

MONOXIVENT[®]

Source Capture Systems

Operation and Maintenance Manual

Filter Units

Model 3037



MONOXIVENT - SOURCE CAPTURE SYSTEMS

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877-608-4383 - info@monoxivent.com
monoxivent.com

INITIAL INSPECTION:

If your new 3000 units were shipped in by truck, you should inspect the carton for damages or any possible shortages. If there are any signs of possible shipping damage, unpack the units and make a note of any shortage or damage on the freight bill before signing it. If the carton is opened at a later time and there is any damage to the units, you should file a concealed damage claim with the delivering carrier. They are responsible for any damages in shipment or any shortages in materials that were actually shipped.

INSTALLING YOUR NEW 3000 UNITS:

Your supplier should furnish installation instructions. 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.

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

3011----up to 120 lbs.	3030----up to 185 lbs.
3025----up to 165 lbs.	3037----up to 290 lbs.

MOTORS:

All direct drive motors are protected with automatic restart overload protection.

All belt drive units must be protected externally.

OPERATION:

Do not operate your units without filters for over several minutes.

FILTERS:

All units are equipped with replaceable type media filters. In some cases, where the contaminants being picked up are dry, it is possible to blow out the pre-filters and reuse them. Filters are available in a number of different degrees of efficiencies. The

filters in your new 3000 unit have been selected by your representative or based upon a specification.

Media type filters actually become more efficient as they load with contamination. However, as the filters load up, the airflow volume will decrease and eventually will reach a point where they must be replaced to restore the original airflow.

Changing the filters, in your new 3000 air cleaner, is easy. Old filters are simply pulled out of the entrance end of the unit and new filters are installed. No tools are required. Turning the unit on when installing new bag filters will help to pull them into place.

When installing new filters, the openings in the bag filter and the pre-filter should be in a vertical position. Be sure the cloth part of the bag does not bunch up between the bag header and the angle iron filter stops on the cabinet. The pre-filter should be installed with the wire mesh to the inside of the unit. Please contact Monoxivent for your replacement filter requirements.

LOUVERS:

Four way louvers are provided on all units to permit you to direct the discharge air away from pilot lights on heaters and to help you obtain the best air pattern for maximum cleaning. The louvers will be tight and hard to move at first due to new paint.

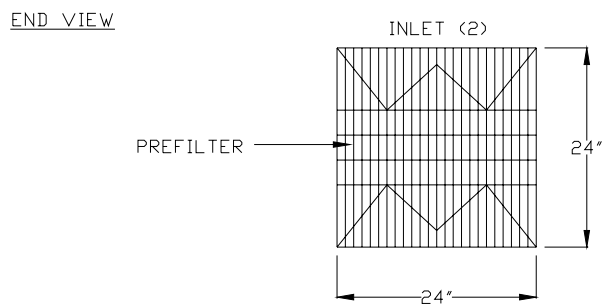
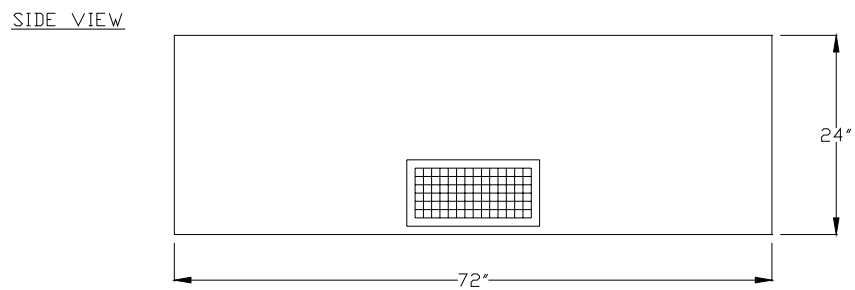
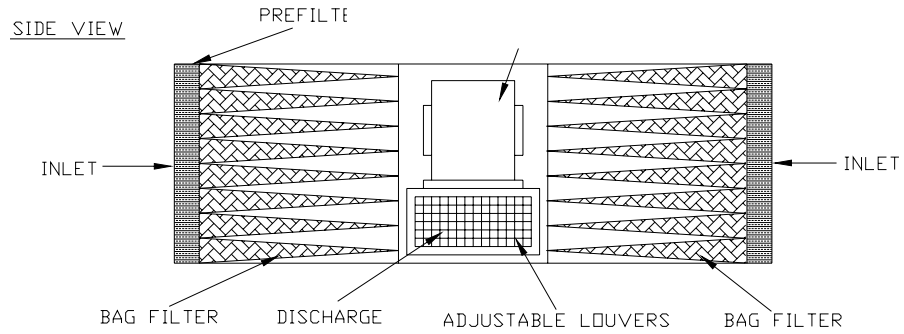
PARTS:

Any necessary parts may be purchased from Monoxivent.

