

MTN Products

Horizons Counter Top Complete Manual

Cooler Disassembly Instructions Included



Reliably Serving A Thirsty World

Table of Contents

TABLE OF CONTENTS	I
TECHNICAL SPECIFICATIONS	1
ELECTRICAL SPECIFICATIONS	1
REFRIGERANT	1
COLD WATER	1
HOT WATER	1
GENERAL INFORMATION	2
GETTING TO KNOW THE INTERFACE	3
INSTALLING THE HORIZON COUNTER TOP UNIT	4
PROGRAMMING THE HORIZON® COUNTER TOP COOLER	5
THE REAR PANEL	7
UNDERSTANDING THE DISPENSE SYSTEM	8
THE HORIZONS® CT WATER SYSTEM	8
DISASSEMBLY	9
HOT TANK DRAIN LOCATION	9
SIDE PANEL REMOVAL	10
FRONT PANEL REMOVAL	11
ACCESSING THE LCD CIRCUIT BOARD AND DISPENSE SOLENOID	12
REAR PANEL REMOVAL	13
ACCESSING THE HORIZONS® COUNTER TOP MAIN PCB	14
PARTS LOCATION	15
TROUBLESHOOTING	17
WATER NOT DISPENSING	17
COLD WATER RESERVOIR IS FROZEN	17
WARM WATER DISPENSING FROM COLD SIDE	17
WATER DISPENSING FROM HOT SIDE NOT HOT	17
HOT WATER IS BOILING	17
WIRING DIAGRAM	19

