# 18" Maxx Air Portable Evaporative Cooler **Owner's Manual**



This Manual covers the EC18DVS Maxx Air Portable Evaporative Cooler.



**File this owner's manual in a safe place for future reference.** It contains operating procedures – maintenance procedures – trouble shooting guide – replacement parts guide – order form – and contact information. **You will need this!** 

# Warnings and Cautions Read before operating Maxx Air Portable Evaporative Cooler

# **ELECTRICAL**

WARNING	Do not use a 3 prong to 2 prong adapter on the electrical power cord. Use 14 gauge extension cord only.
WARNING	Do not remove the grounding lug from the electrical power cord plug. Use only 3 prong, grounded receptacles.
WARNING	Disconnect the Maxx Air Portable Evaporative Cooler from your electrical power source before performing any service action.
WARNING	Your Maxx Air unit must be plugged into a fused or circuit breaker protected 20 Amp, 120 Volt, 60 Hz circuit – unless specifically manufactured for another voltage / frequency configuration. See manufacturer's label on cooler. A ground fault circuit interrupter protected circuit is strongly recommended.
WARNING	Check your units electric power cord for insulation breaks, cracks or fraying. If any of these conditions are found DO NOT USE. See your distributor for immediate service replacement parts.
WARNING	Some electric motors require periodic oiling. Check your model for oil fill holes. A couple drops of light oil per year normally will be sufficient. Heavy usage may require additional oil.
WARNING	To reduce the risk of fire or electrical shock, DO NOT USE with any solid-state speed control device.
WARNING	To reduce the risk of electrical shock or injury to persons, DO NOT USE cooler in a window.

# WATER

WARNING Do not connect your Maxx Air Portable Evaporative Cooler to any water source where water pressure exceeds 60 p.s.i. If your water source is above 60 p.s.i. you must use a pressure regulator (which can be found at your local hardware store).

# WARNING ALWAYS TURN-OFF WATER AT THE SOURCE EVERY NIGHT.

# Maxx Air Portable Evaporative Cooler

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# 1.0 Introduction

- Your Maxx Air was tested 3 ways. Your unit was *tested for* 1. Maximum air flow at operating static pressure. Only Maxx Air is *tested in operating conditions* with 2. *Water* and 3. *Electricity* <u>before</u> it is shipped.
- Maxx Air is *easy to operate* needs only tap water and electricity to operate.
- Maxx Air is *easy to move* roll your Maxx Air to the area you want to cool. Maxx Air comes standard with straight and swivel / lock casters which make moving your Maxx Air a breeze.

1.1 Quick Start – Your Quick Start Information is located inside the information packet shipped with your unit.Look on the front of your Maxx Air packaging in a plastic sleeve.

1.2 Evap-O-Matic Tablet – Chemical Water Treatment. Operate your unit for 2 weeks – then, flush out old water – add clean water – then add ½ Chemical Water Treatment tablet. Note: Tablet makes water foam which can cause unit to spray water temporarily (for a day or two). You can order more tablets by calling 1.800.433.1626.

2.0 How Evaporative Cooling Works

Keeping in mind that regular fans only circulate same temperature air same humidity – your Maxx Air portable evaporative cooler takes that

same existing air, combines it with evaporating water (*which dramatically lowers the temperature*) immediately relieving hot, dry areas, similar to the conditions when a natural rain storm approaches, the temperature drops noticeably cooler, because the air is saturated with water. Because your air is now saturated with water it becomes noticeably cooler. In high humidity areas the temperature will not be as cool – however, the Maxx Air was engineered *efficient* to evaporate perspiration and sweat from employees to keep them cooler.

# 3.0 Unpacking your new Maxx Air unit

Note: Carefully examine your Maxx Air shipping carton for damage before opening. If your carton is damaged – notify the shipper immediately! Your EC18" unit was shipped strapped a wooden pallet inside a cardboard box. First remove the straps then you may open the cardboard box. Your Maxx Air comes with a box of casters. Attach swivel casters to fan side of unit and straight casters to pad side. Use a 3/8" wrench to attach casters.

