

LAVINA®



LAVINA® LA2000-230

Air scrubber

User Manual



 **SUPERABRASIVE**

www.superabrasive.com / factory@superabrasive.com

CE

1.WARRANTY AND RETURNS

WARRANTY POLICY FOR THE LAVINA® LA2000-230

Superabrasive Ltd. guarantees that the original purchaser of the Lavina® machine will be covered against defects in material and workmanship for a period of 2 years from the date of delivery or 600 hours of use whichever comes first.

The following conditions pertain to this warranty:

- Applies only to the original owner and it is not transferable.
- Machine must not be dismantled and tampered with in any way.
- Covered components proven defective will be repaired or replaced at no charge. Covered components include motors, bearings and switches.
- This warranty does not apply to any repair arising from misuse, neglect or abuse, or to repair of proprietary parts.
- This warranty does not apply to products with aftermarket alterations, changes, or modifications.
- This warranty is in lieu of and excludes every condition of warranty not herein expressly set out and all liability for any form of consequential loss or damage is hereby expressly excluded.
- This warranty is limited to repair or replacement of covered components and reasonable labor expenses.
- All warranty returns must be shipped freight prepaid.

The above warranty conditions may be changed only by Superabrasive. Superabrasive reserves the right to inspect and make a final decision on any machine returned under this warranty. This warranty applies to new, used and demo machines.

Superabrasive does not authorize any person or representative to make any other warranty or to assume for us any liability in connection with the sale and operation of our products

RETURN POLICY FOR LAVINA® LA2000-230

The Lavina® machines may be returned, subject to the following terms:

In no case, a machine is to be returned to Superabrasive Ltd. for credit or repair without prior authorization. Please contact Superabrasive Ltd. or your local distributor for an authorization and issuance of a return authorization number. This number along with the serial number of the machine must be included on all packages and correspondence. Machines returned without prior authorization will remain property of the sender and Superabrasive Ltd. will not be responsible for these.

2. DISPOSAL

If your machine after time is not usable or needs to be replaced, send the machine back to Superabrasive or a local distributor, where a professional disposal complying with the environment laws and directives is guaranteed.

3.MANUFACTURER'S CONTACTS

If you need to contact Superabrasive Ltd. with technical support questions, below is the contact information.

Address: Superabrasive Ltd.
Rabotnicheska 2A
BG-6140 Krun
Bulgaria

Email: factory@superabrasive.com
Tel.: +359 431 6 44 77
Fax: +359 431 6 44 66
Website: www.superabrasive.com

4. CE-CERTIFICATION

All LAVINA® dust collectors are designed to operate correctly in an electromagnetic atmosphere of industrial type, and are equipped with all of the mechanical and electrical safety protections in conformity with the following European CEE rules and regulations:

LAVINA® Vacuums comply with the Safety Directive for machines 2006/42/EC, the EMC Directive 2004/108/EC and the Low Voltage Directive 2006/95/EC.

They also comply with the norms in use UNI EN 13857, CEI EN 60204-1, CEI EN 61000-3-2, CEI EN 61000-3-3, CEI EN 55014.

Test results are a part of the machine's technical information and can be provided upon request. The vacuum unit machine is delivered with the CE mark exposed and is provided with a EC declaration of conformity.

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5. GENERAL INFORMATION

This owner's manual is intended for the operator of the Lavina® LA2000-230 machine air scrubber, the servicing technician as well as for anyone involved with operating or servicing the machine. We recommend that you read the instructions very carefully and follow them strictly. The manual includes information about assembling, using, handling, adjusting and maintaining your Lavina® LA2000-230 air scrubber.

Manufacturer

Superabrasive was founded in 1987, as a manufacturer of high quality diamond tools for the stone and concrete industry. Today, Superabrasive is one of the world's leading companies in the production of diamond tools and floor grinding machinery. At Superabrasive, we strive to deliver the very best solutions to our customers, and enable them to work more efficiently.

General Description

The air cleaner Lavina® LA2000-230 is designed for sucking and separating dry, non-combustible/non-explosive dust. Air and finer particles then pass through the filter system of the primary filter and the HEPA filter, where the dust is separated.

