



MONOGRAM ICEMAKER UPDATES

There have been many improvements made to our icemaker over the last year. The following is a list of those improvements and a troubleshooting guide to help you diagnose problems that existed.

IMPROVEMENTS

- Lowered fill level thermistor (January 2000)
- Modified control housing to prevent improper wiring connections (May 2000)
- Rerouted suction/capillary line to allow installation of accessory drain pump kit ZPK1 (October 1999)
- Added screen to the accumulator to reduce foreign matter in the hot gas valve (March 2000)
- Changed manufacture and operating algorithm on the printed circuit board (March 2000, August 2000)
- Added guides to the cutter grid to reduce ice slab from jamming above the wire (September 2000)
- Modified circulation pump to reduce lower bearing failures (March 2000)
- Modified recirculation pump rib to allow further insertion of the plastic tube on the pump (March 2000)

TROUBLESHOOTING GUIDE

Noisy/Gurgling Circulating Pump

- Tube off pump – will blow the water out of the water tank
- Leaking cap – tighten or replace
- Worn or rusty bearing – replace
- Restricted water flow – check for complete fill, clogged water valve, crimped water line or clogged saddle valve
- Too large an ice slab – bad evaporator thermistor, hot gas valve unplugged or restricted, check resistance

Too Much Ice

- Thermistor location – rotate location down to lower ice level
- Check thermistor plug for proper connection to control housing
- Check thermistor resistance value
- As ice melts without usage it will melt away from the thermistor and allow the icemaker to cycle until the bin thermistor is satisfied.

Note: Recommend to the user to shut off occasionally if this occurs.

No Ice

- Check water level
- Clogged water valve
- No water – turn on/connect
- Slab trapped on grid – add guides WR02X100631
- Waver valve leaking – water too warm
- Hot gas valve leaking – water too warm
- No cool – check sealed system – condenser fan blocked
- Unit has auxiliary drain pump with a restricted drain tube. If the icemaker is plugged into the pump the overflow switch will shut off the icemaker. The machine will continually cycle and not make ice until the drain is opened.

Water usage per day

Continuous operation - 14 gallons
Average use - 5.5 gallons

For 15" units being installed in an 18" opening the following kits can be used: Publication 49-60033B, 49-60033W and 49-6003S.

ADDITIONAL INFORMATION

Technical Service Guide Pub. No. 31-9030
Informational Video for 15" Icemaker Pub. No. 31-9031

INSTALLATION INSTRUCTIONS FOR ICEMAKER CONTROL BOARD

ZPK1 Auxiliary Drain Pump Kit

If the customer does not have a floor drain for their icemaker, a ZPK1 pump may have been installed to pump the waste water to a nearby drain. The pump fits inside the unit with the icemaker plugged into the pump. (See installation instructions) If the drain tube for the pump is restricted it will shut off the pump and the icemaker to prevent water damage. Once the restriction is cleared, the pump and icemaker will start again. Since the icemaker goes through a start up sequence each time it is turned on, it may not make ice if the restriction causes it to cycle on and off frequently.

The pump senses the water level in the tank with an electronic sensor. If the customer turns the unit off and allows the ice to melt, the water flowing into the pump may be too pure for the sensor to detect. Therefore, water will back up into the bin. A 60 Kohm resistor is jumpered across the sensor to prevent water backup. If the pump does not have this resistor or if it is defective, it will not sense the water level and turn on the pump. Each time the pump is turned on it will run for 15 seconds. This could be used as a way to drain the bin by manually turning the pump on and off every 15 seconds until the bin is empty.

WARNING:

Disconnect power before servicing. Replace all panels before operating. Failure to do so can result in death or electrical shock.

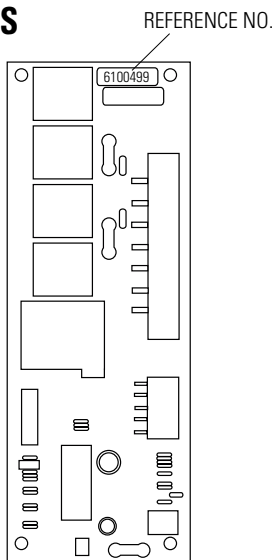
NOTE: Due to a quality improvement this control board (Reference No. 610049) will replace the older design (Reference No. 2185947).

The easiest way to identify which control board is in the unit, without disassembly, would be to disconnect the bin thermistor and select the clean cycle. The "LED" will flash in the first few seconds indicating a defective thermistor. On the old board the "LED" would have flashed later in the cycle. See attached schematics.

