MANITOWOC ICE MACHINE DIVISION
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Instruction Sheet

Subject: K00491 - Bin Thermostat Kit

INSTALLATION ON COKE FREESTYLE

⚠Warning

Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, local/national regulations for disconnection / lock out / tag out procedures for all utilities including electric, gas, water and steam.

⚠Warning

Disconnect electric power to the ice machine and dispenser at the electric switch box before proceeding.

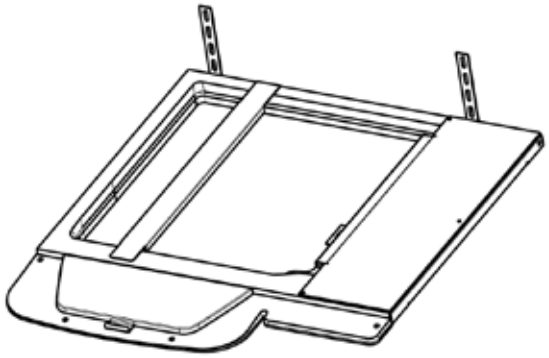
⚠DANGER

Failure to disconnect the power at the main power supply disconnect could result in serious injury or death. The power switch DOES NOT disconnect all incoming power.

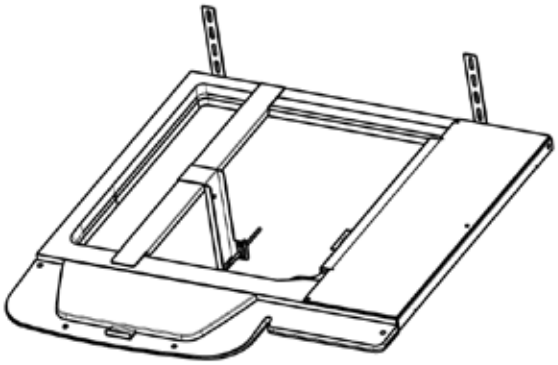
⚠Warning

Two or more people are required to move this equipment to prevent tipping.

1. Place the support channel onto the dispenser top.

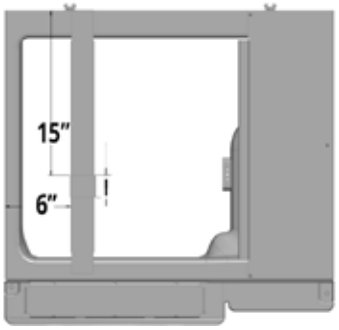


2. Select the probe bracket based on dispenser top. Use longer bracket for the Standard Top and the shorter bracket for the Low Profile top. Secure the probe to the bracket using the supplied screws.



3. Adjust the probe so that it is the correct location on the dispenser. It should be in line with the chute of the ice machine and roughly 1 inch from the edge of the chute opening. Peel off the backing on the double-sided tape and adhere into place. Approximate mounting location for RNF0320, RNF0620 and RNF1020C shown below.





4. Place the foam gasket tape around the dispenser top opening.
5. Install Ice Machine onto dispenser. Route the probe wire under the left side of the machine and into the cabinet through the side panel.
6. Pick the desired mounting location for the thermostat. Proposed location is below or to the side of the control box depending on ice machine. Use the thermostat bracket as a template to drill pilot holes. A 7/32” drill bit is required for the pilot holes. Be sure to not drill into anything in the control box. Use the screws provided to secure the thermostat bracket.



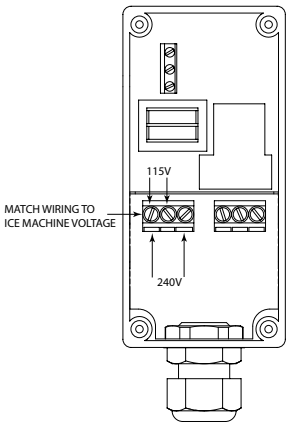


7. Mount the thermostat to the bracket, then route the wires through the grommet in back of the control box.



⚠ Caution

The thermostat must be wired to match the voltage of the ice machine. The thermostat is factory wired for 115 volts. Rewire thermostat, if your ice machine is 240 volts.



8. Disconnect the wire from the bin thermostat in the control box (orange in these pictures). Connect that wire to the red wire from the thermostat. Connect the second red wire to the point you disconnected the bin thermostat wire.





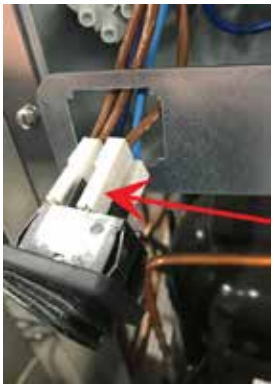


9. Disconnect the wire from the lower left of the power toggle switch (Blue in these pictures) and connect to the blue wire from the thermostat. Connect the other end of the blue wire to the switch.