WARRANTY:

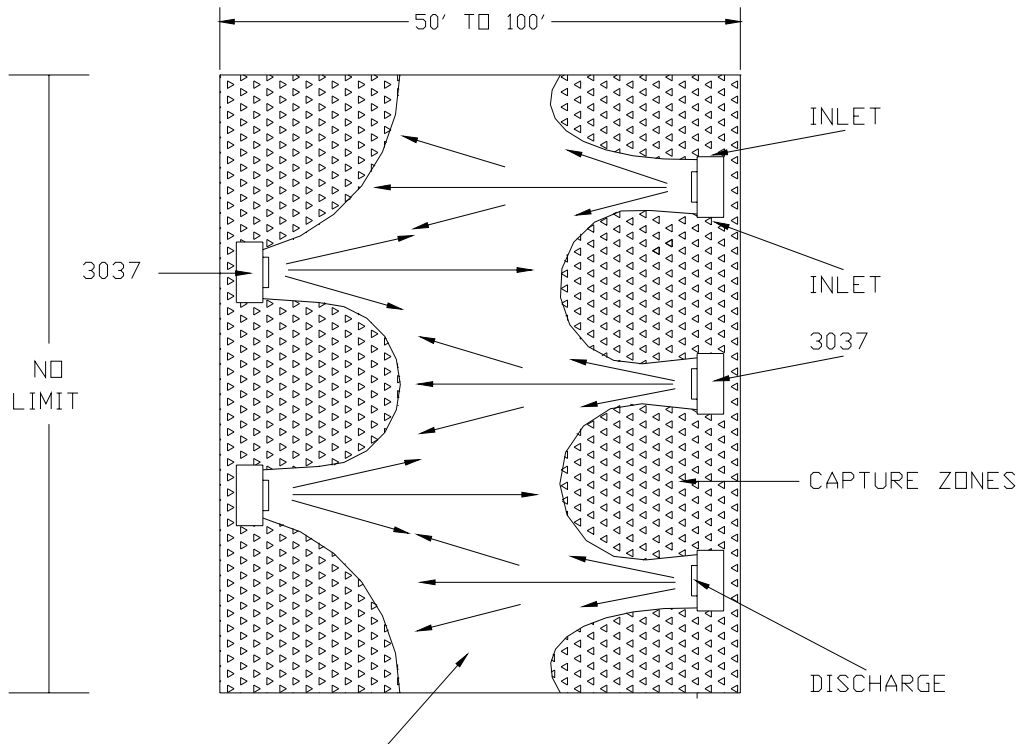
All parts of your 3000 unit, except the filters, are under warranty for a period of one year from the date of shipment. Any part that fails under normal operating conditions during the warranty period will be replaced free of charge. This warranty does not cover damages caused by misuse, accident, fire, and does not cover consequential damages. All parts being replaced under warranty must be returned to Monoxivent before credit can be issued.

Exploded View



GENERAL SPECIFICATIONS

Air Flow Capacity	3700 CFM
Motor Type	2 HP Belt Drive
Motor Voltage	230/460/3 Phase 60 HZ
Motor Control	1 Speed
Blower Type	Forward Curve
Noise Level	68 DBA @ 3'
Cabinet	16 Gauge All Welded
Paint	Blue Poly
Inlet	Dual
Pre-Filter (2)	Pleated - 24 x 24 x 4 8
Primary Filter (2)	Pocket Bag 24 x x24 22 65% or 95%
Filter Load Service	End Load
Weight	190 Pounds

