# K00364 Electronic Bin Thermostat

## Installation Instructions

This kit reduces overfill and condensation issues and can be used on any Manitowoc ice machine installed on an ice dispenser. Order kit number K00336 for the following models IB0620, IB0820, IB1020, QF0400 and QF2300.

**Control Settings**

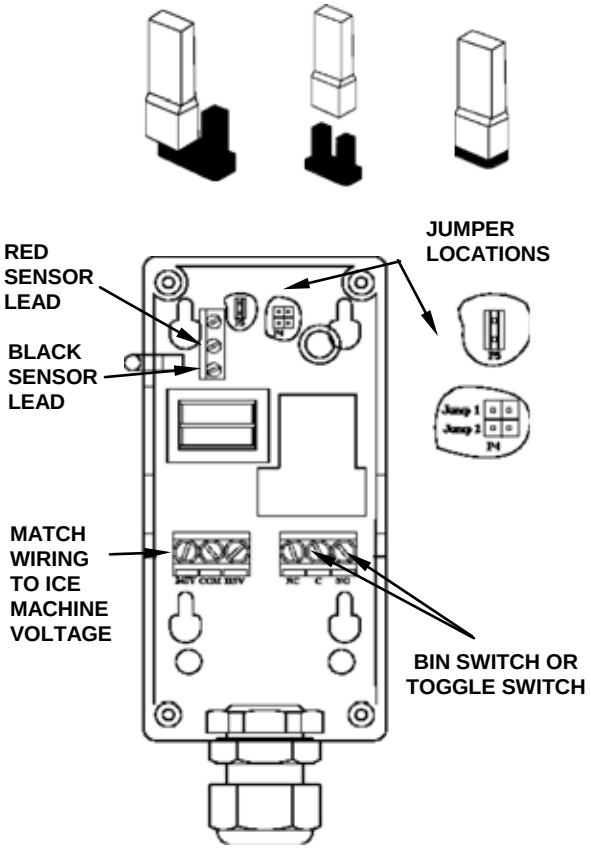
Flake/Nugget/Chiplet:
The control must be reset from the factory setting. Refer to the jumper and control settings.

Ice Cube Machines:
The machines use the factory control settings.

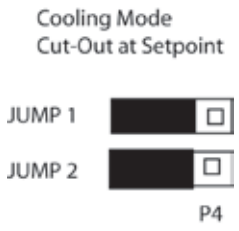
The controller has a one-minute time delay anytime power is interrupted and restored.

**Positioning the Touchpad Jumpers**

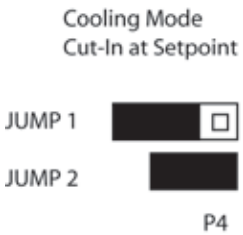
***P5 Jumper***
The P5 jumper position determines if the touchpad is locked or unlocked. The control is factory locked; to unlock, move the jumper from one pin to two pins.




***P4 Jumper***
The P4 jumper labeled Jump 1 is used to set the control for heating or cooling mode. Jump 2 is used to establish set point at either cut-in or cut-out.




**Cubers**




**Flake/Nugget/Chiplet**

**Setting Control Set point Value**

To view and adjust set point, follow these steps:

A. Press MENU until the display flashes SP.
B. Press MENU again to display the existing set point value.
C. Press up or down (arrows) to change the set point value.
D. Press MENU again to save the new value. The display returns to the sensed temperature.
E. If no setup entry is made for 30 seconds, the control reverts to the normal temperature display.

**IMPORTANT:**
If MENU is not pressed after changing the set point value, the control reverts to the previously programmed set point value.

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***Differential, Anti-Short Cycle Delay, Temperature Offset, or Sensor Failure Operation***
To set or verify the Differential, Anti-Short Cycle Delay, Temperature Offset or Sensor Failure Operation use the following method:

Factory preset temperature control code settings, as follows:

A. Press and hold MENU until the display changes to flashing SP.
B. Press up and down (arrows) repeatedly until the desired function is displayed.
C. Press MENU to display the function's current value.
D. Press up and down (arrows) until the desired value is displayed.
E. Press MENU to save the new value. The display returns to the sensor temperature.
F. If no setup entry is made for 30 seconds, the control reverts to the temperature display.

Any saved control settings are non-volatile and remain in the control's memory during power interruptions.

**Check Procedure**

**WARNING**

Line voltage is present inside control. Contact with line voltage can cause serious injury or death.

