

# VACUUM DUST EXTRACTOR



**For your personal safety,  
READ and UNDERSTAND before using.  
SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.**

**CE CB**

Version:20160811

FUNCTIONAL DESCRIPTION



Model		Pneumatic Switching Version
Power Input	1200W	
Voltage	See machine nameplate	
Max. Airflow	4000 l/min (141.3 CFM)	
Max. Suction (lift)	25 kpa (250 mbar, 100.4 inches of water)	
Protection	IP 44	
Max. Dust Capacity	25 L (6.6 gallons)	
Max. Connected Power Tool	2200 W	
Soft Start	With	
Dimensions (LxWxH)	598mm x 408mm x 420mm	
Net Weight	12.9kg (28.44 Lbs)	13.8kg (30.42 Lbs)

## **SAFETY INSTRUCTIONS**

### **READ ALL INSTRUCTIONS BEFORE USING THIS DEVICE.**




To reduce the risk of fire, electric shock, or injury:

1. Do not leave this device unattended when plugged in. Unplug when not in use and before servicing.
2. To reduce the risk of electric shock. Do not expose to rain or immerse in water. Store indoors.
3. Do not allow to be used as a toy. Careful attention is necessary when used by or near children or animals.
4. Use only as described in this manual. Use only manufacturer recommended attachments.
5. Do not use with a damaged power supply cord or plug. If the device is not working properly, has been dropped, damaged, left outdoors, or immersed in or dropped into water, bring it to a service center.
6. Do not pull or carry by the power supply cord, use the power supply cord as a handle, close a door on power cord, or pull power cord around sharp edges or corners. Keep power cord away from heated surfaces.
7. Do not unplug by pulling on power cord. To unplug, grab the plug, not the cord.
8. Do not handle plug or appliance with wet hands.
9. Do not use the device with any opening blocked; keep openings free of solid objects or anything that will impede airflow.
10. Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
11. Turn off switch before unplugging.
12. Use extra care when operating on stairs.
13. Do not use this machine to vacuum flammable liquids, or vacuum in areas where these may be present.
14. Connect to a properly grounded outlet only. See Grounding Instructions.
15. Do not vacuum anything that is burning or smoking, such as cigarettes, matches, or hot ashes. Do not use this device to extract flammable or explosive dusts (such as magnesium, aluminum, etc.). Risk of explosion!
16. Do not use without dust bag and/or filters in place.
17. Do not use to vacuum up caustic or corrosive liquids (e.g. acids, alkalis, solvents).
18. Protect the power cord against heat, oil and sharp edges.
19. Check the plug and power cord regularly and have them replaced by a qualified technician if damaged.
20. Use only approved accessories.

## **GROUNDING INSTRUCTIONS**

- a. This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.
- b. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- c. This machine is intended for commercial use, for example in hotels, schools, hospitals, factories, shops, offices and rental businesses.

**Symbols used in this manual**

- V.....volts
- A.....amperes
- Hz.....hertz
- W.....watt
- ~.....alternating current
- $n_0$ .....no load speed
- $\text{min}^{-1}$ .....revolutions or reciprocation
- per minute
-  .....warning of general danger
-  .....class II tool
-  ....with electrical earth

-  .....read these instructions
-  .....always wear eye protection
-  .....always wear a dust mask.
-  .....always wear hearing protection
-  .....wear safety-approved hard hat
-  do not dispose of electric tools,  
accessories and packaging together  
with household waste material

- WARNING : Operators shall be adequately instructed on the use of these machines.**
- WARNING : This machine is not suitable for picking up hazardous dust.**
- WARNING : Only use the socket outlet on the machine for purpose specified in the instructions.**
- WARNING : If foam or liquid escapes from the machine, switch off immediately.**

This appliance must be grounded. If it should malfunction or break down while in use, grounding provides a path of least resistance for the electric current and reduces the risk of electric shock to the operator. This appliance has a power cord with equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the machine. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

Various dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

Lead from lead-based paints, crystalline silica from bricks and cement and other masonry products, and arsenic and chromium from chemically-treated lumber. The risk from these exposures varies, depending on how often you do this type of work.

To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

## Intended use

This vacuum cleaner is primarily designed to operate in conjunction with power tools which require dust extraction, such as sanders, saws, wall chasers, scouring machines, etc. This machine extracts non-dangerous dusts, dirt, shavings etc.

This machine may also be used to vacuum water and other non-flammable and non corrosive liquids.

The end user/operator is solely responsible for any damage or accident should the machine be used for any use other than its intended purpose.

Preparation and initial operation

Electrical connection

The operating voltage shown on the rating plate must correspond to the voltage of the power supply. Make sure that the vacuum cleaner is switched off when you plug the power supply cable into the socket.

### CAUTION!

**This machine must ALWAYS be plugged into a properly grounded outlet. NEVER operate the machine if it is not grounded. This will result in a static electrical build-up which will destroy the machine's electronic components.**

## On/Off Switch Modes (see FIG.2)

This machine has a multi-mode On/Off Switch.