WARNING!

The Lavina® LA2000-230 machine is manufactured and fitted for the above-mentioned applications only! Every other use may possess risks to the persons involved.

6. MAIN COMPONENTS AND CONTROLS

- 1) Console
- 2) Handle
- 3) Contact
- 4) Plug with cable
- 5) Outlet
- 6) Locked wheel with lock
- 7) Locker
- 8) Safety shield
- 9) Pre Filter
- 10) Input cover
- 11) Main box

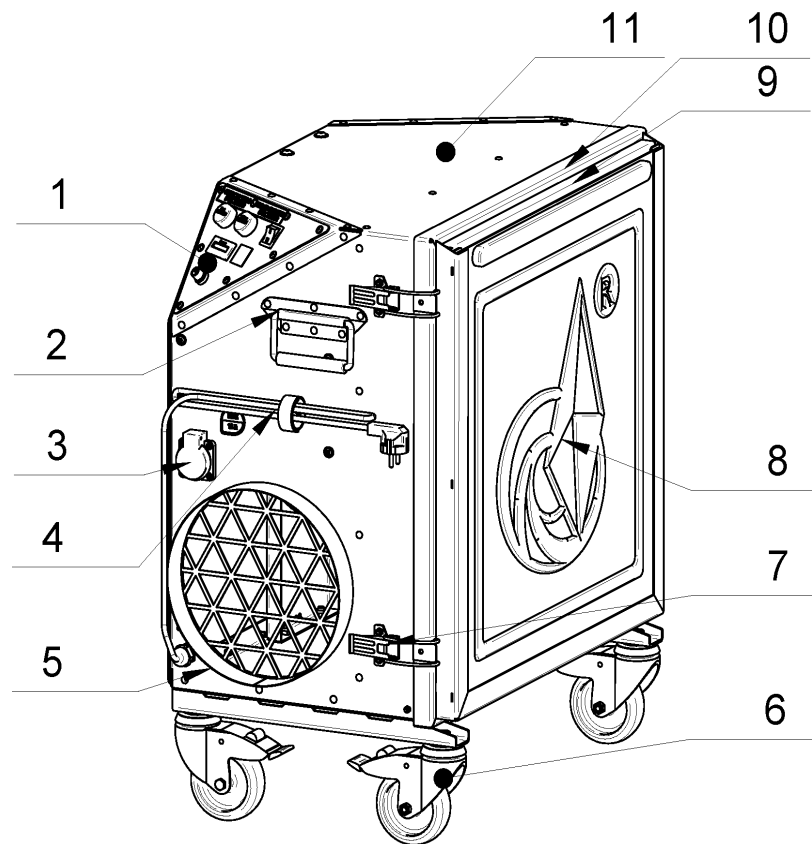


Figure 1

LABEL DATA

The data on the label provides the voltage, wattage; weight (needed for transportation purposes); production year and serial number (needed for maintenance purposes).

CUSTOMER SERVICE

For customer assistance and technical support call your local distributor or call Superabrasive Inc. at 1-800-987-8403 or visit us at www.superabrasive.com, where you can download a copy of this manual.

7. TECHNICAL DATA

		LA2000-230
Voltage/Hz		1ph x 230V / 50Hz
Power	<i>W</i>	510 W (full speed)
	<i>HP</i>	0.7 HP
Speed	<i>rmp</i>	1380 rmp
Amperage	<i>Amps</i>	2.3 Amps , Max 7.5 Amps
IP		22
Pre Filter area	<i>m²</i>	0.64 m ²
	<i>ft²</i>	6.89 ft ²
Hepa filter area	<i>m²</i>	10.5 m ²
	<i>ft²</i>	113 ft ²
Hepa Filter classification		H13
Sound level		69 dB(A)
Airflow (max)	<i>m³/h</i>	2000 m ³ /h
	<i>CFM</i>	1177 CFM
Dimensions (L*W*H)	<i>mm</i>	690 x 430 x 790 mm
	<i>in</i>	27 x 17 x 31 in
Weight	<i>kg</i>	53 kg
	<i>lbs</i>	116.84 lbs

8. SAFETY PRECAUTIONS

RECOMMENDED USE The LAVINA® LA2000-230 Air cleaner is designed and manufactured for dry use only. For more information, please contact Superabrasive.

