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Operations & Maintenance Manual
For Commercial Use Only



WINDSHEAR 3200 SERIES: 3200 WINDSHEAR and 3200 SAFETY DRYER
MODEL NO: 98774/98786 (Color may vary from that shown)



Long Term Buyer Protection Limited Warranty

Tornado Industries, LLC. (Tornado) warrants to the end/user customer that the Tornado product(s) will be free from defects in material and workmanship for the duration(s) described below. This limited warranty DOES NOT cover machines and/or components subject to normal wear and tear, damage that occurs in shipping, failures resulting from modification, accident, unsuitable operating environment, misuse, abuse, neglect, or improper maintenance by you. For full details, contact your Authorized Tornado Distributor, Service Center, or the Tornado Technical Service Department. Tornado sales and service representatives are not authorized to waive or alter the terms of this warranty, or to increase the obligations of Tornado under the warranty.

10 Years*

Plastic water tanks and Rotationally-molded bodies

2 Years*

Parts on all Tornado cleaning equipment

1 Year*

Labor on all Tornado cleaning equipment

1 Year*

Warranty on batteries, one year prorated

All battery warranties are handled directly by the battery manufacturer, on a one year prorated basis

Terms subject to change without notice

1. Except all Windshears™ Blowers, Storm, TV2SS, Side and Downdraft, Insulation Blowers, CV 30, CV 38, CK14/1 PRO, CK 14/2 PRO, SWM 31/9, CK LW13/1, CK LW 13/1 ROAM, CV 38/48 Dual, PV6, PV10, PV6 ROAM, Wall Mount Vacuum and all chargers are warranted for 1 (one) year for both parts and labor.
2. All non-wear item parts purchased after warranty expiration are warranted for 90 days.
3. Warranty starts from the date of sale to the consumer or, at Tornado's discretion, 6 months after the dealer purchased the unit from Tornado, whichever comes first.
4. The EB 30 is warranted for a period of 90 days for both parts and labor.
5. The warranty on engines used on propane powered equipment is limited to motor manufacturer's warranty.
6. Ride-on Scrubbers are warranted for 24 months, parts, 6 months labor or 1,000 hours, whichever occurs first.

Note: Tornado, The Latest Dirt, Floorkeeper, Carpetkeeper, Carpetrinser, Carpetrinser/Dryer, Headmaster, Taskforce, PAC-VAC, T-Lite, Glazer, Windshear, Max-Vac and Trot-Mop are trademarks of Tornado Industries

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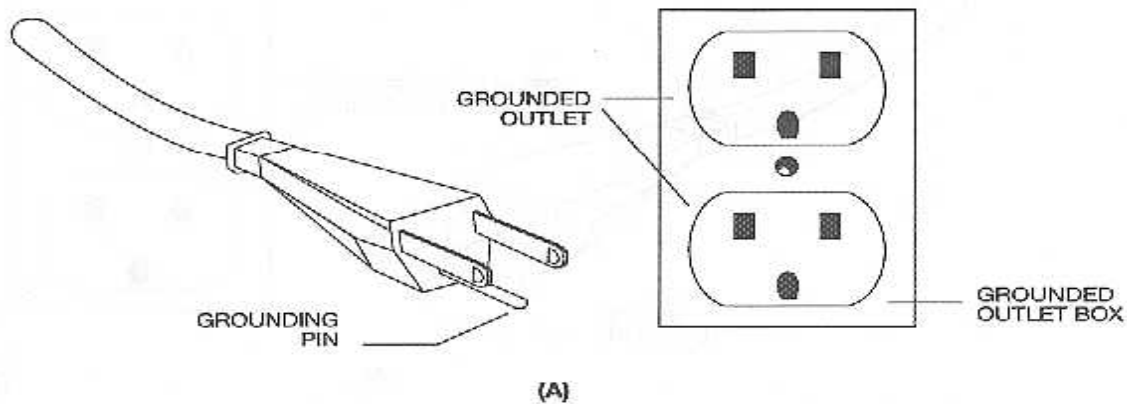
NOTES


GROUNDING INSTRUCTIONS

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk electric shock. This machine is equipped with a cord having an equipment -grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.