# 4.0 Set-up your Maxx Air unit.

Roll your Maxx Air unit to a level surface and lock the swivel casters to prevent accidental movement.



Hot, dryer air blowing through fan - about to mix with cooling media saturated with water. Hot, dryer a mixing with water molea in the coolir media.

Hot, dryer air mixing with air blowing out water molecules of fan - lowering in the cooling the temperature media. up to 20° or more.



Electrical cord for 120V, 15Amp connection. Note: Standard <sup>3</sup>/<sub>4</sub>" water connection for utility water source under 60 p.s.i.

#### 4.1 Connecting the electrical supply

All Maxx Air models require regular 3 prongs, ground with 120 volt power supply. Plug electrical cord into receptacle. If using an extension cord be sure it is rated for at least 20 amps for the distance your cord is running. To be safe – make sure no other equipment, such as a radio or electrical equipment, is plugged into the same circuit. The Maxx Air should run smoothly on 20 amp, 120 volt, and 60 Hz circuit.

#### 4.2 Connecting the water supply

Connect standard water hose to female fitting on the right side of your Maxx Air (looking at the fan blade side). If your water pressure is above 60 pounds per square inch (p.s.i.) you must use a pressure regulator (which can be found at your local hardware store). **Note:** Do not connect to water source exceeding 60 p.s.i. – this can cause damage to your Maxx Air.

#### 5.0 Operating procedures

Back your Maxx Air unit up to a fresh air source such as an open door or window so the unit can pull in fresh air from the outside. Next, make sure you have a natural exhaust at the opposite end of the room, bay or building such as a window, door or bay door. This will ensure maximum efficiency from your unit. Finally make sure there are no obstructions between your Maxx Air and the people / area you need to cool.

#### 5.1 Filling the units reservoir with water

30 20 10 FPM Ø 400 300 200 100 500 10 20 90 100 10 20 30 50 60 70 80 30 MAXIMUM EXTENDED COOLING 70NF

Once your water hose is connected, turn water on and fill the reservoir with water. Listen carefully. You can hear



water filling the reservoir. Check your water connection – make sure there is no dripping. Once the reservoir is filled with water the float valve will automatically shut off the water source. When you no longer hear the water running – you know that the float valve is fully operational (the water turns off automatically) and you are now ready to turn on the water pump. **Warning! Do not run water pump without water in the reservoir.** 

#### 5.2 Turn-on pump

To turn-on the water pump - flip the toggle switch for the water pump to on. Switch is located on front side of unit. **Warning! Do not run water pump without water in the reservoir**. The water pump will now begin pumping water to the top of the unit so that gravity will allow the water to run down the backside of unit inside and on the cooling pads. Once your Maxx Air cooling pads are saturated – then, you are ready to turn fan on high and begin to feel the cooling effect from your new Maxx Air. <u>Note</u>: After your cooling pads are broken in (typically takes 1 -2 weeks in operation) it will take less time to saturate pads for start-up. This is a good time to dump the old water – add ½ Evap-O-Matic Chemical Water Treatment tablet and refill with fresh water. (Simply remove a cooling pad to place tablet inside of water reservoir).

#### 5.4 Turn-on Fan

Once your cooling pads are saturated with water – you may turn your Maxx Air unit on high. Now you can begin to feel the Maxx Air difference in temperature. After your Maxx Air has run for 5 minutes or so, visually inspect the pads – if water is dripping outside the unit – gently adjust pads at the bottom to stop water flowing outside the unit.

6.0 Daily Operating procedures

#### 6.1 Turn-on water pump

Turn on water pump to unit – turn fan on low – let cooling pads get saturated – then turn fan on high for cooling. *You must determine what works best for you and your specific environment.* 

#### 6.2 Turn fan on high

When you can see that the cooling pads are saturated with water – turn the fan on high and feel the cooler air coming from your Maxx Air unit. Adjust the fan speed for your comfort.