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

**IMPORTANT:**
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. 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, replace the control. |

3. Check for proper operation.

**IMPORTANT:**
Perform Steps 1 and 2 before performing these steps:

A. Disconnect the load from the output relay terminals.
B. Reconnect the sensor leads and supply power to the control.
C. Replace the cover.
D. Check the control settings for proper values.
E. Press and hold MENU until SP appears.
F. Press up and down (arrows) to change the set point temperature above and below the sensor temperature until the relay energizes and de-energizes.
G. If the output relay does not perform as indicated, replace the control.
H. If proper operation of the control is verified, reconnect the load.

# Universal Thermostat Kit

## Installation Instructions

**FOR USE WITH DISPENSERS ONLY**

**THIS CONTROL KIT IS INTENDED TO REDUCE OVERFILL AND CONDENSATION ISSUES**

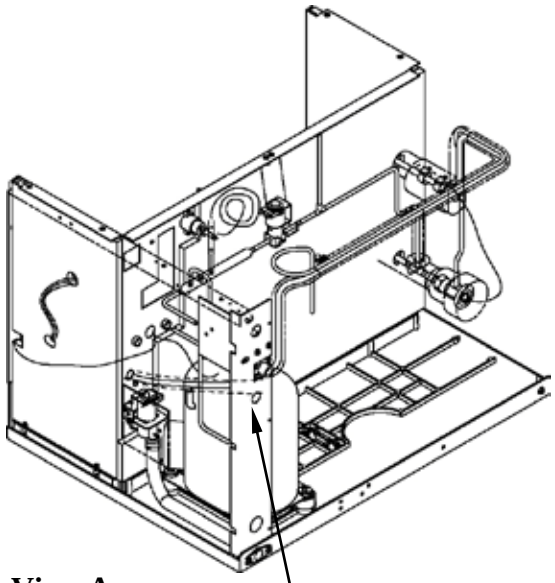
1. Remove all ice from dispenser.
2. Disconnect all power to the ice machine and dispenser at the service disconnect or fuse/breaker panel.
3. Move the ice machine and dispenser away from the wall for easier access.
4. Remove all panels and control box cover.
5. If an ice machine is already installed on the dispenser, raise and support the right side of the ice machine. Install the mounting bracket on the right-hand side of the dispenser 6" from the right rear corner. Compress the bracket to the thickness of the dispenser wall and tighten the two screws.
6. Route thermistor wire out back of the ice machine/dispenser (lower the ice machine, if supported). Remove unused knockout on the ice machine back panel, install romex connector and route wire into the ice machine compressor compartment.
7. Normally the controller can be mounted on the bulkhead flange. If not, a suitable area must be found for your model. Use controller bracket to locate mounting holes on the flange of the bulkhead. Drill two 9/32" diameter holes (used to mount the controller bracket - see View A). **Do not mount the controller, at this time.**
8. Route the four wires from the temperature control to the control box (insuring that the wires will not come in contact with any refrigeration tubing).

**IMPORTANT:**
**The thermostat must be wired to match the voltage of the ice machine. The thermostat is pre-wired for 115 volts. Rewire thermostat, if your ice machine is 240 volts.**

9. The control box line voltage wiring offers two options:
   - Connect thermostat L1 (brown) and L2 (blue) wires to contactor (incoming line voltage side) L1 and L2.

   ***OR***

   - Disconnect incoming power line wire nuts. Remove quick-connect fittings from brown and blue wires and strip 1/2" of insulation from the wires. Connect incoming power L1, ice machine L1, and thermostat L1 (brown) wires together with wire nut. Connect incoming power L2, ice machine L2, and thermostat L2 (blue) wires together with wire nut.
10. Disconnect the red male/female connector bin switch wire and connect the red male wire from the controller to the red female bin switch wire.
11. Connect the white male bin switch wire to the white female wire of the controller.
12. Restore all power to the ice machine and the dispenser at the service-disconnect or fuse/breaker panel.
13. The factory setting on the thermostat will be correct for most applications. Adjust only when necessary.
14. With two screws, secure the controller bracket assembly to the flange of the bulkhead.
15. Reinstall the control box cover and all panels.

