

HOSHIZAKI AMERICA, INC. SERVICE BULLETIN

SB02-0001

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Subject: F-450MAF-C BIN CONTROL

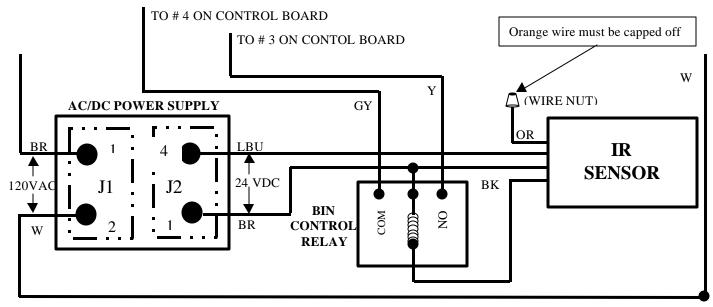
The F-450MAF-C is the only machine Hoshizaki manufactures that uses a photoelectric bin control. This control works differently when compared to our other methods of controlling ice level. The purpose of this bulletin is to briefly explain how it works and proper adjustment if replacement is necessary.

Basic Control Operation

The bin control assembly is made up of three functional components:

The photoelectric sensor: 4A1173-01 The power supply: 4A1355-01 The bin control relay: 4A1382-01

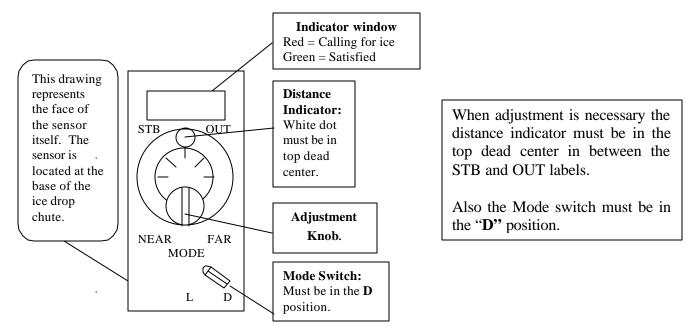
The power supply converts the 115 VAC primary voltage to 24 VDC and provides voltage to one side of the bin control relay coil and also to the photoelectric sensor. The sensor has a normally closed contact that supplies voltage to the other side of the bin control relay coil when the control is calling for ice. (Note: when the control is calling for ice the front of the sensor will display a red light.)



The bin control relay contacts are wired in series with the number 3 and number 4 terminals on the control board. When ice builds up enough to satisfy the sensor eye the contacts in the sensor open de-energizing the bin control relay. (Note: When the sensor contact opens the front of the sensor will display a green light.) This opens the circuit to number 3 and number 4 on the board, starting the shut down sequence. The shut down sequence on this model is similar to our DCMs and "B" model flakers. 90 seconds after the bin control relay de-energizes, opening the circuit between three and four the compressor will shut down. 60 seconds later the gear motor and fan motor will shut down.

Control Adjustment

The sensor comes from the factory set for the preferred ice level that should be maintained in the bin. Under normal circumstances this control should never need adjustment. However, in the event that the setting is changed or if a field replacement of the part is necessary some adjustments may be necessary.



Testing

To determine if the switch is working correctly follow this procedure. Place an object within 4" of the sensor eye. The LED on the sensor should change from red to green. Leave the object in place until the unit shuts down. This will take approximately 2.5 minutes. If the ice machine does not stop, check to make sure the control adjustments are in the correct position and then refer to the wiring diagram above to locate the cause for failure.

If any questions arise when dealing with this particular bin control please contact the Hoshizaki Technical Support Department for further explanation.