10. Disconnect the wire from the upper right of the power toggle switch (brown in these pictures) and connect to the brown wire from the thermostat. Connect the other end of the brown wire to the switch.





11. Remove the front cover from the thermostat. Route the probe wires into the box and connect as shown. Replace the front cover on the thermostat.



12. Restore power and refer to “Setting Control Setpoint Values” to view and adjust control settings.
13. Reinstall the panels on the ice machine..





Setting Control Setpoint Values

To view and adjust setpoint, follow these steps:

A. Press MENU, select and set the OFF temperature. Press the up or down arrows to change the setpoint value (38° F / 3° C recommended).
Press MENU to save the new value and advance to the next parameter code.

Important

If MENU is not pressed after changing the setpoint value, the control reverts to the previous setpoint value.

B. Scroll to the ON parameter. Press the up or down arrows to change the ON setpoint value (40° F / 5° C recommended). Press MENU to save the setting and advance to the next parameter code.

C. Scroll to the SF screen. Press up or down arrows to set the SF (sensor failure) operation:

0 = Shuts off on sensor failure.

1 = Continues to run on sensor failure - 0 is recommended for all applications.

D. Press MENU to save the new value and advance to the next parameter code.

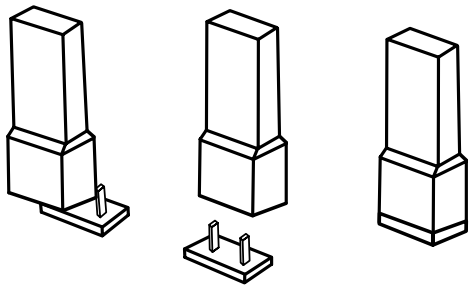
E. Scroll to the ASd (anti short cycling delay) screen. Press the up or down arrow to change the ASd (anti short cycling delay) time: Numbers are minutes; a minimum of one minute is required and recommended. Press MENU to save the setting, then wait 30 seconds for the control to revert to the default temperature setpoint display.

NOTE: The time delay is active anytime power is interrupted and restored or the control cycles the ice machine off.

RESTRICTING CONTROL ADJUSTMENT

The jumper position determines if the touch pad is locked or unlocked. To change function, disconnect power to the controller, move the jumper to the desired function and reapply power to the controller.

- Locked - Jumper contacts one pin.
- Unlocked - Jumper contacts both pins.



TROUBLESHOOTING

If the control system does not function properly, verify the control is wired and set up properly. If the problem persists, use the following procedures to determine the cause of the problem.

> **⚠Warning**
>
> Line voltage is present inside the control. Contact with line voltage can cause injury or death.

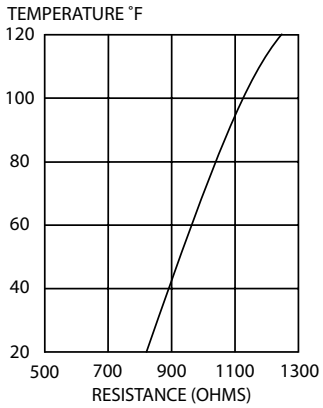
Follow these troubleshooting procedures in the order presented. Do not skip any of the steps in the procedures.

1. Check for proper voltage to the control.
   A. Remove the cover by loosening the four cover screws.
   B. Use an AC voltmeter to check the voltage between the common and 120V or 240V terminals.
   C. The voltage must be between 102 and 132 volts for 120V applications; 177 and 264 volts for 208/230V applications.
   D. If the voltage reading is not within the required range, check the power source and input power wires for problems.
2. Check for Fault Codes.

If the LCD displays an alarm or fault code (SF or EE):

Fault Code	Definition	Solution
SF flashing alternately with OP	Open temperature sensor or sensor wiring	See Step 3. Cycle power to reset control
SF flashing alternately with SH	Shorted temperature sensor or sensor wiring	See Step 3. Cycle power to reset control
EE	Program failure	Reset the control by pressing MENU. If problem persists cycle power to reset control. If problem isn't resolved, replace the control

3. Test thermistor resistance.
   A. Disconnect thermistor from control.
   B. Measure the temperature at thermistor.
   C. Measure resistance of thermistor.
   D. Compare temperature and resistance to the chart. Replace thermistor if values are not in the proper range.



4. Check for proper operation.

> **Important**
>
> Perform Steps 1, 2 and 3 before performing these steps:

   A. Disconnect the load from the output relay terminals.
   B. Verify the touch pad is unlocked.
   C. Reconnect the sensor leads and supply power to the control.
   D. Replace the cover.
   E. Check the control settings for proper values.
   F. Press MENU until ASd appears and set the delay to 0, press menu to save the setting.
   G. Press MENU until ON appears. Press MENU and then use the up and down arrows to change the setpoint temperature above and below the sensor temperature until the relay energizes and de-energizes.
   H. If the output relay does not perform as indicated, replace the control.
   I. If proper operation of the control is verified, reconnect the load.