

QUATRO

Air Technologies Inc.

Engineers of Clean Air



JET-STREAM

Compact Dust Collectors

With *i Series* Controls

JS-5293 and JHL-5293 Models

Operation and Maintenance Manual

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Introduction

Congratulation on your purchase of a Quatro Air Technologies Jet-Stream Series System—an advanced effective indoor dust and fume collection system designed specifically to remove particulate matter contaminants at the source. You can expect a noticeable improvement in air quality as the system begins the process of reducing microscopic airborne particulate.



Key Features

- Compact space saving design
- Health-smart; contains anti-microbial bag filter
- Medical Grade HEPA filter included
- Ultra-quiet performance
- Infinite speed control
- Quick access motor compartment
- Customizable for OEM applications

The Jet-Stream normally features 2 stages of filtration:

1. A Bag Filter. This captures large debris.
2. A HEPA Filter for fine harmful particles.



This document contains important safety, Installation, operation, and maintenance instructions.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

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.

Contacting Quatro Air

If you require assistance with this or any other Quatro Air product, please call or email technical support (tech@quatroair.com). We value your comments.

- To help us assist you more effectively with problem reports, the following information may be required when contacting Quatro Air Support:
- Equipment model (e.g., iVac, AF400, BioScan).
- The serial number of any component you believe to be defective.

- Actions performed immediately before the problem occurred, if applicable.
- Any additional comments.

Contact Information



Phone

1-877-978-2876 (US and Canada)

1-514-630-4444 (local calling)



Fax

1-514-630-4454



email

General inquiries: info@quatroair.com

Technical Support: tech@quatroair.com

Sales: sales@quatroair.com



Address (Head Office)

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H9R 1C9

System Contents

MODELS	NAME	ACCESSORIES
JS-5293L-16	JetStream120V c/w "Infinity" Motor	<ul style="list-style-type: none"> • (1) O&M Manual • (1) Power Cord • (1) Piece Of The 1.5" Hose (Per Inlet) • (1) Remote Cable (AE427) Only For iSeries Units Equipped With DB9 Remote Connector • For JHL series: <ul style="list-style-type: none"> • (1) 6-ft hose with Rubber Cuff (PN: H425-06C) • (1) Auto-Start cable*
JS-5293L-25	JetStream230V c/w "Infinity" Motor	
JHL-5293	JHL (CADCAM)	

* This standard unit ships with a mill-specific Auto-Start cable to connect to your milling machine. Since every Milling Machine has a different Auto-Start plug, this cable will work with ALL milling machines, however you need to adapt it to your machine. Follow instructions depending on the type of signal your milling machine provides. For a seamless, automatic and user-friendly operation, opt for QUATRO's "Custom Kits". These are specific auto-start cables (or hoses if necessary) to match your milling machine's exact specifications, call your dealer to order.

Important Precautions and Instructions

⚠ This manual contains critical operating information which if not followed may result in undesired operation and cause damage to the system not covered by warranty. To reduce the risk of severe injury and equipment damage, read and follow all instructions.

- Read and understand this manual before operating the system.
- Store the manual in a safe place for future reference.
- **⚠** ALWAYS turn system off and disconnect power prior to accessing unit, replacing filters, or servicing motor(s).
- **⚠** To reduce the risk of electric shock, do not expose to excessive moisture, water or rain. Do not operate the system in areas with excessive moisture
- **⚠** Ensure to use proper voltage as indicated on the system.
- **⚠** Use only on a grounded electrical circuit. Do not use any two-prong electrical adapters (ground lift) to defeat the purpose of three-pronged plug on the end of the cord.
- **⚠** 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.
Allow the unit to cool for 45 minutes before performing any service.



- Do not install or operate the system in an enclosed space or against a wall. Unit may overheat and shut down. Keep all objects at least 6" away from the casing, especially the discharge grill. **NEVER** place the system up against a wall.
- Do not kink hose or restrict airflow in any way.
- All filters must be in place whenever this machine is in operation.

