

Operations & Maintenance Manual



AERO-VAC

i Series Premium Turbine Dust Collectors

**Models: AeroVac V1, V1-2, V2, V2-2, V4
With iSeries Contols.**

1- INTRODUCTION

You are now the owner of a **Quatro AeroVac System**, an advanced effective indoor air purification system designed specifically to remove particulate matter and/or gas phase contaminants. You can expect a noticeable improvement in air quality as the **AeroVac** begins the process of reducing microscopic airborne particulate as well as harmful and odorous gases.

2- IMPORTANT SAFETY PRECAUTIONS

WARNING- To reduce the risk of severe injury read and follow all instructions

- To reduce the risk of electric shock, do not expose to water or rain. Do not operate the system in areas with excessive moisture .
- Ensure to use proper voltage as noted on the serial # sticker
- All filters must be in place whenever this machine is in operation.
- Use only on a grounded electrical circuit; do not use any two-wire electrical prong adapters to defeat the three-pronged plug on the end of the cord.
- Disconnect power prior to accessing unit, when checking or replacing filters, or servicing motor (blower).
- When servicing the motors be careful when touching the exterior of the motor as soon as it has been turned off; it may be hot enough to be painful or cause injury. With modern motors, this condition is normal when operated at rated load and voltage, as they are built to operate at higher temperatures.

SAVE THE INSTRUCTION FOR FUTURE REFERENCE

Ensuring Proper Grounding of ABS/PVC Fittings and Tubing for a Dust Collection System.

For dust collection systems, galvanized metal pipe and fittings are best, but for most typical applications, fittings and dust collection tubing made of plastic (ABS or PVC) are sufficient, provided they are **properly grounded** to dissipate static electrical charges. Dust and air in the right proportions can be an explosive mixture, and a build up of static electricity can provide the spark to ignite it.

To safely collect and bleed off the static charge, bare copper wire (not insulated) should be run along the inside of the duct-work and be attached to grounding screws or a bare metal surface on both the dust collector and the unit that it is connected to (if it is connected to a unit). The power cords of both machines must be terminated in a grounded three-prong plug to complete the connection to the ground. Wires over the irregularities of fittings, especially at "Y"s or "T"s could form traps for particles. Therefore, bypass the fittings by running the wires to the outside through small holes. Seal the holes with silicone caulking compound and join the wires by twisting them together and securing them with a wire nut.

As charges can also collect on the outside surface, we recommend wrapping bare copper wire in a spiral around the outside of the ductwork, securing it with electrical tape and connecting it to the ground system by means of wire nuts. If you have any difficulty securing the hose clamp to the hose and fittings, try wrapping the joints with duct tape first to provide a good gripping surface. If you are still having difficulty in obtaining a safe electrical ground, we recommend the services of a good electrician.

3- IMPORTANT INSTALLATION INSTRUCTIONS

WARNING - To reduce the risk of fire or injury read and follow all instructions.

- Do not install or operate the system in an enclosed space. Do not block discharge grill. Keep all objects at least 6" away from the casing. NEVER place the system up against a wall.
- Do not kink hose or restrict airflow in any way.

SAVE THE INSTRUCTION FOR FUTURE REFERENCE

4- IMPORTANT OPERATIONS INSTRUCTIONS

WARNING - To reduce the risk of damage to your system read and follow all instructions.

Failure to follow these guidelines may result in undesired operation or damage that will not be covered under warranty.