- If replacing 2185947 Control Board, please read the improvements listed below. If replacing 6100499 Control Board you may discard this sheet.
- Install the new board, there are no differences in mounting or wiring.
- Improvements were made to support low voltage applications.

ADDITIONAL IMPROVEMENTS

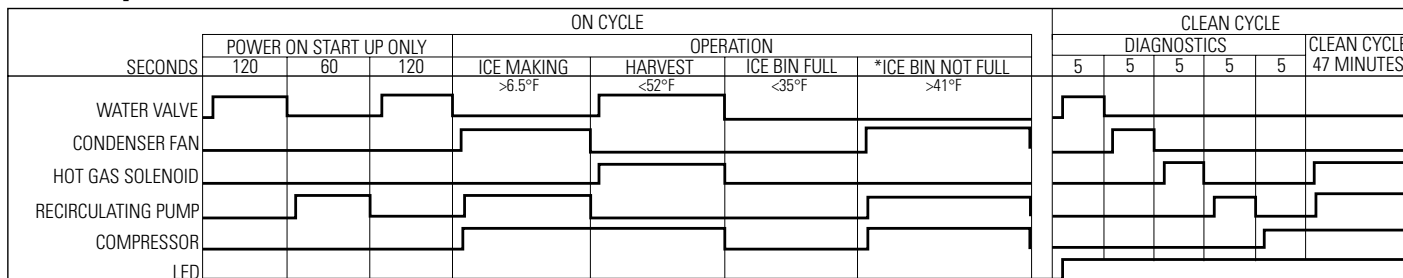
- The ice making cycle has a 15 minute minimum and 25 minute maximum time limit. This eliminates the production of ice slabs being too thin or too thick.
- During a harvest, the water valve "ON" time is now limited to 1 minute to reduce water usage. Otherwise, the water valve could remain energized for an unlimited time if, (1) the evaporator thermistor is not located correctly, or (2) the reversing valve has failed or is unplugged. If the evaporator thermistor is unplugged, a default 25 minute freeze and 4 minute harvest interval will occur.



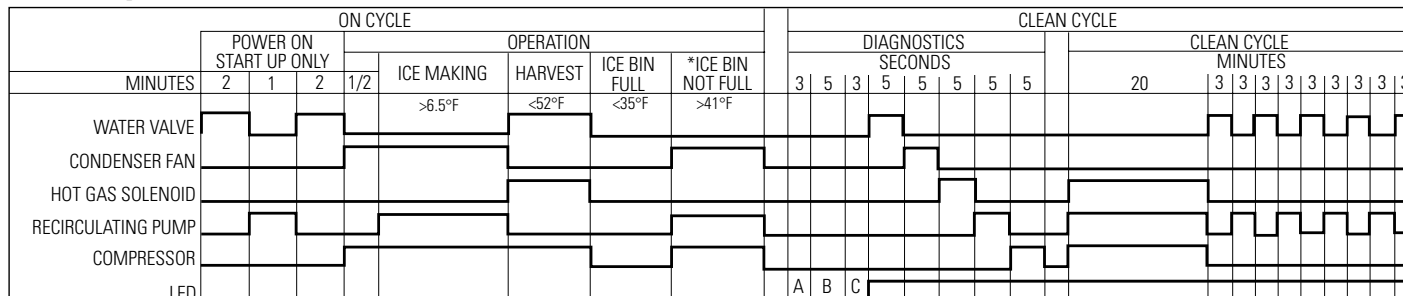
If the icemaker stays in harvest mode for more than 16 minutes, the icemaker will go into a failure mode, shutting the icemaker down and flashing the LED light. To get out of failure mode, shut the icemaker off and then back on again. This will reset the control board. If the failure was not corrected the icemaker will return to failure mode when the icemaker reaches its 16 minute cycle again. If this occurs find the cause of the failure and repair it, then unplug the icemaker to reset the board.

- The diagnostic mode sequence was changed, moving the bin and evaporator thermistor checks to the beginning of the sequence. The old boards had these checks at the end of the sequence.
- Whenever the icemaker has reached a failure mode, the LED will flash and the product will shut down. If the failure was caused during a harvest cycle which lasted more than 16 minutes, the LED will remain flashing on and off in half second increments. If the failure is caused by a faulty bin thermistor (not detected), the LED will remain flashing on and off in one second increments. These are the only two failures that cause the icemaker to reach a shut down failure mode.
- During the clean cycle, the control board performs the diagnostics first. If the bin thermistor is not detected, the LED will flash on two times. This is followed by a 3 second delay. If the evaporator thermistor is not detected, the LED will flash on 5 times. This will be followed by a 3 second delay. The LED will then come back on and remain illuminated for the remainder of the clean cycle and until the icemaker is turned back on. A check can be done on the board and thermistors, unplug either thermistor electrical connection and then press the clean switch. The LED should flash as described above, depending upon which thermistor is unplugged or if both are unplugged.