In position "OFF" the vacuum cleaner is switched off but there is always current to the Integrated Switching Appliance Socket.

**Different modes of operation are possible:**

### Switch position "MANUAL":

The cleaner motor starts immediately and runs continuously.

### Switch position "AUTO -AC":

The Integrated Switching Appliance Socket is live. The cleaner motor starts only when the tool connected to the appliance socket is switched on. There is a 1 second delay in the vacuum starting (to avoid tripping the circuit breaker) and a 10 second delay in shutting off (to clear the hose of dust) followed by a cycle of the filter shaker.

Before turning the switch to the "AUTO -AC" position, ensure that the tool connected to the appliance socket is switched off.

Observe the maximum connected load of 2200W for the Integrated Switching Appliance Socket.

### Switch position "AUTO -AIR"(Optional Pneumatic Switching equipped models only):

In this mode, the machine starts only when the air tool connected in series with the Pneumatic Integrated Switching Connector is switched on. Note that if the switch is in this position and there is no air supply connected then the machine will run continuously like the "Manual" switch position.

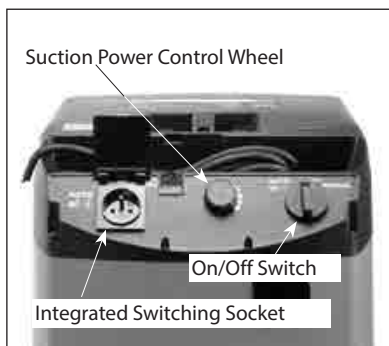


FIG.2

## Automatic Filter Shaker Function

This machine is equipped with an automatic electromagnetic filter shaker device. It operates automatically with a cycle every 20 seconds to shake accumulated dust from the Diaphragm Filter. It will also cycle when the switch is switched off (both in manual and automatic modes) It is fully automatic and only operates when the Diaphragm Filter is in place. When it engages, there will be a slight noise. This noise is normal and does not indicate any malfunction of the machine. To minimize noise, always install the Diaphragm Filter with the exposed metal side of the anvil facing downwards.

## Suction Power Control (see FIG.2)

The Suction Power Control Wheel can be used to adjust the suction to suit the situation. In some cases, less than full power will be needed. For example, with small sanders, too much suction power will tend to make the sander "stick" to the workpiece. In that case, the suction power needs to be turned down. Lowering the suction power will also have the side benefit of making less noise.

## Special instructions for (Optional)Pneumatic Switching Models:

These pneumatic models are equipped with an air coupling and an air nipple for connecting the machine in-line with one's compressed-air tool. Then the integrated switching will be triggered by the air tool. See FIG.3

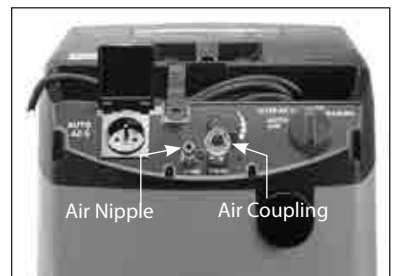


FIG.3

## Connecting a compressed-air tool (Optional Pneumatic Switching Models only)

Connect the air supply to the side marked "Line" and the tool to the side marked "Tool".

When the compressed-air module is fitted, the automatic cut-in also operates in conjunction with pneumatic tools.

For the length of air hose which is connected from air compressor to vacuum cleaner, we recommend to use at least 12M. For the length of air hose which is connected from pneumatic tool to vacuum cleaner, we recommend to use below 4M ( including 4M). Otherwise, the function of "AUTO-AIR " could be not working, or vacuum cleaner could be not stopped when pneumatic tool is switched off.

We also recommend using an air pressure regulator/oiler.

Make sure that the compressed- air tool is switched off when plugging it in and unplugging it!

## Application

The 2 rear wheels may be locked by the brakes, which will prevent the machine from rolling away unexpectedly. To lock, either raise or lower the brake levers. To unlock, move the brake levers to the center position. See FIG.4

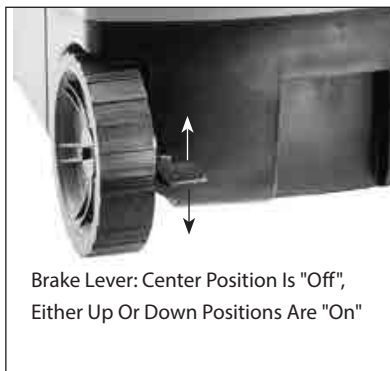


FIG.4

## The Electric Blower function

The hose may be connected to the Exhaust Port for powerful blower function. The blower is very useful for a variety of purposes such as drying and cleaning.

