



For Models CL-1100-C18 | CL-1100-C7 | CL1100-C21 | CL-1100-H

OWNER'S MANUAL

CleanLeaf CL1100 Series

Installation and Service Manual

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*****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 AIR CLEANING SPECIALISTS, INC. WORKERS HANDLING EQUIPMENT OR SYSTEMS SHOULD BE INSTRUCTED TO CONDUCT THEMSELVES IN A SAFE MANNER.

RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.

SPECIFICATIONS OF THE CLEANLEAF 1100 SERIES

Model	CL-1100-C18	CL-1100-C7	CL-1100-C21	CL-1100-H
				
Media	18# Refillable Carbon Bank	7# Carbon After Filter	(3) 7# Carbon After Filters	HEPA After Filter
Bag Filter	12" / 6 Pocket	24" / 6 Pocket	12" / 6 Pocket	12" / 6 Pocket
Pre-Filter	1" – 35% Washable Foam Pre-Filter			
Shipping Weight	135 lbs.	125 lbs.	135 lbs.	135 lbs.
Hanging Weight	131 lbs.	100 lbs.	115 lbs.	120 lbs.
Airflow	950 ACFM*	1000 ACFM*	900 ACFM*	875 ACFM*
Cabinet	16 Gauge Cold Rolled Steel			
Finish	White, Chemical Resistant Powder Coating Paint			
Unit Size	44" L x 20" W x 15" H			
Noise Level	48 dB(A) on high 5' from unit			
Power	115V / 60Hz Single Phase 3.5 Amps 500 Watts			
Wiring	3 prong, 10' power cord – Easy set-up 'Plug & Play'			
Motor	PSC Type 1/5 HP Direct Drive with Thermal Overload			
Switch	Variable Speed Switch			
Blower	9 x 9 Direct Drive Centrifugal Forward Curve			
Grille	Four-Way Individually Adjustable Blades			
Warranty	Three Years on All Parts (excluding filters)			

*ACFM – Actual Cubic Feet per Minute



Pure n Natural Systems, Inc.
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 1-800-237-9199
 email – helpdesk@purenatural.com

SAFETY RULES

Follow all electrical and safety codes as well as the National Electrical Code (NEC), National Fire Protection Association (NFPA), and the Occupational Safety and Health Act (OSHA). Qualified personnel should perform all electrical connections and wiring only.

National Fire Protection Association (NFPA) standards require specific duct design and dust collector configuration when collecting potentially reactive metal dusts, such as aluminum, magnesium, and other materials. NFPA also covers other dusts such as grain and plastics, etc. A guideline for determining the precautions to be taken can be found in NFPA 497. Other NFPA standards may apply to your specific application. Consult current NFPA standards, available for NFPA, 1 Batterymarch Park, Quincy, MA, 02269, 800-344-3555, for applicable safeguards which may be required for the Installation, Operation, and Service of this product.

Additional references are the Uniform Building Code and the Uniform Mechanical Code.

WARNING

1. Avoid mixing combustible materials such as (but not limited to) buffing lint, paper / wood dust, aluminum or magnesium with dust generated from the grinding of ferrous materials. This creates a potential for fire due to the mixing of sparks and combustible materials.
2. Under no conditions should the machine operator be allowed to put lit cigarettes or any burning object into this or any dust/ mist control system.
3. Installation of this unit in applications where there is a chance for heated and/or flammable materials to enter the unit should be evaluated to determine if a fire protection/extinguishing system should be installed. Federal, state or local codes, as required by organizations such as NFPA and Factory Mutual Insurance or your insurance carrier may require such a system. CLEANLEAF can offer basic guidelines for such an installation; however, final installation design is the responsibility of the filtration unit Owner/User.
4. Explosion relief vents are required on some applications. Consult with an insurance underwriter or an NFPA manual to determine proper vent size ratio. Dust or mist collectors must be located outdoors unless otherwise indicated by NFPA standards. Dust and mist collectors DO NOT CONTAIN EXPLOSION RELIEF VENTS as shipped from the factory and must be field installed per NFPA standards.

ALWAYS USE CLEANLEAF REPLACEMENT FILTERS & PARTS TO MAINTAIN WARRANTY.

TO ORDER REPLACEMENT PARTS CALL 800-237-9199 OR VISIT PURENNATURAL.COM.