Run Sequence Chart for Old Control Board Reference No. 2185947



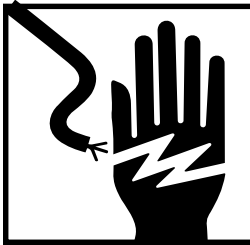
Run Sequence Chart for New Control Board Reference No. 6100499



IMPORTANT: If you are replacing Reference No. 2185947 Control Board this sheet must be retained on the product with the original Tech Sheet for future reference if service is needed again.

INSTALLATION INSTRUCTIONS

for Icemaker Drain Pump



W A R N I N G

Electrical Shock Hazard

Disconnect power before servicing.
Replace all panels before operating.
Failure to do so can result in death or electrical shock.

NOTE: Connect drain pump to your drain in accordance with all state and local codes and ordinances. It may be desirable to insulate drain tube thoroughly up to drain inlet to minimize condensation on the drain tube. Drain pump is designed to pump water to a maximum height of 10 feet.

Kit Contains:

- 1 Drain Pump
- 1 Drain Tube, 5/8" ID x 4 1/2" (bin to pump reservoir inlet)
- 1 Drain Tube, 3/8" ID x 10' (pump to household drain)
- 1 Vent Tube, 3/8" ID x 32" (pump to cabinet back)
- 3 Cable Clamp (secures vent tube to back of product)
- 3 Screw, #8 x 1/2" (secures clamps to back of cabinet)
- 2 Screw, #8 x 1/2" (secures pump to baseplate)
- 2 Hose Clamps, 1/2" (secures vent and drain tube to pump)
- 1 Hose Clamp, 5/8" (secures drain tube to bin)

Please follow the steps to install the drain pump.

1. Unplug icemaker or disconnect power.
2. Remove rear cover. Carefully pull rear cover away from drain tube.
3. Remove old drain tube and clamp attached to bin. Discard old tube. **Clamp will be reused.**
4. Install new drain tube (5/8" ID x 4 1/2") using new 5/8" clamp to bin. See Figure 1.

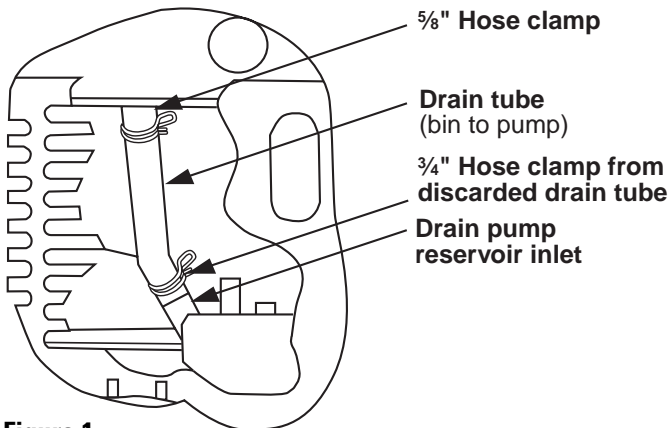


Figure 1

5. Install drain pump. Carefully slide in, aligning the tab on pump to rectangular slot in the unit base. You may need to tip the pump downward in the front to slip in the slot. See Figure 2.

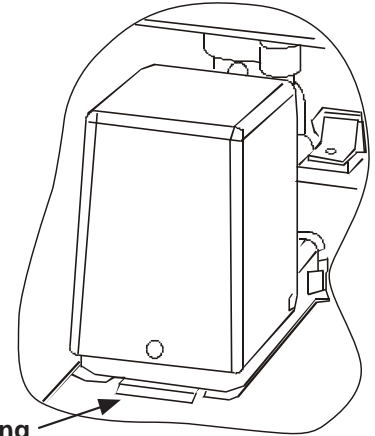
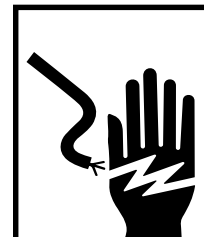


Figure 2

6. Remove clamp and ground screw attached to icemaker power cord which is mounted to the unit base. **Clamp and screw will be reused.**
7. Coil power cord of ice maker into a 4" diameter coil. Wrap electrical tape around the power cord in several places to keep the cord in a coil. Lay the coiled power cord on top of the pump over the check valve and plug into the receptacle of the drain pump.



