



INDOOR AIR QUALITY SPECIALISTS

TURBOJET 1912

OPERATING INSTRUCTIONS & PARTS MANUAL

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CE1912

Air-Care is a proud member of:

NADCA
National Air Duct Cleaners
Association

ISSA
International Sanitary
Supply
Association

NAFA
National Air Filter
Association

DCN
Duct Cleaners Network

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Unpacking Instructions

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 (See Page 7)

1. TurboJet 1912 Bottom Assembly with wheels, motor and blower
2. TurboJet 1912 Top Assembly with inlet, filters and top handle
3. 50' Extension Cord
4. First stage, 16" x 16" x 8" Washable Round Filter
5. Second stage, 14" O.D. x 8" I.D. x 18" H Washable Foam HEPA Pre-Filter, Grey
6. Third stage, 14" O.D. x 8" I.D. x 18" H HEPA Canister Filter

Safety Precautions

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 5 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 switch at the rear of the TurboJet or disconnect the power before removing the covers or filters or separating the top and bottom sections from the TurboJet.
- Inspect AC power plug to be sure the ground pin is in place. **DO NOT USE AN EXTENSION CORD.** Plug directly into power outlet.
- 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.

If you have questions about the safe use of any Air-Care product, call 702-454-5515

Equipment Specifications and part numbers are subject to and change without notice.

Operating Instructions

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 its 3 stage HEPA filter system. An agitating device to “Push” debris is required to properly clean an air system. The Cobra 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 4 of this manual for a summary of proper duct cleaning procedures.

To test, attach the TurboJet 1912 top assembly (filter section) to the bottom assembly (motor/blower section). Be sure the top assembly and bottom assembly is aligned and fully seated, then close all four twist lock latches. Check that all filters are securely in place within the top assembly, then install the top inlet and secure with 2 high-tension clips. Plug the 12-gauge power cord into a dedicated outlet (one that has no other devices currently connected). Turn on the power switch and the motor should start. It should come up to full speed within 2 seconds and you should feel a strong flow into the 12” inlet. For all other conditions, see the troubleshooting guide in this manual.

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

- 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 duct openings with foam register plugs or 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. Some Air-Care dealers use 2 TurboJets at the same time, one on the supply and one on the return.
- 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. The optional dual 8” inlet adapter will allow attachment to the supply and return so they can be cleaned at the same time.

Duct Cleaning Procedures

1. Bring TurboJet into close proximity to the planned connection.
2. Connect 12 gauge electrical power cord directly to a suitable electrical outlet (110V, 15AMP or more)
3. Connect a Light Duty Hose w/Velcro Straps or a Heavy Duty Hose w/Velcro Straps (sold separately) to the 12" TurboJet inlet; then connect the other end to the most effective supply duct location using the optional Pogo Pole hose adapter with adapter plate.
4. Close off the return side of air handler by putting a filter in a plastic bag and reinstalling it into its holder.
5. Turn on the power switch located on the control panel. The power light will go on and the blower motor will start providing strong suction.
6. Follow recommended procedure to clean each supply, beginning at the most distant one, using the Cobra Brush System, Sidewinder or Air Whisk (sold separately).
7. Before fogging the supplies, turn off the power switch. (Fogger and fogging supplies sold separately)
8. Remove hose from the top of the TurboJet.
9. Place a piece of pellaon pre-filter, 20" X 22" over the 12" inlet.
10. Re-install hose, and turn on the power switch.
11. Fog the supplies, beginning with the most distant supply.
12. When the fogging is complete, turn off the power; remove the hose from the TurboJet and the supply duct.
13. Remove and discard pellaon.
14. Inspect first stage filter, if loaded with debris, clean and reinstall.
15. Inspect electrostatic filters and wash if soiled.
16. Unplug power cord, put TurboJet back into the vehicle, and complete the job.

Maintenance

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 1st and 2nd stage filters daily will extend the life of the 3rd stage HEPA canister filter.

Filter Removal & Replacement.

1. Release the 2 spring latches on the top inlet of the TurboJet.
2. Remove the 1st stage washable round filter. Note how the stiff flange is seated evenly in the upper retaining ring so you will be able to reinstall it.
3. Lift out the 2nd stage washable foam HEPA pre-filter that covers the 3rd stage HEPA canister filter.
4. Unscrew the wing nut and remove the washer and retaining disk (if present) located on top of the canister filter and keep them in a safe place for reinstallation.
5. Lift out the 3rd stage HEPA canister filter.
6. Reinstall the filters in the reverse order.