PROHIBITED USE The air cleaner **MUST NOT** be used:

- For applications apart from those stated in this manual

- For non-suitable materials (e.g. asbestos or other toxic materials)
- In environments which (1) Possess the risk of explosion, (2) Possess high concentration of powders or oil substances in the air, (3) Possess the risk of fire, (4) Feature inclement conditions, (5) Possess electromagnetic radiation
- The air cleaner should be not connected to electrical power when performing maintenance-related tasks

PREPARATION FOR WORK

Ensure that:

- You have closed the work area, so that no person unfamiliar with operating the air cleaner can enter the area
- There are no missing parts on your machine
- The machine is in an upright, working position
- All protection devices are working properly
- The electrical cable is free to move and follow the air cleaner easily. In order to keep the electrical cable from being damaged, no vehicle should enter the area where electrical cables are present.

ARREST FUNCTIONS Functions for arresting of the air cleaner include following:

- Button to stop the motor

SAFE USE The LAVINA® LA2000-230 is designed to eliminate all potential risks associated with its use. However, accidents may occur if unskilled or uninstructed workers fail to heed the list of potential risks below:

- Position Risks due to operator's incorrect working position
- Tangling Risks due to wearing inappropriate working clothes
- Training Risks due to lack of operational training

NOTE: Machine operators should follow the instructions in the manual at all times.

RESIDUAL RISKS During normal operating and maintenance cycles, the operator is exposed to some

residual risks, which cannot be eliminated due to the nature of machine operation.

BEFORE YOU BEGIN

- A first-time operator must always read the manual and heed all safety instructions.
- All electric connections and cables must be inspected for potential damage.
- Ground wire system of the power supply must be also inspected.
 - Perform general daily inspections of the air cleaner and inspect the air cleaner before each use for any sign of damage.
- Inspect all safety devices.
 - The air cleaner /filters must be clean and the hose should be connected.

OPERATING THE MACHINE When operating the LAVINA® LA2000-230, be sure that no one else is within close proximity to the air cleaner. Never leave the air cleaner unattended while working. The electrical cable and hose must move freely, be damage-free, and should never run beneath the air cleaner .

AFTER WORK IS COMPLETED

When work is complete, clean the air cleaner and its surroundings sufficiently, unplug the air cleaner and wind up the electrical cable, secure the hose, and store the air cleaner in a safe and secure place.

THE WORK AREA Ensure that the area is free of unauthorized people or vehicles, secure all cables and hoses, and always check the floor for debris.

PERSONAL PROTECTIVE EQUIPMENT (PPE) When operating the air cleaner, always wear safety shoes, ear protectors, safety gloves, breathing mask (protection class FFP3 - especially when changing filters), and suitable clothing. All persons within the immediate working area must wear safety glasses with side shields.

OPERATOR The operator must be aware of the machine's work environment, be properly trained prior to operating the equipment, and fully understand this manual. The operator must understand and interpret all the drawings and designs in manual, understand all sanitation and safety regulations pertaining to its operation, know how to perform in an emergency situation, and have an adequate technical knowledge and preparation.

