



Operations & Maintenance Manual
For Commercial Use Only



Marathon 350
MODEL NO: 98132



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

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IMPORTANT: Read these instructions before use and retain for future reference.

General Information

The Marathon 350 carpet soil extraction machine is designed for the efficient cleaning of carpets and upholstery. It has been designed for the professional user to ensure long service life and safe operation.

We recommend that any user not familiar with carpet cleaning should read these instructions fully before using the machine. Please contact Tornado Industries for questions on the contact details provided at the back.

This machine must only be used for the manufacturer's approved application. The Marathon 350 is designed for the cleaning and removal of normal carpet soil. **Do not use** the machine where it is suspected that the carpet or upholstery contains health endangering dust or debris such as asbestos or chemical waste. If this is suspected, do not proceed. Contact your supervisor or Tornado Industries for advice.

The following instructions contain important information about the machine and safety advice of the operator.

Equipment must be operated, serviced and maintained in accordance with the manufacturer's instructions. **If in doubt, contact the supplier of your machine.**

Important Safety Advice

When using electrical equipment basic safety precautions should be followed including the following.

- Read all instructions carefully before use.
- Keep children and unauthorized persons away from the machine when in use.
- Do not leave the machine connected to the electricity supply when not in use; always remove the plug from the socket-outlet.
- Switch off the machine before removing the plug
- When unplugging, pull the plug and not the supply cord.
- Do not operate switches or touch the main plug with wet hands as this may cause electric shock.
- Do not operate the machine with a damaged supply cord or plug, or after the machine malfunctions or is damaged in any way. Contact an authorized Service Agent for repair or adjustment.
- The plug of the power supply cord must be removed from the socket-outlet before commencing cleaning of the machine or undertaking maintenance operations.
- The power supply cord must be regularly inspected for signs of damage. If the power supply cord is damaged, it must be replaced.
- Do not use where hazardous dust is present.
- Do not use in an explosive atmosphere.
- Do not pick up oil or other flammable material with the machine.
- Take care when using the machine near the top of stairs.

Guidelines for The Operator

- Operators must be fully trained in the use of the machine in accordance with these instructions, able to perform user maintenance and the correct selection of accessories.
- Operators should be physically capable to maneuver, transport and operate the machine.
- Operators should be able to recognize unusual operation of the machine and report any problems.
- Wear suitable footwear to avoid slipping.
- Wear suitable clothing to keep dry and warm.
- Where possible, implement job rotation and adequate rest periods to avoid continuous use of the same muscles.
- Do not leave the machine running unattended.
- Do not allow children to crawl on carpets until it is thoroughly dry.
- Keep cleaning solutions away from children and pets at all times.
- Do not smoke when using the machine.
- Caution – This machine is for indoor use only and should not be used or stored outdoors or in wet conditions.
- Warning – Should water emit from the machine exhaust, switch off immediately and refer to instructions for "Using the Machine".

Transporting the Machine

When transporting the machine ensure that all components, tanks and removable parts are securely fastened, and that the supply cord and plug are not trailing. Detach hose and wand from machine for ease of carriage.

Do not lift or transport the machine when it contains liquid, as it will add considerable weight.

Take extreme care when moving the machine up and down the stairs.

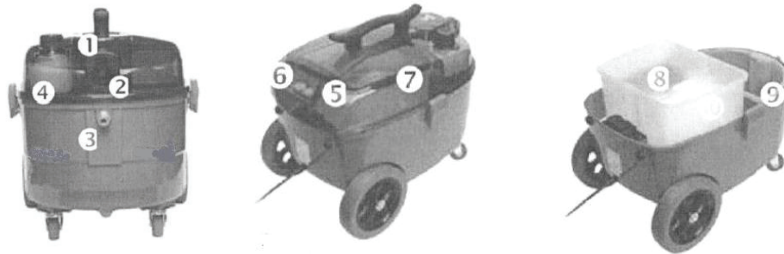
Caution – Incorrect lifting techniques may result in personal injury. We advise that the manual handling regulations are followed.

Electrical Connection

- Before connecting the machine to the power supply, check that your supply voltage corresponds with that marked on the rating label on the rear of the machine.
- **IMPORTANT** – If the supply cord is damaged, it must only be replaced by a special cord available from the manufacturer or an authorized service agent.

Should an extension cord be used, ensure cord rating is adequate for the equipment. Do not use extension cord in coiled condition as this could result in overheating of the cord.

Controls

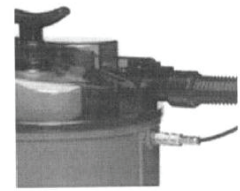


1. Hose release catch
2. Vacuum hose
3. Solution outlet
4. Anti-foam tank
5. Solution pump switch
6. Vacuum switch
7. Machine cover
8. Removable solution tank
9. Removable recovery tank

Preparing for Use

- Make sure both tanks are clean before use.
 - Connect the flexible vacuum hose onto the vacuum hose inlet and the high-pressure spray hose onto the solution outlet. (fig. 1)
 - Connect the vacuum hose and the high-pressure spray hose to the carpet cleaning wand or the upholstery tool.
 - Fill the clean water tank with detergent and water. Use the correct dilution rate for the detergent. Never over fill.
 - Fill the anti-foam tank with an appropriate de-foamer solution.
 - Important – Always use low foaming carpet cleaning chemicals. If using foaming carpet cleaning chemical, or if foam develops due to residues in the carpet, ensure that an appropriate de-foamer is used in the anti-foam tank.
- Incorrect chemicals could cause damage to the carpets being cleaned or cause the machine to malfunction.