Technical Specifications

Electrical Specifications

Voltage: 115 VAC, 60 Hz

Current: 5.6 Amps

Wattage: 640

Refrigerant

R134a refrigerant 1.6 oz. charge

Cold Water

Reservoir: 3.5L Seam Welded 304 Stainless

Cold Water Temperature: 45°F

ARI Cooling Capacity: 0.5 gph at 50°F

Hot Water

Hot Tank: 1.4 Liter 304 Stainless

Heat Band: External 520 Watts

Hot Water: Temperature: 186°F +/- 5°F

ARI Heating Capacity: 37 (6 oz.) cups per hour

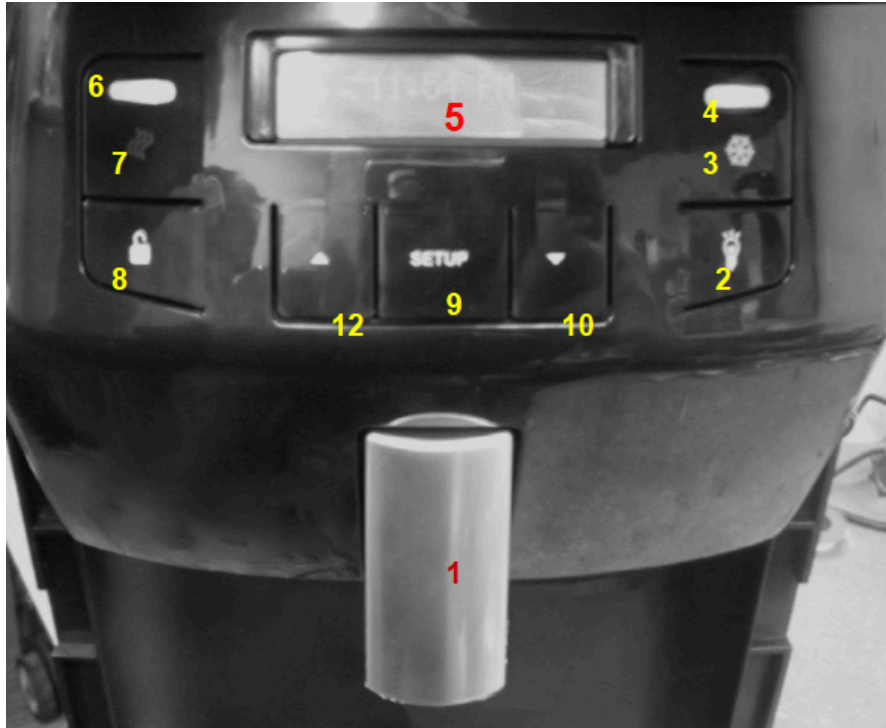
165°F +/-5°F



General Information

- This POU should only be connected to a potable water source.
- Unit to be used indoors only.
- Do not locate unit in direct sunlight or next to a heat source.
- Always maintain 4” of clearance around cooler for proper air circulation.
- Do not install cooler in an area that may freeze.
- Cooler should be installed within 6 feet of a power source.
- Receptacle must be three-pronged ground. Never use extension cords.
- This Horizons® POU should only be connected to a power source after installation to a waterline.
- **WARNING:** Should it become necessary to gain access to electrical components, disconnect electrical power and shut water off prior to removing panels.

Getting To Know The Interface



1. Dispense nozzle bottom portion LED.
2. Panel brightness adjustment (3 variations).
3. Cold water dispense button.
4. Cold water indicator.
5. LCD information display screen.
6. Hot water indicator.
7. Hot water dispense button.
8. Hot water unlock (push and hold for 3 seconds to unlock).
9. Interface set up button (push and hold for 7 seconds to enter set up screen).
10. Scroll down button.
11. Scroll up button.

Installing the Horizon Counter Top Unit

Note: Ensure installation complies with all State and Local Plumbing Codes.

- Locate cold water supply line and install suitable access valve with a 1/4" outlet with shutoff. Connect 1/4" waterline to access valve. Tag shutoff valve.
- Install inline pressure regulator.
- Connect filters to 1/4" waterline. Follow the guidelines the filter manufacturer provides for flushing filters prior to installation.
- Connect waterline to the water inlet fitting on the Horizon® Countertop cooler.
- Slowly open access water valve and allow cold reservoir to fill. Check for leaks while cold reservoir fills.
- Connect power cord to a three-pronged outlet. Never break off the grounding prong on the power cord.

Effective June 15, 2012: UL recommends that this unit should be used with a ground fault circuit interrupting type (GFCI).

- Place a container under the dispense nozzle, and press the cold water dispense button and hold until a steady stream of water is dispensing from nozzle.
- Press the hot unlock button and hold for 3 seconds, then press the hot dispense button and hold until a steady stream of water is dispensed.
- Place the hot tank switch located on the rear of cooler to the "ON" position.

Note: Switch is designed to remain lit until the hot tank reaches proper operating temperature.

Programming The Horizon® Counter Top Cooler

Note: All programming is accomplished using the three buttons located directly below the LCD display screen.

VERY IMPORTANT: After each change is made, the “Setup” button must be pressed for programming to be accepted.

- To access program mode press and hold the “Setup” button for 7 seconds.
- After 7 seconds Time will display on the LCD. Use the “Up” or “Down” buttons to set the correct time.
- Press “Setup” button again and Date will display on the LCD. Use the “Up” or “Down” buttons to set the correct date.
- Press “Setup” button again and ES (energy saving) start time will display on the LCD. Factory default time is 11:00 PM. Use the “up” or “Down” buttons to set the correct start time.

IMPORTANT: To activate ES push orange button in. This button is located on the rear of Horizon.

Note: It is not recommended to use this feature if the cooler is set in a facility that operates 24 hours per day.

- Press “Setup” button again and ES (energy saving) stop time will display on the LCD. Factory default time is 6:00 AM. Use the “Up” or “Down” button to set time to deactivate the ES mode.
- Press “Setup” button again and Mute will display on LCD. Factory default is Mute Off. Use the “Up” or “Down” key to set mute mode.
- Press “Setup” button again and Accu-Temp will appear on the LCD. Factory default is ACCU.TEMP On. It is recommended to be left in the On position. When either the hot or cold water button is pressed the water pump comes on for one second and recirculates the water in tubing back into the tank, pump than comes back on an and will dispense either colder or hotter water. If Accu-Temp is set the off the recirculation portion is shut off. . Use the “Up” or “Down” key to set Accu-Temp mode.