#### 6.3 Turn-off unit at end of day

15 minutes before closing for the day - (1.) Turn off water pump with toggle switch - (2.) Leave fan running - this action will shut-off water to the cooling pads while keeping the fan running. The fan will dry out the cooling pads. (3.) When the cooling pads are thoroughly dry - turn off fan. Drying your cooling pads thoroughly - everyday will help prevent mold and mildew growth, plus it will prolong the life of your cooling pads.

#### 7.0 Maintenance

#### 7.1 Access inside of unit

Turn-off water pump and let the fan continue to run until the cooling pads are thoroughly dry (about 10 - 15 minutes). Once your cooling pads are completely dry you may turn-off fan. Now unplug electricity to unit to avoid unnecessary shock. Next, using a 7/16" wrench – remove the two retaining bolts from the backside and topside (cooling pad side) of the unit. These two bolts hold the thick metal angle retaining bar and the cooling pads in place. Next, remove the angle retaining bar and set to side. Now you are ready to remove your unit's cooling pads.

#### 7.2 Removing the cooling pads

Before your start, make a note of the direction of the angle of the pads flutes (*see side of pads*). You must put pads back in correct order for your unit to function effectively. (Note: Install steep side 45° angle flute to the back of unit - see photo for verification.)

Once the retaining angle bar is removed from the top of your Maxx Air unit, reach to the top of the dry cooling pad to the left and gently take hold of the top of the pad and gently pull down and back – this action will loosen the pad from the unit. Look at the direction of the angle of the

pad flutes (*side of pads*). Remove the cooling pad and proceed to the next pad. Then, remove all cooling pads and gently set in a safe place. <u>Note</u>: this is a good time to take the cooling deck pads outside and run clean water over the pads to remove any accumulated dirt and debris. *Do not use high pressure hose* – this will damage pads and their ability to function effectively. Make sure the pads are thoroughly dry before placing back inside the unit.

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#### 7.3 Daily maintenance

15 minutes before quitting time – turn off the water pump and let the fan run 10 - 15 minutes – to dry out the cooling pads before leaving. Inspect the cooling pads to make sure they are thoroughly dry (this action helps to reduce mold and mildew) when pads are completely dry then turn-off fan.

### 7.4 Periodic maintenance

Depending upon your environment and how often you operate your Maxx Air will depend on how dirty your water gets in the reservoir and how often you will need to clean it. If you begin to detect an *algae smell* coming from your unit – it's time to flush your Maxx Air reservoir with fresh water. Refer to and follow the steps above in 7.2 and remove 1 of the cooling pads from the left side of the unit to gain access to your water reservoir. Take a small sponge and clean out your water reservoir with a light cleaner and wipe it down completely and let the unit dry. (You may want to use a wet / dry shop vacuum to clean out unit). When unit is clean add ½ Evap-O-Matic tablet to reservoir and replace your cooling pads (make sure flutes are facing correct direction – see photo) retaining bar and bolts and add fresh, clean water back to the units' water reservoir. <u>Note</u>: You can order more Evap-O-Matic tablets by calling 1.800.433.1626.

#### Warning! Do not run pump without water in the reservoir. This action will burn up your Maxx Air's water pump.

Problem	Cause	Solution
<ol> <li>Water on the Floor</li> <li>A. Front of unit</li> </ol>	Damage to polyethylene housing. <u>Note:</u> Check for possible cracks in the blue polyethylene.	Repair as necessary.
B. Back of unit	Excess water at top or bottom of pads.	Very gently move pads slightly with your finger tips.
	Damage to blue polyethylene housing.	Search for leaks and repair as necessary.
	Leaking from bottom of pads.	Push bottom of cooling pads gently inside to stop leaking.
2. Found water on floor after overnight shut off.	Excessive water pressure.	Check your water pressure. Max water pressure is 60 p.s.i., by adding a water pressure regulator found at local hardware store.
	Float valve maybe stuck in open position.	Contaminants in water; drain cooler, sump and refill. If float remains stuck remove pads and examine float for debris or damage. Wash out debris and replace float. Continue.
3. Foul odor from fan A. New Unit	New pad may have a temporary odor (this is normal) – you may be smelling the thermosetting resin – it will pass.	Drain and refill several times in first week to remove thermosetting resin smell. Add Evap-O-Matic Tablet to reduce smell – and algae.

