



AFFORDACOOOL

Thank you for purchasing from Affordacool.

We hope this document provides a better understanding of how our units operate, helpful troubleshooting tips, and general care for long-term operation.

As always, feel free to contact us for any support that this manual does not provide.

Please take time to read through our important reminders to ensure safe operation of your unit(s).

This manual provides information that applies to the following portable evaporative cooler models:

Viking AC-7, Viking AC-11, Viking AC-13



APPLICATIONS AND GENERAL INFORMATION

Portable evaporative coolers, also known as swamp coolers, work by utilizing the natural process of evaporation to cool the air. Here's a simple explanation of how they operate:

1. **Water Tank and Pads:** The cooler has a water tank (reservoir) from which the water is either manually filled or continuously supplied through a hose connection and a pump is used to supply water to a media pad for saturation.
2. **Fan and Air Intake:** A fan draws in warm, dry air from the surrounding environment and passes it through the wet pads.
3. **Evaporation Process:** As the warm air passes through the wet pads, the water evaporates, absorbing heat from the air in the process. This causes the air temperature to drop.
4. **Cool Air Output:** The cool air is then blown out into the area, providing a refreshing and cooler environment.
5. **Common Uses:** Portable evaporative coolers can be used in a wide range of applications such as aircraft hangars, warehouses, patios, barns, auto repair shops, packaging locations, school playgrounds, recreational facilities, greenhouses, laundry facilities, and so on.



KEY FEATURES

The evaporative cooling process is energy-efficient, environmentally friendly, and does not use chemical refrigerants like traditional air conditioners. Evaporative coolers can be used in many different locations, however, they typically provide the most cooling relief in drier climates.

- Large water tank (reservoir)
- Adjustable speed fan motor
- Automatic or manual fill
- Rust proof plastic type housings
- Lightweight and portable
- Automatic oscillating louvers
- Easy access to media pad for cleaning or replacement

IMPORTANT WARNINGS, REMINDERS, AND TIPS

Please read these **WARNINGS** entirely to maintain safe and reliable operation of the cooler(s).

- Inspect the cooler for any damage, debris, mineral buildup, etc. that may affect normal operation.
- Power supply must not exceed the required voltage (+/-) 5%.
- Shut off water supply to the unit when not in use or when unattended.
- Do not overfill water reservoir. Fill to the **MAX** indicator line located on the front of the water reservoir. Overfilling could cause damage or warping.
- Turn off and unplug the unit when not in use or when performing any maintenance.
- Do not perform any maintenance without proper knowledge of components.
- Turn off and unplug the unit when manually refilling the unit. **Damage to the fan and motor assembly can occur if a water supply hose is left in the tank while the fan is running.**
- Do not place hands or other objects into the front of the unit or the manual fill door during operation of the unit.
- Use caution when moving the portable cooler, especially when filled, as tipping could occur.
- Keep power cord free and clear of any obstacles to prevent cord damage or injury that could occur due to trips or falls.
- Keep the unit out of rain and any other adverse weather conditions.
- Use an appropriate gauged extension cord for the unit, if necessary. Consult an electrician for the proper gauge needed depending on the distance and application. It is best to operate the unit on a dedicated circuit when possible. Overheating of the motor and/or control board can occur if the proper cord gauge is not used.

Please read these **TIPS and REMINDERS** entirely to maintain reliable operation of the cooler(s).

- Locate the drain cap on the back lower part of the water reservoir. Periodically drain the tank to avoid build up of minerals, dirt, and debris (a hose can be used to rinse out the tank during draining via the manual fill door. Unplug the unit prior to this operation).
- It is recommended to clean out the reservoir at least once a month (or more) depending on the mineral content of the water supply and the environment it is operated in.



- Remove the dust screen on the back of the unit to thoroughly clean the interior, perform maintenance, and to replace parts when needed. The dust screen is attached by button-head screws on each side of the unit, the bottom of the unit and the upper closeout panel.
- Inspect the condition of the media pad. If calcium buildup is present, replace the media pad with new, or perform a cleanse of the media pad with an OTC cleaner specifically designed for use with media pad material.
- The use of water filters can be helpful in reducing calcium and other mineral build up. Replace filters regularly and according to manufacturer specifications.
- A water level float valve with a hose adapter is installed on the side of the unit. Maintain low water pressure to the float assembly to avoid failure of the float and any potential leak at hose adapter.