## The 32mm/37mm Rubber Power Tool Connector

This connector is designed to connect to the dust extraction port of a power tool. Directly connect to the port if it is 32mm. Carefully slice off one section for 37mm ports. Note-Remember to save the sliced off segment, since it may be reversed and reinserted into the connector to sleeve it back down to 32mm. See fig.5

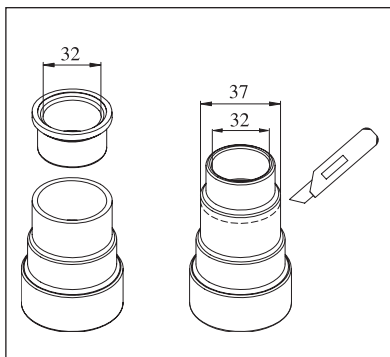


FIG.5

## Machine Set up: Filter Configurations:

### Removing and Mounting the Diaphragm Filter (see FIG. 6)

Whether wet or dry vacuuming, The diaphragm filter should always be used.

It is washable and incorporates the Automatic Filter Shaker. To remove or replace:

- Ensure that the machine is unplugged.
- Open the unit by opening the 2 catches located on the sides of the machine.
- Lift away the Tank Cover
- Remove the Diaphragm Filter

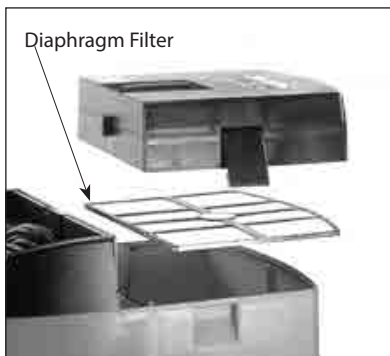


FIG.6

- When replacing the Diaphragm Filter, ensure that it seats properly in the channel at the top rim of the tank so that it makes a good seal.
- The exposed metal part of the anvil should be facing down.
- Replace the Tank Cover and 2 catches.

## Removing and Mounting the pair of Main Filters (see FIG. 7)

The pleated Main Filters are the standard second stage filters. (The optional special Wet-Use Main Filters are also removed and mounted in the same way as the standard pleated Main Filters).

### To remove or replace:

- Ensure that the machine is unplugged.
- Open the unit by opening the 2 catches located on the sides of the machine.
- Lift away the Tank Cover
- Looking at the underside of the Tank Cover, push the catch of one of the Filter Frames. The Filter Frame will come away from the Tank Cover.
- The Main Filter may now be removed.
- To replace, first place the Main Filter in the Filter Frame. Then engage the tangs of the Filter Frame on one end and snap in place on the other end. When replacing, ensure that they are seated properly to make a good seal.
- Replace the Tank Cover and 2 catches.

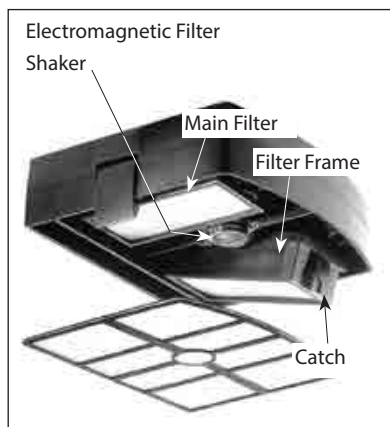


FIG.7

**NOTE: If dust is blowing out of the exhaust port, this indicates that at least one of the main filters either has a hole, or is not seated properly.**

## Mounting Filter Bags (see FIG. 8)

Except when wet vacuuming, the filter bag must always be mounted.

- Ensure that the machine is unplugged.
- Open the unit by opening the 2 catches located on the sides of the machine.
- Lift away the Tank Cover
- Remove the Diaphragm Filter
- Do not leave the bag fully flat and folded. Help the bag to open somewhat by hand so that it will be able to open properly when the machine starts.
- Fully attach the bag opening onto the connection port.
- Replace the Diaphragm Filter (Recommended).
- Replace the Tank Cover and 2 catches.



FIG.8



## Vacuuming dry media

**WARNING! Not suitable to vacuum hazardous or toxic substances such as asbestos. The filters may not be able to capture all particles and may exhaust them back into the environment!**

Before using the vacuum cleaner to extract dry materials, the machine must set up in a dry vacuuming configuration. The pair of Main Pleated Filters must always be in place. The Filter bag and Diaphragm Filters must both be mounted at all times.

**NOTE: It is not recommended to dry vacuum when there is liquid in the tank or if the tank and filters are still wet. Severe caking of dust and possible damage will occur.**

**Whenever transitioning from wet to dry vacuuming, ensure the entire tank and filter system is clean and dry. If it is necessary to transition often between dry and wet vacuuming, it is best to have 2 sets of first stage and main filters.**

## Vacuuming liquids

**WARNING! Never attempt to vacuum flammable or corrosive liquids!**

**CAUTION: Never begin wet vacuuming when there is dry dust in the tank. Severe caking of dust and possible damage to the machine may occur. Always clean the tank before beginning.**

A paper disposable filter bag may not be used when vacuuming liquids. Use the washable Diaphragm Filter or a washable filter bag for the first stage and the pair of special Wet-Use Main Filters. When full, empty the tank by opening the tank cover and carefully dumping out.

