QUATRO
Air Technologies Inc.

Operations & Maintenance Manual

PowerStation, PS6 Series

PS6 is shipped on a pallet, in an Upside-Down Configuration

Accessories shown on top are shipped in a box, placed on top of the unit

INSTALLATION, FREE-STANDING MODEL

The unit is shipped in the upside-down position, casters are factory installed, 2 models available,
All items below are shipped in a separate box:

Model	Ships with:
PS625-2370-0	(2) F022 HEPA filters, (6) AG259 YELLOW filter bags, (4) Galv Filter Separators, O&M Manual, Hose and fittings are added separately depending on application.
PS625-23AZ6GH	(2) F022 HEPA filters, (6) AG149 WHITE filter bags, (2) Galv Filter Separators, O&M Manual, (2)inlet plates(3x1.5"dia),50ft 1.5"dia suction hose, 240v PowerCord(#E302), Foot-pedal (AA175), (6) Rubber hose fittings, (6) 2"wide x ½"thick gaskets for rubber hose fittings: Connect to 1.5" dia: use hose directly Connect to 2" dia: use Rubber Hose fittings to connect Connect to 2.5" or 3"dia: use ½" thick gaskets around Rubber hose Fittigns to make up the dimension Your option to install unit on (6) stationery rubber feet or (4) mobile casters (install 2 lockable casters in front)

1) Install Rubber feet or casters
2) Open filter door, remove plastic around HEPA filter, install HEPA filter, Grating and filter bags
3) Plug Power Cord to a grounded 240-volt wall outlet
4) Connect to individual workstations

SYSTEM IS MORE EFFICIENT WHEN CONNECTING EACH WORKSTATION INDIVIDUALLY

START-UP

1) Plug the unit into a 220-240v wall outlet with the cord provided (socket is on side of unit)
2) After 10seconds, switch ON using RED POWER button on control panel to ensure unit STARTS
   "System ON" LED illuminates, indicates unit is operating
2) Press POWER button again to switch unit OFF
3) You are now ready to operate
4) Install Foot-Pedal (#AA175) into the db9 (9-pin socket on side of unit) to start/stop unit remotely
   If: "System ON" LED is OFF (indicates unit NOT operating)
   If: "Remote/Standby" LED flashes (indicating unit is in WAITING MODE)

OPTIONAL ON-OFF

Unit can be switch ON-OFF at a 2nd location. To do this, you can purchase:
A- db9 Cable Signal Splitter (#AE686)
B- second Foot-pedal (#AA175) or Hand-Switch (#AA375)
This will split your Foot-pedal/Hand-Switch signal into 2 inputs. To extend the length of your foot-pedal or Hand-Switch cable, you can purchase Male-Female DB9 cable at your local electronics store.

OPTIONAL ASV, Auto-Start Valve CONTROLS

ASVs are Quick & Easy Remote Start-Stop Valves that reduce Dust Collector power consumption. ASVs allow more suction to the active workstations by diverting air from the idle ones.

