



OWNER'S MANUAL

OX3000 Series

Installation and Service Manual

INTRODUCTION
SPECIFICATIONS
UNPACKING
MOUNTING
ELECTRICAL
OPERATION
MAINTENANCE
REPLACEMENT PARTS
TROUBLESHOOTING

IMPORTANT

THIS MANUAL CONTAINS PRECAUTIONARY STATEMENTS RELATING TO WORKER SAFETY. READ AND SAVE THIS MANUAL COMPLETELY AND COMPLY AS DIRECTED. ALL THE POTENTIAL HAZARDS OF DUST AND MIST CONTROL SYSTEMS AND EQUIPMENT ARE IMPOSSIBLE TO LIST; THEREFORE, OBTAIN THE SERVICES OF A PROFESSIONAL INSTALLER. A FIRE PROTECTION EXPERT SHOULD BE OBTAINED IN THE EVENT THE PRODUCT IS INTENDED FOR USE THAT PRESENTS A POTENTIAL RISK OF FIRE OR FIRE PROPAGATION. REFER TO APPROPRIATE AUTHORITIES, AND DISCUSS YOUR INTENDED USE WITH YOUR LOCAL DISTRIBUTOR OR BLUE OX. WORKERS HANDLING EQUIPMENT OR SYSTEMS SHOULD BE INSTRUCTED TO CONDUCT THEMSELVES IN A SAFE MANNER.

RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.

SAFETY

READ AND SAVE THIS MANUAL COMPLETELY AND COMPLY AS DIRECTED. THIS MANUAL CONTAINS PRECAUTIONARY STATEMENTS RELATING TO WORKER SAFETY. WORKERS HANDLING EQUIPMENT OR SYSTEMS SHOULD BE INSTRUCTED TO CONDUCT THEMSELVES IN A SAFE MANNER. ALL THE POTENTIAL HAZARD OF DUST AND MIST CONTROL SYSTEMS AND EQUIPMENT ARE IMPOSSIBLE TO LIST. THEREFORE, OBTAIN THE SERVICES OF A PROFESSIONAL INSTALLER. A FIRE PROTECTION EXPERT SHOULD BE OBTAINED IN THE EVENT THE PRODUCT IS INTENDED FOR USES, WHICH PRESENT A POTENTIAL RISK OF FIRE OR FIRE PROPOGATION. REFER TO APPROPRIATE AUTHORITIES, AND DISCUSS YOUR INTENDED USE WITH AIR CLEANING SPECIALISTS, INC.

Initial Inspection

If your new BLUE OX units were shipped in by truck you should inspect the carton for damages or possible shortages. If there are any signs of possible shipping damages, unpack the units and make a note of the shortage or damage on the freight bill before signing it. If the carton is opened at a later time and there is damage to the unit, you should file a concealed damage claim with the delivery carrier. They are responsible for any damages in shipment or shortages that were actually shipped.

Installing Your New BLUE OX Units

All installations must meet all electrical or mechanical building codes that may apply in your particular area. If there are no local requirements, you should follow the National requirements. If the optional Drain Plug was installed in your unit, you can connect an appropriate 3/8" I.D. rubber hose for oil/mist routing.

All chains, hooks, bolts or other items used in the installation must be at least strong enough to support FOUR times the weight of each unit. Unit weights are as follows:

BLUE OX3000	175 lbs.
BLUE OX3000-CF.....	190 lbs.
BLUE OX3000-WA	255 lbs.

Methods for Mounting your OX3000 Unit

There are many different ways to install your units. The most common method of installing the units is to support them from the ceiling structure with four chains. If the factory is going to utilize this method, you should have 4 holes drilled down through the top of the unit approximately 6" from each end and 1" from each side of the unit. The factory will then install Eye-Bolts that can be used to attached chain or rod. An eye bolt kit is available at an additional cost.

Another available option is Strut Channel, which will be placed underneath the Blue OX and then hung with appropriate steel chains and Q-Links.

The top end of the chains must be secured to the ceiling structure in a safe and acceptable manner.