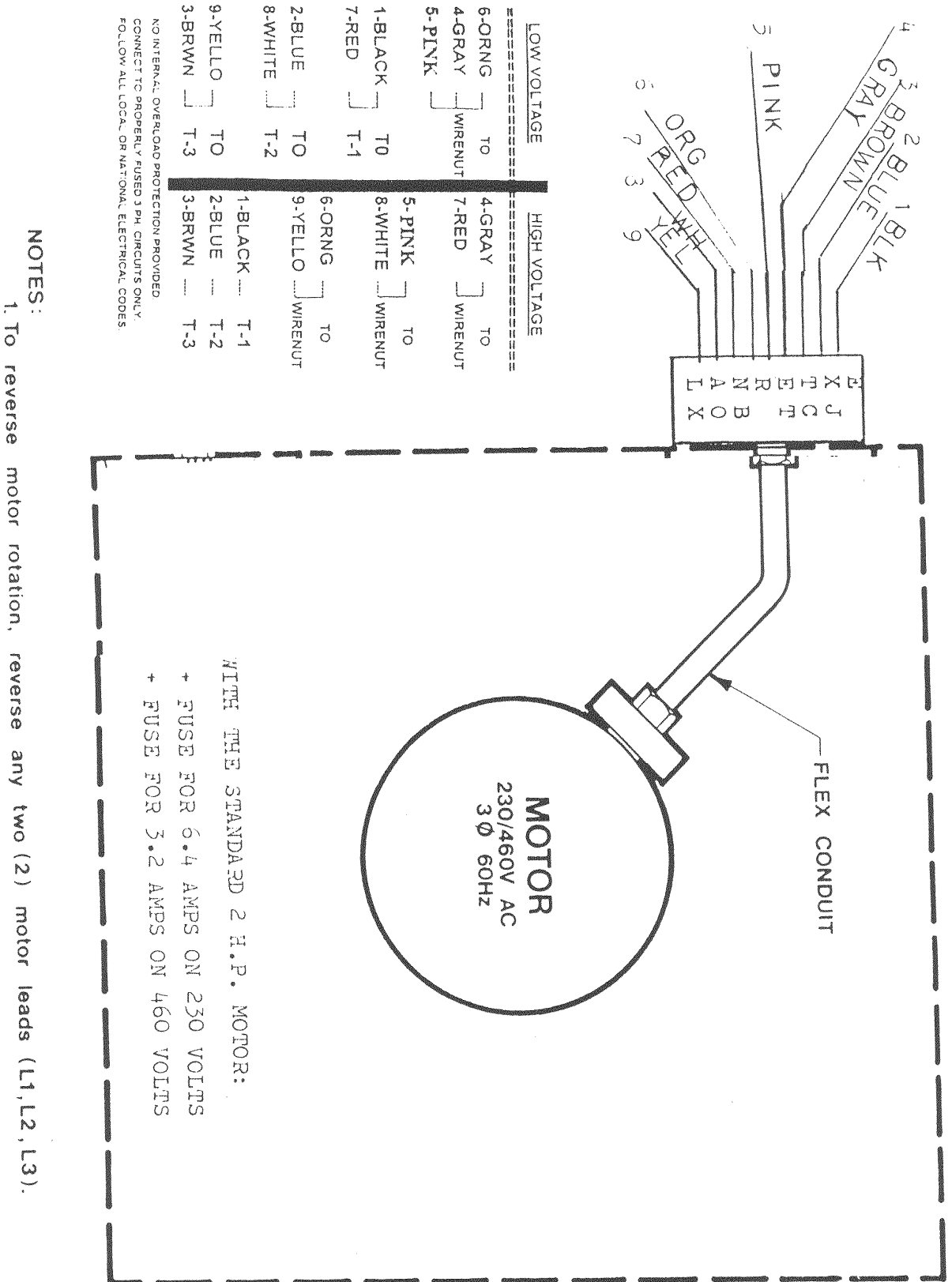


FILTERED AIR - ARROWS
SHOW THE SHUTTLE AIR
PATTERN CREATED BY THE
CROSSFLOW DISCHARGED AIR.