SAFETY PRECAUTIONS, Continued

- Superabrasive cannot predict all possible circumstances that could present a potential hazard. The warnings defined in this manual should not be considered completely inclusive of all hazardous situations.
- It is the responsibility of the employer or air cleaner owner to train any personnel that will be operating the air cleaner, while complying with all local laws and regulations.
- This specific air cleaner has been designed for collection of dusts. This model is not intended for any other uses or applications. • **IMPORTANT:** Only use specified filters applicable to the operation of this dust collector.
- To ensure efficient operation of the the air cleaner, it must be protected from extreme environmental conditions and elements. This may include rain, snow, hail, and airborne debris.
- The dust collector should only be operated in environments with a temperature between 41°F and 113°F (5°C to 45°C) and a maximum relative humidity of 70%.
- The work environment for the air cleaner should be well-lit, and free of combustible elements.
- Before the air cleaner is connected to the power source, ensure that the electrical voltage and frequency is correct for your specific machine model.
- The air cleaner should not be operated without the proper filters installed. This could possibly result in damage to the machine, and cause harm to surrounding personnel.
- Do not change the filters assembly while the air cleaner is operating.
- If toxic or harmful substances accidentally enter the air cleaner, the filters must be removed immediately using the proper protective equipment and safety procedures.
- When performing any type of maintenance procedures on the air cleaner, be sure that the power switches are turned off and the power cable is disconnected from the power source. Utilize the locking caster wheels to prevent movement while work is being performed.
- Make sure the power cable is free from damage while operating the air cleaner. If the power cable is found to be damaged, discontinue use of the air cleaner and replace the power cable immediately.
- When moving the air cleaner, never pull on the power cable or hose. For this purpose, always use the designated handles mounted on the machine.
- For this specific air cleaner, sound tests indicate that the emitted noise is level is measured at a maximum of 67 decibels (dBA), for a distance of 1 meter from the machine (and height of 1.60 meters).
- **CAUTION:** The National Institute for Occupational Safety and Health (NIOSH) recommends that exposure to noise in the working environment be maintained below a level equivalent to 85 dBA for a period of eight hours, in order to minimize occupational, noiseinduced hearing loss. Any persons working in proximity of the vacuum cleaner should wear the proper hearing protection in order to prevent hearing loss. Please refer to you local laws and regulations for further information on the matter.
- When storing the air cleaner, the filters should be removed and cleaned. Store the vacuum in temperatures between 32°F and 104°F (0°C and 40°C). Cover the air cleaner in order to protect it from accumulating debris and/ or environmental elements.

9. OPERATION OF AIR CLEANER

IMPORTANT: Before connecting the power cord to the power source, ensure that the electrical voltage corresponds to the requirements identified on the information plate of the air cleaner.

Make sure that the flexible hose is securely attached to the air cleaner. Inspect the power cable (and extension cords) for any signs of wear or damage. Replace if necessary. Toggle the motor switch to the "1" or "2" position to turn on the motor, and "0" position to turn them off. **CAUTION:** Before connecting the power supply, be sure the switch are "0" position.

9.1 LOCKING CASTER WHEELS

Locking the wheels will prevent the air cleaner from moving and prevent possible damage or injury. The wheels should be locked on uneven surfaces to prevent unexpected rolling or movement. To lock or unlock the caster wheels, follow the procedure shown below.

- To lock the caster wheels, press down on the metal tab
- To unlock the caster wheels, press backwards on the metal tab protruding from the top of the wheel assembly.

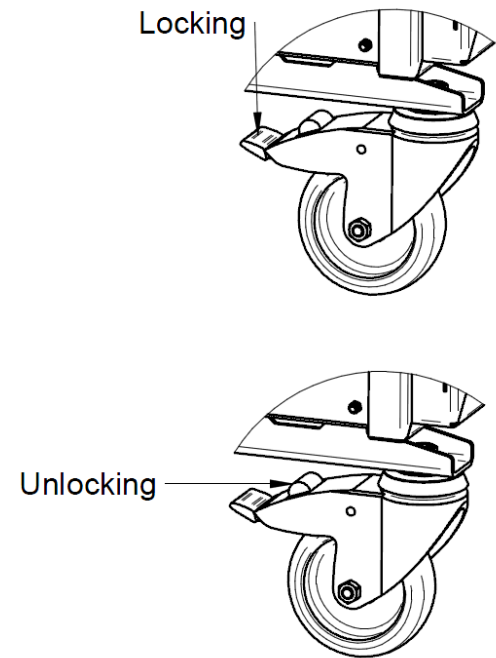


Figure 2

9.2 FILTER INDICATOR

LA2000-230 has two filter indicators connected to a warning light which measures the pressure drop over the filter. If the pressure drop is too high, a yellow lamp (pos.1) light up, indicating that the pre-filter should be changed. When the Yellow light stays on even after a pre-filter change. It is time to change the HEPA filter. Using the air cleaner when light is showing will reduce the effectiveness of the machine. When the pressuredrop is too low, a red lamp (pos.2) will light up, indicating that the Hepa filter is leaking/damaged and needs to be replaced immediately.