Fig 1



Operation

Starting the Machine

- Connect the cable to main power.
- Ensure the slider on top of the trigger unit is in the closed position
- Switch on the unit spray and/or vacuum.
- Squeeze the trigger to spray solution onto the carpet/upholstery. Maintain a constant pressure of the wand/tool onto the surface to be cleaned. (fig. 2)

Fig 2



Using the Machine

- To dry the surface being cleaned, complete the cleaning with a second pass with the vacuum (and no spray).
- Never soak the textile being cleaned while spraying.

Cleaning Carpet

Color Fastness – Before using cleaning solution or pre-spotter, test carpet for color fastness on an inconspicuous area. Apply solution to a small piece of clean white material or tissue, and then rub on carpet vigorously. Excessive amounts of dye showing on the material indicate that the color is not fast, and the carpet should not be wet cleaned.

- Move furniture around to give a clear working area. Cover bottoms of furniture legs where necessary (aluminum cooking foil is ideal). Pin up curtains and drapes.
- Vacuum carpet thoroughly to remove any residual dust or debris.
- Areas of heavy carpet soiling can be removed more easily if first treated with a concentrated cleaning solution or pre-spotting solution.
- Rate of cleaning will depend upon the thickness of the carpet and the degree of dirt in the area being cleaned.
- Do not clean any more than twice. Carpets may shrink if they are over-wet or not properly fixed down.

Cleaning Stairs

CAUTION – When cleaning on stairs take great care to ensure that machine is stable, otherwise it may cause injury to either the operator or a third party. Use the stair/upholstery tool for cleaning in place of the wand assembly.

Cleaning Upholstery

This is done in the same way as carpet cleaning except using the upholstery tool in place of the wand assembly. Cleaning is achieved using a gentle dragging motion of the upholstery tool over the material.

- An inconspicuous area of the item to be cleaned should always be tested for color fastness prior to cleaning. Should doubt exist as to the suitability of the fabric for wet cleaning, the chemical manufacturer should be consulted for advice.
- Loose cushions should be removed and cleaned separately.
- Care should be taken to avoid over-wetting the fabric.

When Cleaning is Finish

Draining and Cleaning

- Before removing the spray hose, pressure in the system must be released. With the pump switched off, hold the spray nozzle over the removable recovery tank and squeeze the spray trigger until the remaining solution has been released. The spray hose can now be disconnected.
- After use, check that both solution tanks are empty.
 - Empty the solution tank and rinse.
 - Empty the recovery tank and rinse clean.
 - Rinse both tanks out with clean water before storing the machine.
 - Clean nozzles and hoses.

Storage

- Always unplug, empty, wipe down and dry the machine after use.
- Wrap supply cord around the handle of the machine ensuring that the plug is not trailing on the floor. Store the machine in a dry indoor area only.

Maintenance

WARNING – Before undertaking maintenance operations or adjustments, switch off machine and unplug from the electricity supply.

The machine requires minimum maintenance apart from the following checks by the operator.

- Supply cord – Regularly inspect sheath, plug and cord anchorage for damage or loose connection.
- Solution tank – Check filters are clean and undamaged. A damaged or missing filter must be replaced or damage to pump head and spray jet may occur.
- Vacuum filter – Check the vacuum filter is cleaned and replaced as appropriate.
- Vacuum head – Check and remove debris or lint build-up from the head.
- Spray jet – Check jet for blockage and full spray pattern. Blow through jet to clean. Do not use a pin, as this could damage the jet.

IMPORTANT – All other servicing and repairs should only be performed by a Tornado engineer or an Authorized Service Agent.

IMPORTANT – Should the machine fail to operate please refer to the fault diagnosis section in the back of the instruction manual. If the problem/remedy is not listed, please contact Tornado Customer Service Department.

After Sales Service

Should you require after sales service, please contact the supplier from whom you purchased the machine, who will arrange service. Repairs and servicing for Tornado products should only be performed by trained staff. Improper repairs can cause considerable dangers to the user.

Technical Specification

Model		Marathon 350
Voltage	V	110
Pump Type		magnet
Pump Power	W	50
Pump Pressure	Bar/psi	4/58
Flow Rate	gal/min	.5
Vac Hose Length	ft	10
Vac Motor	W	1100
Water Lift	mm/kPa	2000/20
Airflow	gal/sec	10.14
Solution Tank Capacity	gallon	1.5
Recovery Tank Capacity	gallon	1.5
Sound Pressure Level	dB(A)	78
Size (L x W x H)	inches	21 x 15 x 17
Cable Length	ft	15
Weight	lbs.	22
Warranty		1 year

Fault Diagnosis

Problem	Reason	Remedy
The spray pump and vacuum does not work	<ul style="list-style-type: none"> • Power failure 	<ul style="list-style-type: none"> • Check the main fuse*, the power supply cord and the plug
No spray or the spray is not even	<ul style="list-style-type: none"> • Spray nozzle is blocked • Solution tank is empty • Solution feed filter blockage 	<ul style="list-style-type: none"> • Check the spray pipe and nozzle • Is there water in the tank? If there is water in the tank, wait for a couple of seconds for the pump to build up pressure • If the tank is empty, fill it as indicated • The filter in the clean water tank, the pipe or the nozzle may be blocked. Switch off the unit and perform maintenance.
The vacuum power fails	<ul style="list-style-type: none"> • The recovery tank may be full 	<ul style="list-style-type: none"> • Empty recovery tank.

*If the fuse blows several times, the machine should be checked by an authorized Service Agent.