## The Automatic Liquid Overflow Switch (see FIG. 9)

When the maximum liquid level is reached, a shut-off switch automatically shuts off the motor. To function properly, the automatic overflow switch must be kept clean. When preparing to vacuum liquids, clean the electrodes before beginning.

**NOTE: The automatic overflow switch only functions with electrically conductive liquids, such as water. It will not function with non-conductive liquids, such as oils. When vacuuming these, check the level regularly.**



FIG.9

## Maintenance and care

Always unplug power supply cord from the socket before carrying out any maintenance work!

Any maintenance and repair work requiring an opening of the motor housing may only be carried out by an authorized service center.

## Clean the filters as needed

If the suction power noticeably diminishes, this indicates that the filtering system may be becoming clogged with fine particles.

1. If a paper dust bag is used, replace it. If a washable bag is used, empty it and wash it with water. Allow it to dry fully if vacuuming dry media.
2. If the Diaphragm Filter needs to be cleaned, simply remove it and either vacuum it or wash it with water. Allow it to dry fully if vacuuming dry media.
3. Remove the pleated main filters and make every effort to shake them out. If they are severely clogged, replace them.

At least yearly, a safety test should be made to check for any possible damage to the filter or leaks in the machine's filtering system.

## ELECTRONICS BOARD LED CODES AND ERROR CODES

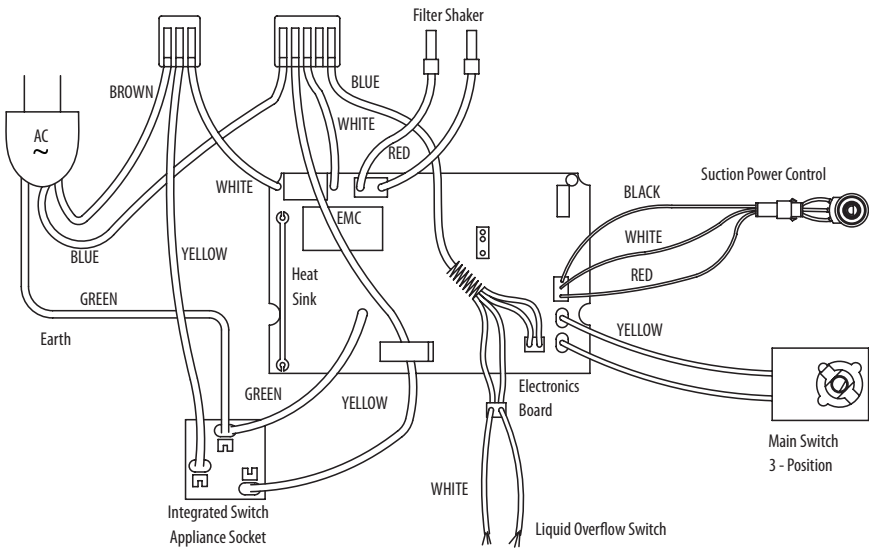
The electronics board is designed to flash certain codes which show its mode of operation whenever it is plugged in. This is not normally visible to the operator, since the electronics board is located inside the casing of the machine. But if the machine is disassembled during service the electronic board's LED lamp will be visible. Most of the codes are just indicating normal operation. Only the motor open circuit/short circuit is an error code. Below are the meanings of the codes:

<b>MANUAL</b>	LED flashes 0.2 seconds on, then 0.7 seconds off.	
<b>OFF</b>	LED flashes 0.2 seconds on, then 0.2 seconds off, x 2 times, then off 0.5 seconds. Cycle repeats. (normal)	
<b>AUTO AC</b>	LED flashes 0.2 seconds on, then 0.2 seconds off, x 3 times, then off 0.5 seconds. Cycle repeats.	This indicates normal operation.
<b>AUTO AIR</b> (for pneumatic switching models only)	LED flashes 0.2 seconds on, then 0.2 seconds off, x 4 times, then off 0.5 seconds. Cycle repeats.	This indicates normal operation.
<b>Automatic Liquid Overflow Switch,</b> indicating tank is full	LED flashes 0.5 seconds on, then 0.5 seconds off. Cycle repeats.	This indicates normal operation of the overflow switch when the tank is full of liquid.
<b>Error code</b>	If the motor is either short circuited or is an open circuit, the LED flashes 1 second on, then 1 second off. Cycle repeats.	

