





# **TURBOJET SUPER MAX**



Division of D.P.L. Enterprises Inc. 3868 East Post Road, Las Vegas, Nevada 89120, (702) 454-5515, FAX (702) 454-5225 Website: www.air-care.com; E-mail: cs@Air-Care.com REV. 02162023 Specifications subject to change without notice.

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Remove the outer box and inspect for damage. Report all damage immediately to your carrier. If special set-up instructions are required, they will be taped to the outside of the Equipment or in the "Operating" section of this manual.

Inspect all of the packing material for small parts before discarding packaging material. Report all damage to Air-Care immediately. Any attempt at repairing damages may void warranty.

Check that all parts are present

TurboJet Max Main Assembly, with Wheels, Motor and Blower. Release the 4 side latches and lift the front of the upper section so it hinges up to check for filters. The HEPA filter will remain in the bottom section, the First Stage, 1" pre-filter frame and pad will remain in the top section and the Flexible electrostatic 2nd stage filter will be mounted in the top of HEPA frame.

- o First stage, 18" x 24" x 1" Electrostatic with disposeable pads
- o Second stage, 18" x 24" x FLEX Electrostatic Air Filter
- o Third stage, 18" x 24" x 4.75" Certified HEPA Filter
- o 5. 25' Power Cords (2).
- o 6. The handle is wrapped separately and shipped loose in the box.
- o The 12" Dia. Hose adapter Plate is over the Inlet.

### SAFETY INFORMATION

Always use safe and common sense precautions when working with Air-Care equipment. Do not block walkways with equipment, and remove delicate and breakable articles from the immediate work area. The following are precautions that should be reviewed by all persons who will be involved in the cleaning activity:

• Other than the 3 filters, there are no user serviceable components in Air-Care TurboJets. Only trained technicians should attempt to make internal repairs on this equipment.

• Always turn off the main power switches on the TurboJet front Panel, or disconnect the power before opening or removing the doors or filters.

• Inspect AC power plug to be sure the ground pin is in place. DO NOT USE AN EXTENSION CORD. Plug power cords directly into 2 independent power outlets.

• Never connect power to Air-Care equipment unless all covers and safety shields are in place. Mechanical and electrical parts could activate and cause injury.

• Never allow anyone but a properly trained technician to use the equipment or cleaning products.

• All Air-Care equipment is designed for US standard 115 volt, 60 Hz AC. Most Air-Care equipment can be special ordered to meet other worldwide standards for a reasonable price and delivery schedule. Always check the specifications on the equipment before connecting electrical power to Air-Care equipment.

### HANDLE INSTALLATION\_\_\_\_\_

Handle is bubble wrapped and packed near the bottom, front of TurboJet. It must be installed with the 4 bolts provided and your ½" socket wrench or nut driver.





### Set-Up and Testing

Air-Care TurboJet Negative air machines are designed to "Pull" loose debris out of the air system to which they are connected and filter out harmful debris such as pollen, dust, mold spores and other debris with their 3 stage HEPA filter system. An agitating device to "Push" debris is required to properly clean an air system. The Cobra Power Brush System or the Air Whisk and Sidewinder air tools are designed to loosen and agitate debris so the TurboJet can pull it out. See the "Duct Cleaning" section on page 8 of this manual for a summary of proper duct cleaning procedures.

To test the TurboJet, be sure all filters are in place and the Top is closed and latched in place.

1. Set the "Run" switch is in <u>"STOP"</u> Position.

2. TURN OFF the Circuit Breakers.

3. Connect **ONE** or **TWO**, 12 gauge x 25-foot power cords, <u>with GROUND Pins</u>, to 2 separate outlets that **DO NOT** have other devices plugged into them. (220 Volt Version has one twist lock cord and one dual circuit breaker/power awitch).

4. **AFTER** the power cord or power cords are connected, Turn on **BOTH** circuit breaker switches and wait 5 seconds.

### **Status Lights**

#### 120 Volt Model:

Red/Green Status LED. The TurboJet SuperMax will operate with one or two 120 volt AC power Cords connected to 2 separate circuits rated at 15 Amps or 20 Amps each, non GFI.

If all circuits are fitted with GFI outlets, or circuit breakers, **ONLY ONE** power cord can be used.

With one Power Cord the SuperMax will run up to 1.5 Horsepower, while connecting a Second Power Cord to an outlet on a SEPARATE Circuit Breaker, will allow the SuperMax to run up to 3 Horsepower.

