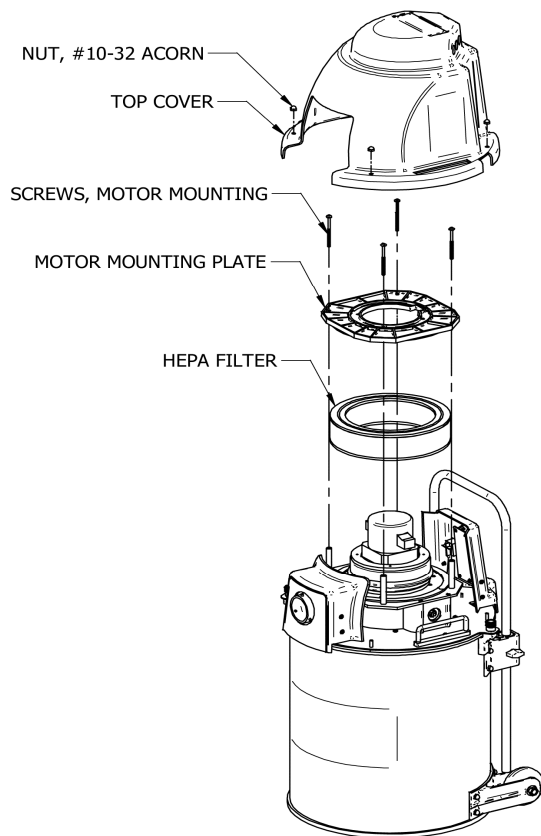


Figure 4 Hepa Filter Replacement

The Hepa filter located under the hood is a Industrial rated IEST CC0001.4 filter. certified to capture dust particles .3 micron in size at a 99.99% efficiency rating. The twist on filters are a Hepa rated H-13 filter, capable of capturing dust particles .3 micron in size at a 85% or better efficiency rating and a 100% efficiency rating at 2 micron and above. *Chart of average material micron sizes*

Lead Dust	2.0 Micron	Asbestos	.7 - 30 Micron
Copier Toner	.5 - 15 Micron	Saw Dust	30 - 600 Micron
Drywall	10 Micron	Cement Dust	3.0 - 100 Micron
Mold	3.0 - 12 Micron	Fiberglass	1.0 - 1000 Micron

WARNING:

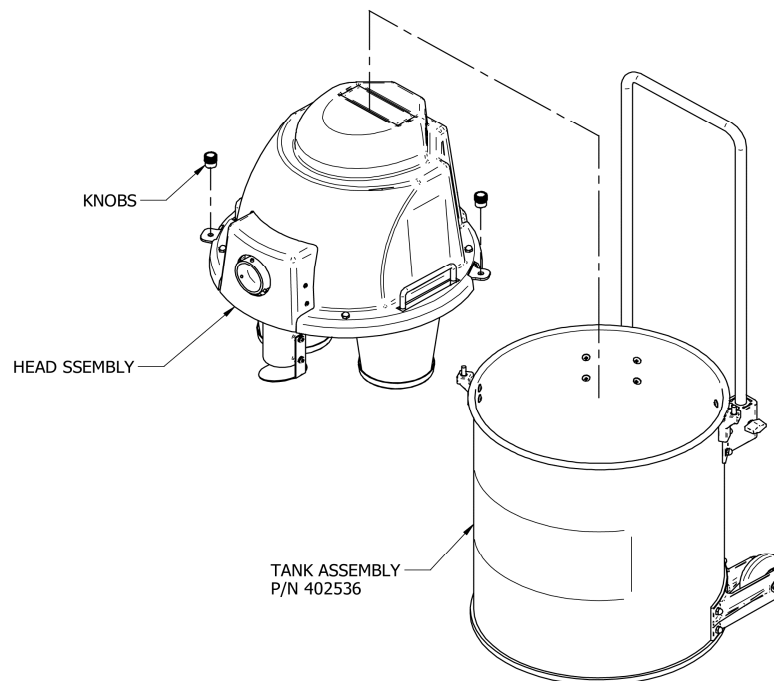
To reduce the risk of injury from accidental starting, turn the vacuum off and unplug the power cord before emptying the collection tank.

To reduce the risk of back injury or falls, do not lift a collection tank heavy with dust and debris. Scoop enough contents out to make the collection tank light enough for one person to lift comfortably.

Emptying Tank:

- Remove the 2 knobs holding the Head Assembly on the Tank (Refer figure 2: Empty Tank).
- Remove the Head Assembly using the two handles on the head Assembly and place it on a flat surface where It is safe from falling.
- Place the Head Assembly on the tank so that the two alignment pins mounted on the tank align with the mounting holes on the Base Plate of the head assembly. Secure the head assembly with the two knobs.

