MANITOWOC ICE
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Instruction Sheet

Subject: K00459 - S Model Bin Thermostat Kit

ICE MACHINE ON COKE FS9000 OR FS9100 DISPENSER W/ADAPTER KIT

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

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This instruction pertains to two dispenser models. Follow the instructions for the model you are working on either FS9000 or FS9100.

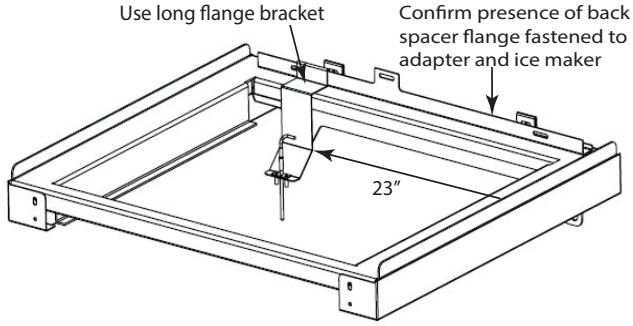
FS9000 Assembly and Mounting

1. Move the ice machine and dispenser away from the wall for easier access.
2. Bracket selection
   A. Dual evaporator ice machines - Use bracket with the shorter top flange.
   B. Single evaporator ice machines - Use bracket with the longer top flange.
3. Remove all panels and control box cover from the ice machine.
4. If an ice machine is already installed on the dispenser:

- Remove the fasteners securing the ice machine to the adapter (located on the rear of the dispenser).
- Raise and support the installation side of the ice machine.

5. Hook the bracket assembly onto the respective back spacer flange. Locate bracket assembly as illustrated.

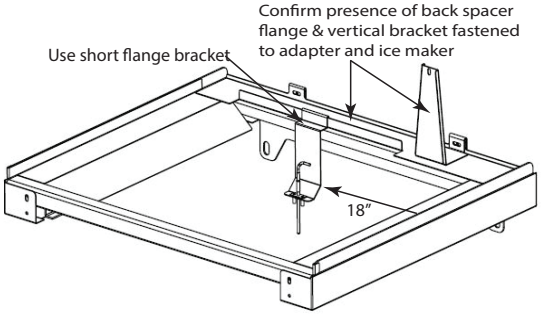
NOTE: Dimension is from the edge of the adapter to the edge of the bracket.



Single evaporator – 23.00″ from right side of adapter.

Dual evaporator – 18.00″ from right side of adapter

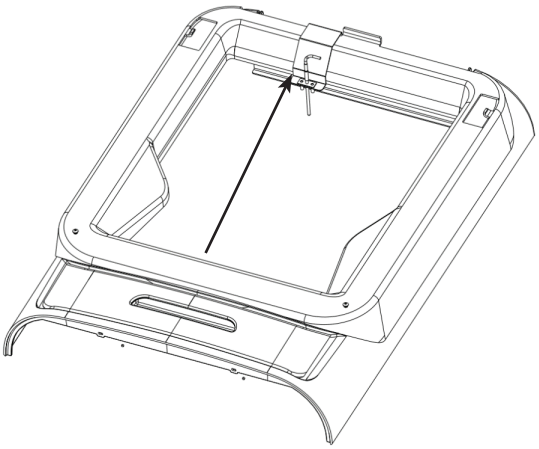
6. Lower/place ice machine on dispenser and secure ice



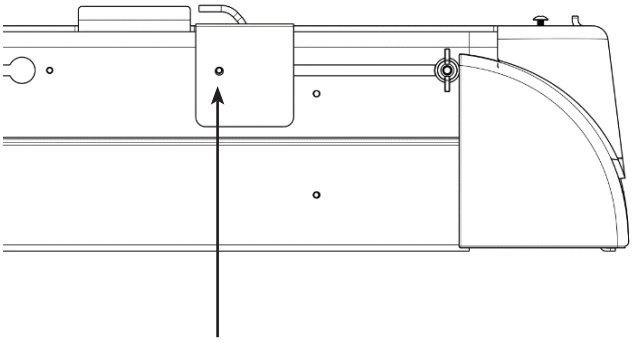
machine to adapter with fasteners. It is important to confirm that the ice maker is slid rearward contacting the bracket and back spacer flange before re-fastening (close gap).

FS9100 Assembly and Mounting

1. Move the ice machine and dispenser away from the wall for easier access.
2. Remove panels and control box cover
3. If ice machine is on a dispenser:
   A. Remove fasteners
   B. Raise and support ice machine
4. Hook bracket onto adapter in position shown.



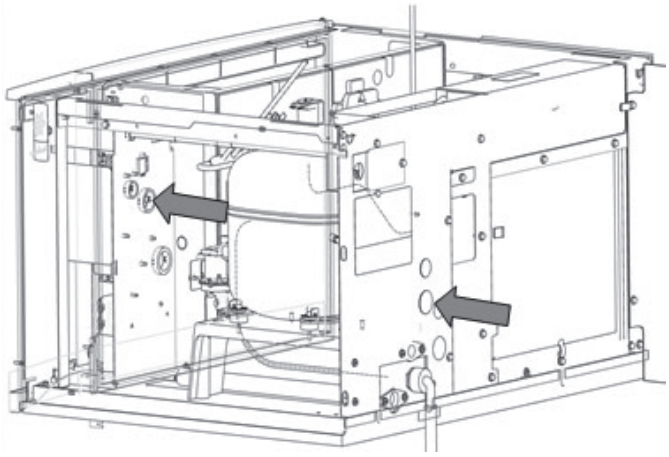
5. Secure bracket to adapter using screw provided.