IMPORTANT: THE SYSTEM IS DESIGNED TO BE CONSTANTLY POWERED (PLUGGED IN). USE THE ON/OFF ONLY SWITCH TO TURN THE SYSTEM ON and 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.

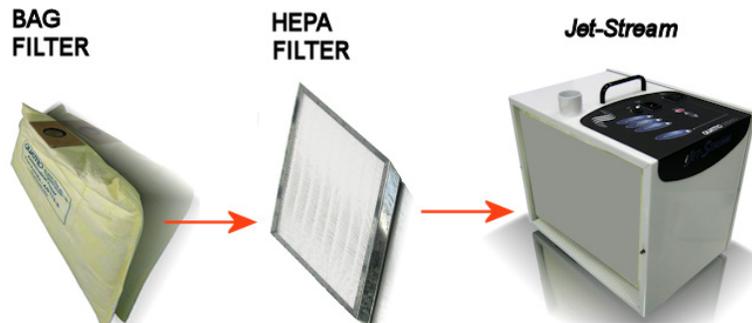
QUATRO IS NOT LIABLE FOR MISAPPLIED EQUIPMENT. ALWAYS CHECK SYSTEM VOLTAGE BEFORE PLUGGING INTO POWER SOURCE.



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

Pre-Startup Checklist

1. Position the unit in the chosen location.
2. Open the filter access panel and install the filters in the correct order. See "[Filter Service and Replacement](#)" on page 17 for more info.



WARNING:  All filters must be in place before operating the system.

3. Connect the supplied hose (or optional arm) to the Quatro System.

Startup

REMINDER: Ensure to use proper voltage and sufficient amperage as indicated on the system before powering up the unit.

ONLY USE THE POWER CORD SUPPLIED WITH THE EQUIPMENT.

Always plug the unit directly into the wall outlet. Do not use extension cords or power bars. Ideally the unit should be plugged into it's own dedicated circuit.

1. Connect the power cord to the unit and then to the power source.
2. Turn the Jet-Stream 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.



Your Jet-Stream should now be functioning and operational;

3. Adjust controls to desired airflow. If noise and suction are acceptable operate at max speed for maximum removal.

NOTE: The filters in this system are not cleanable. They need to be removed and disposed of periodically. See "[Specifications](#)" on page 18 and "[Filter Service and Replacement](#)" on page 13.

i Series Controls

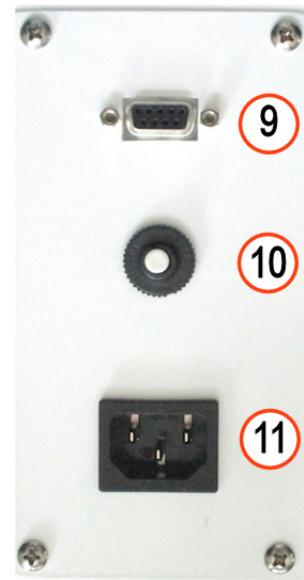
Important Notes for Proper Function of Controls

- Do not connect the 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 control the unit remotely.
- Quatro Air has many power switching adapters available for SAFE and reliable control.

i Series Controls and Alarms/Status Conditions

The iSeries controls feature soft touch Power (On/Off), Speed Up and 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.



1. System On LED (L1)
2. Service Motors LED (L2)
3. Service Filters LED (L3)
4. Menu LED: This LED is visible only when the unit is illuminated in Programming mode. It is a menu selection indicator.
5. Remote/Standby LED (L5)
6. Power Button
7. Speed UP button
8. Speed UP button
9. DB9 connector
10. Circuit breaker
11. Power inlet

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 and 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** and **DN**   quickly at the same time.
When the buttons are released the alarm(s) will mute and 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.