UNDERSTANDING THE COMPONENTS

Please refer to the list below for a description of the general components of the cooler and how they affect its function.

- The main housing consists of a two-part plastic casing and serves as the water tank (lower) and fan shroud (upper).
- The fan assembly is attached by reverse thread to the motor shaft and is shrouded in the upper casing.
- A rigid media pad is installed in the rear of the unit and becomes saturated with water to convert warm air to cool air.
- In the lower water tank, a pump provides water to the top of the upper rear casing and is then distributed down the media pad.
- A low-level sensor is installed in the water tank to prevent the pump from running when the water level is too low.
- A float shut-off assembly is installed opposite the water level sensor and restricts automatic fill when the tank is full.
- The front louver assembly and fan guard is equipped with a swing motor that provides continuous oscillation to cool a larger area.
- A control panel with LCD screen is installed in the upper casing. This 5 button control panel is responsible for power on/off, fan speed selection, swing operation, and pump operation.
- A mesh screen is installed at the rear of the unit and serves to minimize dirt and debris from entering the media pad.

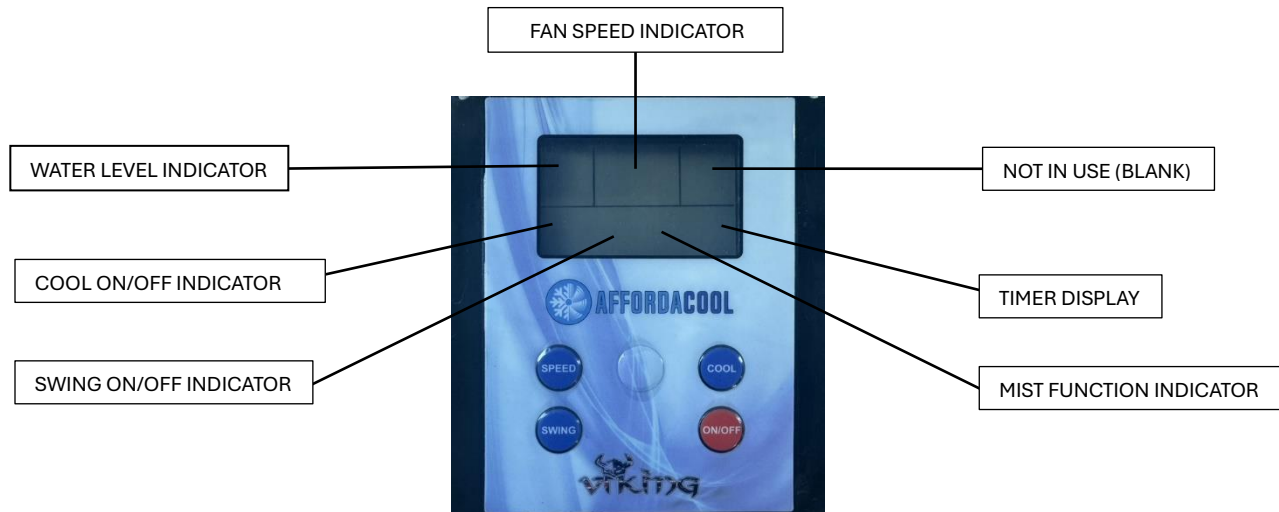
UNDERSTANDING THE CONTROL PANEL

Please view the figure below for the location of each control function button and an explanation of the display screen icons.

- **ON/OFF** - This turns the cooler on or off.
- **COOL** - This activates the water pump. **Note: By default, the pump is always in operational mode during start-up. The pump can be turned off by pressing the COOL button, if desired.**



- **SPEED** - Pressing SPEED will select low, medium, or high fan speed. By default, the motor will start with fan speed on HIGH during initial start-up.
- **SWING** - This activates/deactivates swing function of the front louvers. Toggle on and off to adjust position of louvers or to allow automatic swing.