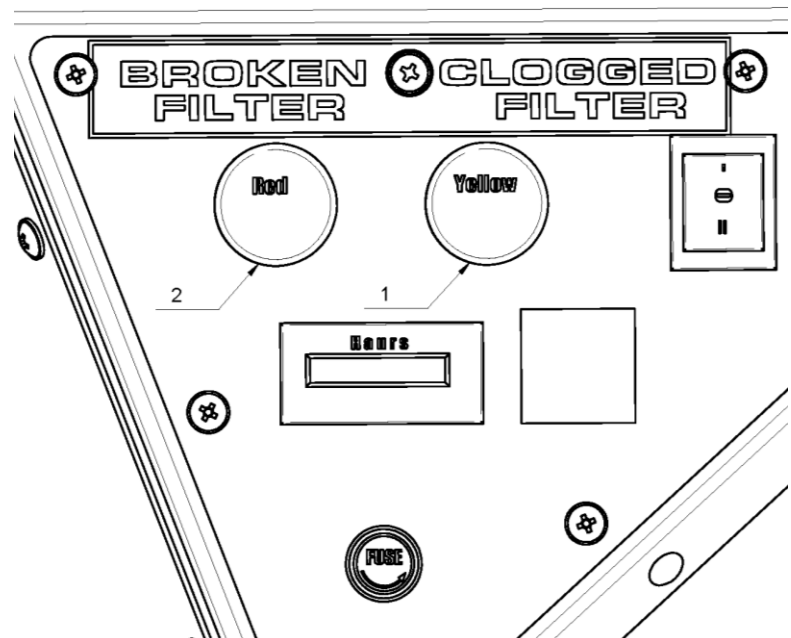


Figure 3

9.3 PRE-FILTER CHANGE

IMPORTANT: Before performing any work or maintenance on the air scrubber, be sure to wear the proper protective equipment. This may include clothing which covers any exposed skin, protective eyewear, a respirator, and/or protective gloves conforming to protection class FFP3.

To change the pre filter, first Toggle the motor switch to the “0” position to turn it off.. Lift out the pre filter , and place it gently in a plastic bag. This bag must be properly disposed of. Insert a new filter.

CAUTION: If you are removing the filters in order to clean them, hitting the filter with force or use of compressed air will destroy the filters.

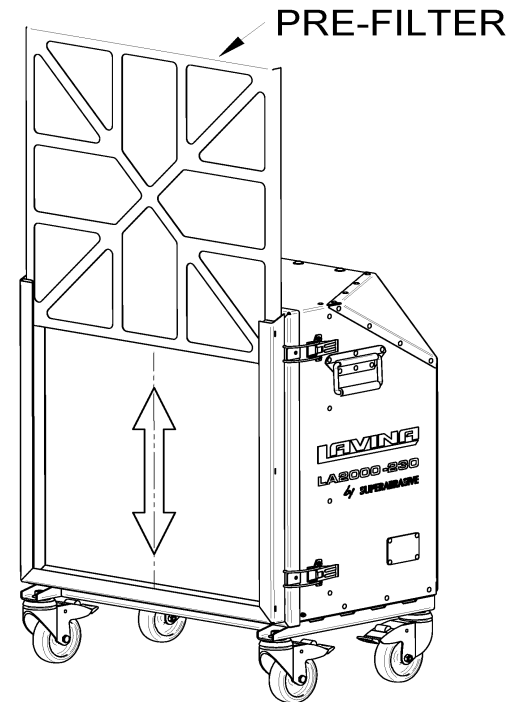


Figure 4

9.4 HEPA FILTER CHANGE

To change the hepa filter, first unlock the 4 latches (pos.1) and remove the front frame cover (pos.2). Lift out the used hepa filter (pos.3), and place it gently in a plastic bag. This bag must be properly disposed of.