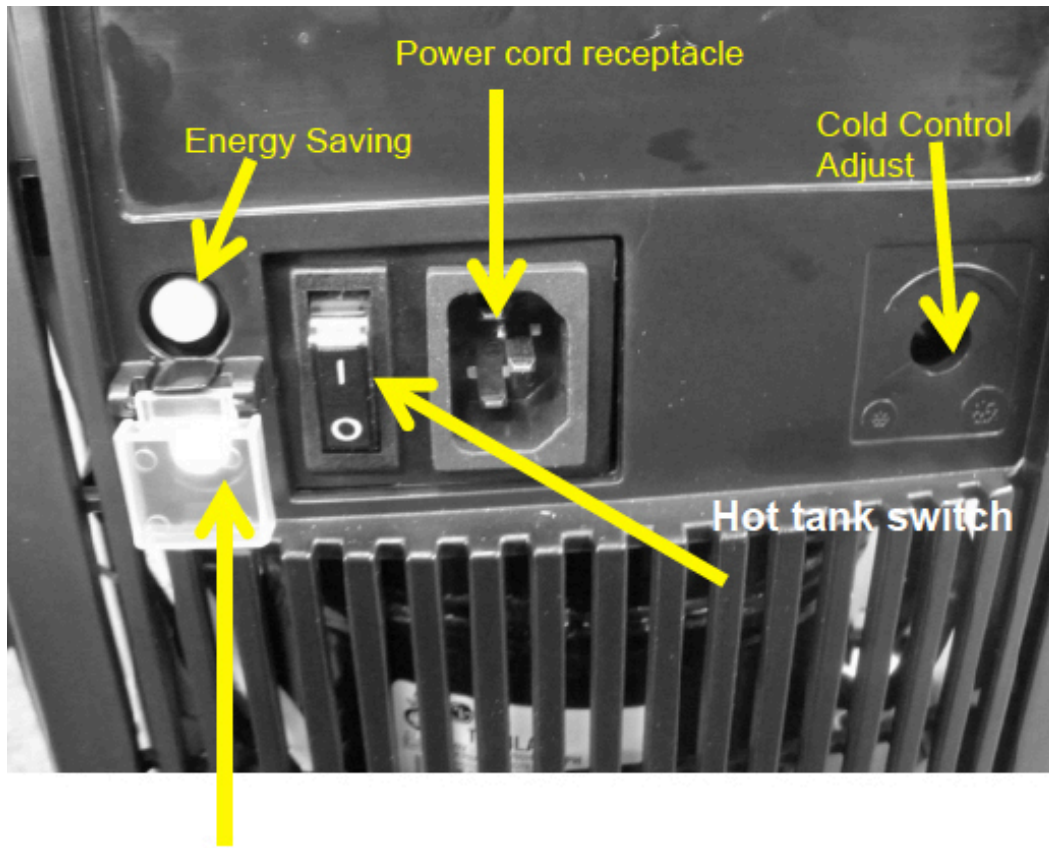
Programming The Horizon® Counter Top Cooler Continued

- Press “Setup” button again and Hot-Temp Adjustment will appear on the “LCD”. Factory default is 88°C (190°F). Adjust range is 82°C (180°F) to 89°C (192°F). Use the “Up” or “Down” button to select temp if a change is desired.
- Press “Setup” button again and Temp Ready Indicator will appear on “LCD”. Factory default is Off. If switched to the On position, the hot (red) and cold (blue) indicator lights on the interface panel will flash on and off until preset temperature has been reached.

Use the “Up” or “Down” button to select “On” or “Off”. **The Temp Ready Indicator is the final item that requires being set. The “Setup” button must be pressed. Once pressed it will cycle back to the “Time” setting. After 15 seconds the programming mode is exited.**

- To revert back to factory settings, simultaneously press the down arrow, Setup, and up arrow, and wait for a tone (about 1 second), then one long beep (about 3 seconds).
- The program has a battery backup and there is no need to reprogram if the cooler experiences a power failure.