- THE SYSTEM IS DESIGNED TO BE CONSTANTLY POWERED (PLUGGED IN). USE THE ON/OFF ONLY SWITCH TO TURN THE SYSTEM ON & OFF**
- ALWAYS SWITCH THE POWER OFF BEFORE UNPLUGGING THE SYSTEM FROM THE MAIN POWER SOURCE OR BEFORE CUTTING POWER TO THE RECEPTACLE. FAILURE TO DO SO MAY CAUSE DAMAGE TO THE SYSTEM THAT IS NOT COVERED UNDER WARRANTY.**
- QUATRO IS NOT LIABLE FOR MISAPPLIED EQUIPMENT. ALWAYS CHECK SYSTEM VOLTAGE BEFORE PLUGGING INTO POWER SOURCE**

Warning:

This is a class A product. In domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

5- PRE START-UP CHECKLIST

- a) Place the **AeroVac System** in the desired area for use.
- b) Make sure the filter is properly placed and the adjustment screw on the door is putting a little bit of tension on the filter.
- c) Close lid and screw in knob
- d) Connect the supplied hose to your equipment/dust source

Inlet collars are factory installed either on the side or on top of unit.

Inlet plates can be modified in the field to be installed on the top, or on the side of the unit, **TO REVERSE INLET PLATE:**

- **DISCONNECT power cord from wall outlet;**

- remove filter

- ensure you re-install INSIDE KNOCK-OUT PLATE on inside of inlet collar, this will deflect particles down towards the tray increasing filter longevity.

6- START-UP

- a) Insert male end of power cord into grounded circuit of the proper voltage and that can handle the system amperage.
- b) Turn the **AeroVac System** On. The system does not need to be on all the time nor does it need a warm up period. It can be turned on and off as needed.
- c) Adjust controls to desired airflow. If noise and suction are acceptable operate at max speed for max removal.

WARNING: DO NOT OPERATE UNIT UNLESS ALL FILTERS ARE IN PLACE.

Note: The filter in this system is cleanable but is not a lifetime filter. It will need to be removed and disposed of periodically. See Sections 9.

7- i Series Controls

iSeries Controls

IMPORTANT NOTES FOR PROPER FUNCTION OF THE CONTROLS:

Do not connect the main power cord to an outlet that is controlled by a switch.

Never use any form of remote control that switches the power source on and off. In doing so, serious damage to the controls and motors may occur. Contact **QUATRO** if power switching is the only way you have to remotely control the unit. We have many power switching adaptors available for SAFE and reliable control.

“iSeries” Controls & Alarms/Status Conditions

The iSeries controls feature soft touch Power (On/Off), Speed Up & Speed Down Buttons. It also features a series of LEDs that indicate the status of the filter(s) and motor(s) and inform you of any alarms. These alarms are accompanied by an audible alert. See the table on the following page to understand the meanings of the LEDs and the alarms.



Alarms & Status Conditions

Alarm Mute Feature

All alarms can be muted for a period of 8 hours OPERATING TIME. After 8 hours the alarm will return and can be muted again.

When mute is enabled, L1 Flashes & the muted alarms stay SOLID. The level of the alert will not be displayed until the 8 hour mute period is over.

To mute: Press SPD UP & DN quickly at the same time. When the buttons are released the alarm(s) will mute & L1 will start flashing. Alarm LED will go SOLID.

If there are any additional alarms when MUTED, mute will disable itself until muted again, then BOTH alarms will be muted.

Muted alarms will only be displayed while the unit is in operation.

If the unit is turned off and then on during the 8 hour mute, the balance of the 8 hour mute will continue after the unit is turned on again.