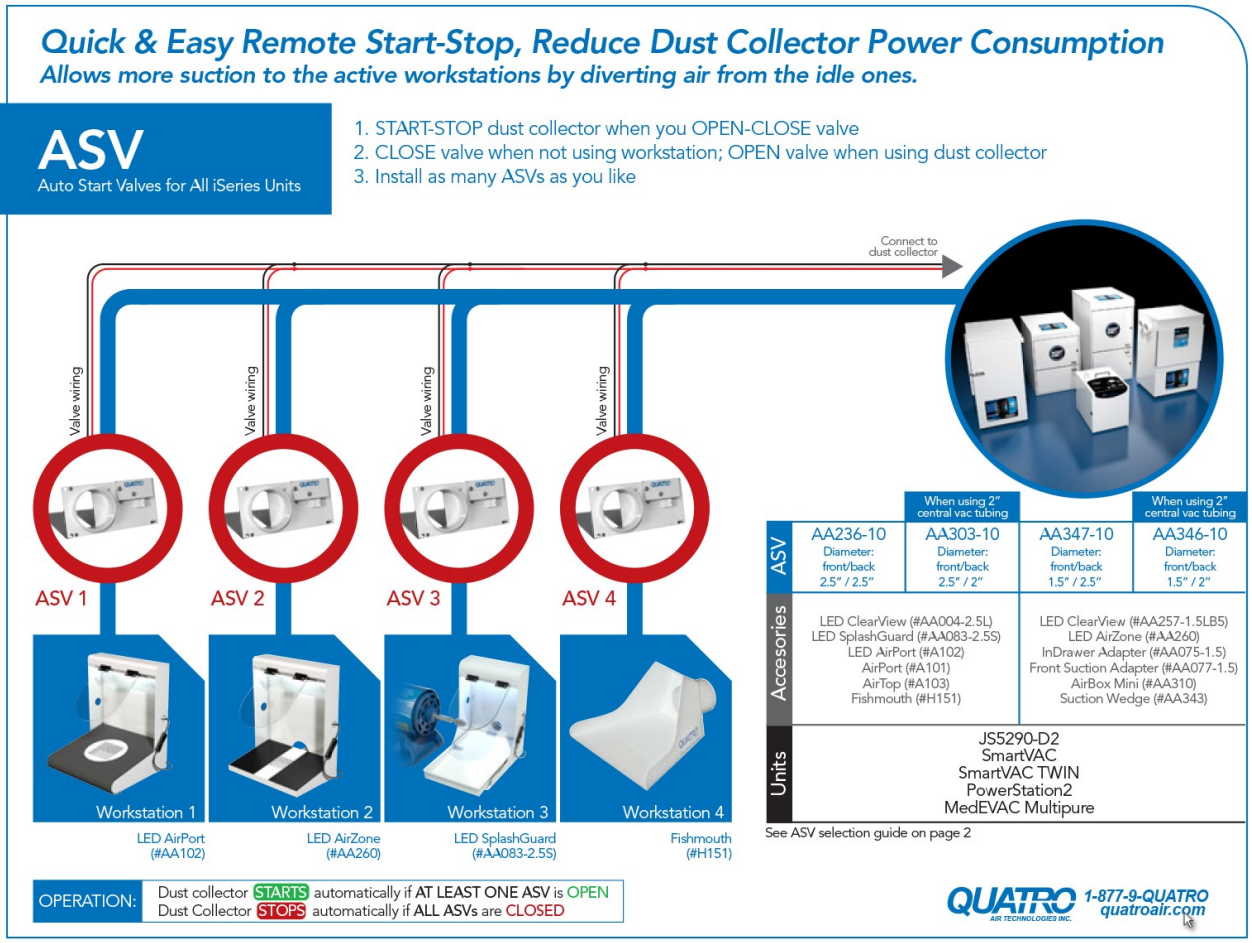
Principle of Operation:
1. START-STOP dust collector when you OPEN-CLOSE valve
2. CLOSE valve when not using workstation; OPEN valve when using dust collector
3. Install as many ASVs as you like

Dust collector **STARTS** automatically if AT LEAST ONE ASV is **OPEN**
Dust Collector **STOPS** automatically if ALL ASVs are **CLOSED**

ASV Part Numbers:

Model	Description, when using:	Front ASV dia.	Rear ASV dia.
AA444-A31	When connecting 1.5"dia. hose to a 3"dia inlet	3"dia	1.5"dia
AA444-A21	When connecting 1.5"dia. hose to 2" dia tubes	2"dia	1.5"dia
AA444-A11	When connecting 1.5"dia. hose to 1.5" dia inlets	1.5"dia	1.5"dia

Other diameters also available



SAFETY PRECAUTIONS

Carefully read instructions in this manual before operation (keep manual as it contains information for proper operation and maintenance). Keep all fastening hardware tight to ensure that the unit is in safe working condition. Familiarise yourself with the way in which the special filter is removed, installed, and serviced. Filter must be in place whenever this machine is in operation. Use only on grounded electrical circuit; do not use two-wire electrical prong adapters to defeat the three-pronged plug on the end of the cord. When servicing motor, be careful when touching exterior of motor when it is turned off; it may be hot enough to be painful or cause injury. **Do not substitute any other filter for the one supplied, as it will alter the design characteristics. UNPLUG UNIT FROM ITS POWER SUPPLY PRIOR TO SERVICING UNIT!**

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.

UNIT INSPECTION

Upon receipt, inspect unit for either visible or concealed damage. Damage should be immediately reported to the transport company.

If you suspect concealed damages inside the box indicate so on the transport companies' shipping documents.

Single box, c/w all components required either on or inside the unit:

PRE START-UP CHECKLIST

a) Check that all internal components are present and are adequately supported;
b) Check that labels and serial numbers are present for future identification;
c) Verify power supply compatibility with equipment (120-volt/1 phase/60hz). Check that the unit is plugged into a grounded receptacle;
d) Ensure that rubber grommets are tight and secure prior to placing unit on the floor.

WARNING: DO NOT OPERATE UNIT UNLESS FILTER IS IN PLACE, AS MOTOR MAY BURN-OUT.

Dirty Air Inlet collars are to be installed on the BACK side of unit.

PRINCIPLE OF OPERATION

A four step AUTOMATIC method of operation:

a) Filter bags capture all heavy / larger particles; b) HEPA Filter captures and holds fine, lighter dust particles; c) odor filters (Model dependant) capture applicable odors d) heavy duty blower section to overcome static pressure across the hose and filter.