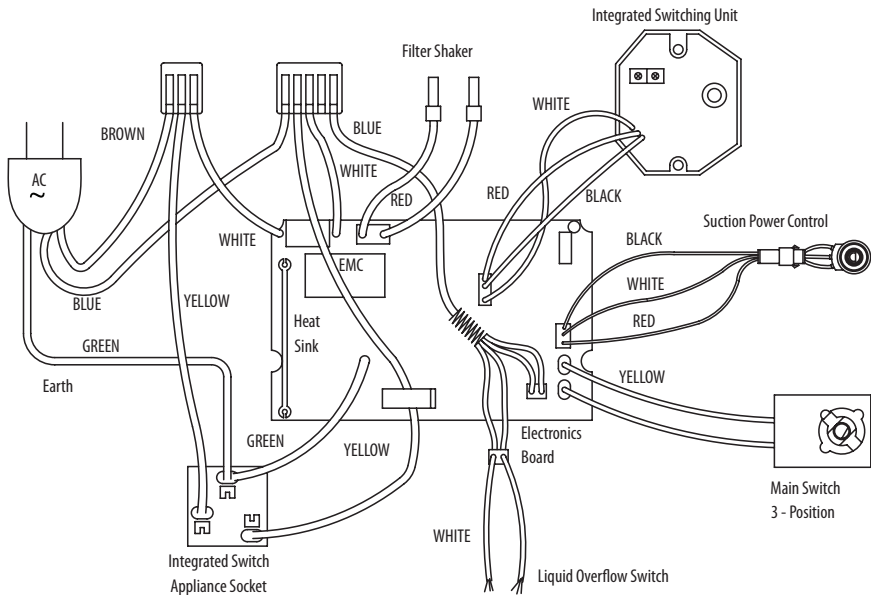
**If the replacement of the power supply cord is necessary, this has to be done by the manufacturer or their agent in order to avoid a safety hazard.**

**WARNING: All repairs must be entrusted to an authorized service center.** Incorrectly performed repairs could lead to injury or death.