#### The SuperMax 220 volt model:

Does not require the electronic pre-test. required for 120 volt dual power cord version. The single LED should light up when the breaker switch is activated. If the light fails to light, there is a problem with power or the power cord.

### OPERATING INSTRUCTIONS \_\_\_\_\_



LED IS OFF No Power is being supplied by either cord.

#### **ACTION:**

Turn OFF the Breaker Switches, Move the cords to new outlets and turn on both breaker switches.



FLASHING RED LIGHT The Power On test found that there is NO Ground connection in either power cord.

#### **ACTION:**

For Safety, there MUST be a ground connection. Replace any power cord that does not have the round, grounding prong on the plug.

#### SOLID GREEN

Power Connected Main Switches turned on. Five second diagnostic check in progress.

#### **ACTION:**

The Green LED will be on for 5 seconds while Power On Diagnostics Run.



#### SOLID RED AFTER 5 SECONDS

The Diagnostics have found a fault that will prevent the motor from running.

#### **ACTION:**

Turn off BOTH breaker switches on the panel, then Turn them BOTH back on together. If the Red Light comes on again, after 5 seconds, Contact Air- Care Tech Support 800-322-9919 The Motor will not run before the 5 second Diagnostic check has completed. If the Motor fails to run with a solid Green Light, there was a power surge in the building. In this Case, Turn OFF BOTH Breaker Switches, wait 3 Minutes for the Circuit to reset, then Power ON BOTH breaker switches, and then try the RUN switch again.

If the Motor fails to start, or the Status Light is out, **Turn off the Breakers** and disconnect the Power Cords for 3-4 Minutes, then reconnect, and **turn on both breaker switches at the same time**, and wait 5 - 10 seconds before starting the Motor. If this does not clear the error condition, call: Air-Care, Tech Support 800-322-9919

### ATTACHING TURBOJET HOSE TO THE AIR SYSTEM

Effective duct cleaning can be accomplished with the TurboJet connected to one of the following positions in the duct system. The "best" location is determined by the specific configuration of the particular air system.

#### A. With a basement or crawlspace air conditioner/furnace

Cutting an access hole in the side of the supply side main trunk line is very effective. Be sure that no airflows through the furnace. To stop air from coming through the furnace, block the return openings with cardboard and duct tape. An alternate way to block the airflow would be to slip the customers existing furnace filter in a plastic trash bag and reinstall. If there are returns in each room, you will also need to connect to the return trunk line at the furnace and block it off while cleaning the return ducts.

#### B. With a garage, interior closet or roof mounted up-flow air conditioner/furnace

Just remove the diffuser grill from a large ceiling or wall mounted supply duct and use the Pogo Pole hose adapter to connect the TurboJet inlet hose to the system. Connecting to a large supply duct is very effective. Gravity will help "pull" dust and debris into the Turbojet.

In some cases, it may be best to attach the TurboJet to each Supply or return duct and insert the agitation device into that same duct opening to disturb debris as far up stream and down stream as possible.

To obtain maximum "pull", always keep the attaching hose as short and as straight as possible.

### DUCT CLEANING PROCEDURES \_\_\_\_\_



1. Bring the TurboJet into close proximity to the planned connection ducts.



2. Connect the two 12 gauge, grounded, electrical power cords to Two Independent electrical outlets (110V, 15AMP or more). It is recommended to NOT use longer or smaller gauge extension cords. The SuperMax will NOT run without a good ground connection in the power cord, this is a SAFETY Feature.



3. Connect a 12" hose to the 12" TurboJet inlet. To obtain maximum "pull", always keep the attaching hose as short and as straight as possible.



4. Connect the other end to the most effective supply duct location using the optional Pogo Pole hose adapter or 12" adapter plate.



5. Close off the return side of air handler by putting a filter in a plastic bag and reinstalling it into its holder.



6. Turn on BOTH Circuit Breaker switches (within 2 seconds of each other) at the bottom of the panel then Select "Power Level "1" if using one Power Cord, or Power Level "3" if using 2 power cords. Power Levels "2" and "4" can be used if the Circuits are rated for 20 Amps.

### DUCT CLEANING PROCEDURES



7. Use the RUN switch to start the Turbo SuperMax motor.



8. Follow recommended procedure to clean each supply, beginning at the most distant one, using the Cobra Power Brush System, Sidewinder or Air Whisk (sold separately).