Cleaning the Filters

1. The 1st and 2nd stage filters can be cleaned when visibly dirty and at the end of each workday. Simply dump out the loose debris and vacuum the surface. 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 re-contaminating the area. The top of the TurboJet 1912 can be removed and placed in a plastic containment bag for removal from the work site to maintain a controlled environment. The 1st stage washable round filter can be washed and dried on a delicate cycle in a normal washer and dryer.

2. The 3rd stage HEPA canister filter is disposable. 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 canister filter. The life of this filter can be prolonged by removing the filter from the TurboJet, then taping it to the ground to knock off the “filter cake” on the outside surface. Using moderate compressed air with a suitable nozzle, apply air to the inside of the canister filter pushing the “filter cake” debris out of the filter. **NOTE: Applying too much air pressure or holding the nozzle too close to the filter surface can damage the filter.**

If you have any questions, please call Air-Care at 800-322-9919

Included Parts and Accessories

Ref#	Description	Part#
	CE1912 COMPLETE ASSEMBLY	CE1912A
1	TurboJet 1912 Bottom Assembly with Wheels, Motor and Blower in tact	Call
2	TurboJet 1912 Top Assembly with Inlet, Filters and Top Handle in tack	Call
3	Extension Cord, 25'	1306
4	First stage, 16" x 16" x 8" Washable Round Filter	F1815B
5	Second stage, 14" O.D. x 8" I.D. x 18" H Washable Foam HEPA Pre-Filter, Grey	F1814B
6	Third stage, 14" O.D. x 8" I.D. x 18" H HEPA Canister Filter	F1912B

Optional Parts and Accessories

Ref#	Description	Part#
7	Latch, Twist Lock	1304
8a	Latch, Draw Top	1309
8b	Keeper for Latch	1305
9	Wheel, 12" Non-Marking	AC1578
10	Wheel, Front Swivel Caster	1352
11	Wheel, Handle	1640
12	Handle, Carrying	1736
13	Switch, DPST Start	1913A
14	Circuit Breaker, 20 AMP. (Reset pushbutton type)	1320
15	Receptacle, Power	1251
16	Pogo Pole Hose Adapter 12"	CE1630E
17	Cap Plug, 4" Red (for Pogo Pole Assembly)	4267
18	12" x 12 1/2' Light Duty Mylar Hose with Velcro Straps	CE1341A
19	12" x 12". 26 gauge, galvanized steel duct patches, 10/pkg.	AC3002
20	Foam Register Plugs, foam Register Plugs 14pc/pkg.	CE1695
21	Pre-Filter, Pellon Moisture Barrier Sheets, 12/pkg.	F1682
23	12" Adapter Plate	CE1513C
24	Air-Care Fogger 1.2M Hose	CE1242
25	BrushMaster Power Brush System	CE3050A
26	Forward and Reverse Air Whisk System	CE1448A
27	Sidewinder Hose Assembly	CE1542A
28	HEPA Back Pack Vacuum	CE2297C

Included Parts and Accessories

**TurboJet 1912
Complete Assembly**



Top Assembly

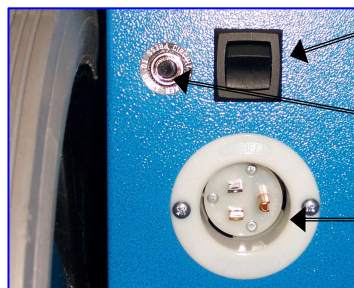


- 12" Dia. Inlet
- (Ref#8) Draw Top Latch
- Steel Handle
- (Ref#11) Handle Wheel
- (Ref#7) Twist Lock Latch

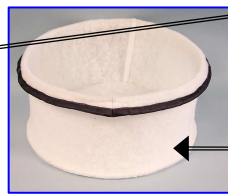
Bottom Assembly



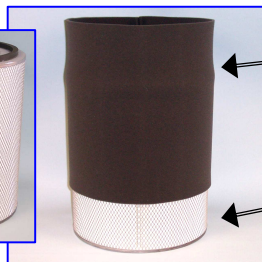
- Exhaust Grills
- (Ref#9) 12" Non-Marking Wheel
- (Ref#12) Carrying Handle
- (Ref#10) Front Swivel Caster



- (Ref#13) Switch, DPST Start
- (Ref#14) Circuit Breaker
- (Ref#15) Power Receptacle



- (Ref#3) 50' Extension Cord
- (Ref#4) 1st Stage 16" x 16" x 8" Washable Round Filter



