



# HOSHIZAKI TECHNICAL SUPPORT TECH -TIPS

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## ***2002 SERVICE SCHOOL UPDATE***

The major portion of the 2002 service school training season is now complete. We thought it would be good to update you on the results of this year's training. This year we trained over 3600 technicians in 98 Basic and Special schools. We would like to thank all of you who attended as well as our Distributors and District Managers who helped make this a very successful training season.

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## ***2002 ADVANCED SERVICE SEMINAR***

We are proud to announce the 2002 Hoshizaki Advanced Service Seminar schedule. This year we will have a total of five Advanced schools performed here at our corporate headquarters in Peachtree City, GA. These two-day seminars will cover in detail, the KM, Flaker and Reach-In series as well as offer hands on re-building of certain components along with trouble shooting problem equipment.

This years format will be limited to a maximum of 15 technicians per class. The cost to attend these classes will be \$50.00, which will include all handouts, and training material as well as meals during the seminar. You will also receive a Hoshizaki golf shirt as a gift for your participation. You will be responsible for your own transportation and lodging expenses. Below you will find the Advanced seminar schedule.

September 10 & 11	Peachtree City, GA.
October 1 & 2	Peachtree City, GA.
October 22 & 23	Peachtree City, GA.
November 12 & 13	Peachtree City, GA.
December 3 & 4	Peachtree City, GA.

To receive more information or to receive a registration package please contact Susan Snow or Rodd Burger at 1-800-233-1940.

## ***CONTROL BOARD ERROR ALARMS***

**A typical scenario:** The customer calls to say their ice machine is beeping what should I do. In the busy summer months it may be tempting to explain to the customer how to reset the control board and go on to your next call. In many cases that would allow the unit to restart and begin to make ice but did it fix the machine?

In most cases the answer would be no. If the units control board is off on an audible error code then there is some sort of problem causing it. In some cases if the unit is continually reset without the original problem being resolved, a more serious problem may develop. This may add to the repair time as well as increase repair cost to the customer. Not only could the unit sustain further damage, by re-setting the board without first noting what error is occurring, the information will be lost. The code given by the board can be valuable information that can speed your trouble shooting time

When the unit is beeping what should you do? The error codes are signaled by a series of beeps. The first step is to determine how many times the board is beeping every three seconds. There are currently 7 errors that cover a wide variety of different problems. Once you determine what sort of error has caused the unit to start beeping then we can begin to look at the possible causes.

The different alarm codes have been covered in earlier Tech Tips issues. In the following, we will review each error as well as explain where you can find more detailed information.

**1 Beep = High Temperature:** This error occurs when the unit has experienced high temperature at the evaporator outlet. This is measured by the thermistor, which is located on the suction line. As an example, this error can be caused by hot water being supplied to the unit, either by the unit being installed on a hot water line or through hot water migration from an external source. For more information please refer to Tech Tip Vol.148.

**2 Beeps = Long Harvest cycles:** The board will automatically return the unit into freeze if the harvest cycle has lasted over twenty minutes. If this occurs two consecutive times the board will shut the unit down and sound the two-beep alarm. This particular alarm is also shown by illuminating the orange D13 LED on the control board. Possible causes include hot gas valve failure, low water supply, etc. For more information see Tech Tip Vol. 149.

**3 Beeps = Long Freeze cycles:** This is another back up safety as discussed above in the Two-beep explanation. This code occurs when the unit has exceeded the back up freeze time protection, two consecutive times. This illuminates a yellow LED D14. This problem can be caused by a sticking float switch, inlet water valve leaking by, refrigeration problems etc. *Note: The back up freeze timer is set at 60 minutes on most models. However, it may be set at 50, 70 or 75(50hz Only) on certain models. This is controlled by DIP switches 9 & 10.* For more information concerning long freeze cycles see Tech Tip Vol. 150. For information concerning the back up freeze timer and DIP switches number 9 & 10 see Tech Tip 168.

**4 Beeps = Shorted K4 connection:** This alarm only applies in certain machines that have a mechanical bin control installed. This error is shown when the wiring from the mechanical bin control shows a shorted circuit. This typically would be a problem with the resistor wire harness used with the mechanical bin control. DIP switch number 7 must be on, for the

mechanical bin control to operate therefore this alarm will not be active unless a mechanical bin control is used. For more detailed information see Service Bulletin SB01-0001.

**5 Beeps = Open K4 connection:** This alarm is the opposite of the 4 beep, it identifies an open circuit in the mechanical bin control circuit. See Service Bulletin SB01-0001 for more information.

**6 Beeps = Low Voltage:** This code is one of two automatic reset errors provided by the board. It signals a low voltage situation. If the voltage drops below 92 volts +/- 5%, the control board will start the six-beep alarm and shut down the unit. Once the proper voltage is supplied to the unit, the alarm will stop and the unit will return to normal operation.

**7 Beeps = High Voltage:** This code is the opposite of the one above and signals that the unit is experiencing a high voltage situation. If the voltage exceeds 147 volts +/- 5%, then the unit will sound the 7-beep alarm and shut down. Many times this problem is related to a "stinger" or "high leg" being supplied to the unit, which can usually be solved by swapping the two legs of power at the back of the unit. This alarm like low voltage is automatically reset. For more information on the high voltage alarm see Tech Tip 151.

**ALARM RESET:** Depressing the white or black reset button on the control board will reset all manual reset alarms. The board must be reset with the power ON. Remember, it is important to record the alarm code before re-setting so that you will know where to begin your troubleshooting.

I hope this gives you a basic guide to the control board alarms that may occur on KM machines. To view the Tech Tips articles and Service Bulletins discussed in this article please sign up for Hoshi+Plus at our web site at [www.hoshizaki.com](http://www.hoshizaki.com).

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### COMING NEXT MONTH

1. 10-Minute check out

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