9. After all ducts are cleaned, the ducts can be fogged with an EPA registered Deodorizer and Soot Set Sealer.

- 10. Before fogging the supplies, turn off the power switch.
- 11. Remove hose from the top of the TurboJet.
- 12. Place a piece of pellon, 20" X 22" over the 12" inlet.
- 13. Re-install the hose, and turn on the power switch.
- 14. Fog the supplies, beginning with the most distant supply.

15. When the fogging is complete, turn off the power; remove the hose from the TurboJet and the supply duct.

16. Remove and discard pellon.

17. Inspect first stage filter, if loaded with debris, take the TurboJet out of the building and dump it out or replace as required.

- 18. Inspect electrostatic flex filter and wash if soiled.
- 19. Unplug power cords, put TurboJet back into the vehicle, and complete the job.

### TROUBLESHOOTING GUIDE \_\_\_\_\_

Symptom	Check	lf	Corrective Action
Motor does not start		YES	Check connections to motor, Inverter and control panel. Call Air Care.
when <b>RUN</b> switch turned on.	Is Panel Status Light On and <b>GREEN</b> ?	NO	Check and reset circuit breakers and verify electrical outlets have power. Turn OFF for 3 min, then turn Turn ON both Breaker
No vacuum with motor		YES	Motor May be running in Reverse, contact Air-Care
running.	is blower turning?	blower turning?	Tighten shaft adapter bolts and align wheel & inlet cone. (Call Air-Care)
Is the "Change HEPA"	ũ		Replace HEPA filters as required.
light on? Electrostatic filters clean?		NO	Clean 1st and 2nd stage air filters.
	Is the "Change HEPA" light on?	YES	Replace HEPA filter as required.
		NO	Check for disconnected, collapsed or broken system ducts.
		NO	Inspect 12" hose for cracks or holes.
	Is the TurboJet connected to 2 SEPARATE dedicated 115-volt, 15 or 20-amp, non GFI lines.	YES	Be sure TurboJet is connected directly to the power outlet. DO NOT use an additional extension cord.
Circuit breaker trips when TurboJet is turned on.		YES	Be sure that only the original 12 gauge (or heavier) 25 ft. power cord is used on the TurboJet SuperMax.
		YES	Set Power Level to 1 and run on only one power cord at a time.
		YES	Call Air-Care
		NO	Find 2 outlets on circuits that do not have other devices connected to it.

The TurboJet requires a minimum amount of maintenance, normally limited to cleaning or replacing filters as they become filled with dirt and debris. Cleaning the 2nd stage filter daily will extend the life of the 3rd stage HEPA filter.

#### **1st Stage Filter Replacement**

The 1st stage 1" electrostatic filter with disposeable pads is mounted in the top section of the Turbo SuperMax and held in place with a metal bracket at one end and a Velcro strip in the center of the other end. It is disposable, but it may be possible



to dump out large debris and use it 2 or 3 times if it is not torn or damaged. The duct debris captured in the upper section and first stage filter can be collected in a trash bag placed over the 12" Hose inlet and secured with the Velcro strap. Unlatch the top section and tip it back on its hinge so the debris falls into the bag from the upper section of the TurboJet and its first stage filter. Follow all local regulations on disposing of material removed from the ducts. In critical areas, such as hospitals, it is required to cover the inlet with 6-mil plastic when the job is completed to prevent the collected debris from escaping and contaminating the area while it is removed from the building to be emptied in a non-critical area where the trash bag can be disposed of safely. The first stage filter can be put into the same trash bag for disposal.

#### **2nd Stage Filter Replacement**

The 2nd stage "Flexible" permanent electrostatic filter is mounted in the top of the HEPA filter frame. When necessary, wash the 2nd stage filter with a garden hose and nozzle at full force. First rinse in the opposite direction of the airflow, then rinse both sides. Occasionally, a degreaser such as Air-Care C.E.F. (Cleans Electrostatic Filters) electrostatic filter cleaner may be required to restore this filter to its' peak performance. Let the filter air dry before reinstalling into the unit.

## Note: When there is not sufficient time to allow filters to dry before using the TurboJet, simply dry vacuum the loose debris off of the filters' surfaces or use compressed air in an appropriate outdoor area.

When the control panel "Change HEPA" red LED is on and the 1st and 2nd stage filters are clean, the 3rd stage HEPA filter should be replaced (approximately once or twice per year, if other filters are cleaned regularly). There is no safe way to clean the HEPA filter without a risk of damaging it. **NOTE: Never wash the Pleated or HEPA filter with water.** 

#### **HEPA Replacement**

1. Open the upper section of the TurboJet to gain access to the filters. The first stage filter will be held in the upper section of the SuperMax.