LED Diagnostics Table R17.0 And Higher

Light (LED)	Status	Audible Alert	Condition	Description/Action
System ON LED 1 (L1)	SOLID		Unit is ON	
	Fading IN-OUT		Temporary ON Mode	POWER Button Had Been Used To Temporarily Turn Unit On While In Remote Mode See "Temporary ON Mode" On Next Page
	Flashing Slowly		AUDIBLE ALERT MUTED	Alarm Condition MUTED, See L2 OR L3 For Specific Alarm Condition
Service Motors LED 2 (L2)	SOLID	Beep Every 4 Hrs	Motor(s) Will Soon Need Service	"Quick Change" Brush Motor(s) WILL SOON Require Brush Replacement Infinity Brush Motor(s) WILL SOON Require Complete Replacement Brushless Motor Is Almost At The End Of The Predicted Service Life RESET ALERT After Service See "Motor Service & Replacement" Section For More Motor Info & Reset Alert Instructions
	SOLID	Beep Every 15 Min	Motor(s) Service Becoming Urgent	"Quick Change" Brush Motors ONLY: Replace Brushes ASAP And RESET ALERT See "Motor Service & Replacement" Section For More Info & Reset Alert Instructions
	SOLID	Beep Every 5 Min	Motor(s) Service Required IMMEDIATELY	"Quick Change" Brush Motors ONLY: Replace Brushes IMMEDIATELY And RESET ALERT See "Motor Service & Replacement" Section For More Info & Reset Alert Instructions
	SOLID		Motor Alarm Muted L1 Flashing Slowly	Replace Brushes OR Motor(s) ASAP And RESET ALERT Alarm Mute Details On Previous Page See "Motor Service & Replacement" Section For More Motor Info & Reset Alert Instructions
Service Filter(s) LED 3 (L3)	Flashing Slowly		Filter Pressure High	Prepare To Service/Replace Filters See "Filter Service & Replacement" Section For More Info On "On Demand" Filter Cleaning & Filter Service/Replacement Instructions
	Flashing Slowly	Beep Every Hour	Filter Pressure Near Critical. Service Becoming Urgent	Replace Filters. Continued Operation May Result In Unit Shutdown. High Pressure Causes Excess Motor Heat & Accelerates Brush Wear. See "Filter Service & Replacement" Section For More Info & Filter Service/Replacement Instructions
	Flashing Slowly	Beep Every Second	Critical Pressure	Unit Has Shutdown To Prevent Damage From Excess Pressure Verify Blockage – Remove Blockage Verify All Filters – Clean/Replace Filters Accordingly See "Filter Service & Replacement" Section For More Info
	SOLID	Beep Every Hour	Filter(s) Service Life Expired	Replace Filter(s) ASAP And RESET ALERT See "Filter Service & Replacement" Section For More Info & Reset Alert Instructions
	SOLID		Filter Alarm Muted L1 Flashing Slowly	Replace Filter(s) ASAP And RESET ALERT Alarm Mute Details On Previous Page See "Filter Service & Replacement" Section For More Info & Reset Alert Instructions
Remote	SOLID		Receiving Remote Signal	Remote Switch Closed (On) OR Receiving Remote Signal From Another Piece Of Equipment
Standby LED 5 (L5)	Fading IN-OUT		Shutdown Delay	Quatro System Continues To Run For 30-45 Seconds To Remove All Debris From Work Area
	Flashing Slowly		Unit Is In Standby	Waiting For Remote Switch To Close (Turn On) OR To Receiving Remote Signal From Another Piece Of Equipment
ALL LEDS	Flashing Slowly	Beep Every Second	Low System Pressure	Abnormally Low Pressure, Unit will BEEP & Shutdown In 5 Seconds Unit Will Continue To Shutdown Unit Until The Issue Is Addressed -Motor(s) Not Operating Due To Service Required Or Failure See "Motor Service & Replacement" Section For More Motor Info & Reset Alert Instructions -Motors Not Operating Due To Excess Heat. See "Filter Service & Replacement" Section For More Info & Reset Alert Instructions -Access Door(s) Open. Close All Access Doors -Filters Not Or Improperly Installed. Verify Filters

Normal (Manual) Operation

Manual operation of the unit is accomplished by using the (Red) ON/OFF POWER button.

Variable Digital Speed Control & "AUTOFLOW"

Speed control is available in all modes of operation (manual & automatic) and is adjusted with the UP & DOWN arrows located just under the POWER button.

"AUTOFLOW" is an automatic system pressure compensation system. After setting the minimum speed required to properly evacuate your equipment, the controls will automatically increase the motor speed to compensate for the increased pressure as a result of filters getting dirty or a system blockage until maximum speed is reached. After a filter change, system will automatically decrease the speed to the original set point. Please verify that you are achieving adequate ventilation after a filter change. If not adjust blower speed.