Light Diagnostics Table (Rev 17.0 and Higher)

Light (LED)	Status	Audible Alert	Condition	Description/Action
System ON LED 1 (L1)	SOLID		Unit is ON	N/A
	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 page 14
	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 and Replacement" on page 20
	SOLID	Beep Every 15 Min	Motor(s) Service Becoming Urgent	“Quick Change” Brush Motors ONLY: Replace Brushes ASAP And RESET ALERT See "Motor Service and Replacement" on page 20
	SOLID	Beep Every 5 Min	Motor(s) Service Required IMMEDIATELY	“Quick Change” Brush Motors ONLY: Replace Brushes IMMEDIATELY And RESET ALERT See "Motor Service and Replacement" on page 20
	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 and Replacement" on page 20

Light (LED)	Status	Audible Alert	Condition	Description/Action
Service Filter(s) LED 3 (L3)	Flashing Slowly		Filter Pressure High	Prepare To Service/Replace Filters See " Filter Service and Replacement " on page 17
	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 and Accelerates Brush Wear. See " Filter Service and Replacement " on page 17
	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 and Replacement " on page 17 For More Info
	SOLID	Beep Every Hour	Filter(s) Service Life Expired	Replace Filter(s) ASAP And RESET ALERT See " Filter Service and Replacement " on page 17 For More Info and 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 and Replacement " on page 17
Remote Standby LED 5 (L5)	SOLID		Receiving Remote Signal	Remote Switch Closed (On) OR Receiving Remote Signal From Another Piece Of Equipment
	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 LEADS	Flashing Slowly	Beep Every Second	Low System Pressure	Abnormally Low Pressure, Unit will BEEP and 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 and Replacement " on page 20 -Motors Not Operating Due To Excess Heat. See " Filter Service and Replacement " on page 17 -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) **POWER** button. 

Variable Digital Speed Control and AUTOFLOW

Speed control is available in all modes of operation (manual and automatic) and is adjusted with the **UP and DOWN** arrows.  

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 Operation

Remote Operation Mode simply means that the ON/OFF button on the control panel will be temporarily disabled if the system is receiving a signal from a remote source to operate.

To enable the remote system startup simply supply a remote signal after the power supply and remote cable are connected to the system. The **Jet-Stream System** will respond by illuminating LED 1 (System On) and LED 5 (Remote/Standby).

Whenever the remote signal is supplied the unit will instantly start, when the remote signal is stopped the unit will stop after a 30 second delay.

Set the shut off delay in your control software to the shortest possible interval. The Jet-Stream System has a 30-second delay that cannot be turned off.

NOTE: When operating by remote control the use of the On/Off (Power) button on the panel is disabled while the Remote/Standby light is ON Solid Or Fading In And Out.

If you wish to use the On/Off button on the panel after Remote Operation has been enabled the function is only available when the Remote/Standby light is flashing slowly. While in operation via the ON/Off (Power) button, remote operation is temporarily disabled. Turn the unit off with the ON/Off (Power) button to go back into Remote Operation.

Remote (Automatic) Operation and 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 information on available applications and part numbers. The Quatro System supports Closed Contact and 1-30V AC or DC remote operation as well as Remote Status signals.

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

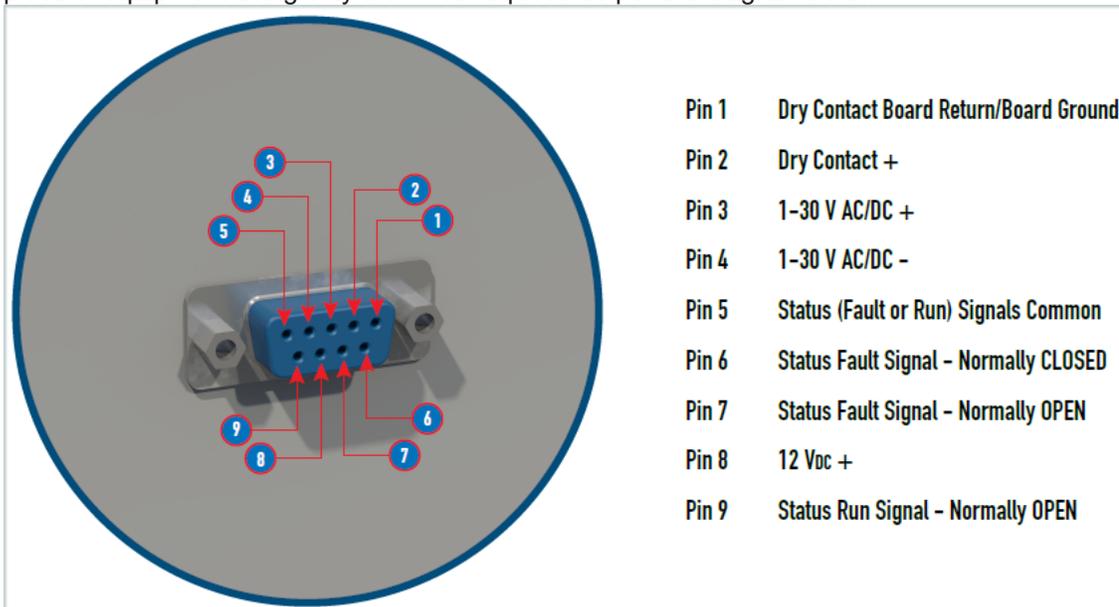
Temporary ON Mode allows you to temporarily override your automatic remote control of the system to perform a quick cleaning of work surface. Temporary ON Mode is only available when the Remote/Standby (L5) light is flashing slowly. Use of this mode will temporarily **BLOCK OR DISENGAGE** all other functions.