NOTE: PLEASE NOTE THAT THE SHUTTLE AIR PATTERN IS FAR MORE EFFECTIVE OVER THE RACE TRACK AIR PATTERN. WE SUGGEST USING THE SHUTTLE

FREE HANGING FILTER UNIT - SERIES 3037 • SHUTTLE AIR PATTERN

The following drawing displays a typical shuttle air pattern created by the dual inlet free hanging filter unit. This type of design is the most effective when designing a general air cleaning system. This unique design allows the smoke/dust that is being created in the center of the floor to be pushed across and into the capture zone of the collector. The total number of units required is based upon the cubic feet, along with the width by length footprint, of the building or the area where the airborne particulate is being created. The maximum height mounting suggested for the units is 10 feet. Spacing between units is important and this may vary between applications. Please consult the factory for assistance.



NO INTERNAL OVERLOAD PROTECTION PROVIDED.
 CONNECTING PROPERLY FUSED 3 PH. CIRCUITS ONLY.
 FOLLOW ALL LOCAL OR NATIONAL ELECTRICAL CODES.

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.

Problem	Cause - What to do
<p>Motor Fails to Start</p>	<p>Blown Fuses - Replace with time-delay fuses or circuit breakers. Check for grounded wiring.</p> <p>Low Voltage - Use higher voltage tap on transformer terminals, increase wire size. Check for poor connections.</p> <p>Improper Line Connections - Check connections against supplied motor diagram.</p> <p>Overload Tripped - 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>Motor may be overloaded - Reduce load. Increase motor size.</p> <p>If permanent split capacitor motor, capacitor may be open. - Indicated by humming sound. Replace motor or starter. See nameplate for correct value.</p> <p>Defective motor or starter. - Replace or repair</p>
<p>Motor Stalls</p>	<p>Overloaded motor - Reduce load or increase motor size.</p> <p>Low motor voltage - See that nameplate voltage is maintained.</p>
<p>Motor does not come up to speed</p>	<p>Not appied properly. - Consult moter service firm. Use larger motor.</p> <p>Voltage too low at motor terminals due to line drop. - Use higher voltage tap on transformer terminals, increase wire size. Check for poor connections.</p> <p>Load too high. - Check load motor is carrying at start-replace with larger motor.</p>
<p>Motor takes too long to accelerate</p>	<p>Excess Loading; high inertia load. - Reduce load. Increase motor size.</p> <p>Inadequate wiring. - Increase wire size. Check for poor connections.</p> <p>Defective motor. - Repair or replace.</p> <p>Inadequate starting torque. - Replace with higher horsepower motor.</p>