Remote (Automatic) Operation & Remote Status

The Quatro System is designed to be used with other pieces of equipment that can support remote operation and/or remote status monitoring. The connection is made using the AE427 QUATRO Universal Remote Cable. QUATRO has some custom remote cables for specific applications. Contact us for more info on available applications and part numbers. The Quatro System supports "Closed Contact" & "1-30V AC or DC" remote operation as well as "Remote Status" signals.

Switching power to control the QUATRO System system remotely WILL NOT WORK and can damage the unit.

Temporary ON Mode

Allows you to temporarily override your automatic remote control of the system to perform a "quick cleaning" of work surface. Temporary ON Mode is only available when the Remote/Standby (L5) light is flashing slowly. Use of this mode will temporarily BLOCK OR DISENGAGE all other functions.

To initiate:

- Press POWER (On/Off) button to start unit, "System ON" LED will FADE In-Out, unit will start.
- When you finish using this feature, press POWER (On/Off) again. All other functions will be un-blocked.

Operation, Connection & Enabling

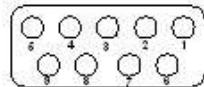
Connect the AE427 remote cable in between the Quatro System & the other piece of equipment using only the wires required as per the diagram below.

September 24, 2012

Quatro DB9 Pin-Out & Wiring Instructions

Quatro Air Technologies Inc.

QUATRO 9 Pin Female Connector (Control Panel Front View)



Pin 1	—————	Dry Contact Board Return/Board Ground (BLACK)
Pin 2	—————	Dry Contact + (RED)
Pin 3	—————	1 - 30 V ac/dc + (WHITE)
Pin 4	—————	1 - 30 V ac/dc - (GREEN)
Pin 5	—————	Status (Fault or Run) Signals Common (BROWN)
Pin 6	—————	Status Fault Signal - Normally CLOSED (BLUE)
Pin 7	—————	Status Fault Signal - Normally OPEN (ORANGE)
Pin 8	—————	12 Vdc + (YELLOW)
Pin 9	—————	Status Run Signal - Normally OPEN (PURPLE)

NOTE

Grey line represents the white connector wire (Pin 3)

NOTE

Wire colours correspond to AE427 Universal Remote Cable

Remote Operation

If choosing the Dry Contact (closed contact) remote option, connect the black and red wires to anything that can close a contact and short these 2 wires together.

If choosing the 1-30V AC/DC remote option, connect the white & the green wires to the remote signal. RESPECT THE INDICATED POLARITY WHEN MAKING THIS CONNECTION. **DO NOT EXCEED 30V AC/DC.**

To enable the remote system startup for either remote option, first plug the system into power and then connect remote cable. Then simply have the other piece of equipment close (short) the dry contact or supply a remote control voltage. When the unit is stopped the Quatro System will shut down after a short delay.

After Remote Sensing Has Been Activated

If the unit is RECEIVING a remote signal: "System ON" & "Remote ON" Lights will be FULLY Illuminated

If the unit is WAITING FOR a remote signal: "System ON" will be OFF & "Remote ON" Lights will be FLASHING
Unplugging the power cord will automatically deactivate Remote Sensing Feature.

Remote Status

The System can output status signals to you equipment.

The Run Signal contact is CLOSED whenever the system is turned on (motor(s) are functioning).

The contact is OPEN when the unit is turned off (motor(s) are not functioning). This includes when the unit goes into Remote/Standby & if the unit shuts down due to a problem.

Run signal will NOT open when the motor(s) shut off for a filter cleaning when operating in "Online" filter cleaning mode.

Critical Filter Pressure Alarms (high & low pressure) will OPEN the Run Signal and shut the motor(s) off.

The Fault Signal can be used either with a Normally Open (NO) or Normally Closed (NC) contact depending on which wire you choose to use (see diagram on previous page).

When there ARE NO alarm conditions present the NO contact will remain open and the NC contact will remain closed.