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 unblocked.

DB9 Pin Out Information

Jet-Streams support remote operation. Connect the AE427 remote cable in between the Quatro System and the other piece of equipment using only the wires required as per the diagram below.



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 and the green wires to the remote signal.

WARNING:  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 and Remote ON Lights will be FULLY Illuminated
- If the unit is WAITING FOR a remote signal: System ON will be OFF and 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 your 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 and 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 and 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 and 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 and 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+) and the Black Wire (Pin 1-).
 - The 12VDC+ Fault NC (Normally Closed) is available across the Blue wire (Pin 6+) and the Black Wire (Pin 1-).
 - The 12VDC+ Fault NO (Normally Open) is available across the Orange wire (Pin 7+) and the Black Wire (Pin 1-).
 - Any combination of the Dry Contact, Run Signal and Fault Signal being used means the Black Wire (Pin 1) must be shared.
- c. 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-) and the Yellow Wire (Pin 8+).
 - The 12VDC+ Fault NC (Normally Closed) is available across the Blue wire (Pin 6-) and the Yellow Wire (Pin 8+)
 - The 12VDC+ Fault NO (Normally Open) is available across the Orange wire (Pin 7-) and the Yellow Wire (Pin 8+).
 - Any combination of the Dry Contact, Run Signal and 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 and 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 " Light Diagnostics Table (Rev 17.0 and Higher) " on page 11 For More Info
Open	NC: Open NO: Closed	Unit Has Shut Down Motors or Filters Require Service Immediately See " Light Diagnostics Table (Rev 17.0 and Higher) " on page 11 For More Info

Filter Service and Replacement

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 Jet-Stream is designed to allow quick access to the filters.

LED Diagnostic Table - "Service Filter(s)" Alerts (iSeries Controls)

- If "Service Filter(s)" alert is FLASHING SLOWLY most likely the bag filter need to be replaced.
- If "Service Filter(s)" alert is ON SOLID replace the HEPA filter.

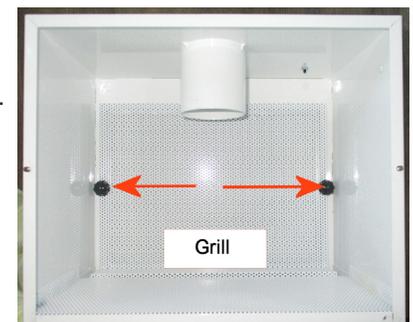
Replacement Instructions

Access to all filters is through the filter-side cover for the Jet-Stream System.

1. Unfasten the 2 thumb wheel nuts that secure the filter access panel to the chassis and remove the panel.
The filter bag is now visible.



2. Slide the filter bag downward off the inlet collar and remove.
The HEPA filter is housed behind a protective grill secured with 2 thumb wheel nuts.
3. Remove the two nuts and lift out the grill.
The HEPA filter is now visible.