CleanLeaf Limited Warranty

ACSI warrants all products sold against defects in workmanship or materials under normal use for three years after date of purchase from ACSI. This three-year warranty does include standard warranties from purchased parts such as blowers, motors, valves, etc. All purchased items will fall under the manufacturers' standard warranty. Any part which is determined to be defective in material or workmanship and returned to ACSI or authorized service facility, as ACSI designates, shipping cost prepaid, will be, as the exclusive remedy, repaired or replaced, at ACSI's option. Any liability for consequential and incidental damage is expressly disclaimed. ACSI liability, in all events, is limited to and shall not exceed, the purchase price paid. Title and risk of loss pass to buyer on delivery to the common carrier. If product is damaged in transit, recipient must file claim with carrier. ACSI will make a good faith effort for prompt correction or other adjustments with respect to any product that proves to be defective within the warranty period.

DISCLAIMER

Although instructions and recommendations are included for installation of your mist or dust collector equipment, the manufacturer does not assume responsibility for the installation of this equipment nor shall be held liable for direct or consequential damages resulting from improper methods, structural failure, or inadequate supports.

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 PROPAGATION. REFER TO APPROPRIATE AUTHORITIES, AND DISCUSS YOUR INTENDED USE WITH PURE N NATURAL SYSTEMS, INC.



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INITIAL INSPECTION

If your new CLEANLEAF 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 transit or shortages of items that were actually shipped.

INSTALLING YOUR CLEANLEAF UNITS

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 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:

CL1100-C18 - 115 lbs

CL1100-C7 - 120 lbs

CL1100-C21 - 130 lbs

CL1100-H - 100 lbs

METHODS FOR MOUNTING YOUR CLEANLEAF SYSTEM



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 you are going to utilize this method, you should have 4 holes pre-drilled (available during ordering process) 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. Additionally, a hanging kit is available for purchase which includes 5' sections of chain and Q-links. The top end of the chains must be secured to the ceiling structure in a safe and acceptable manner.

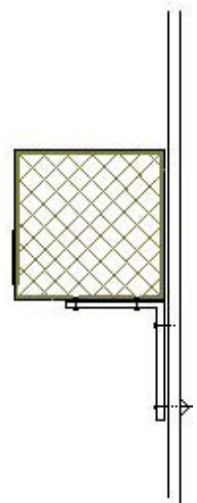


Another typical method for installation is a **Dual L-Bracket mount**, which is ideal for wall mounting. Please ensure all installations are secure and meet all local, state, and federal codes. Be sure your unit is connected to the proper voltage and is protected by correct size fuses or breakers.

Bolt to Mounting Bracket

Bolt to Wall

L-Brackets should be 6" from the ends of the unit



PURPOSE

CleanLeaf products are designed to improve your environment. The CL1100 series collects dust, smoke, oil mist, oil smoke, and other atmospheric pollutants in growing facilities, dispensaries, warehouses, shops, schools, and factories with high-efficiency, 3-stage filtration. It is a complete self-contained unit that can be installed easily and used as a free hanging air filter unit to clean the ambient pollutants, smoke and haze.

All units are equipped with replaceable type media filters. The filters in your new CLEANLEAF unit have been selected by your representative to best collect your particular type of contaminant. Media type filters actually become more efficient as they load with contamination. However, as the filters load up, the air flow volume will decrease and eventually will reach a point where they must be replaced to restore the original air flow. Changing the filters in your new CLEANLEAF air cleaner is really 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 filters will help to pull them into place.

The CL1100 consists of a 1" foam pre-filter that traps dust and larger particles. The second stage, micro-glass multi-pocket bag filter has 98% arrestance and 95% efficiency on the atmospheric dust spot test, removing smoke and other sub-micron size particles from the air. Depending on your unit choice, the third stage of the CL1100 may be equipped with carbon or HEPA filtration.

Changing out the filters is easy as it requires no tools. The 1" foam pre-filter pulls from the unit and can be washed. The foam pre-filter can be used several times before needing replacement. Allow the foam filter to air dry for best results.

The main filter is located directly behind the 1" foam pre-filter and pulls out also. The carbon filter is behind the main filter and can also be easily removed.

ALWAYS USE CLEANLEAF REPLACEMENT FILTERS & PARTS TO MAINTAIN WARRANTY.

OPTIONAL MAGNEHELIC PRESSURE GAUGE

This is an option to help determine when to change the filters. As the bags fill with contaminants, the needle on the gauge will rise. We recommend changing the bag filters between 1.25 – 1.50 above the reading with clean filters. It is normal to change the pleated twice (or more) as much as the inside bag filter. After the pleated has been change and there is no longer a drop in pressure, then it is time to change main filter. The reading may vary depending upon the contaminants. Please consult your Sales Person for further information.

OPTIONAL SILENCER

Optional louvered silencer reduces noise levels on your CleanLeaf Air Filtration System by 6-8 d(B)A. Attaches to outflow side of air cleaner.