When there ARE alarm conditions the NO contact will CLOSE and the NC contact will OPEN.

ALL LEVELS of Filter & Motor(s) service alarms will trip the Fault Signal.

The Quatro Run Signal can only shut down the piece of equipment controlling it remotely if the piece of equipment supports that function. The piece of equipment must be set or programmed to shut itself off when the Quatro Run signal is OPENED. Contact your equipment manufacturer to verify if your equipment supports that function.

The status signals can either return a "signal" provided by your equipment or output a 12VDC+ or 12VDC- depending on how the AE427 remote cable is wired. The Quatro System uses a single "common" for both the Run & Fault Signals.

To return a "signal" connect your signal to the Brown wire (Pin 5).

The "returned" Run signal is available on the Violet wire (Pin 9).

The "returned" Fault NC (Normally Closed) is available on the Blue wire (Pin 6).

The "returned" Fault NO (Normally Open) is available on the Orange wire (Pin 7).

To be supplied with a 12vdc signal where the + is being switched connect the Yellow Wire (Pin 8) to the Brown wire (Pin 5).

The 12VDC+ Run signal is available across the Violet wire (Pin 9+) & the Black Wire (Pin 1-).

The 12VDC+ Fault NC (Normally Closed) is available across the Blue wire (Pin 6+) & the Black Wire (Pin 1-).

The 12VDC+ Fault NO (Normally Open) is available across the Orange wire (Pin 7+) & the Black Wire (Pin 1-).

Any combination of the Dry Contact, Run Signal & Fault Signal being used means the Black Wire (Pin 1) must be shared.

To be supplied with a 12vdc signal where the - is being switched connect the Black Wire (Pin 1) to the Brown wire (Pin 5).

The 12VDC- Run signal is available across the Violet wire (Pin 9-) & the Yellow Wire (Pin 8+).

The 12VDC+ Fault NC (Normally Closed) is available across the Blue wire (Pin 6-) & the Yellow Wire (Pin 8+)

The 12VDC+ Fault NO (Normally Open) is available across the Orange wire (Pin 7-) & the Yellow Wire (Pin 8+).

Any combination of the Dry Contact, Run Signal & Fault Signal being used means the Black Wire (Pin 1) must be shared.

Your "signal" will be managed as indicated on the table below. The combination of the Run & Fault Signals can tell you if the unit is still running but has an alarm condition or if there is an alarm condition and the unit has shut down completely.

Run Signal Contact	Fault Signal Contact	Condition
Closed	NC: Closed NO: Open	Unit Is Operating Normally
Closed	NC: Open NO: Closed	Unit Is Operating Normally Motors or Filters Will Require Service Soon See QUATRO System Control Panel & LED Diagnostic Table For More Info
Open	NC: Open NO: Closed	Unit Has Shut Down Motors or Filters Require Service Immediately See QUATRO System Control Panel & LED Diagnostic Table For More Info

8- FILTER REPLACEMENT GUIDE

Proper maintenance is critical to extend the life of the filtration system. The information presented below outlines basic maintenance procedures ensuring the unit will provide trouble-free operation for years to come. The purifier is designed to allow quick access to the filter.

The "Replacement Indication System" monitors system pressure and tells you when the particulate filter need servicing.

If a critical pressure is reached the unit will shut down to prevent damage. This will occur even if your equipment is in mid process. It is advised to service/change the filter when prompted or ASAP to avoid a shutdown.

JUST BECAUSE THE SERVICE FILTERS LED IS NO ILLUMINATED IT DOES NOT MEAN THAT THE DUST TRAY DOES NOT NEED TO BE SERVICED/EMPTIED.