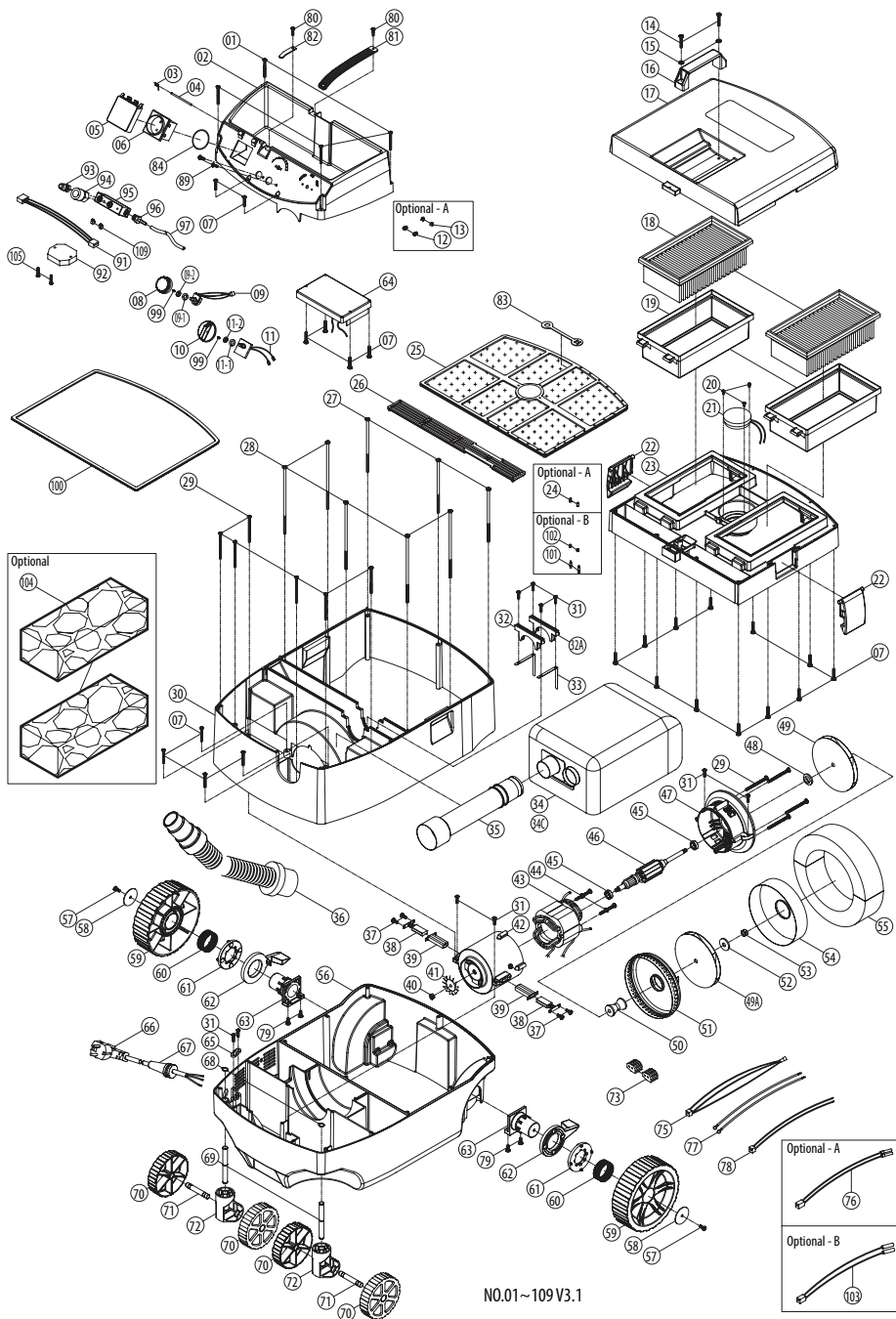
## WIRING



## Pneumatic Switching Model



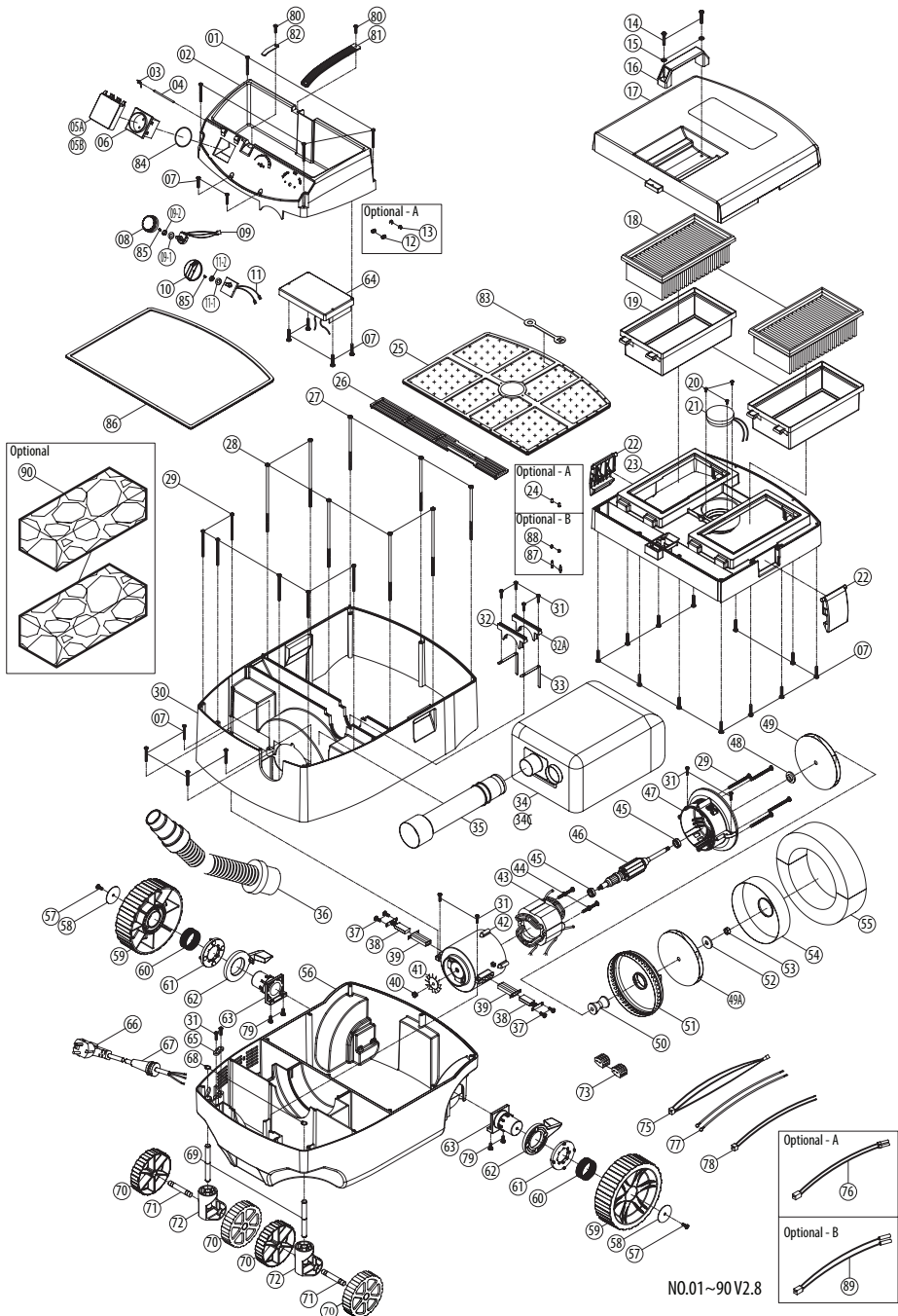
# EXPLODED VIEW (Pneumatic Switching Model)