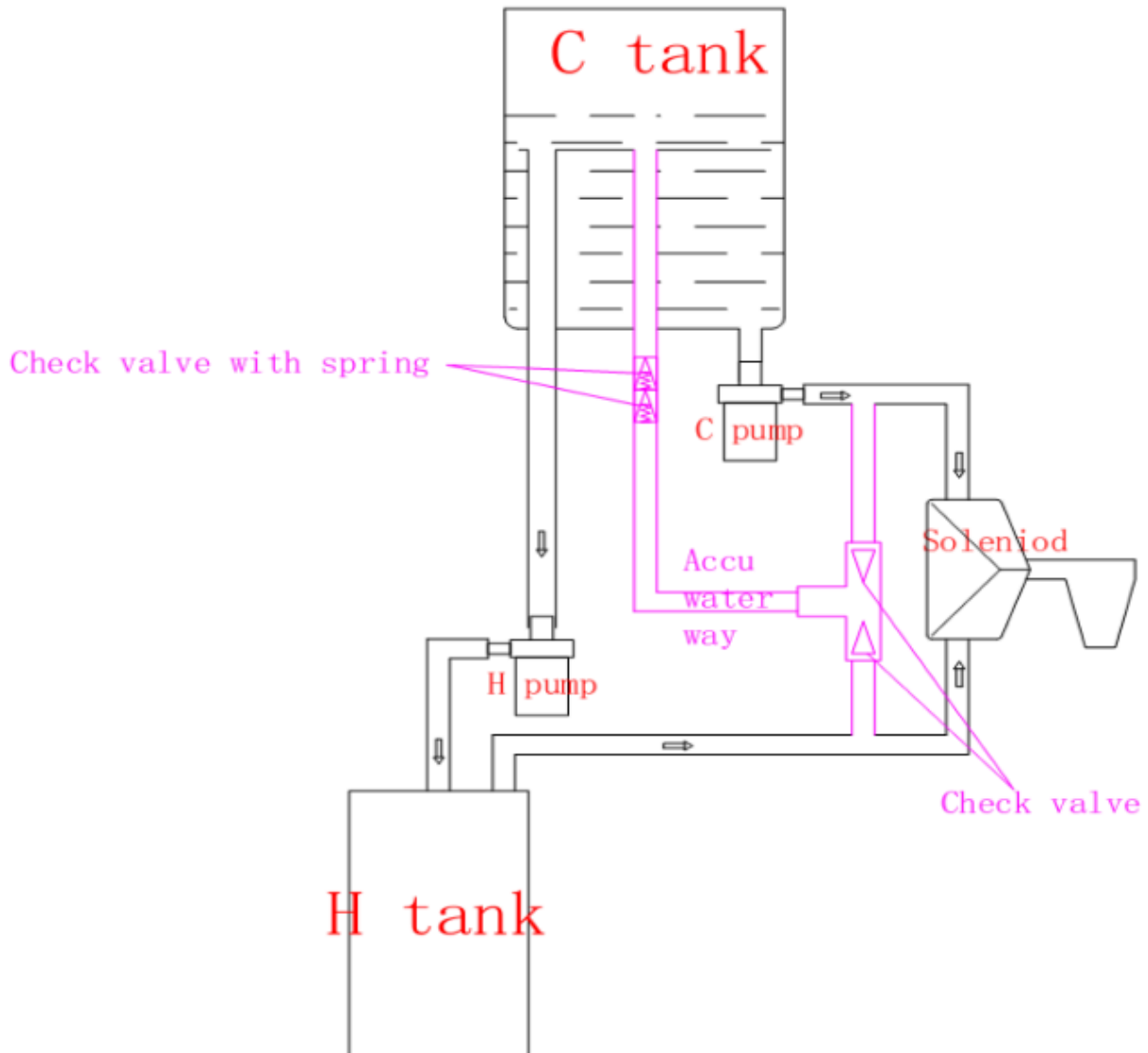
The Rear Panel



Manual Clean Start Button

Understanding the Dispense System

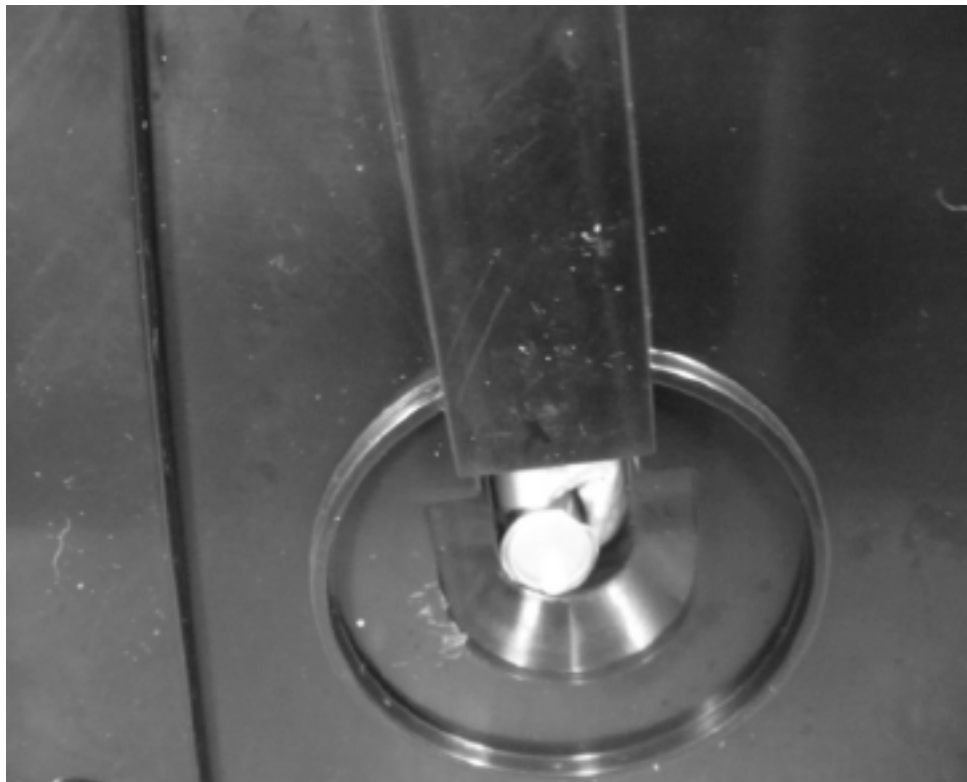
The Horizons® CT Water System



Disassembly

Note: Always drain the Cooler.

Hot Tank Drain Location



Hot tank drain is located under the cooler. To prevent scolding, use needle nose pliers to remove plug.