UP/DOWN Arrows on control panel allow you increase and decrease speed in 9 increments.

AUTOMATIC (Remote) OPERATION

When power cord is plugged in and POWER button is pressed, unit will BEEP once, ALL lights will illuminate (unit is operational), unit will start

TEMP MODE FEATURE: While unit is in STANDBY MODE (Remote/Standby Led is flashing), Press POWER button to start motor, and press again to shut motor OFF (this overrides the Remote Signal you are receiving from your hand-switch or foot-pedal)

Unplugging the power cord will automatically deactivate Remote Sensing Feature.

EQUIPMENT MAINTENANCE PROCEDURES

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

FILTER REPLACEMENT

Filter requires replacement if appropriate LED on control panel illuminates (and beeper sounds for 2 seconds every 4 hours).

Filter replacement is ALSO required if you notice the following:

a) If you are losing suction capacity, after filter has been used…..**FILTER IS CLOGGED**;
b) If dust is coming through the filter and dust is present in the motor section even though filter is seated properly……..**FILTER IS PUNCTURED**;
c) Gasket on BASE of HEPA Filter is even slightly worn, **GASKET NEEDS TO BE IN GOOD CONDITION TO ENSURE DUST DOES NOT GET THROUGH**

ANNUAL GENERAL INSPECTION

Sealing integrity is essential. Every 12 months, verify all gaskets are in proper condition. Should the door gaskets adhere slightly to the unit when opening a door, lubricate its surface with a transparent grease or petroleum jelly. Should unit be moved on occasion, ensure that rubber grommets are tightly fastened. **Disconnect the unit by unplugging the power cord from the wall**, and access the fan section. Verify that the acoustic insulation is well fastened to the walls. In the event of a problem, call your authorised distributor for spare parts and replace immediately.

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Filter Bags (6 required)
AG149, kit of 6 WHITE bags
or
AG259-06, kit of 6 YELLOW bags

HEPA Filter 2 X (F022)
located at bottom below the filters, behind front access door
(remove plastic around HEPA filter before starting unit)

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

RESETTING MICROPROCESSOR AFTER FILTER(S) HAVE BEEN REPLACED

Resetting Microprocessor After FILTER Replacement , WHILE "Service Filters" Led is SOLID

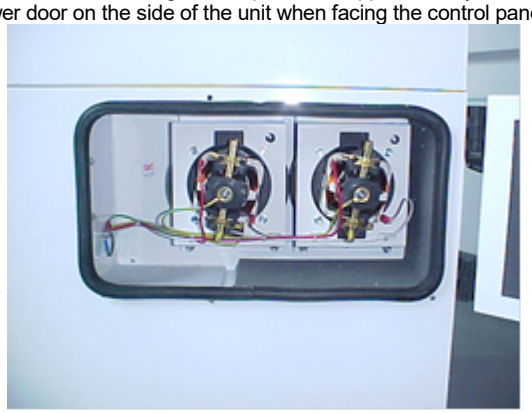
1- Ensure motor access door is closed
2- Plug power back to the unit
3- When you Press "POWER", MOTOR WILL START, "Service FILTER(s)" Led stays SOLID
4- While motor is operating, press & hold SPEED UP & DN simultaneously until unit BEEPS (hold for 10+ seconds, when beeping continuously, release)
5- In this condition, "System ON" Led is FLASHING, "Service Filters" led is SOLID
6- Press SPEED DN until "Service Filters" Led is FLASHING and system is BEEPING continuously
7- Press & HOLD POWER button while "Service Filters" is FLASHING & BEEPING continuously Release, when it stops BEEPING
8- Led will be OFF and unit will be ready to operate again

Resetting Microprocessor After Filter Replacement, WHILE "Service Filters" Led is OFF

1- Ensure motor 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 & hold SPEED UP & DN simultaneously until unit BEEPS (hold for 10+ seconds, when beeping continuously, release)
5- In this condition, "System ON" Led is FLASHING
6- Press SPEED DN until "Service Filters" Led is FLASHING
7- Press & HOLD POWER button while "Service Filters" is FLASHING Release, when it stops BEEPING
8- Led will be OFF and unit will be ready to operate again

BLOWER MAINTENANCE

The system includes (2) Brushless hi Vacuum motors, designed to operate for approximately 20000 operating hours.
Motors are located behind the hinged lower door on the side of the unit when facing the control panel & filter access door.



View of motors once lower door is opened.