4. Replace your filters using the appropriate parts.

NOTE: Disposal of both odor and particulate filters is the responsibility of the end user. Please contact local authorities for proper and legal disposal of spent filters.

Resetting Service Filters Alert

If the *Service Filters* LED does not extinguish on its own after changing the filters, follow this reset procedure.

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



3. When you Press "POWER", MOTOR WILL START.
4. While motor is operating, press and hold SPD UP and SPD DN simultaneously until unit beeps.



Hold for 10+ seconds; when panel is beeping continuously, release buttons.
In this condition, "System ON" LED is FLASHING quickly.

5. Press SPD DN until "Service Filters" LED is FLASHING.



6. Press and HOLD POWER button while *Service Filter(s)* LED is FLASHING and unit is BEEPING continuously.



Release button when unit stops BEEPING

7. LED will be OFF and unit will be ready to operate again

Replacement Filter Part Numbers

Qty	Description	Part No.	Filter Stage	
1	(Bag Filter) WHITE Standard (5 Pack)	AG143-5	Stage 1	
1	(Bag Filter)YELLOW Anti-Microbial (5 Pack)	AG113-5	Stage 1	
1	High Capacity filter for JHL series	AG208-2	Stage 1	
1	HEPA Standard	F160	Stage 2	
1	HEPA Optional	F191S	Stage 2	

NOTE: Verify the filter(s) in your Quatro System for the correct part numbers before ordering.

General Filter Maintenance Guide

Stage	Filter	Recommened Filter Change Interval	iSeries Control Panel
1	Bag Filter	Every 3 Months	None
2	HEPA	Every 6-18 Months	<i>Service Filters</i> Flashing Or ON

Motor Service and Replacement

The Replacement Indication System will prompt you when it is time to change the motor brushes by illuminating LED 2 and beeping. (See "[Light Diagnostics Table \(Rev 17.0 and Higher\)](#)" on page 11 for details).

If you ignore the warning, the unit eventually will shut down to prevent damage. This will occur even if your Jet-Stream is in mid operation. It is advised to change the brushes when prompted or ASAP to avoid a shutdown. See "[Servicing Motors With Quick Change Brushes](#)" on page 21.

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.
- Infinity motors must be replaced at the end of their service life.

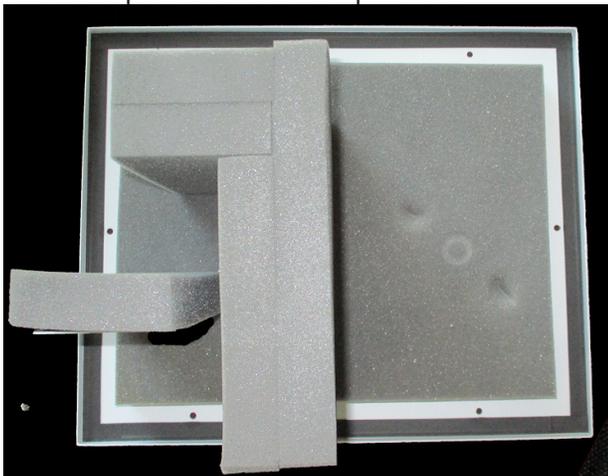
☞ **NOTE:** Infinity Motors Are Considered Consumables And Will Not Be Changed Under Warranty Unless Found To Be DEFECTIVE Within The Warranty Period.
Consumed Brushes On Infinity Motors Are Not Covered under Warranty.

Motor Access

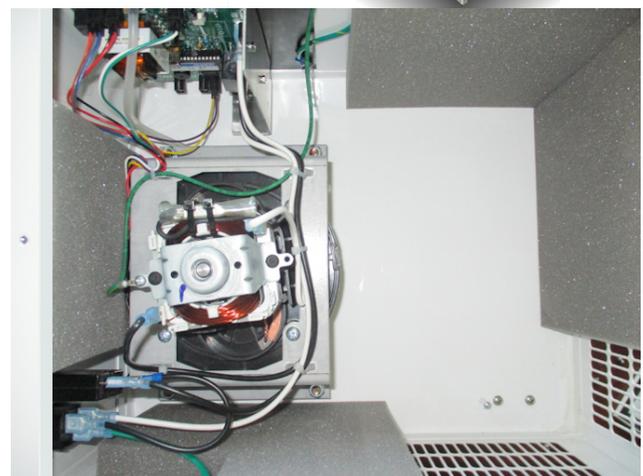
WARNING: ⚠ Switch unit off and unplug power cord from wall before servicing the motor(s).