## PARTS LIST (Pneumatic Switching Model)

No.	Parts Name	Q'ty	No.	Parts Name	Q'ty
1	SCREW M4 x 38	4	50	SPACER-LARGE	1
2	TOP PANEL	1	51	EXHAUST HOUSING	1
3	TORSION SPRING ø0.7 x ø2.5 x ø3.9 x 21L	1	52	FLAT ALUMINUM WASHER ø8 x ø25 x 2	1
4	HINGE PIN ø2.3 x 60	1	53	HEX NUT M8	1
5	HINGED COVER	1	54	INTAKE HOUSING	1
6	INTEGRATED SWITCHING SOCKET	1	55	SOUND DEADENING FOAM	1
7	SCREW M4 x 25	22	56	CHASSIS	1
8	SUCTION POWER CONTROL DIAL	1	57	SCREW M6 x 12	2
9	RHEOSTAT	1	58	FLAT WASHER ø6 x ø40 x 2.5	2
9-1	FLAT WASHER	1	59	WHEEL-REAR	2
9-2	NUT	1	60	SPRING ø2 x ø41.5 x ø45.5 x 4T x 22.6L	2
10	SWITCH KNOB	1	61	WHEEL LOCK DISC	2
11	MAIN SWITCH-4 POSITION	1	62	WHEEL LOCK LEVER	2
11-1	FLAT WASHER	1	63	REAR WHEEL STUB AXLE	2
11-2	NUT	1	64	ELECTRONICS BOARD	1
12	SPRING ø0.5 x ø4 x ø5 x 5T x 7.5L	2	64	ELECTRONICS BOARD	1
13	E-CLIP E-3	2	65	CORD CLIP	1
14	SCREW M5 x 20	2	66	POWER SUPPLY CORD	1
15	FLAT WASHER ø5 x ø12 x 1	2	67	CORD ARMOR	1
16	TOP HANDLE	1	68	EXTERNAL CIRCLIP S-10	2
17	TANK COVER LID	1	69	CASTOR SHAFT	2
18	PLEATED MAIN FILTER	2	70	WHEEL-FRONT	4
19	FILTER FRAME	2	71	AXLE SHAFT	2
20	SCREW M4 x 8	3	72	CASTOR CARRIER	2
21	FILTER SHAKER UNIT	1	73	THREE WAY CONNECTOR	1
22	CATCH	2	74	N/A	-
23	MAIN TANK COVER	1	75	LEAD FOR SUCTION POWER CONTROL	1
24	CONDUCTOR PIN	2	76	LEAD FOR FILTER SHAKER	1
25	DIAPHRAGM FILTER	1	77	LEAD FOR INTEGRATED SWITCH APPLIANCE SOCKET	2
26	VENT COVER	1	78	LEAD FOR LIQUID OVERFLOW SWITCH	1
27	SCREW M5 x 125	3	79	SCREW M5 x 16	4
28	SCREW M5 x 140	5	80	SCREW M4 x 14	2
29	SCREW M4 x 55	10	81	HOSE STRAP	1
30	BODY	1	82	STRAP HOOK	1
31	SCREW M4 x 16	10	83	PULL STRAP	1
32	BRACKET	1	84	O-RING ø47.5 x 2	1
32A	BRACKET	1	85~88	N/A	-
33	COPPER STRIP-FOR OVERFLOW SWITCH	2	89	SCREW M4 x 12	2
34	VACUUM CLEANER BAG	1	90	N/A	-
34A	VACUUM CLEANER BAG ( CLOTH )	1	91	LEAD FOR PNEUMATIC SWITCHING MODULE	1
34B	N/A	1	92	INTEGRATED SWITCHING UNIT	1
35	HOSE PORT TUBE	1	93	QUICK RELEASE CONNECTOR ( MALE)	1
36	HOSE	1	93	QUICK RELEASE CONNECTOR ( MALE)	1
37	SCREW M4 x 12	4	94	QUICK RELEASE CONNECTOR ( FEMALE)	1
38	CARBON BRUSH 7 x 12 x 32	2	94	QUICK RELEASE CONNECTOR ( FEMALE)	1
38	CARBON BRUSH 7 x 12 x 32	2	95	CONNECTOR PLATE	1
39	BRUSH HOLDER	2	96	TUBE CONNECTOR	1
40	HEX NUT-LEFT HAND THREAD M6	1	97	TUBE 5 x 8 x 70cm	1
41	FAN 70 x 6	1	98	N/A	-
42	MOTOR HOUSING	1	99	SCREW M4 x 4	2
43	STATOR	1	100	RUBBER SEAL	1
43	STATOR	1	101	CONDUCTOR PIN	2
44	STATOR SCREW M5 x 60	2	102	SPRING ø0.3 x ø5.5 x ø6 x 5T x 13L	2
45	BEARING 6200-2RU	2	103	LEAD FOR FILTER SHAKER	1
46	ARMATURE	1	104	WET MAIN FILTER	2
46	ARMATURE	1	105	SCREW M4 x 20	2
47	MOTOR FRONT COVER	1	106	N/A	-
48	SPACER-SMALL	1	107	N/A	-
49	TURBINE IMPELLER	1	108	N/A	-
49A	TURBINE IMPELLER	1	109	EAR TYPE CLAMPS	2