Disassembly Continued

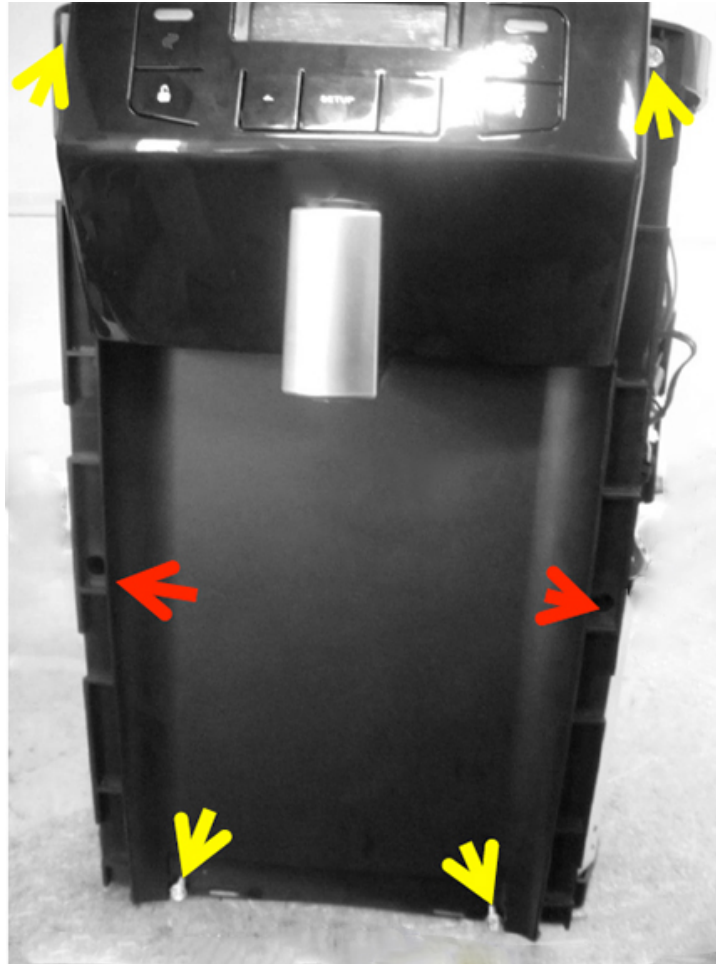
Side Panel Removal



Each side panel is attached with two screws. To remove panel, tilt cooler and remove the two screws using a Phillips #2 screwdriver. Push down on panel to remove. Side panels are interchangeable.

Disassembly Continued

Front Panel Removal



The front panel is attached with 6 screws. The 4 yellow arrows point to sheet metal screws, and the 2 red arrows are machine screws. Use a #2 Phillips to remove all screws.

Hint: When installing panel, install machine screws 1st for proper panel alignment.

Disassembly Continued

Accessing the LCD Circuit Board and Dispense Solenoid



After the 6 screws have been removed from front panel, pull the panel forward to gain access to circuit board and dispense solenoid.

Disassembly Continued

Rear Panel Removal

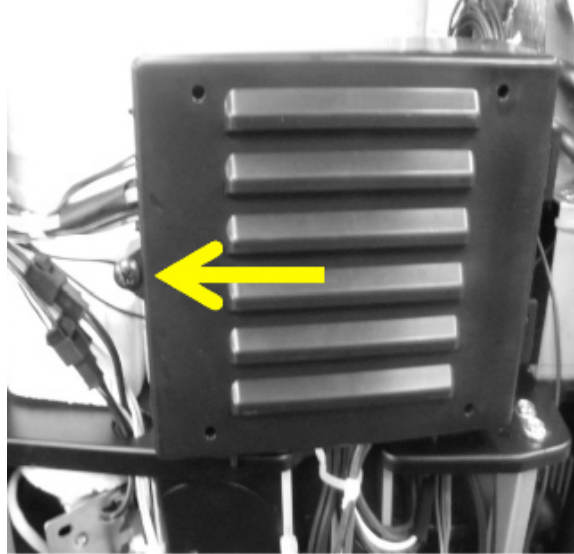


Rear panel is secured with six screws, three per each side. Four are sheet metal type (yellow arrows), and two machine screws (red arrows).

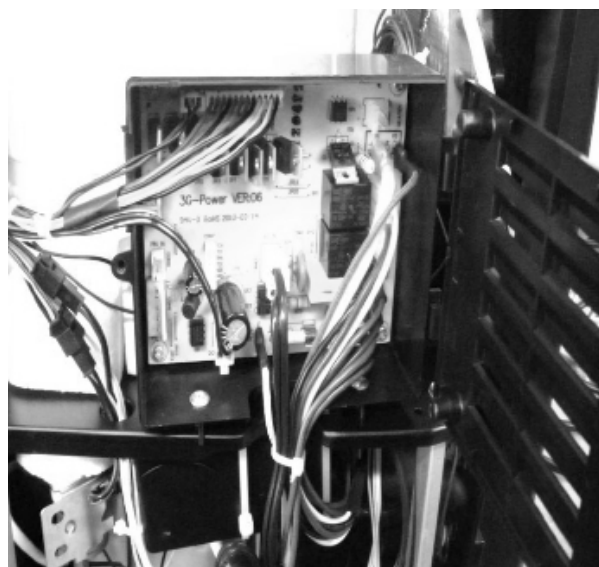
Hint: When installing the panel, install machine screws first for proper panel alignment.