WARNING

Electrical Shock Hazard
Connect green ground wire to ground screw.
Failure to do so can result in death or electrical shock.

8. Attach drain pump power cord to icemaker unit base with clamp and ground screw used to attach ice maker power cord.
9. Attach drain tube from bin to pump using hose clamp from step 3 previously used on old drain tube. See Figure 1. Attach drain tube to pump check valve outlet using 1/2" hose clamp. Attach vent tube to pump using 1/2" hose clamp. See Figure 3. Route the vent tube and drain tube through cutouts provided in rear cover. See Figure 4.

10. Line up the two (2) screw holes at the rear of pump. Use two (2) #8 x 1/2" screws supplied to secure pump. See Figure 3.

11. Secure vent tube to back of icemaker using three (3) clamps and three (3) #8 x 1/2" screws supplied. See Figure 4.

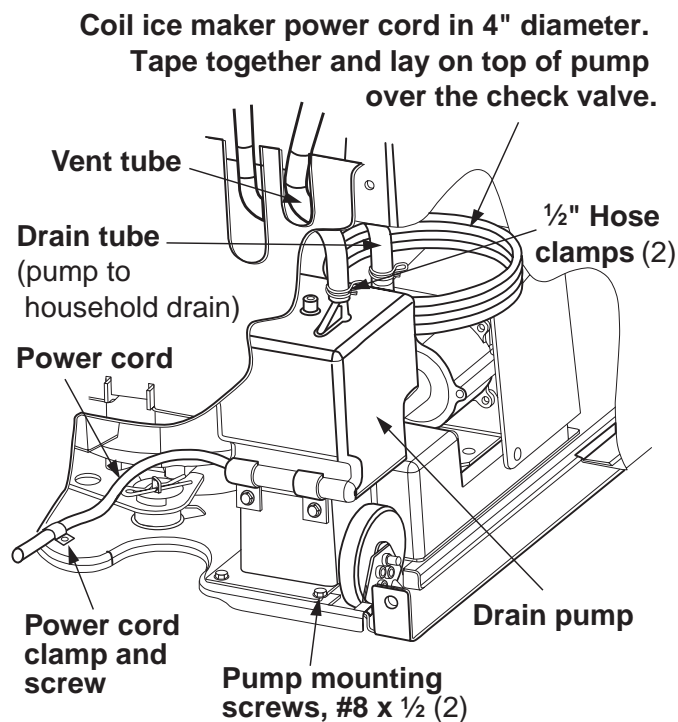


Figure 3

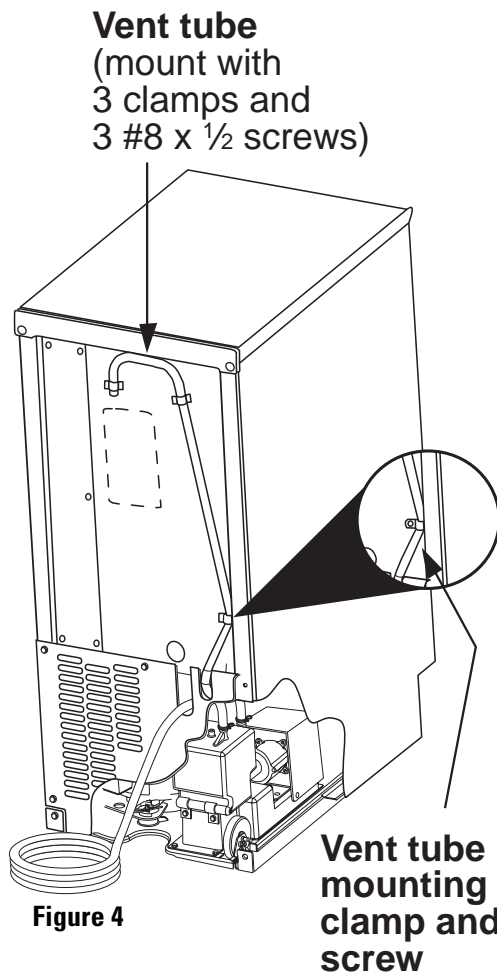


Figure 4

12. Check all connections for leaks.
13. Install rear cover.
14. Plug in icemaker or reconnect power.



W A R N I N G

Electrical Shock Hazard

- Plug into a grounded 3 prong outlet.
- Do not remove ground prong.
- Do not use an adapter.
- Do not use an extension cord.
- Failure to follow these instructions can result in death, fire, or electrical shock.