This appliance is for use on a nominal 120-volt circuit, and has a grounding plug that looks like the plug illustrated in sketch A.





PROTECT THE ENVIRONMENT

Please dispose of packaging materials in an environmentally-safe way according to local waste disposal regulations.



Always remember to recycle.

Your new Tornado unit is a high quality, precision-made product. All parts used in the manufacturing of this unit have passed rigid quality control standards prior to assembly. Please safeguard the original receipt / invoice. If you experience any problems with your unit during the warranty period, the original receipt / invoice will act as proof of purchase. Contact Tornado for any warranty inquiries.

IMPORTANT SAFETY INSTRUCTIONS

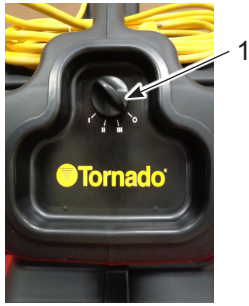
READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE USING THIS UNIT

Read and understand this owner's manual and all labels on the unit before operating. Safety is a combination of common sense, staying alert and knowing how your unit works. Use this unit only as described in this manual. Use only manufacturer's recommended attachments. To reduce the risk of personal injury or damage to your unit use only Tornado recommended accessories.

To reduce the risk of fire, explosion, electric shock, or injury, the following precautions should always be followed.

1. Use only as described in this manual. Use only manufacturer's recommended attachments.
2. Do not operate this machine near flammable liquids, vapors, combustible dusts or material capable of catching fire such as drapes, etc.
3. Connect only to an outlet provided with a ground fault circuit interrupting device.
4. Unplug cord from outlet when not in use and before cleaning or servicing machine.
5. Do not allow to be used as a toy. Close attention is necessary when used near children.
6. This machine is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.
7. Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped in water, return it to a service center for repair.
8. Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Keep cord away from heated surfaces.
9. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
10. Do not handle plug or appliance with wet hands.
11. Do not use an extension cord with this appliance.
12. Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair and anything that may reduce air flow.
13. Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
14. Always operate appliance on a stable, flat surface such as the floor.
15. Do not use this appliance with any solid-state speed control device.
16. Do not operate appliance without safety devices in place.
17. Turn off all controls before unplugging.
18. All repairs must be performed by a qualified service person. Use only manufacturer-supplied or equivalent replacement parts.
19. Do not use outdoors. Do not expose appliance to rain or moisture. Store indoors.
20. Connect to a properly grounded outlet only. See Grounding Instructions.
21. This appliance is thermally protected.
22. To avoid severe or fatal shock, all electrical cords and components must be kept dry at all times.

 **WARNING!** To reduce the risk of fire or electric shock, do not use this fan with any solid-state speed control device.



- 1. 3-Speed Switch
- 2. Carrying Handle
- 3. Power Cord Storage
- 4. Air Outlet Vent
- 5. Air Intake Vent
- 6. Kick Stand

MACHINE OPERATION

Ensure machine is in a safe operating location. Do not place machine in a puddle and make sure it is protected from drips and splashes.

Plug the power cord into a grounded electrical outlet. Always unwind power cord completely before operating machine. Inspect power cord for damage before each use. Replace cord immediately if damaged.

Place the machine in the desired operating position.

- A. Horizontal - dry floors and carpets
- B. Tilted - dry floor finishes, paint, etc.
- C. Vertical - dry wall and ceiling



Set the desired speed by turning switch.

Check for proper operation before leaving the machine unattended. Do not move or carry the machine when it is operating.

To shut-off machine, turn the switch to the off (O) position.

The machine is equipped with an automatic reset motor overload shut-off thermal sensor to protect motor from overheating. Should the shut-off thermal sensor trip, it will reset automatically when the motor has cooled sufficiently, usually after 15-30 minutes.

MACHINE MAINTENANCE

To keep machine in good working condition, simply perform the following maintenance procedures.

Unplug cord from outlet when not in use and before servicing machine.

1. Inspect power cord for damage after each use. Replace power cord immediately if damaged.
2. Clean machine with a damp cloth.
3. Check for dust accumulation around the air inlet and outlet vents and clean if necessary. Blocked vents will cause the motor to overheat, and may lead to premature failure. Warranty claims for this type of damage will not be accepted.