Accessing The Horizons® Counter Top Main PCB

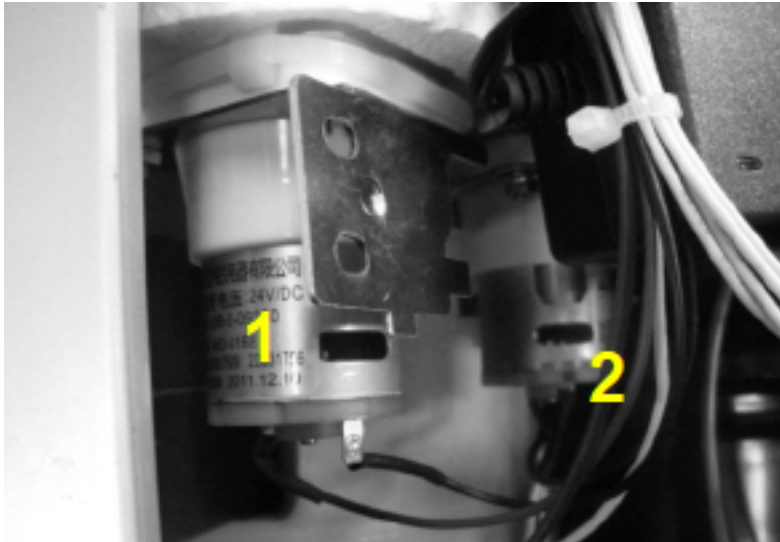
The PCB is attached with four screws. Should replacement be necessary, remove the four screws and pull the board out with wiring attached. Install the new board and transfer wires from the old to new board. This board is equipped with a button type cell battery and will retain programming if power is interrupted.



The main PCB is located behind the left side panel. The panel door is secured with a #2 Phillips screw. Remove screw to gain access.

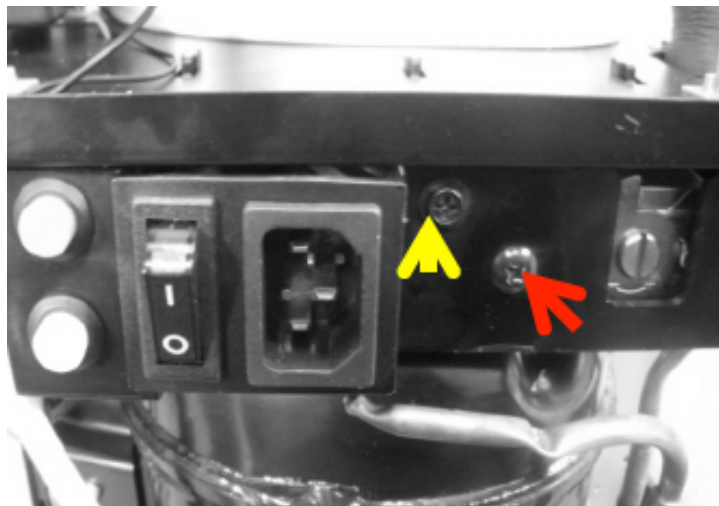


Parts Location



1. Cold Water Pump.
2. Hot Water Pump.

To gain access to cold control, remove the black colored Phillips head screw (yellow arrow). The cold control can be removed/replaced by removing the brass colored screws (red arrow).



Parts Location Continued

To access the hot controls, remove front panel than remove hot control cover. The hot thermostat (thermistor) is located on top, and the heat limiter is on the bottom. Should heat band need to be replaced, cut the lower strap on the hot tank insulation and roll insulation up. The heat shield needs to be removed first, and than the heat band can be replaced.

WARNING: The heat shield must be replaced to prevent damage to hot tank insulation.



Troubleshooting

Water not dispensing

Check float assembly has not been tripped. Press reset button on float assembly to reset float.

Verify cooler connected to a working outlet.

Verify that the water shut off valve leading to unit has not been shut off.

Cold water reservoir is frozen

Unplug cooler to allow reservoir to thaw turn cold control. Turn counter clockwise. Plug cooler back in. If reservoir freezes again either cold control is defective or cooler is low on refrigerant.

Possible defective faucet.

Warm water dispensing from cold side

Verify usage is not exceeding GPH cooling capacity (approx. 1 GPH)

Cooler set in direct sunlight or too close to heat source.