The motor(s) are accessed through the side access panel (opposite the filter access door).

- Using a Phillips screwdriver, remove the screws along the perimeter of the side panel opposite the filter side, and lift off the cover with affixed sound-damping foam to expose the motor compartment.

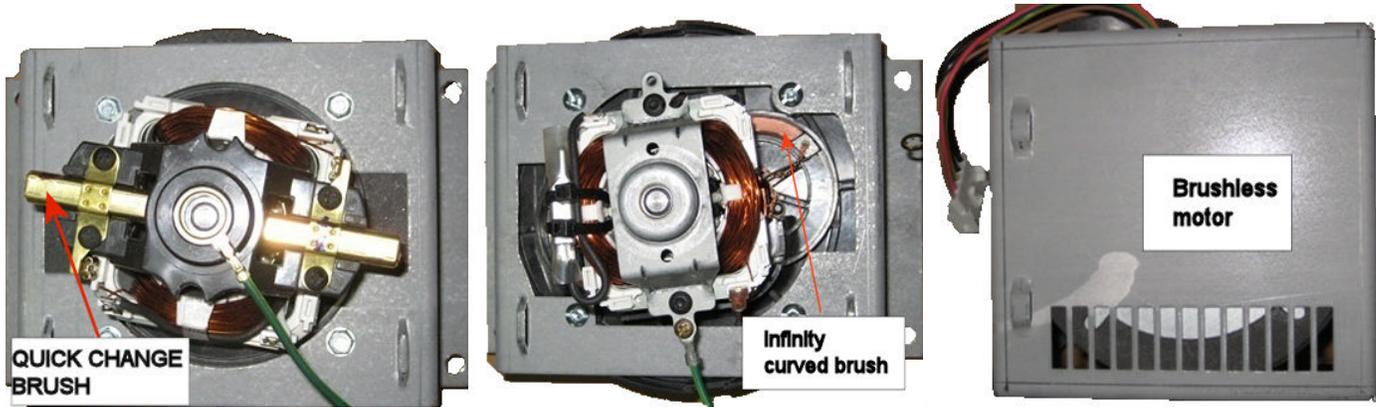


Cover w/ sound-damping foam



Motor compartment

☞ **NOTE: 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. Motors are designed to operate 2000-3000 hours and then be 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.



Servicing 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.

NOTE: You do not have to remove the turbine from unit to change brushes! The images in this section show the motors removed from the enclosure for enhanced clarity.

To access motor, do the following:

1.  Ensure that the system is **unplugged from AC power before servicing**.
2. Using a Phillips screwdriver, remove the screws along the perimeter of the side panel opposite the filter side, and lift off the cover with affixed sound-damping foam to expose the motor compartment.
3. Using a Phillips screwdriver, unscrew the 2 screws holding down each of 2 gold colored brush casings (see Figure 3).
4. Lift gold colored tab and lift/pull out each brush (**Figure 4 shows right brush removed**).