Motor Trouble Guide

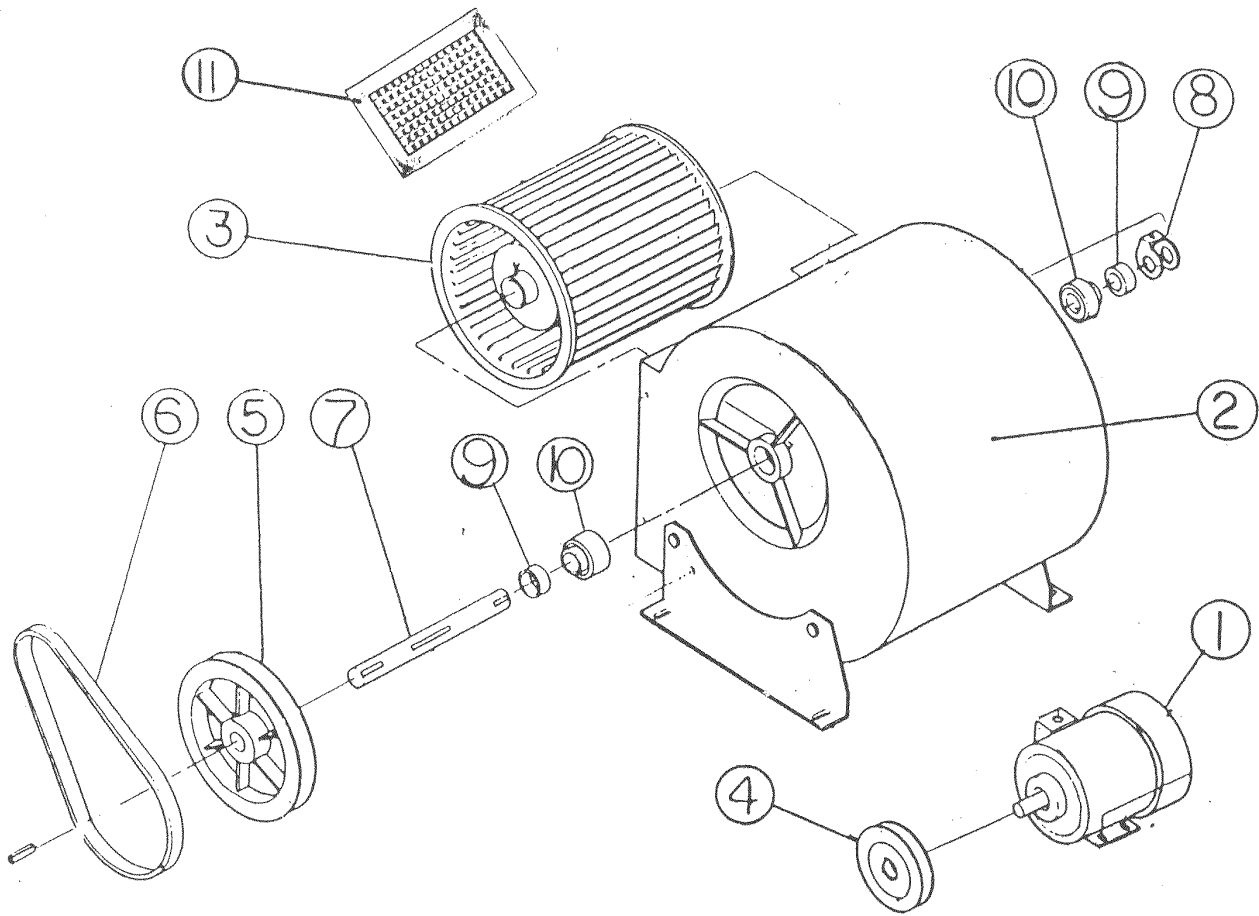
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Problem	Cause - What to do
<p>Motor vibrates or is excessively noisy</p>	<p>Motor misaligned. - Realign</p> <p>High voltages. - Check wiring connections, transformer.</p> <p>Worn, damaged, dirty or overloaded bearings. - Replace, check loading and alignment.</p> <p>Loose or defective or out-of-balance air mover. - Tighten set screw(s), repair or replace.</p>
<p>Insufficient speed change</p>	<p>Insufficient motor load. - Use a lower horsepower motor. Reduce system restrictions (blower). Increase system restriction (blower fan).</p>
<p>Motor overheats while running under load</p>	<p>Overload. - Reduce load; increase motor size.</p> <p>Dirt preventing ventilation. - Clean motor.</p> <p>Faulty connection. - Clean, tighten, or replace.</p> <p>High or low voltage. - Check voltage at motor, should not be more than 10% above or below rated.</p> <p>Defective motor. - Repair or replace.</p>
<p>Motor starts with a whine and does not reach full speed.</p>	<p>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 phase only.</p>
<p>Motor makes a scraping or knocking noise.</p>	<p>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.</p>
<p>No suction or pressure, or some suction but not as required.</p>	<p>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 the fan.</p>

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Problem	Cause - What to do
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 is in place.
Motor over-amping nameplate	Access door open, close doors. Incorrect filters or no filters in the unit. Ductwork faulty.



ITEM	PART #	DESCRIPTION
1	30C-3000	2 H.P. TEFCBB 3 PHASE MOTOR
2	30C-3001	10" COMPLETE BLOWER ASSEMBLY
3	30C-3002	BLOWER WHEEL ONLY
4	30C-3003	ADJUSTABLE MOTOR PULLEY
5	30C-3004	BLOWER PULLEY
6	30C-3006	VEE BELT
7	30C-3007	BLOWER SHAFT 3/4"
8	30C-3008	BEARING RETAINER
9	30C-3009	NEOPRENE WASHER/SPACER
10	30C-3010	BALL BEARING WITH NEOPRENE RETAINER
11	30C-3011	LOUVER 4 WAY ADJUSTABLE
12	30C=3012	65% FILTER BAG
13	30C-3013	95% FILTER BAG
14	30C-3014	4" PLEATED PREFILTER
1A	30C-300A	2 H.P. 208-230 Single Phase