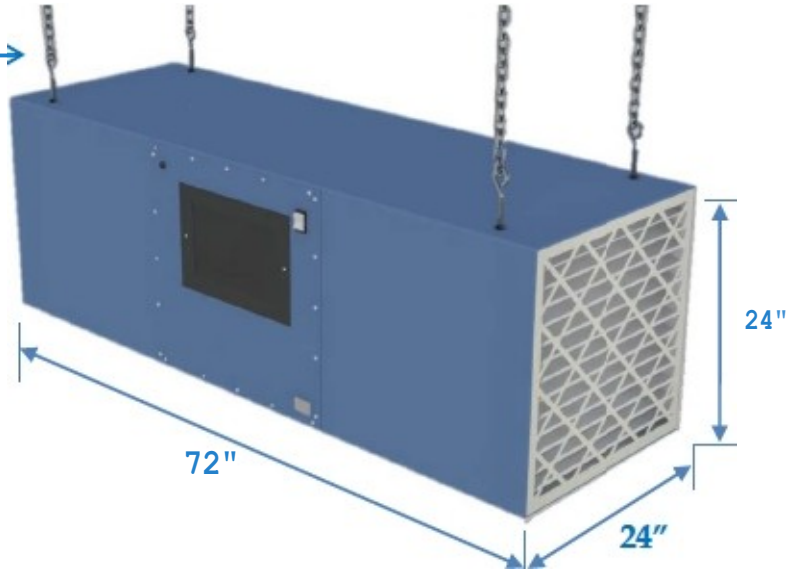
The last typical method for installation is a dual L-Bracket mount, which is ideal for wall mounting.

The next page includes sketches indicating possible methods of mounting your OX3000 cabinets. Please ensure all installations are secure and meet all local, state, and federal codes. Be sure your unit is connected to the proper voltage and is protected by correct size fuses or breakers.