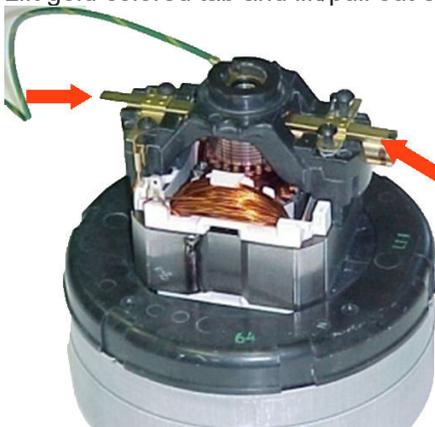


Figure 3 - Brush casings and screws

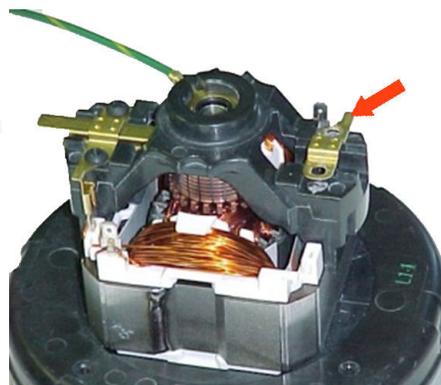


Figure 4 - Brush removed



Figure 5 - New motor brush

5. Replace both motor brushes making sure the locking tab on the brush is facing the motor and re-install the retaining screws.

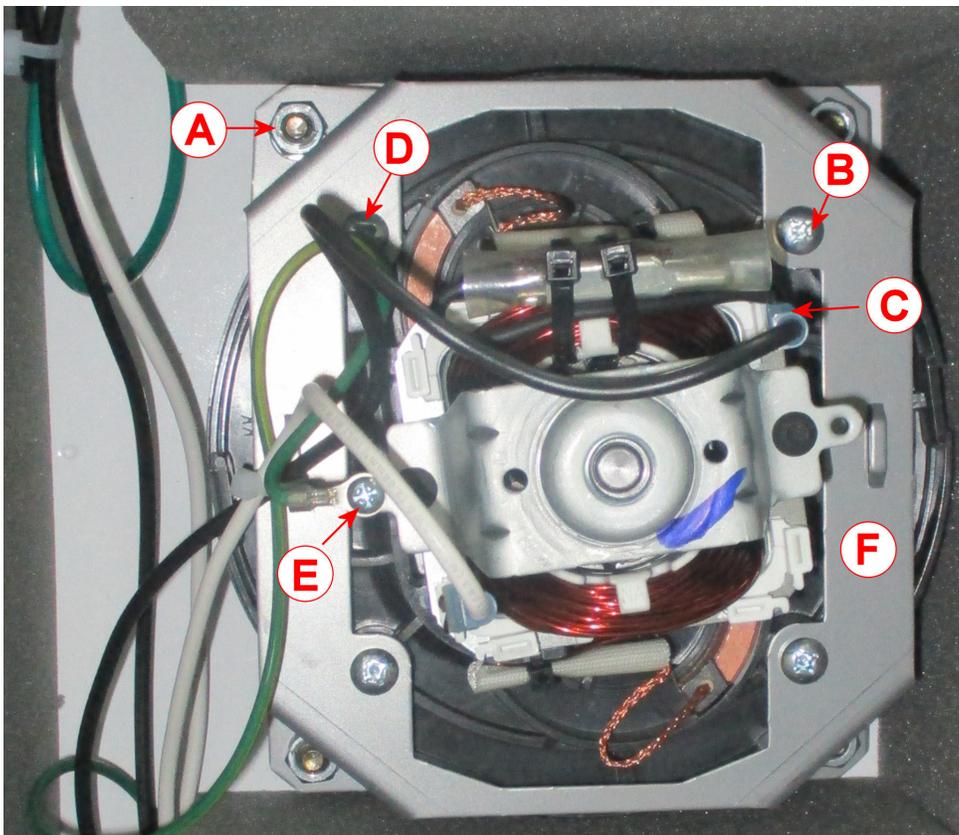
6. Close motor access panel.
7. **For units with iSeries Controls, Reset Service Motor(s) Alert.**
 This MUST be done EVEN IF L2 IS NOT ILLUMINATED or the motor(s) replacement alert will not function correctly.
 - a. Ensure filter access door is closed.
 - b. Plug power back to the unit.
 - c. Press and hold SPEED UP  and DN  simultaneously until unit BEEPS.
 - d. Hold for 10+ seconds; when panel is beeping continuously, release buttons. You are now in RESET MENU. In this condition, **System ON LED** is FLASHING QUICKLY.
 - e. Press SPEED DN  (1 Time) until **Service Motor(s) LED** is FLASHING
 - f. Press and HOLD POWER button while **Service Motor(s) LED** is FLASHING and unit is BEEPING continuously.
 - g. Release when LED stops FLASHING and 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 #
2-Pack	AB022
4-Pack	AB124
6-Pack	AB117
8-Pack	AB036
20-Pack	AB121

Motor Replacement

Refer to following figure when performing this procedure.