GENERAL FILTER MAINTENANCE

It is very difficult to predetermine a specific maintenance schedule as the rate of dust loading will vary for each application. Periodic inspection of the filter (and pressure indicator if that option is selected) during the first few months of operation should help establish an appropriate maintenance schedule. Also, if you feel that you are losing suction capacity, filter may be clogged; To maintain filter:

- a) Open filter door (on suction side) turning thumbscrew in a counter-clockwise direction;
- b) Turn the HICAP filter in a clockwise or counter-clockwise rotation and slowly bump against the filter tray supports, such that excess dust within the filter cartridge pleats falls down towards the particle capture tray;
- c) Additionally, filter can be removed and cleaned outside the unit by tapping it into an open garbage bag;
- d) If further cleaning is required see Cartridge-filter cleaning instructions in section 9.3
- e) Verify that the filter gasket on open end of filter is installed properly, when placing filter back into unit.

CLEANING YOUR CARTRIDGE-FILTER

The presence of moisture may cause a build-up of material on surface of filter and in between the pleats requiring external cleaning. Remove as much loose material as possible by dry brushing. Be careful to avoid damage to the filter media. If plugging has occurred on surface of media and in between pleats, a hosing off of surface, or use of low pressure (car wash) type sprayer may be adequate. For cleaning of fine particulate which may be embedded in the depth of media itself, soak cartridge for 30 minutes in a solution of non-ionic detergent in 130°F water. After soaking, rinse off with hose or low pressure sprayer as above, to remove all traces of detergent. **Cartridge-Filter must be completely dry after washing, before being used again blow out excess moisture using compressed air from inside out.**

Qty	Description	Part
1	"V2" Filter Cartridge	F030
1	"V4" Filter Cartridge	F029

9- MOTOR SERVICE & REPLACEMENT

LED Diagnostic Table - "Service Motor(s)" Alerts

If "Service Filter(s)" alert is ON SOLID the motor(s) need to be serviced or replaced.

MOTOR ACCESS

WARNING: Switch unit off and unplug power cord from wall before servicing the motor(s).
The motor(s) are accessed through the rear access panel (opposite the filter access door).



"Quick Change" Brush Motor

Quick Change
Brush



"Infinity" Brush Motor

Infinity Curved
Motor Brush



Brushless Motor

Determine which type of motor your system has installed and follow the service or replacement instructions.
ONLY the "Quick Change" Motor Brushes can be replaced in the field (motor brushes can be replaced).

IMPORTANT NOTE FOR UNITS EQUIPPED WITH "INFINITY" MOTORS: In cases of heavy production (**continuous hours of daily operation**), the brushes on the INFINITY Motors may wear before the warranty is over.

Please note this is NOT considered a warranty issue. Motor life is a function of hours used and filter maintenance. They are designed to operate 2000-3000 hours and then replaced.

In some extreme cases motor life can even be less than 2000 hours and this is usually due to the system being run at a high pressure (dirty filters) for extended periods of time.

"Infinity" & Brushless Motors Are Considered Consumables And Will Not Be Changed Under Warranty Unless Found To Be DEFECTIVE Within The Warranty Period.

Service- Motors With "Quick Change" Brushes

Even with replaceable motor brushes the "Quick Change" motors do have a service life. When the motor(s) are sparking excessively or consuming brushes too quickly they should be replaced.

The brushes can be changed in less than 5 minutes with the use of a screwdriver.

The following images are for illustration purposes only.

YOU DO NOT HAVE TO REMOVE TURBINE FROM UNIT TO CHANGE BRUSHES!