Insert a the new hepa filter, place the front frame cover and lock the latches.

IMPORTANT: The used filer and debris must be disposed of using methods which fully comply with local, environmental laws and regulations.

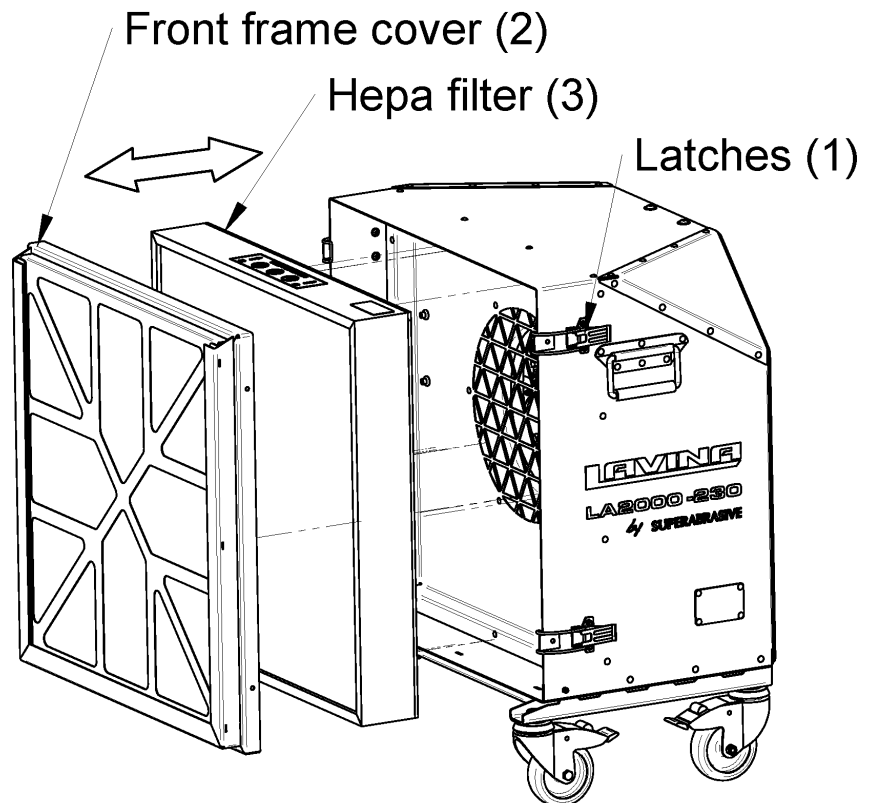


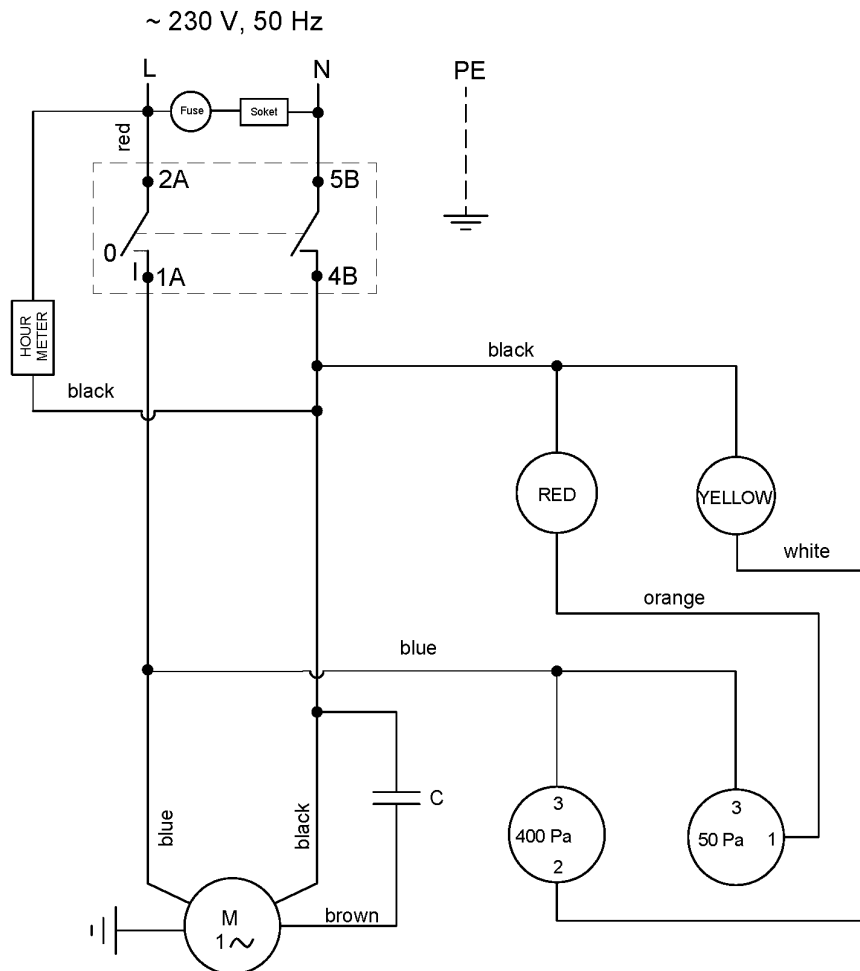
Figure 5

10. MAINTENANCE

IMPORTANT: All of the following procedures must be performed with the air scrubber turned off and the power cable disconnected from the power source. Before performing any work or maintenance on the air scrubber, be sure to wear the proper protective equipment (clothing, eye protection, and/or gloves).

- In order to ensure safe and efficient operation of the air scrubber, the following procedures should be performed periodically (depending on the frequency of operation):
- Remove and inspect the filters for any signs of excessive wear or damage. Replace as necessary.
- Inspect all electrical components (switches, plugs, cables, etc.) for damage or exposed wiring. Replace as necessary.
- Ensure that all screws, bolts, and nuts are properly tightened.