UNDERSTANDING THE DISPLAY SCREEN

- **Water Level Indicator:** Pixels will appear when water level is sufficient to operate water pump. Blank outlines will appear flashing when empty. An intermittent beep will occur briefly if water level is too low.
- **Fan Speed Indicator:** Animated fan blade icon will appear during operation. Solid lines represent low, medium, and high speed.
- **Cool Function Indicator:** Snowflake icon will appear when pump is ON. Blank screen when OFF.
- **Swing Indicator:** Animated swing lever icon will appear when swing function is ON.
- **Mist Function Indicator:** Misting icon will appear in this position when the top center button on the control panel is pressed. Although the icon may display, the misting feature is only available on units that have been custom upgraded to include a misting kit.
- **Timer:** Will display preset number of hours the unit will operate before entering sleep mode (function is only accessible/activated by remote control). Pressing the timer button on remote control (not included with all purchases) will toggle the number of hours available for auto-shut off.

OPERATING THE UNIT / START-UP

Please read all warnings and reminders and remember to inspect the unit prior to use. Follow these instructions as listed in order and refer to the troubleshooting guide if you experience any issues. (Note: If you received your cooler without the casters installed, please follow installation instructions provided with the casters.)

- Apply brakes to front locking casters.
- Fill water reservoir to desired capacity. Do not fill above MAX fill line.
- Remove hose and close ice drop door/manual fill door, if manually filling.
- If using auto fill, connect water source to hose adapter located on the side of the cooler. Apply low water pressure and allow cooler to fill to desired level before operating.
- Plug the unit in to a GFCI protected power source and listen for a beep at the control panel.
- Check the LCD screen for water level indication (top left screen). If water level is sufficient to run pump, the box will display full dots.
- Press ON. If water level indicator is on, the pump will operate approximately 30-60 seconds before starting the fan. This delayed start is to pre-soak the media pad before moving air. If water level is insufficient, a flashing box will appear and the fan motor will start immediately. If, during delayed start up, the COOL button is pressed, the pump will turn off and the fan motor will start immediately.
- Once the fan is running, select desired fan speed and swing mode.
- Enjoy!

TROUBLESHOOTING

Please review the table below for troubleshooting tips and remedies. If you are unable to properly diagnose an issue or have further questions, please call our main number to speak with a technician. Remember to perform all maintenance while the unit is disconnected from power, follow all warnings outlined in this manual, and comply with all safety regulations as applicable.

<u>Error / Malfunction</u>	<u>Possible Causes</u>	<u>Remedy / Repair</u>
Screen INOP / No light	-No power to unit -LCD display failure	-Inspect power cord for damage/replace -Check power supply source -Replace PCB (control board)
Screen is on and indicates motor operation but no fan movement	-Blown PCB fuse -Faulty motor -Faulty PCB (control board)	-Check fuse on back of PCB and replace -Replace motor and/or capacitor -Replace PCB (control board)
Media pad is not getting wet – pump indicator is on	-Faulty water pump -Loose pump wire or level sensor wire connections -Faulty or stuck water level sensor -Pump hose clogged or disconnected	-Replace pump -Replace water level sensor -Clean pump and sensor -Check connections to PCB -Inspect hose connection and upper water distribution rail above media pad for buildup or blockage
Motor will not operate on all speeds	-Faulty motor or motor relay -Loose connection on PCB	-Check PCB wire connections, replace terminal ends if overheated -Replace PCB (control board)
Water tank overflowed with hose connected	-Faulty float shut-off assembly -Loose float level adjustment -Hose pressure too high	-Replace float valve assembly -Inspect float level and adjustment -Lower pressure from water source
Swing function INOP	-Faulty swing motor -Loose wire connection at PCB	-Replace swing motor -Inspect wiring to swing motor



Drain cap is leaking	-Bad/missing seal in drain cap -Cracked drain cap	-Replace cap and/or seal (Do not overtighten)
Airflow is limited when operating	-Mineral build-up in media pad -Clogged or dirty rear dust screen	-Replace media pad -Remove and clean dust screen
Fan motor runs for a short time, turns off, and restarts after a few minutes	-Faulty thermal switch in motor -Incorrect amperage, lack of proper current from power supply -Bad motor run capacitor	-Be sure to operate with proper gauge extension cord to avoid motor overheating -Replace motor and/or capacitor
LCD screen is not visible or darkened	-Over exposure to direct sunlight -Faulty LCD screen	-Remove LCD screen from direct sunlight or cover screen -Replace PCB (control board)
Other technical issues not discussed		-Please contact Affordacool

TECHNICAL SPECIFICATIONS AND FAQ'S

Please visit our website for more information on your specific model.



AFFORDACOOOL

320 E 10th Dr, Suite R,

Mesa AZ, 85210

480-788-5032

www.affordacool.com