OX3000 Installation, Mounting Options

Option 1 - Mounting with Eye Bolts

Chain (Swinging) to Ceiling/Roof Truss



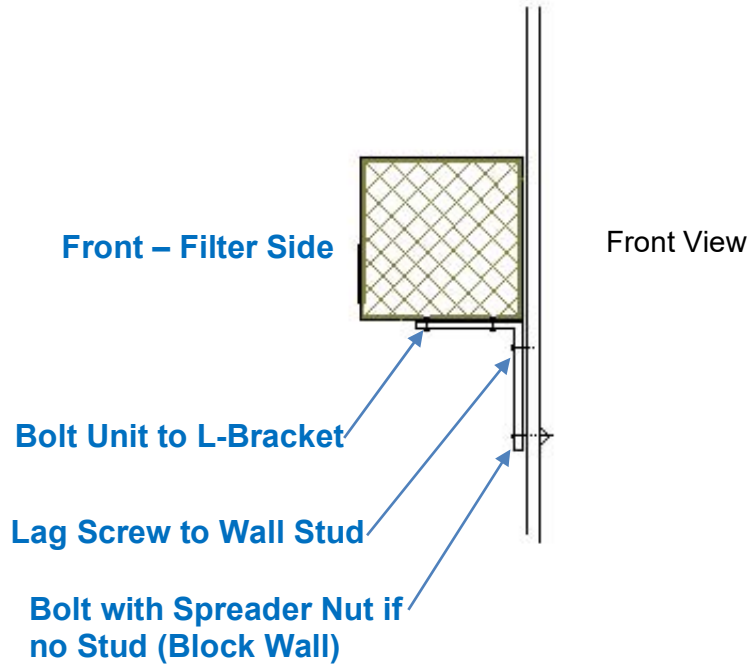
Option 2 - Mounting Strut Channel



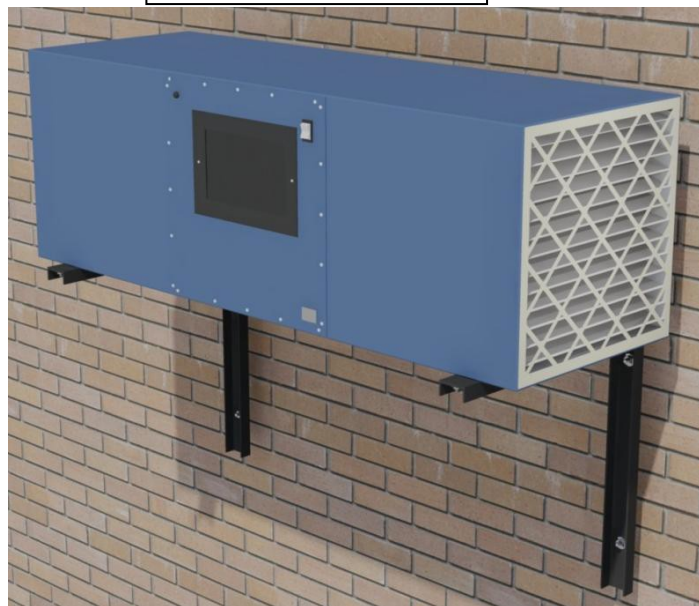
Strut Channel Installed to Ceiling Truss