RESETTING MICROPROCESSOR CONTROLLER AFTER REPLACING MOTORS

Resetting Microprocessor After Motor Replacement **WHILE "Service Motor(s)" Led is SOLID**

1- Ensure motor access door is closed
2- Plug power back to the unit
3- When you Press "POWER", MOTOR WILL START, "Service Motor(s)" Led stays SOLID
4- While motor is operating, press & hold SPEED UP & DN simultaneously until unit BEEPS (hold for 10+ seconds, when beeping continuously, release)
5- In this condition, "System ON" Led is FLASHING, "Service Motor(s)" led is SOLID
6- Press SPEED DN (once) until "Service Motor(s)" Led is FLASHING and system is BEEPING continuously
7- Press & HOLD POWER button while "Service Motor(s)" is FLASHING & BEEPING continuously Release, when it stops BEEPING, and motor operates in LOW speed
8- Operate unit at LOW SPEED for 10-15 minutes to break-in new brushes (to prolong brush life)

Resetting Microprocessor After Motor Replacement, **WHILE "Service Motor(s) Led is OFF**

1- Ensure motor 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 & hold SPEED UP & DN simultaneously until unit BEEPS (hold for 10+ seconds, when beeping continuously, release)
5- In this condition, "System ON" Led is FLASHING
6- Press SPEED DN (once) until "Service Motor(s)" Led is FLASHING
7- Press & HOLD POWER button while "Service Motor(s)" is FLASHING Release, when it stops BEEPING, and motor operates in LOW speed
8- Operate unit at LOW SPEED for 10-15 minutes to break-in new brushes (to prolong brush life)

Unplug POWER cord from unit, Replace motor(s) as per instructions above, close motor access door.
MOTOR WILL DEFAULT TO LOWEST SPEED AFTER A RESET. YOU WILL PROLONG MOTOR BRUSH LIFE IF YOU BREAK THEM IN, SO IT IS ADVISED TO LET MOTOR OPERATE AT LOWEST SPEED FOR 15 MINUTES

TROUBLESHOOTING, MECHANICAL GUIDE

Symptoms	Possible Cause	Suggested Solution
Unit will not start	• Faulty power supply • Circuit breaker popped • Motor burnt • Brushes worn	• Check breaker box • RESET circuit breaker on unit panel • Replace motor (PN: AB001) • Replace Brushes (PN: AB112)
Excessive noise	• Turbine impeller contacting housing	• Replace motor (PN: AB001)
Insufficient airflow	• Obstruction in system • Clogged filter	• Remove obstruction • Replace filter
Motor shuts off	• Input amperage too high • Graphite crystal rods are consumed • Motor is burnt	• Ensure filter is in place, reset circuit breaker • Replace rods (PN: AG112, 2/pkg) • Replace motor (PN: AB001)
Excessive airflow	• Filter not in place	• Install filter
Suction varies from workstation to workstation	• Hose lengths between stations vary	• Adjust damper or blast gate at each station equalizing suction

WARRANTY

QUATRO Air Technologies (QUATRO) 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 authorised 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.
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, as well as operation of the equipment at voltages other than those specified by QUATRO.

REPLACEMENT PARTS LIST

	PowerStation 6
Description	PS625-23A6GH
HEPA Filters (2 required)	F022
WHITE Filter Bags (6 required)	AG149 (pak of 6)
YELLOW Filter Bags (6 required)	AG259-06 (pak of 6) or AG259-12 (pak of 12)
Blower Turbine Assy 230V (2 required)	(2) AB045-25

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LED Diagnostics Table, R18

Light (LED)	Status	Audible Alert	Condition	Description/Action
System LED 1 (L1)	SOLID		Unit is ON	
	Flashing Slowly		AUDIBLE ALERT MUTED	Alarm Condition MUTED, See L2, L3 Or L4 for specific alarm condition
Service Motors LED 2 (L2)	SOLID	Beep Every 4 Hrs	Motor(s) Will Soon Need Service	"Quick Change" Brush Motors WILL SOON Require Brush Replacement INFINITY motor Brush WILL SOON Require Complete Replacement Brushless Motors Are 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 Replace/Service Filters See "Filter Service & Replacement" Section For More Info & Filter Service/Replacement Instructions
	Flashing Slowly	Beep Every Hour	*Filter Pressure Near Critical, Service Becoming Urgent	Replace Filters. See Filter Service/Replacement For More Info. **Continued Operation May Result In Unit Shutdown.** **High Pressure Causes Excess Motor Heat & Accelerates Brush Wear.**
	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 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 A Short Period 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 Service (Change Brushes) Or Replace Motor(s) & RESET ALERT Alert See "Motor Service & Replacement" Section For More Motor Info & Reset Alert Instructions -Motors Not Operating Due To Excess Heat. Check For Line Blockage, Service/Replace Filters. Let Motor(s) Cool For 30Min. 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

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