- A. Retaining nuts (4X)
- B. Motor-to-bracket mounting screws (4x)
- C. Black wire terminal
- D. Green wire terminal
- E. White wire terminal
- F. Motor retaining bracket

CAUTION:  ALLOW MOTOR(S) TO COOL FOR 45 MINUTES BEFORE SERVICING.

1. Unplug power cord and open motor access panel.
 2. Disconnect wires (C,D,E), cut zip ties.
 3. Remove the retaining nuts (A) and lock washers holding the motor assemblies.
 4. Remove the motor retaining bracket (F) from the old motor by removing the 4 mounting screws (B).
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 **NOTE:** Note the orientation of the bracket.

5. Install the bracket on the new motor. See the installations pictures below.
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WARNING:  THIS STEP 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 in "[Motor Access](#)" on page 20.

6. Install the assembly back into the unit, connect the wires, and 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.
 - Ensure filter access door is closed.
 - Plug power back to the unit.
 - Press and hold SPEED UP  and DN  simultaneously until unit BEEPS.
 - Hold for 10+ seconds, when panel is beeping continuously, release buttons.
 - You are now in RESET MENU, in this condition, System ON Led is FLASHING QUICKLY.
 - Press SPEED DN  (1 Time) until **Service Motor(s)** LED is FLASHING.
 - Press and HOLD POWER button  while **Service Motor(s)** LED is FLASHING and unit is BEEPING continuously.
 - Release, when LED stops FLASHING and stops BEEPING.

Troubleshooting

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	Filter(s) not in place	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

Specifications

JS Series

Nominal Airflow	110 CFM
Approximate Dimensions	13" (330mm) High x 11" (280mm) Wide x 15" (381mm) Deep
Voltage/Phase/Frequency, Current, Power	115/1/60, 7 Amps, 825 Watts 230/1/50, 4 amps, 750 Watts
Approximate Weight	28lbs (13kg)

JHL Series

Nominal Airflow	110 CFM
Approximate Dimensions	13" (330mm) High x 16" (406mm) Wide x 15" (381mm) Deep
Voltage/Phase/Frequency, Current, Power	120/1/60, 7 Amps, 825 Watts
Approximate Weight	28lbs (13kg)
Inlets	(1) 1.5" diameter

Replacement Parts

Qty	Description	Part	
1	Power Cord 120v	E220	
1	Power Cord (Euro 230V)	E130	
1	Remote Cable	AE427	
1	Replacement Black Door Knob Kit (2 pcs)	AR097	
1	External Rubber Feet under unit	H615	
1	Rubber Adapter, 1.5" hose to 40mm Euro Inlet	AA108	

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.

Disclaimer

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.

THE SYSTEM IS DESIGNED TO BE CONSTANTLY POWERED (PLUGGED IN). USE THE ON/OFF ONLY SWITCH TO TURN THE SYSTEM ON and 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.

WARNINGS:

- 1) 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.
- 2) This filtration system is not intended for use with explosive, highly flammable, or toxic substances or environments. (Example: where the lower flammability limit may be exceeded, see chemicals' specific MSDS for more information on these limits.)
- 3) If you are collecting a flammable material, it is your responsibility to ensure that an ignition source is not introduced into the collected material. This could be in the form of static discharge, flames, sparks, cigarettes, matches, chemicals causing exothermic reactions, or any other source of ignition that could ignite the collected material.
- 4) If you are not sure if your product is explosive or considered highly flammable, you should have it tested before operating your filtration or dust collection system.
- 5) Ensure that the system and the installation comply with all local NFPA and OSHA regulations.
- 6) Always unplug your system when inspecting or performing maintenance.

NOTE:

- 1) Any changes to the system will void all warranties.
 - 2) Only original Quatro-approved products should be used for repairs of any kind.
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