Check cold thermostat setting. Turn cold control screw. Turn clockwise for colder water.

Defective cold control or compressor low on refrigerant.

Water dispensing from hot side not hot

Verify switch on rear of cooler is in the "On" position. Switch will light up when hot control is activated.

Defective hot control or heat band.

Hot water is boiling

Possible air pocket in hot tank. Dispense water from hot faucet to bleed off any trapped air.

Mineral build up in hot tank.

Defective hot control.

Troubleshooting Continued

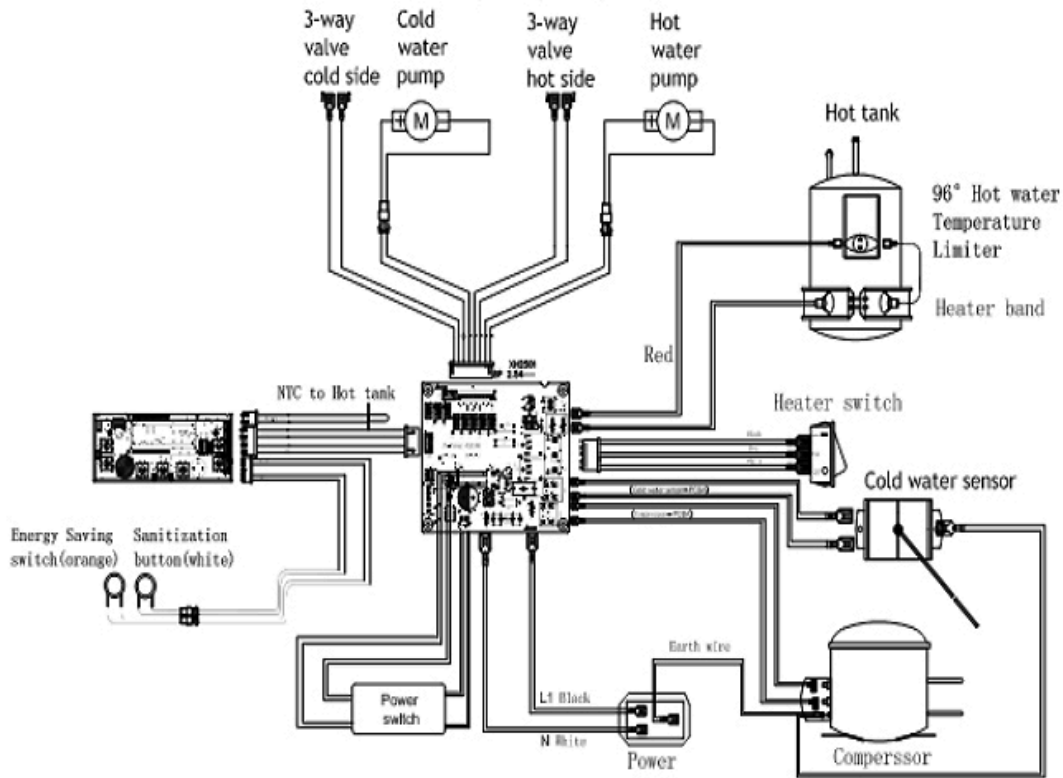
If water continues to boil shut off hot tank switch.

Repairs should only be completed by a certified technician.

For additional troubleshooting assistance contact technical@mtnproducts.com

Wiring Diagram

REV	REF	DESCRIPTION	AUTH	DATE
A-0				



STANDARD TOLERANCE LIMITS UNLESS OTHER SPECIFIED		
RANGE	TOLERANCE	
	A	B
> 0~6	±0.06	±0.14
> 6~30	±0.1	±0.2
> 30~120	±0.2	±0.3
> 120~300	±0.3	±0.4
> 300~600	±0.4	±0.5
> 600~1200	±0.5	±0.6

宏柏家电(深圳)有限公司 TALL & STOUT IND. CORP.			WORKING DATE	Horizons CT Wiring Diagram
DESIGNED BY	CHECKED BY	APPROVED BY	DRAFT NO.	
			PART NO.	
			UNIT	
2012/05/12			SCALE	REF A-0

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