- (Ref#5) 2nd stage, 14" O.D. x 8" I.D. x 18" H Washable Foam HEPA Pre-Filter, Grey
- (Ref#6) 3rd Stage, 14" O.D. x 8" I.D. x 18" H HEPA Canister Filter

(Ref#) Listed under Included Parts and Accessories on page 6

Optional Parts and Accessories



(Ref#16) 12" Pogo Pole Hose Adapter (Complete Assembly comes with Pole, Fork, 20 X 20 X 2 Foam attached to a 12" Steel Pogo Plate and (Ref#16) 4" Red Cap Plug)

(Ref#23) 12" Adapter Plate



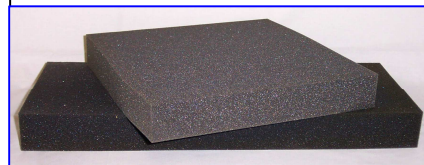
(Ref#19) 12" x 12", 26 gauge, Galvanized Steel Duct Patches



(Ref#21) Pre-Filter, Pellon Moisture Barrier Sheets (12/pkg)



(Ref#20) Foam Register Plugs (14/pkg)



Optional Parts and Accessories (Continued)

(Ref#25) BrushMaster Power Brush System



(Ref#18) 12" x 12 1/2' Light Duty Mylar Hose with Velcro Straps



(Ref#27) Sidewinder Hose Assembly



(Ref#26) Forward and Reverse Air Whisk System



(Ref#28) HEPA Back Pack Vacuum



(Ref#24) Air Care Fogger Model 2600



Trouble Shooting Guide

Symptom	Check	If	Corrective Action
Motor does not start when power switch is turned on.	Is the “power” cable plugged into a working outlet?	Yes	Check connections to motor and control panel.
		Yes	Test motor and replace if bad.
		Yes	Check for manual reset button on motor.
		No	Check and reset circuit breaker and verify electrical outlet has power.
No vacuum suction with motor running.	Is blower turning?	Yes	Replace the blower wheel and inlet cone.
		No	Tighten shaft adapter bolts. Check the blower alignment to the inlet cone.
Insufficient “pull” at inlet	Are 1 st and 2 nd stage air filters clean?	Yes	Replace 3 rd stage HEPA canister filter as required.
		No	Clean 1 st and 2 nd stage air filters.
Insufficient “pull” at duct.	Is there sufficient “pull” at TurboJet inlet?	Yes	Check for disconnected, collapsed or broken system ducts.
		Yes	Inspect 12” hose for cracks or holes.
		No	Clean or replace filters as required
Circuit breaker trips when TurboJet is turned on.	Is the TurboJet connected to a dedicated 115 volt 15 or 20 AMP line?	Yes	Be sure the TurboJet is connected directly to the power outlet. DO NOT use an extension cord.
		Yes	Be sure that only the original 12 gauge (or heavier) 25 ft power cord is used on the TurboJet 1912.
		Yes	Unplug and check if the blower wheel spins freely—If not, call Air-Care
		No	Find an outlet on a line that does not have other devices connected to it.

Specifications

Specification	Description
Size	22" dia. x 49" H
Weight	96 lbs
Power required	115 Volt AC, 60 Hz, 13 AMPS, 1 Phase
Power Cord	50' Extension Cord
Filtration	4 stages when pre-filter used
Pre-Filter	Pellon Moisture Barrier
1st Stage	16" x 16" x 8" Washable Round Filter
2nd Stage	18" O.D. x 8" I.D. x 18" H Washable Foam HEPA Pre-Filter, Grey
3rd Stage	18" O.D. x 8" I.D. x 18" H HEPA Canister Filter
Attachment	12" Dia. Inlet
Operating Environment	25 to 125 Deg F (-4 to 50Deg C)
Construction	Steel with Powder Coat
Operating Controls	Power Switch, 20 Amp Circuit Breaker
Air Flow	2500 CFM free air/ 2000 CFM Filtered
Static Pressure	4.8 Inches W.G.
Motor	1.5 HP Energy Efficient
Blower	Backward Inclined
Wheels	12" Fixed Rear and 3" Front Swivel Non-Marking Wheels

All specifications and prices are subject to change without notice.