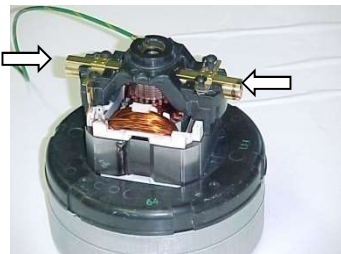


Fig 1: Motor Brushes



Fig 2: 1 Motor Brush Removed

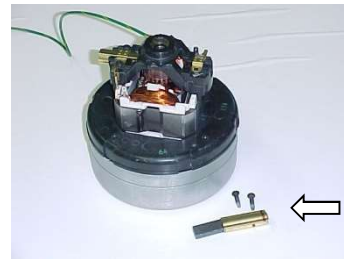


Fig 3: New Motor Brush

Replacement Instructions

ALLOW MOTOR(S) TO COOL FOR 45 MINS BEFORE SERVICING

- 1- Unplug power cord and remove motor access panel.
- 2- Using a phillips screwdriver, unscrew the 2 screws holding down each of the 2 gold colored brush casings (Fig 1).
- 3- Lift the gold colored tab and lift/pull out each brush (Fig 2)
- 4- Replace both motor brushes making sure the locking tab on the brush is facing the motor and re-install the retaining screws.
- 5- Close motor access panel.

6- For units with iSeries Controls, Reset "Service Motor(s)" Alert.

This MUST be done EVEN IF L2 IS NOT ILLUMINATED or the motor(s) replacement alert will not function correctly.

- 1- Ensure filter access door is closed
- 2- Plug power back to the unit

- 3- Press & hold SPEED UP & DN simultaneously until unit BEEPS
 - 4- Hold for 10+ seconds, when panel is beeping continuously, release buttons
 - 5- You are now in RESET MENU, in this condition, "System ON" Led is FLASHING QUICKLY
 - 6- Press SPEED DN (1 Time) until "**Service Motor(s)**" LED is FLASHING
 - 7- Press & HOLD POWER button while "**Service Motor(s)**" LED is FLASHING & unit is BEEPING continuously
 - 8- Release, when LED stops FLASHING & stops BEEPING
- After resetting the "Service Motor(s)" Alert, the motor(s) will default to low speed. It is recommended to operate the motor(s) at low speed for 20 minutes to properly break the new brushes in.

Brushes Per Package	MotorSafe Brush Part #
4-Pack	AB124

For units equipped with 2 motors: It is highly recommended to replace both motors or both sets of brushes at the same time so the brush wear rates stay in sync.

Replacement Instructions

ALLOW MOTOR(S) TO COOL FOR 45 MINS BEFORE SERVICING

- 1- Unplug power cord and open motor access panel.
- 2- Disconnect wires, cut zip ties.
- 3- Remove the retaining nuts & lock washer holding the motor assemblies.
- 4- Remove the motor retaining bracket from the old motor. Note the orientation on the bracket.
- 5- Install the bracket on the new motor. See the installations pictures below.

THIS IS PARTICULARLY IMPORTANT FOR "INFINITY" MOTORS. If the bracket is installed incorrectly it may result in a short to ground for the brush contacting the bracket. The curved brush must be visible in the large cutout as per Figure 2.



Figure 1: "Quick Change" Motor



Figure 2: "Infinity" Motor

Infinity Curved
Motor Brush



Figure 3: Brushless

- 6- Install the assembly back into the unit & connect the wires. Install new zip ties.
- 7- Plug in power cord and **Reset "Service Motor(s) Alert.** This MUST be done EVEN IF L2 IS NOT ILLUMINATED or the motor(s) replacement alert will not function correctly. Follow the instructions below.
 - 1- Ensure filter access door is closed
 - 2- Plug power back to the unit
 - 3- Press & hold SPEED UP & DN simultaneously until unit BEEPS
 - 4- Hold for 10+ seconds, when panel is beeping continuously, release buttons
 - 5- You are now in RESET MENU, in this condition, "System ON" Led is FLASHING QUICKLY
 - 6- Press SPEED DN (1 Time) until "**Service Motor(s)**" LED is FLASHING
 - 7- Press & HOLD POWER button while "**Service Motor(s)**" LED is FLASHING & unit is BEEPING continuously
 - 8- Release, when LED stops FLASHING & stops BEEPING

Replacement Motors	Part #
120V "Quick Change" 2 Required For Double Motor Units	AB025
230V "Quick Change" 2 Required For Double Motor Units	AB026
120V "Infinity" Kit (2 Motors)	AB134
230V "Infinity" Kit (2 Motors)	AB135
120V Brushless	AB045-16
230V Brushless	AB045-25

ALWAYS replace both motors at the same time in a system equipped with 2 motors to keep brush wear in sync.