2. The second stage filter must be removed from the HEPA frame.

3. Use care when removing the 3rd stage HEPA filter mounted in the bottom half of the cabinet. When the airflow through the inlet is noticeably reduced and the 1st & 2nd stage filters are clean, it is time to replace the 3rd stage HEPA filter.

NOTE: Applying compressed air pressure or using a vacuum brush on filter surface will damage the filter. If you have any questions regarding the HEPA filter maintenance, please call Air-Care at 800-322-9919.

Description	Part #
TurboJet SuperMax, 4- Speed, 120 Volt Model (220Volt Model FG0131)	FG0130
First stage, 18" x 24" x 1" Electrostatic Filter with Pads (5 Replacement Pads SAO0574)	FG0259
Second stage, 18x24 Flex 94%	F0044
Third stage, 18" x 24" x 4.75" HEPA Filter	F0046
25' Extension Power Cords (2) (220 Model has a single 25 ft cord with NEMA L6- 20 Plug and Socket– Special Order)	EC0005
Latches to hold upper and lower sections together	COM0520
Upper Handle (Part of Cabinet p/n 1904)	Call
12" Non-Marking Wheels	ACC0006
Front Swivel Casters	COM096
Bottom Carrying Handle, Spring Loaded	COM0029
Power Receptacle (120 Volt Model requires 2 – Call for 220 Volt Receptacle)	COM0026
Light, LED, Green/ Red BiColor Common Anode	EC0139
Switch, SPST "RUN"	EC0031
Switch, Hi/Low Rotary (2 or 4 Position)	EC0059
Circuit Breaker/Power Switch, Dual 20 amp. (2) (220 Volt Model requies 1)	EC0054
Pogo Pole Hose Adapter 12" (Optional)	FG0038
Cap Plug, 4" Red (for Pogo Pole Assembly) (Optional)	COM0239
12" x 12.5' Heavy Duty Hose with Velcro Straps	FG0056
12" x 12.5' Light Duty Mylar Hose with Velcro Straps	FG0014
12" x 12.5' Light Duty Mylar Hose Assembly Includes: (2) 12" x 12.5' Hoses, (4) Velcro straps (1) Hose Coupler (Optional)	FG0011
12" x 25' Light Duty Mylar Hose with Velcro Straps (Optional)	FG0013
12" x 12". 26 gauge, galvanized steel duct patches, 10/pkg. (Optional)	SAO0116
Foam Register Plugs, 14pc./pkg. (Optional)	FG0050
Pre-Filter, Pellon Moisture Barrier Sheets, 12/pkg. (Optional)	SAO0079
12" Adapter Collar	FG0041
Air-Care Fogger Model 2600 120 Volt(for 220 Volt Call) (Optional)	FG0008
Cobra 6, Power Brush System (Optional)	FG0110
Forward and Reverse Air Whisk System (Optional)	FG0015
Sidewinder Hose Assembly (Optional)	FG0030
HEPA Back Pack Vacuum 120 Volt (for 220 V Call) (Optional)	FG0069

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Description	Part #
Main Panel with all parts for 120 Volt Model TurboJet SuperMax (Includes Inverter or Lower Panel Electronics and Harnesses)	SATJ0037
Main Panel with All part for 220 Volt Model (Does NOT include Inverter)	Call
AC Ammeters, 0-30 Amp (120 Volt Model requires 2, 220 V Model just 1)	COM0193
Motor, 3 HP, 220 Volt, 3 Phase (For SuperMax ONLY) 120 and 220 volt models	M0013
Inverter for 3 HP, 3 Phase Motor (for SuperMax ONLY) 120 and 220 volt models	EC0222
Inlet Cone, 3 HP TEK315(SuperMax ONLY )	SATJ0035
Blower Wheel, Backward Inclined, 3 HP (SuperMax ONLY)	COM0303

### INCLUDED PARTS AND ACCESSORIES \_

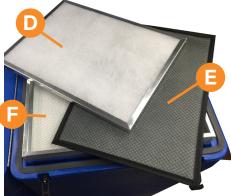
- A Molded Handle
- B 12" Dia. Hose Inlet
- C Locking Latches
- D First stage, 18" x 24" x 1" Electrostatic Filter with Pads
- E 2nd Stage 18" x 24"Flex 94% Electrostatic Air Filter
- B 3rd Stage 18" x 24" x 4.75" HEPA Filter
- G 12" Non-Marking Wheels
- 🕒 Front Swivel Casters
- Power Cord (2)
- 🕖 Exhaust Grills