GENERAL NOTE: CLEANING AND INSPECTION OF CABINET

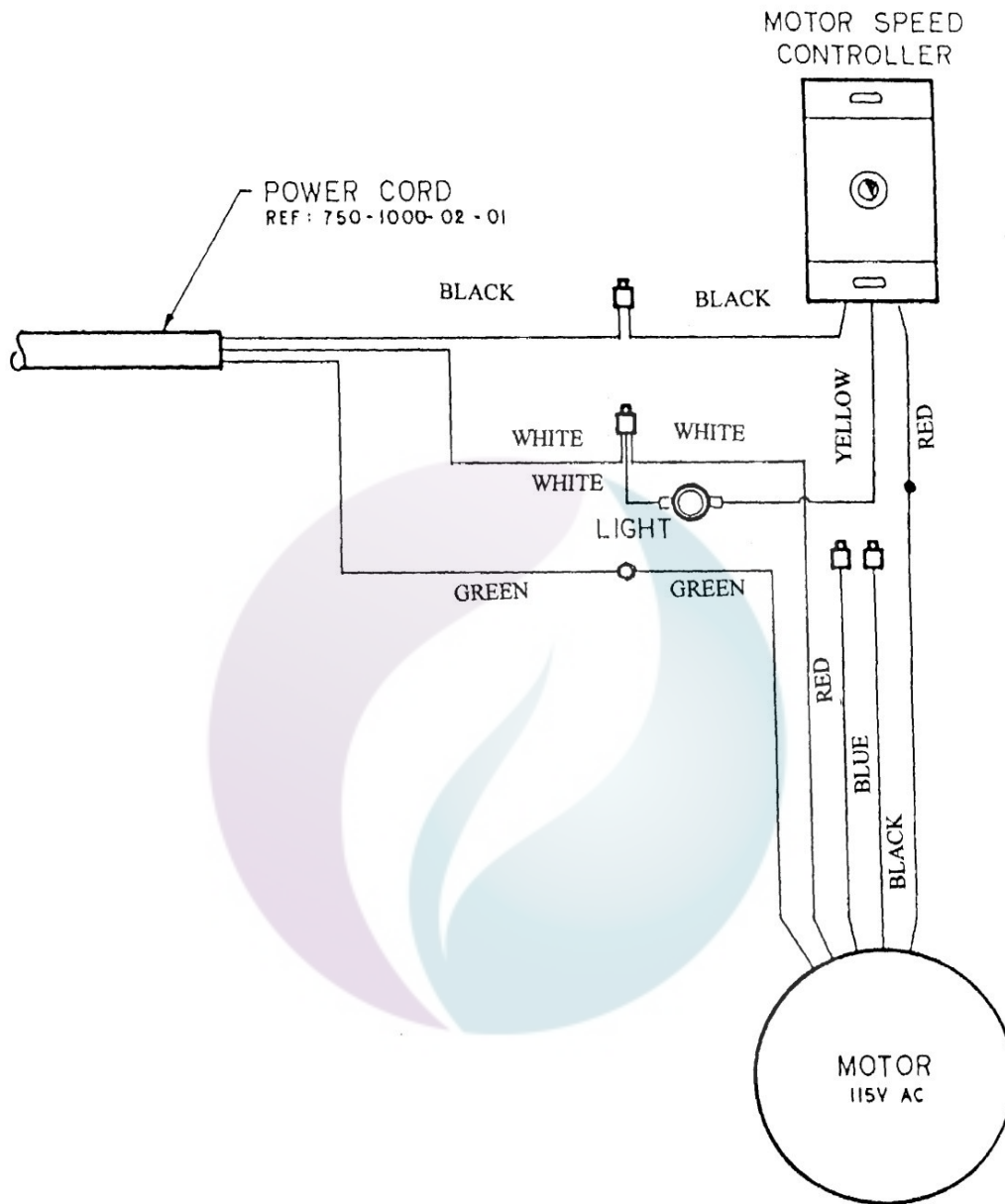
After the dirty components have been removed, inspect the cabinet interior. Remove foreign material, wipe interior, and clean all filter seating surfaces. When installing new filters, the opening in the bag filter should be in a vertical position. Be sure the cloth part of the bag does not bunch up between the bag header and the angle iron filter stops on the cabinet. Replacement filters can be supplied by Pure n Natural Systems.