Strut Channel

Option 3 – Wall Mounting with L-Brackets



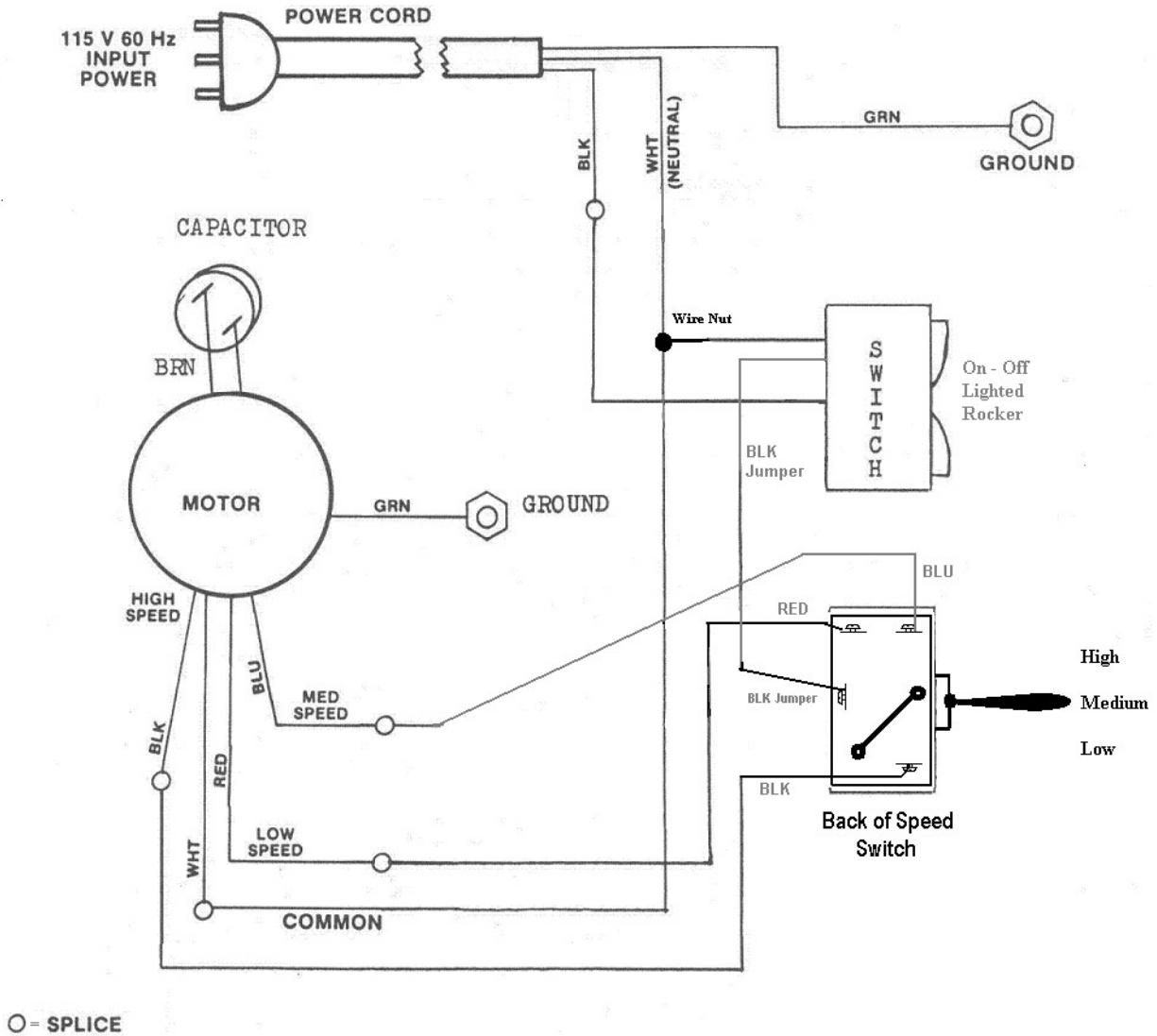
L-Bracket Installed



L-Brackets should be 6" from the ends of the unit, then secured to the wall.

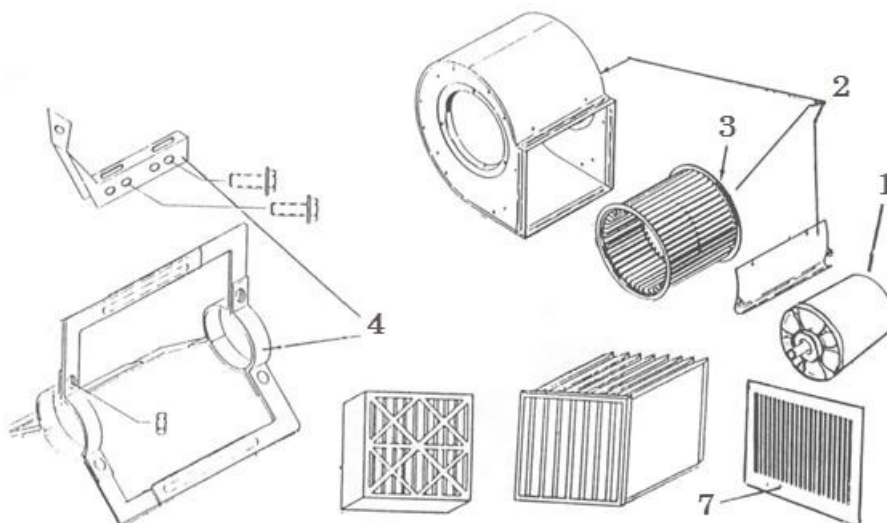
Please note that other methods are possible, but not offered, supplied, or specified by Air Cleaning Specialists Inc. All mounting should be done by a professional installer or contractor, in a safe and legal manner. BLUE OX products are designed to improve your environment. OX3000 series collects dust, smoke, oil mist, oil smoke, and other atmospheric pollutants in industrial plants, shops, schools, and factories with high

OX3000 with 3 speed Switch Wiring Diagram



Use a qualified electrical technician to create your electrical circuit, install your disconnect, and wire your motor junction box.

OX3000 Replacement Parts



ITEM	PART #	DESCRIPTION
1	30-1000	¼ H.P. Direct Drive
2	30-1500	10" Complete Blower
3	30-1501	Blower Wheel
4	30-1502	Motor Mount
5	30-2000	Two Speed Motor Switch
6	30-2002	12' Power Cord (1 Phase)
7	30-3000	4-Way Adjustable Louver

OX3000 Replacement Filters

ITEM	PART #	DESCRIPTION
8	BOF-4404	4" Pleated Pre-Filter (Beverage Board Frame)
9	BOF-4404-AM	4" Washable Aluminum Mesh Pre-Filter
10	BOF-442268	24" X 24" X 22" - 65% Bag Filter (8 Pocket)
11	BOF-442298	24" X 24" X 22" - 95% Bag Filter (8 Pocket)
12	BOF-4415912	24" X 24" X 15" - 95% Bag Filter (12 Pocket)
13	BOF-4402-CF	24" X 24" X 2" After-filter - Carbon - (9 lbs.)

**ALWAYS USE BLUE OX REPLACEMENT FILTERS & PARTS TO MAINTAIN WARRANTY.
TO ORDER REPLACEMENT PARTS:**

AIR CLEANING SPECIALISTS, INC.