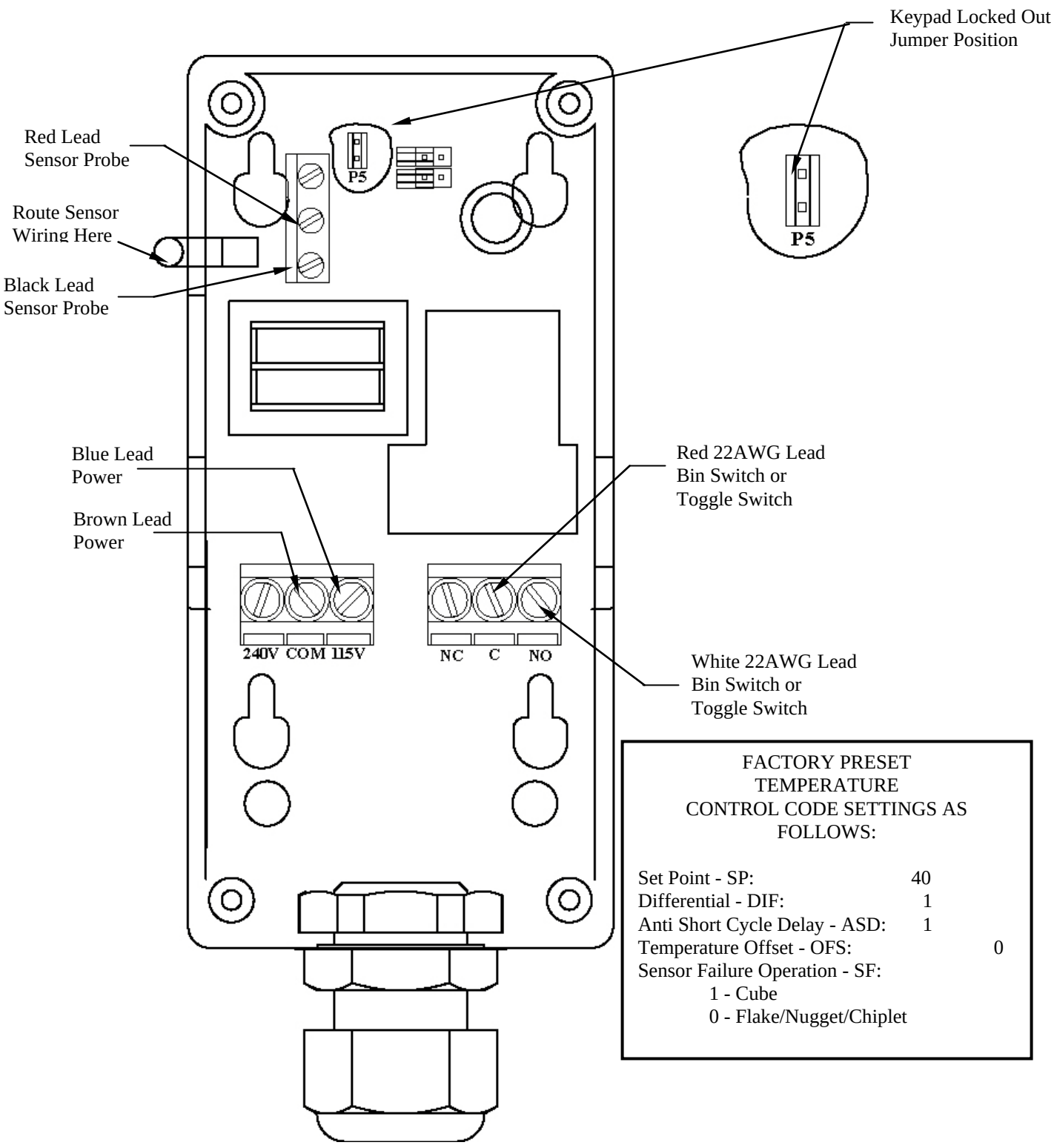


**View A**

Position the controller in a suitable location. It can be installed here on most ice machines. Use bracket to locate mounting holes - drill two 9/32" holes through bulkhead flange to secure controller

Route sensor wire between dispenser and ice machine

Install romex connector in a vacant knockout and route sensor wire into compressor compartment




FACTORY PRESET
TEMPERATURE
CONTROL CODE SETTINGS AS
FOLLOWS:

| | |
|---|---|
| Set Point - SP: | 40 |
| Differential - DIF: | 1 |
| Anti Short Cycle Delay - ASD: | 1 |
| Temperature Offset - OFS: | 0 |

Sensor Failure Operation - SF:
1 - Cube
0 - Flake/Nugget/Chiplet