#### **Control Panel**

- K SuperMax Control Panel Assembly
- Change HEPA light
- M Switch, SPST "RUN"
- Circuit Breakers/Power Switches, Dual 20 amp. (2) (Optional 220 Version has only 1)
- Power Switch, 1 & 2 for 1 Power Cord 3 & 4 for 2 Power Cords
- P Status LED. GREEN, 5-sec Set up then READY Flashing RED, No Ground Solid RED, Power Loss (Reset Breakers) or Internal ERROR (Call Air-Care)
- O Power Receptacles (2) (220 Ver. cord is hard wired)









### OPTIONAL PARTS AND ACCESSORIES \_\_\_\_\_



### SPECIFICATIONS \_\_\_\_\_

Specification	Description
Size	19.5" W x 29" D x 55 ½" H
Weight	151 lbs. (220 Volt Model, 145 lbs)
Power required	120 V, 60 Hz, 13 to 18 amps from Two power Cords. Optional 220 Version has one Cord, for 7 to 18 amps at 220 Volts.
Power Cord	25′, 3 x 12 Ga. Extension Cords (2) (220 Version has a single 3x12 ga cord with NEMA L6-20 connectors)
Filtration	4 stages when Pellon pre-filter used
Pre-Filter	Pellon Moisture Barrier
1st Stage	18" x 24" x 1" Electrostatic Filter with Pads
2nd Stage	18" x 24" Flexible Electrostatic Air Filter
3rd Stage	18" x 24" x 4.75" Certified Mini-Pleat HEPA Filter
Attachment	12" Dia. Inlet
Operating Environment	25 to 125 Deg. F (-4 to 50 Deg. C)
Construction	Rotation Molded Poly with Internal Steel Reinforcement
Operating Controls	Plug-able Panel with Multiple Speed control, Dual Ammeters, Change HEPA Light, & Circuit Breakers
Air Flow	3500 CFM with all Filters in place
Static Pressure	6.3″ W.G.
Motor	3 HP , Inverter Rated, 3 Phase Motor, 3600 RPM Maximum
Variable Speed, Dual Voltage Motor Inverter	Input 120 VAC, 50/60 Hz, 15 or 20 Amp each One or Two separate household circuits. (Optional: 1- 220V, 7, 10, 13 or 18 amp )
Blower	One - Backward Inclined
Wheels	Two - 12" Fixed Rear and Two - 4" Front Swivel Non-Marking Wheels

### **TURBOJET MODELS** Turbojet Max – TurboJet Max II – TurboJet SuperMax

Air-Care warrants this product to be free from defects in materials and workmanship to the original purchaser for a period of Three (3) years from the date of purchase. Components listed below are excluded from this Three year period and are covered for periods described below:

Vacuum Motors	1 Year
Power Inverter	1 Year
Wheels & Filters	No Warranty

Warranty covers both parts and labor (labor is to be performed at Air-Care's facility located at 3868 E. Post Road; Las Vegas, Nevada).

Warranty is extended to the original purchaser and is not transferrable.

This warranty does not extend to any damage to a product caused by or attributable to freight damage, abuse, misuse, improper or abnormal usage. Warranty is also void if the product has been modified or altered in any way.

The purchaser is responsible for the cost of shipping the equipment to Air-Care's facility for evaluation. If found to be defective and covered by the terms of this warranty, Air-Care will pay FedEx ground shipping charges on the repaired or replaced item back to the purchaser's location. Any additional expedited service charges for quicker shipping shall be born by the purchaser. If the product or component is not found to be a warranty issue, the purchaser will be responsible for return shipping charges.

Air-Care is not responsible or liable for indirect, special, or consequential damages arising out of or in connection with the use of performance of the product; damages with respect to any economic loss, loss of property, loss of revenues or profits, loss of use, or other incidental or consequential damages of whatsoever nature.

The warranty extended hereunder is in lieu of any and all other warranties, and any implied warranties of any type.

This warranty gives you specific rights. These rights and others vary from state to state.

Division of D.P.L. Enterprises Inc. 3868 East Post Road, Las Vegas, Nevada 89120, (702) 454-5515, FAX (702) 454-5225 Website: www.air-care.com • E-mail: Info@Air-Care.com