11088 Gravois Industrial Court, St. Louis, MO 63128
CALL 866-455-2135 | EMAIL info@aircleaningspecialists.com

Troubleshooting

Problem	Remedy
Motor starts with a whine and does not reach full speed.	If three-phase powered, stop motor immediately. It may be “single phasing” and will overheat, possibly damaging internal windings. Check fuses and/or wires for an interruption in one of the lines. The motor may be operating on two phases only.
Motor makes a scraping or knocking noise.	Check motor cooling fan and its cover. It may have been damaged or shifted in transit and motor fan is rubbing. Check for loose blower wheel on motor shaft – tighten if necessary.
No suction or pressure, or some suction but not as required (low or no airflow).	Check and open all dampers, if installed. Check ducting for blockage, if installed. Check for dirty or blocked filters (refer to Maintenance section). Check rotation of fan.
Excess vibration.	Check structural support members. Tighten all bolts on legs and cross braces. Make sure entire structure is solid. Check for loose blower wheel – tighten if necessary.
Contaminants blowing through unit.	Check for torn or damaged filters. Check filter seals. If carbon module is used, make sure filter sock in place. Check door seals.
Motor over-amping nameplate.	Access door open, close doors. Incorrect filters or no filters in the unit. Ductwork faulty.

If after performing the above TROUBLESHOOTING the unit fails to perform to specifications, contact:

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Motor Trouble Guide

The purpose of this guide is to suggest common answers to electrical problems. The information is not all-inclusive and does not necessarily apply in all cases. When unusual operating conditions, repetitive failures, or other problems occur, consult an electric motor service firm for assistance.

Trouble	Cause – What To Do
Motor fails to start.	<p><u>Blown fuses</u> – Replace with time-delay fuses or circuit breakers. Check for grounded winding.</p> <p><u>Low voltage</u> – Use higher voltage tap on transformer terminals, increase wire size. Check for poor connections.</p> <p><u>Improper line connections</u> – Check connections against diagram supplied with motor.</p> <p><u>Overload tripped</u> – Check and reset relay in starter. Check heater rating against motor nameplate current rating. Check motor load. If the motor has manual re-set thermal protector, check if it has been tripped.</p> <p><u>Motor may be overloaded</u> – Reduce load. Increase motor size.</p> <p><u>If permanent split capacitor motor, capacitor may be open</u> – Indicated by humming sound. Replace run capacitor. See nameplate for correct value.</p> <p><u>Defective motor or starter</u> – Repair or replace.</p>
Motor stalls.	<p><u>Overloaded motor</u> – Reduce load or increase motor size.</p> <p><u>Low motor voltage</u> – See that nameplate voltage is maintained.</p>
Motor does not come up to speed.	<p><u>Not applied properly</u> – Consult motor service firm for proper type. Use larger motor.</p>
Motor takes too long to accelerate.	<p><u>Excess loading; high inertia load</u> – Reduce load. Increase motor size.</p> <p><u>Inadequate wiring</u> – Increase wire size. Check for poor connections.</p> <p><u>Applied voltage too low</u> – Reconnect to a higher transformer tap. Increase wire size. Check for poor connections.</p> <p><u>Defective motor</u> – Repair or replace.</p> <p><u>Inadequate starting torque</u> – Replace with higher horsepower motor.</p>

Motor vibrates or is excessively noisy.	<u>Motor misaligned</u> – Realign. <u>High voltages</u> – Check wiring connections, transformer. <u>Worn, damaged, dirty or overloaded bearings</u> – Replace, check loading and alignment. <u>Loose or defective or out-of-balance air mover</u> – Tighten set screw(s), repair or replace.
Insufficient speed change.	<u>Insufficient motor load</u> – Use a lower horsepower motor. Reduce system restrictions (blower). Increase system restriction (blower fan).
Motor overheats while running under load.	<u>Overload</u> – Reduce load; increase motor size. <u>Dirt preventing ventilation</u> – Clean motor. <u>Faulty connection</u> – Clean, tighten or replace. <u>High or low voltage</u> – Check voltage at motor; should not be more that 10% above or below rated. Defective motor – Repair or replace.

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