LOUVERS

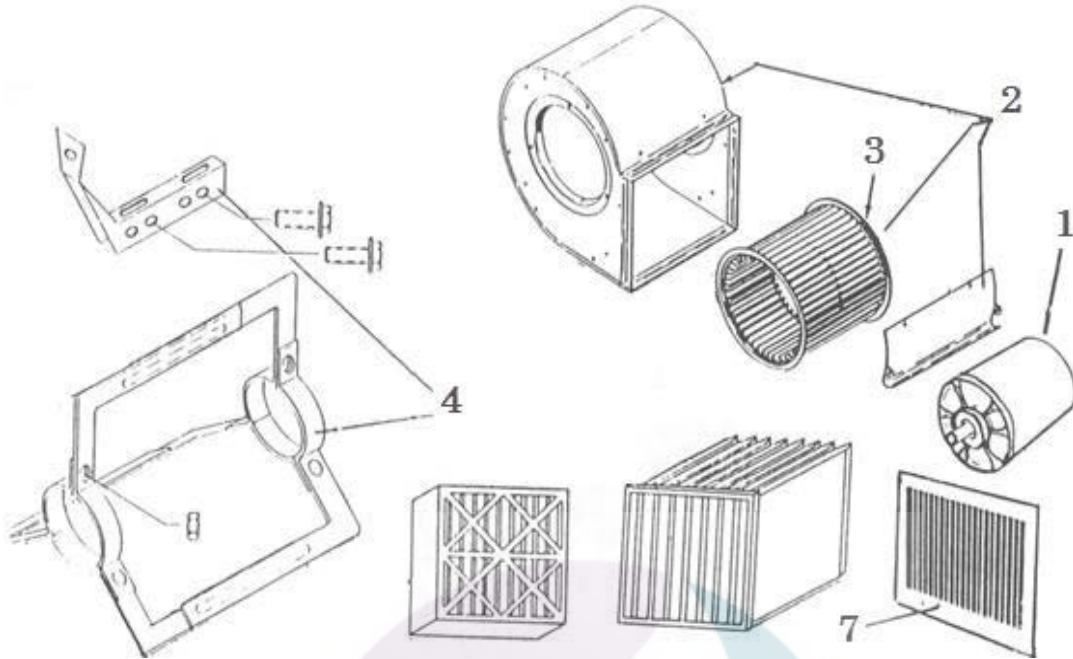
Four-way lovers are provided on all units to permit you to direct the discharge air away from pilot lights on heaters and to help you obtain the best air flow pattern for maximum cleaning.



CL1100 WIRING DIAGRAM



CL1100 REPLACEMENT PARTS



ITEM	PART NUMBER	DESCRIPTION
1	11-1000	1/5 HP Direct Drive Motor
2	11-1500	9" Complete Blower
3	11-1501	Blower Wheel Only
4	11-1502	9" Motor Mount
	11-2000	Power Switch
	11-2002	12' Power Cord
7	11-3000	4-Way Adjustable Louver

CL1100 REPLACEMENT FILTERS

PART#	DESCRIPTION	UNIT
CL-152001-PF	20" x 15" x 1" Foam Pre-Filter	C18, C7, C21, H
CL-152024-B	20" x 15" x 24" – 95% Bag Filter	C7, C21
CL-152012-B	20" x 15" x 12" – 95% Bag Filter	C18, H
CL-181212-H	20" x 15" x 12" 95% HEPA Filter	H
CL-152002-CF7	20" x 15" x 2" 7# Charcoal After Filter	C7, C21 (x3)
CL-BULK18-CF	18# Box Charcoal for Refillable Module	C18



TROUBLESHOOTING

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 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.
<p>MOTOR TROUBLE GUIDE</p> <p>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.</p>	
Motor fails to start.	<p><u>Blown fuses</u> – Replace with time-delay fuses or circuit breakers. Check for grounded winding. <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 reset 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.	<u>Not applied properly</u> – Consult motor service firm for



	proper type. Use larger motor.
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.	<p><u>Motor misaligned</u> – Realign.</p> <p><u>High voltages</u> – Check wiring connections, transformer.</p> <p><u>Worn, damaged, dirty or overloaded bearings</u> – Replace, check loading and alignment.</p> <p><u>Loose or defective or out-of-balance air mover</u> – Tighten set screw(s), repair or replace.</p>
Insufficient speed change.	<p><u>Insufficient motor load</u> – Use a lower horsepower motor. Reduce system restrictions (blower). Increase system restriction (blower fan).</p>
Motor overheats while running under load.	<p><u>Overload</u> – Reduce load; increase motor size.</p> <p><u>Dirt preventing ventilation</u> – Clean motor.</p> <p><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.</p> <p><u>Defective motor</u> – Repair or replace.</p>

Shop for Replacement Filters and Parts at
purennatural.com or call (800)237-9199