# EXPLODED VIEW



## PARTS LIST

NO.	Parts Name	Q'TY	NO.	Parts Name	QTY
1	SCREW M4 x 38	4	45	BEARING 6200-2RU	2
2	TOP PANEL	1	46	ARMATURE	1
3	TORSION SPRING ø0.7 x ø2.5 xø3.9 x 21L	1	46	ARMATURE	1
4	HINGE PIN ø2.3 x 60	1	47	MOTOR FRONT COVER	1
5	HINGED COVER	1	48	SPACER-SMALL	1
6	INTEGRATED SWITCHING SOCKET	1	49	TURBINE IMPELLER	1
7	SCREW M4 x 25	22	49A	TURBINE IMPELLER	1
8	SUCTION POWER CONTROL DIAL	1	50	SPACER-LARGE	1
9	RHEOSTAT	1	51	EXHAUST HOUSING	1
9-1	FLAT WASHER	1	52	FLAT ALUMINUM WASHER ø8 x ø25 x 2	1
9-2	NUT	1	53	HEX NUT M8	1
10	SWITCH KNOB	1	54	INTAKE HOUSING	1
11	MAIN SWITCH-3 POSITION	1	55	SOUND DEADENING FOAM	1
11-1	FLAT WASHER	1	56	CHASSIS	1
11-2	NUT	1	57	SCREW M6 x 12	2
12	SPRING (OPTIONAL) ø0.5 x ø4 x ø5 x 5T x 7.5L	2	58	FLAT WASHER ø6 x ø40 x 2.5	2
13	E-CLIP (OPTIONAL) E-3	2	59	WHEEL-REAR	2
14	SCREW M5 x 20	2	60	SPRING ø2 x ø41.5 x ø45.5 x 4T x 22.6L	2
15	FLAT WASHER ø5 x ø12 x 1	2	61	WHEEL LOCK DISC	2
16	TOP HANDLE	1	62	WHEEL LOCK LEVER (0.033KG)	2
17	TANK COVER LID	1	63	REAR WHEEL STUB AXLE	2
18	PLEATED MAIN FILTER	2	64	ELECTRONICS BOARD	1
19	FILTER FRAME	2	64	ELECTRONICS BOARD	1
20	SCREW M4 x 8	3	65	CORD CLIP	1
21	FILTER SHAKER UNIT	1	66	POWER SUPPLY CORD	1
22	CATCH	2	67	CORD ARMOR	1
23	MAIN TANK COVER	1	68	EXTERNAL CIRCLIP S-10	2
24	CONDUCTOR PIN (OPTIONAL)	2	69	CASTOR SHAFT	2
25	DIAPHRAGM FILTER	1	70	WHEEL-FRONT	4
26	VENT COVER	1	71	AXLE SHAFT	2
27	SCREW M5 x 125	3	72	CASTOR CARRIER	2
28	SCREW M5 x 140	5	73	THREE WAY CONNECTOR	1
29	SCREW M4 x 55	10	74	N/A	-
30	BODY	1	75	LEAD FOR SUCTION POWER CONTROL	1
31	SCREW M4 x 16	10	76	LEAD FOR FILTER SHAKER (OPTIONAL)	1
32	BRACKET	1	77	LEAD FOR INTEGRATED SWITCH APPLIANCE SOCKET	2
32A	BRACKET	1	78	LEAD FOR LIQUID OVERFLOW SWITCH	1
33	COPPER STRIP-FOR OVERFLOW SWITCH	2	79	SCREW M5 x 16	4
34	VACUUM CLEANER BAG	1	80	SCREW M4 x 14	2
34C	VACUUM CLEANER BAG ( VELCRO TYPE )	1	81	HOSE STRAP	1
35	HOSE PORT TUBE	1	82	STRAP HOOK	1
36	VACUUM HOSE (INCLUDING CONNECTORS ) 4M	1	83	PULL STRAP	1
37	SCREW M4 x 12	4	84	O-RING ø47.5 x 2	1
38	CARBON BRUSH 7 x 12 x 32	2	85	SCREW M4 x 4	2
38	CARBON BRUSH 7 x 12 x 32	2	86	RUBBER SEAL	1
39	BRUSH HOLDER	2	87	CONDUCTOR PIN (OPTIONAL)	2
40	HEX NUT-LEFT HAND THREAD M6	1	88	SPRING (OPTIONAL) ø0.3 x ø5.5 x ø6 x 5T x 13L	2
41	FAN 70 x 6	1	89	LEAD FOR FILTER SHAKER (OPTIONAL)	1
42	MOTOR HOUSING	1	90	WET MAIN FILTER (OPTIONAL)	2
43	STATOR	1	91	N/A	-
43	STATOR	1	92	N/A	-
44	STATOR SCREW M5 x 60	2	93	N/A	-