#### 7.5 Maxx Air Trouble Shooting Guide

<b>Problem</b> (continued)	Cause (continued)	Solution (continued)
B. After normal use	Water quality – check your immediate environment.	Water should be drained about once a month or sooner depending on your specific working environment – the water quality and conditions.
4. No water running over the pads	Water supply off at main valve source.	Open water valve at supply. You may wish to keep this valve open at all times.
	Pump switch is off.	Turn pump switch on.
	Water filter may be clogged.	Remove the cooling pads see section 7.2. Open back of unit – open water filter – pull out filter screen and clean. Replace and try again.
5. Scale build-up on cooling pads.	Hard water with excessive mineral content.	Use Evapo-O-Matic Tablet or add a Water Stabilizer at the discharge side of the pump.
		Flush water from unit's water reservoir more frequently. <i>See section 7.4.</i>

# 8.0 Storage

Remove pads as described above in 7.2 and rinse pads clean with fresh water. Dry cooling pads in sunlight. Drain water reservoir completely and wipe dry. Replace dry cooling pads in proper position. Replace top angle bar to hold pads in place. Store Maxx Air in dry, clean area and cover to prevent dust build up to have unit ready for the next hot season.

9.0 Wiring Diagrams for 18" unit



# LIMITED WARRANTY

This warranty is underwritten by Falco Insurance Company and is extended to the original retail purchaser of this model or, if this unit is purchased and requires installation by a building contractor, to the original owner of the home. No subsequent purchaser of the unit or of a home in which it is installed is entitled to any of the benefits of this warranty.

This product is warranted against defects in materials and workmanship for a period of one (1) year from the date of original retail purchase. No other parts or components are warranted. There is no warranty for defects caused by abuse, faulty installation, or the like.

Repairs or replacement parts supplied under this warranty are warranted only for the period of this warranty; that is, one (1) year from the date of the original retail purchase of the unit.

In the event of a defect or malfunction, we will replace or repair the defective part or component only and return the new or repaired part to you freight prepaid.

You must bear all other expenses incurred in obtaining repairs, including labor required for field repair or replacement, and the cost of shipping the defective part to us. You must also bear the cost of repair to or replacement of any part or component and the shipping charges incurred for the repair or replacement and return to you of any part or component not covered by this warranty, including parts or components damaged by you.

The company reserves the right to demand and receive written evidence of the date of purchase before undertaking its obligations under this warranty. The right to demand and receive written evidence of date of purchase extends to all licensed dealers of Ventamatic, Ltd. products.

You should, therefore, retain your sales slip and attach a copy of it to the warranty claim.

## To start a warranty claim you must: Contact Ventamatic, Ltd.

An RGA (Returned Goods Authorization) form is required for returns to the factory to ensure your return can be processed efficiently and quickly. Please contact Ventamatic, Ltd. toll-free at 800-433-1626 or via web at www.MYMAXXAIR.com to obtain an RGA and follow the instructions given.

There is no informal dispute settling mechanism available in the event of a controversy involving this warranty. Any and all implied warranties which may exist terminate upon the expiration of this warranty one (1) year from the date of the original retail purchase. Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.

Ventamatic, Ltd. is not liable to you for incidental or consequential damages arising out of defect or malfunction of a unit or its installation or out of any alleged breach of this warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

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Ventamatic, Ltd. P.O. Box 728 MINERAL WELLS, TEXAS 76068 TOLL FREE: 1.800.433.1626 FAX: 940.325.9311

Visit us online at: www.mymaxxair.com