Figure 2. Emptying Tank



Servicing your Pulse-Bac:

With regular use the Pulse-Bac® vacuum may require repair of critical components from time to time. This section of your manual will provide information for a qualified technician to make repairs to the machine when required. Most repairs to the machine can be made at your facility if the technician making the repairs is trained in electrical and mechanical theory. If you are not qualified to repair the vacuum contact CDCLarue Service Department or have the unit returned to CDCLarue or one of CDCLarue™ authorized service centers for repair. If you or someone you know is qualified to service and need additional assistance in the repair of the machine, contact the CDCLarue Service Department and a qualified technician assist you to complete the repair.

CDCLarue recommends that any repairs made to the valve system in the Pulse-Bac® be made by CDCLarue or a technician who is qualified in the theory and repair of electro-mechanical equipment. If you or someone you have retained plans to make repairs on your Pulse-Bac®, you will need the following tools and test equipment:

- Volt / Ohm Meter (digital or analog)
- Phillips Screw Driver # 4 & # 3,
- Needle Nose Pliers,
- 5/16 " Nut Driver,
- 3/8" End Wrench, and 1/8" X 2" Slot Screw Driver.

Filter Replacement:

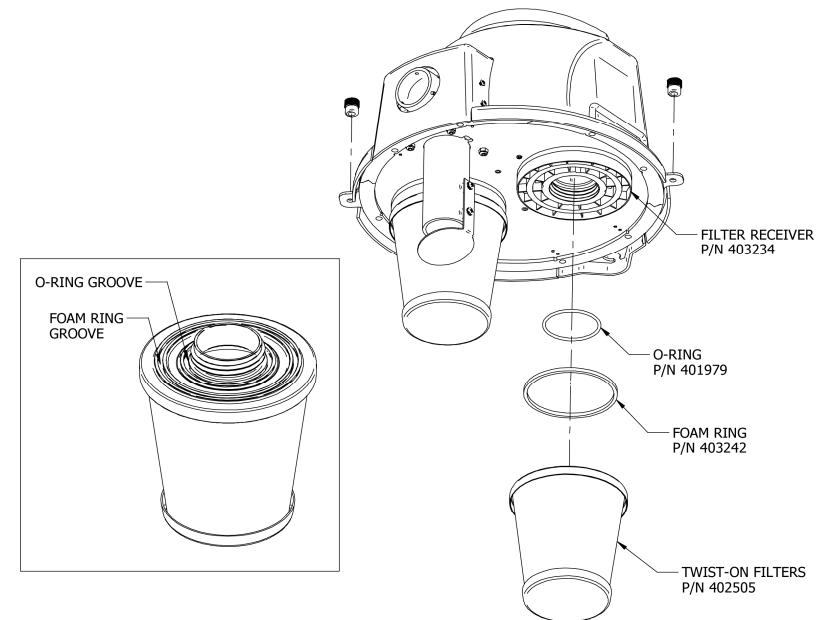
The PB-550 comes with three filters installed on it, two H-13 Hepa rated P.T.F.E. twist on Spun Bond Polyester filters, and one Industrial rated Hepa IEST RP CC0001.4 filter. To replace twist on filters and ensure proper filter installation in the PB-550 follow instructions (1) thru (4)

1. If not already installed, install the O-Ring (P/N # 401979) onto the O-Ring groove on top of the Twist-on filter as shown in Figure3 : FILTER INSTALLATION.
2. If not already installed, install the foam Dust Ring (P/N # 403242) into the outer groove of the filter.

NOTE: The foam dust ring helps to prevent dust from accumulating between the top of the filter and the filter receiver, it doesn't create a seal for the filter. The O-Ring is the only seal for the filter.

3. Check to ensure that the filter receiver is clean and void of any dust or foreign material before screwing your filter into place.
4. Insert the filter into the filter receiver and twist in a clockwise direction until the filter just touches the base, then turn the filter one quarter turn to tightly secure it.

Once the filters have been installed, the vacuum is ready to be put into service. The third Hepa Filter is located inside the vacuum unit. See next page.



CAUTION:

Once you have installed the filters on the Pulse-Bac®, the filters should never be removed unless they are to be replaced. Removing the filters after initial installation can cause various problems if not reinstalled properly. Since your new Pulse-Bac® cleans its filters automatically, you should never have a reason to remove the filters other than for replacement. It is recommended that filters be changed every 6-8 months when used daily.

If you need assistance or require additional information when installing the filters, you can contact CDCLarue Customer Services Department at 866.954.9700 we will put you in contact with a technician that can help you accomplish the installation and answer any questions you may have.