STORING AND TRANSPORTING MACHINE

Neatly wrap power cord and store machine in a cool dry area. Do not expose to rain, store indoors.

Stack machines for storage as shown.

CAUTION: Do not stack beyond four high. Do not stack during transporting and secure with strap.



TROUBLE SHOOTING

Unplug cord from outlet when not in use and before servicing machine.

If machine fails to operate:

- Check power cord for damage.
- Check plug connection.
- Check building circuit breaker.
- Thermal sensor shut-off - wait 15-30 minutes to cool.
- Contact service center.

MACHINE SPECIFICATIONS

MODEL	3-SPEED BLOWER
Width x Height x Depth	15 in x 18.5 in x 18 in 38.1 cm x 47 cm x 45.7 cm
Weight	22.5 lb / 10.2 kg
Voltage / Frequency	120 V / 60 Hz
Motor Rating	.6 HP, 522 W, 4.35 A
Air Flow	3,800 feet per minute
Speeds - Low/Med/High	710 rpm/1105 rpm/1550 rpm
Power Cord Length	18.5 ft / 5.6 m
Sound Pressure Level LpA	69 dBA
Protection Grade	IP20

Warranty Registration Form

Please provide additional information on
Tornado equipment: (Check choices below)

- | | |
|---|---|
| <input type="checkbox"/> Automatic Scrubbers | <input type="checkbox"/> Sweepers |
| <input type="checkbox"/> Propane Floor Machines | <input type="checkbox"/> Rotary Floor Machine |
| <input type="checkbox"/> High Speed Burnishers | <input type="checkbox"/> Carpet Vacuums |
| <input type="checkbox"/> Carpet Extractors & Spotters | <input type="checkbox"/> Wet/Dry Vacs |
| <input type="checkbox"/> Steam Cleaners | <input type="checkbox"/> Jumbo Vacs |
| <input type="checkbox"/> Ride-On Equipment | <input type="checkbox"/> Pressure Washers |

See complete product info at www.tornadovac.com

Selling Dealer: (Required) _____

Please Print Clearly

Company/Institution	
Contact Name	Title
Address	City/State/Zip Code
Phone	Fax
Date of Purchase	Email

See white metal plate or sticker on unit for this information.

MACHINE TYPE/MODEL NUMBER:	MACHINE SERIAL NUMBER:
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____

Facility Description (please circle all that apply)

1. School	9. Hospital	17. U.S. Govt.
2. Retail Store	10. Nursing Home	18. Other Govt.
3. Restaurant	11. Religious Institution	19. Auto Service
4. Office Building	12. Airport	20. Airport
5. Contract Cleaning	13. Warehouse	21. Non-Profit
6. Light Manufacturing	14. Apartment/Condo	22. Other (specify)
7. Heavy Manufacturing	15. Warehouse	
8. College/University	16. Supermarket	

How did you first learn about Tornado cleaning and maintenance equipment?	In square feet (meters)	
	Total Hard Floor Area	Total Carpeted Area Square feet (square meters)
<ul style="list-style-type: none"> <input type="radio"/> Contacted by local dealer <input type="radio"/> Previous experience with Tornado products <input type="radio"/> Reputation/ Recommendation <input type="radio"/> Advertising <input type="radio"/> Direct mail <input type="radio"/> Internet <input type="radio"/> Other 	<ul style="list-style-type: none"> <input type="radio"/> 0-10,000 (0-930) <input type="radio"/> 10-50,000 (930-4,650) <input type="radio"/> 50-250,000 (4,650-23,250) <input type="radio"/> Over 250,000 (over 23,260) 	<ul style="list-style-type: none"> <input type="radio"/> 0-10,000 (0-930) <input type="radio"/> 10-50,000 (930-4,650) <input type="radio"/> 50-250,000 (4,650-23,250) <input type="radio"/> Over 250,000 (over 23,260)

Damage or defect arising from abuse, neglect or other misuse is excluded from this warranty. Other items may or may not apply based on your specific machine. If any defect occurs, the warranty is voided if service is attempted by non-Authorized Tornado Service Centers.

Return to :
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