6. Lower/place ice machine on dispenser and secure ice machine to adapter with fasteners. It is important to confirm that the ice maker is slid rearward contacting the bracket and back spacer flange before re-fastening (close gap).

FS9000 & FS9100 Continued

7. Route thermistor wire out towards the back of the dispenser . Remove unused 7/8" diameter knockout on the back panel, snap fit the bushing over the exposed panel hole, and route wire into the ice machine control board compartment. Internally the cable must be routed as to avoid contact with high voltage, high heat, or sharp objects.



8. 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. Do not mount the controller, at this time.
9. 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).

⚠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.

10. 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..
11. Connect bin switch wires:

Manitowoc Models

A. 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.

B. Connect the white male bin switch wire to the white female wire of the controller.

KoolAire Models

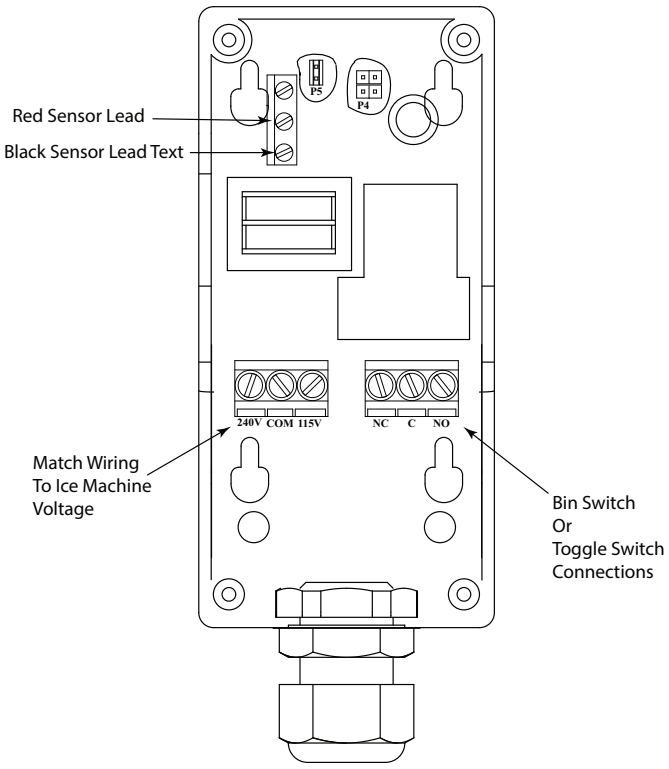
A. Cut the red bin switch wire 3 inches from molex connector on bin switch.

B. Strip wires and install male and female crimp connectors supplied in kit.

C. Connect male and female connectors from the bin thermostat into the newly installed terminals.

12. Restore all power to the ice machine and dispenser at the service-disconnect or fuse/breaker panel.
13. The factory setting on the thermostat will be correct for most applications.
14. With two screws, secure the controller bracket assembly to the flange of the bulkhead.
15. Reinstall the control box cover and all panels.

CONTROLLER WIRING



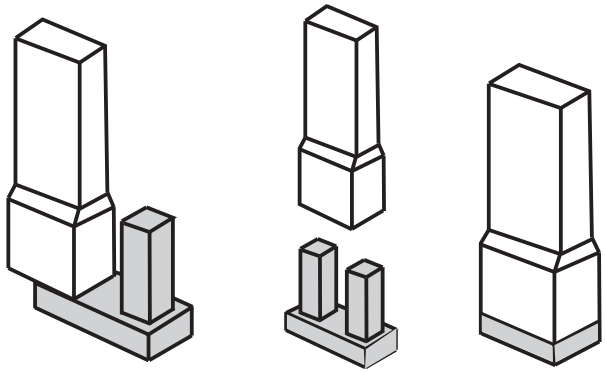
CONTROL SETTINGS

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

TOUCH PAD LOCK

P5 Jumper

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



SETTING CONTROL SET POINT VALUE

To program the thermostat, plug the120V power cord into an outlet and follow the steps below to program the Ice Thermostat, plug the120V power cord into an outlet and follow the steps below.

1. The thermostat set point is to be set at 38° Fahrenheit with a 2° differential.
2. Setting the Set Point to 38°F
   A. Press and hold the Menu button until the display changes to flashing "SP". This will take about 2 seconds.
   B. Press the Menu button again. The current set point is displayed.
   C. Press the Up or Down button to adjust the set point temperature.
   D. Press the Menu button to save. The display then returns to the sensor temperature.
3. Setting the Differential at 2°
   A. Press and hold the Menu button until the display changes to flashing "SP". This will take about 2 seconds.
   B. Press the Up or Down button until the "DIF" function is displayed.
   C. Press the Menu button to display the function's current value.
   D. Press the Up or Down button until the desired value is displayed.
   E. Press the Menu button to save the new value. The display then returns to the sensor temperature.

CHECK PROCEDURE

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.

> **⚠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 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.