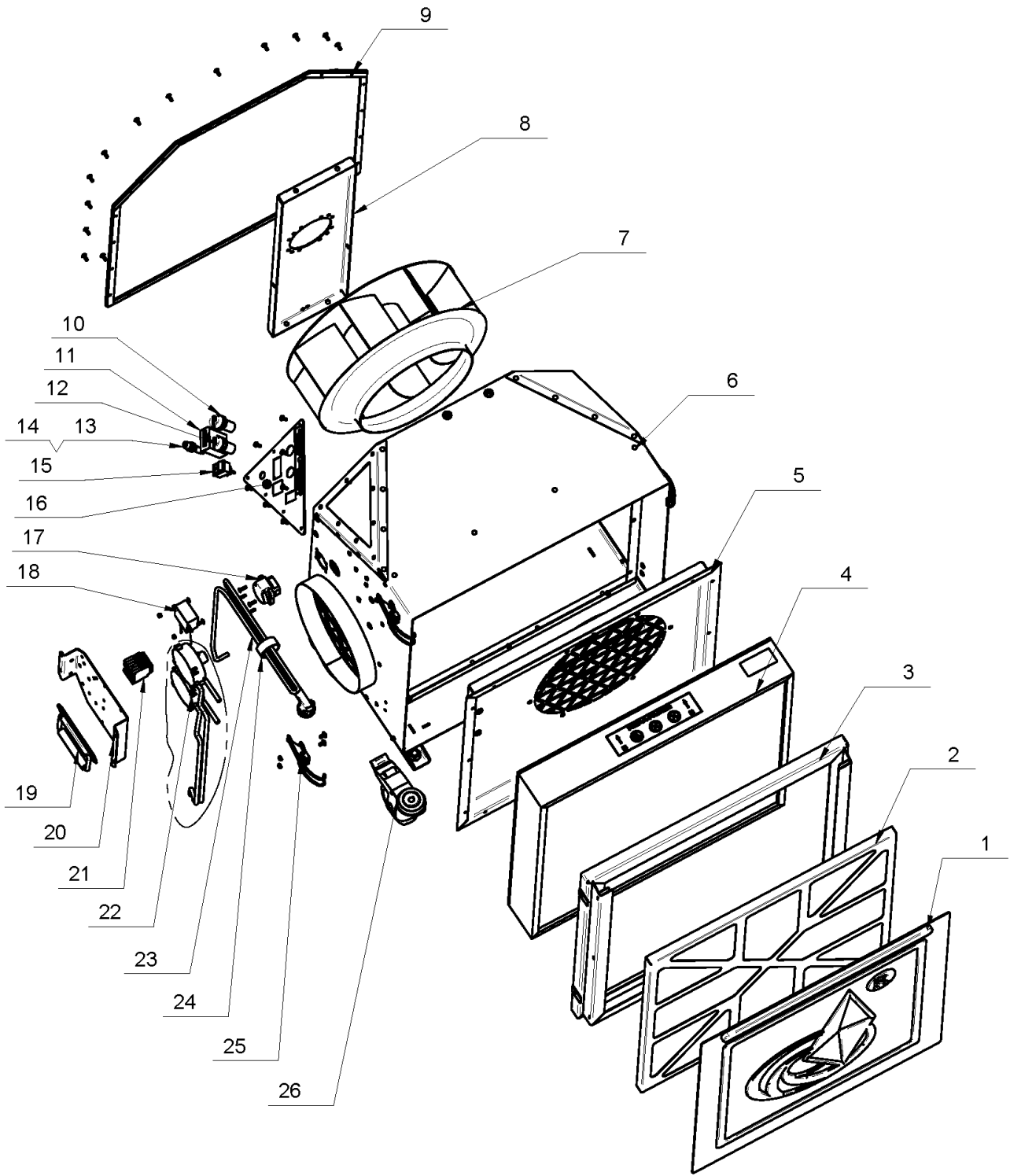
11. ELECTRICAL WIRING DIAGRAM



12. TROUBLESHOOTING**INDEX OF PROBLEMS AND SOLUTIONS**

DUST COLLECTOR ISSUE OR SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
THE FAN DOES NOT START	NO POWER CABLE DEFECTIVE SWITCH DEFECTIVE	CONNECT THE MACHINE CHANGE CHANGE
THE FAN STOPS IMMEDIATELY	WRONG FUSE	CONNECT THE CORRECT FUSE
THE FAN RUNS, BUT SUCTION IS POOR	BLOCKED FILTER COVER LOOSE SEALING DEFECT	CHANGE FILTER ADJUST CHANGE CURRENT SEAL
DUST BLOWS FROM UNIT	DEFECTIVE OR LOOSE FILTER	ADJUST OR CHANGE
ABNORMAL NOISE		ORDER SERVICE

13. LAVINA® LA2000-230 GENERAL PARTS



13. LAVINA® LA2000-230 GENERAL PARTS			
No.	Item No.	Description	Pcs.
1	LA2000-115-00.00.02	Buckler	1
2	30323000218	Pre filter 24"x 24"x 1"	1
3	LA2000-115-50.00.00	Front frame cover	1
4	LA2000-115-FH-1	Hepa Filter H13	1
5	LA2000-115-20.00.00	Front fan cover assembly	1
6	LA2000-230-10.00.00	Main box	1
7	30305000417	Fan	1
8	LA2000-115-10.00.03	Beam support	1
9	LA2000-115-60.00.00	Backside plate	1
10	30311000816	Red lamp	1
11	30313000152	Counter electro-mechanical	1
12	30311000815	Yellow lamp	1
13	30311000538	Fuse holder	1
14	30311000536	Fuse	1
15	30311000826	Switch	1
16	LA2000-115-40.00.01	Panel	1
17	30311000114	Power Inlet	1
18	30311000540	Capacitor 10mF 500VAC	1
19	30329000035	Handle	2
20	LA2000-115-30.00.01	Mounting plate for electrical components	1
21	30311000196	Terminal	5
22	30316000071	Pressure sensor set (0-500)	2
23	30311000825	Power cord	1
24	LA2000 -115-00.00.05	Cable fix	1
25	30329000023	Latches	4
26	303120000102	Wheels	4