Glossary & Acronyms

1. ACGIH—American Conference of Government Industrial Hygienists
2. ASHRAE—American Society of Heating, Refrigerating, and Air Conditioning Engineers
3. Air Handler/ AHU—The Furnace or air conditioner that heats, cools and moves the air.
4. Antimicrobial—Agent that kills Bacteria, Molds and viruses. See “Sanitizer
5. Arrestance – An ASHRAE standard procedure to measure air filter efficiency (52.1)
6. Bioaerosols— Molds and bacteria that are found floating in the air.
7. Biological Contaminants— Bacterial, Mold/Fungus, viruses and their waste, byproducts and decomposition materials that can be inhaled and cause many types of health effects.
8. Building Related Illness—Diagnosable illness whose symptoms can be identified and whose cause can be directly attributed to airborne building pollutants (e.g., Legionnaire’s disease, and hypersensitivity Pneumonitis).
9. CFM—Cubic Feet per Minute, a measure of how much air is flowing in an air system.
10. CO—Carbon Monoxide, an odorless, toxic gas produced during combustion.
11. CO₂—Carbon Dioxide an odorless, non-toxic gas produced during combustion and exhaled by people.
12. Ceiling Plenum – The area above a suspended ceiling that may be used as a return path to the Air Handler.
13. Conditioned Air – The air that has been filtered, heated or cooled by the air handler.
14. Dampers – Flaps or valves in the air duct that control the amount of airflow in the duct.
15. Diffusers & Grilles & Registers – The covers at the end of supply and return ducts that control the amount and direction of the air-conditioned air entering or leaving a room.
16. Electrostatic Filter – A High Efficiency (95% Arrestance) Air filter that generate static electricity from the air movement through the air handler and captures dust from the air while the clean air move freely through it.
17. EPA—Environmental Protection Agency
18. Duct – A metal, plastic or fiberglass tube that transports air to and from the Air Handler. They can be round, square or rectangular.
19. Duct Board – Compressed fiberglass material used to make air ducts, particularly in the southern U.S.
20. Fiberglass Filter – A disposable, very low efficiency filter (approx. 10% arrestance).
21. Flex duct – Plastic fabric duct with a spiral wire support. It us used extensively in the Western U.S.
22. HEPA—High Efficiency Particulate Air
23. HVAC—Heating, ventilation and air-conditioning
24. IAQ—Indoor Air Quality
25. MSDS—Material Safety Data Sheet
26. Make-up Air – Fresh “outside” air that is brought into a Commercial building.
27. NADCA-- National Air Duct Cleaners Association
28. NAFA – National Air Filter Association
29. NIOSH—National Institute for Occupational Safety and Health
30. Negative building pressure – A condition that allows air to flow into a building when a door is opened.
31. NSC -- Nevada Safety Counsel
32. NSF International – An independent testing laboratory for Air filters
33. OSHA—Occupational Safety and Health Administration
34. Positive building Pressure – A condition when air will come out of a building when a door is opened.
35. Re-entrainment – The flow of dust and debris removed from an air system back into the same building
36. Return/Return Duct
37. Sanitizer – A material designed to kill mold, bacteria, and viruses.
38. Sick Building Syndrome – A group of symptoms such as headache and watery eyes that disappear after the sufferer leaves the building for a few hours.
39. Supply/ Supply Duct—The opening and related ductwork that delivers conditioned air to a room.
40. VAV—Variable air volume system – A system that varies the amount of flow of air to regulate temperature.
41. VOC’s—See “Volatile Organic Compounds”
42. Volatile Organic Compounds (VOC’s)—Chemicals that release gasses into the air such as solvents.

Limited Warranty

Air-Care warrants its products free from defects in materials and workmanship to the original purchaser for a period designated below from the date of purchase. Individual components, such as motors, blowers and electronic devices carry the warranty from the original manufacturer.

Report any suspected warranty failure of an Air-Care product to Air-Care immediately for a Return Authorization Code. Upon examination by Air-Care, if the product is found defective in workmanship or material, it will be repaired or exchanged, at Air-Care's discretion. Failure of components not manufactured by Air-Care will be handled on an individual basis.

General Conditions

This warranty shall be held void on any Air-Care equipment which has been modified or altered in any way or which has been subject to improper maintenance, improper usage or abuse.

Air Care warrants its equipment to the original purchaser only.

The Purchaser is responsible for the cost of shipping the equipment to Air-Care for evaluation. If found defective, Air-Care will pay FedEx ground shipping charges on the repaired or replaced item back to purchaser's location. Any additional expedited service charges shall be born by the purchaser.

Warranty Periods

1 Year Limited Warranty on Duct Leakage Testers

2 Year Limited Warranty on VIS Models, Truckmaster

3 Year Limited Warranty on all Turbojet Models, Cobra Models and Air Care DuctMaster Models

90 days on all other products

NOTES

NOTES

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