10- TROUBLESHOOTING GUIDE

Symptoms	Possible Cause	Suggested Solution
Unit will not start	<ul style="list-style-type: none"> Faulty power supply Circuit breaker tripped Motor/motor brushes past service life 	<ul style="list-style-type: none"> Check breaker box/power connection RESET circuit breaker on unit panel Replace motor/motor brushes
Motor shuts off	<ul style="list-style-type: none"> Motor overheated, tripped on thermal cutout Motor/motor brushes past service life 	<ul style="list-style-type: none"> Switch power off, unplug, wait till motor cools, replace filters/verify blockage. Replace motor/motor brushes
Insufficient airflow	<ul style="list-style-type: none"> Obstruction in system Clogged filter (s) 	<ul style="list-style-type: none"> Remove obstruction Replace filter (s)
Excessive airflow	<ul style="list-style-type: none"> Filter(s) not in place 	<ul style="list-style-type: none"> Install filter(s)
Excessive noise	<ul style="list-style-type: none"> Motor impeller contacting housing Motor bearing failure 	<ul style="list-style-type: none"> Replace motor Replace motor

For units equipped with iSeries Controls see the ‘Light Diagnostics Table’ for additional troubleshooting.

11- SPECIFICATIONS

Nominal Airflow (Single Motor)	110 CFM
Nominal Airflow (Double Motor)	220 CFM
Nominal Airflow (Brushless Motor)	280 CFM
Voltage/Phase/Frequency, Current, Power	Single Brush Type 115/1/60, 7 Amps, 825 Watts Single Brush Type 230/1/50, 4 amps, 750 Watts Double Brush Type 115/1/60, 12 Amps, 1650 Watts Double Brush Type 230/1/50, 8 amps, 1500 Watts (Operating at 60Hz) Brushless 115/1/60: 6.8 amps, 1100 Watts Brushless 230/1/50: 3.4 amps 1200 Watts (Operating at 60Hz)

10- GENERAL REPLACEMENT PARTS

Qty	Description	Part
1	Power Cord 120v	E500
1	Power Cord (Euro 230V)	E130
1	Remote Cable	AE427

11- WARRANTY

QUATRO Air Technologies warrants its equipment to be free from defect in material and workmanship under normal use and service for a period of one year from date of shipment. QUATRO's obligation under this warranty shall be limited to replacing any parts, thereof, which shall be demonstrated to have been defective. This is expressly in lieu of all other warranties, express or implied, including the warranties of merchantability and fitness.

QUATRO claims no warranty as to merchantability or as to the fitness of the merchandise for any particular use and shall not be liable for any loss or damage. No person, firm or corporation is authorized to assume for QUATRO any other liability in connection with the sale of these goods. Equipment, parts and material manufactured by others and incorporated in QUATRO's equipment are warranted by QUATRO only to the extent of the original manufacturer's liability to QUATRO Air Technologies Inc.

Conditions and Limitations:

This warranty does not cover abuse, misuse, maintenance negligence, improper assembly, acts of vandalism, acts of God, fear wear, modifications of the equipment or installation of a part not recommended by QUATRO Air Technologies, as well as operation of the equipment at voltages other than those specified by QUATRO Air Technologies Inc.

IMPORTANT NOTE FOR UNITS EQUIPPED WITH “INFINITY” MOTORS: In cases of heavy production (**continuous hours of daily operation**), the brushes on the INFINITY Motors may wear before the warranty is over.

Please note this is NOT considered a warranty issue. Motor life is a function of hours used and filter maintenance.

They are designed to operate 2000-3000 hours and then replaced.

In some extreme cases motor life can even be less than 2000 hours and this is usually due to the system being run at a high pressure (dirty filters) for extended periods of time.

Warning:

This is a class A product. In domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

AeroVac i Series-----**Engineering Clean Air**