


Instruction Sheet for Ice Maker Control Board

| ⚠ WARNING | |
|---|---|
|  | Electrical Shock Hazard Disconnect power before servicing. Replace all parts and panels before operating. Failure to do so can result in death or electrical shock. |

NOTE: Due to a quality improvement this control board will replace the older designs.

- If replacing 2185947 & 6100499 Control Board, please read the improvements listed below. If replacing 2304016 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. This also eliminates the condition of the water valve being energized for an unlimited amount of time if the evaporator thermistor is not located correctly or 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 unit stays in harvest mode for more than 16 minutes the unit will go into a failure mode, shutting the unit down and flashing the LED light. To get out of failure mode. Shut the unit off and then back on again. This will reset the control board. If the failure was not corrected the unit will return to failure mode when the unit reaches it's 16-minute cycle again. If this occurs find the cause of the failure and repair it, then unplug the unit 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 unit 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 unit 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 unit 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.
- The 30-seconds of refrigerant only at the beginning of the freeze cycle has been removed. Now the refrigerant and the recirculating water will start at the same time. This will reduce the number of slabs that get stuck half-way off of the evaporator by not allowing them to refreeze to the evaporator plate.
- A minimum harvest time of 2-minutes now occurs at the beginning of the harvest cycle before the evaporator thermistor is used to determine if a slab has released from the plate.

(continued)

Run Sequence Chart for old Control Board 2185947

| SECONDS | ON CYCLE | | | | | | | CLEAN CYCLE | | | | | |
|--------------------|------------------------|-----|-----|----------------------|------------------|-----------------------|----------------------------|-------------|----|----|----|----|-------------|
| | POWER ON START UP ONLY | | | OPERATION | | | | DIAGNOSTICS | | | | | CLEAN CYCLE |
| | 120 | 60 | 120 | ICE MAKING >6.5°F | HARVEST <52°F | ICE BIN FULL <35°F | *ICE BIN NOT FULL >41°F | 5 | 5 | 5 | 5 | 5 | 47 MINUTES |
| WATER VALVE | On | Off | On | On | On | On | On | On | On | On | On | On | On |
| CONDENSER FAN | On | On | On | On | On | On | On | On | On | On | On | On | On |
| HOT GAS SOLENOID | On | On | On | On | On | On | On | On | On | On | On | On | On |
| RECIRCULATING PUMP | On | On | On | On | On | On | On | On | On | On | On | On | On |
| COMPRESSOR | On | On | On | On | On | On | On | On | On | On | On | On | On |
| LED | On | On | On | On | On | On | On | On | On | On | On | On | On |

Run Sequence Chart for old Control Board 6100499

| MINUTES | ON CYCLE | | | | | | | | CLEAN CYCLE | | | | | | | | | | | | | | | | | |
|--------------------|------------------------|-----|----|-----|--|------------------------|------------------------|-----------------------------|-------------|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|
| | POWER ON START UP ONLY | | | | OPERATION | | | | DIAGNOSTICS | | | | | CLEAN CYCLE | | | | | | | | | | | | |
| | 2 | 1 | 2 | 1/2 | ICE MAKING 15 min / 25 max > 6.5°F | HARVEST T < 52°F | ICE BIN FULL < 35°F | *ICE BIN NOT FULL > 41°F | 3 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 20 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| WATER VALVE | On | Off | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |
| CONDENSER FAN | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |
| HOT GAS SOLENOID | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |
| RECIRCULATING PUMP | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |
| COMPRESSOR | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |
| LED | On | On | On | On | On | On | On | On | A | B | C | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |

Run Sequence Chart for new Control Board 2304016

| | On Cycle | | | | | | | | Clean Cycle | | | | | | | | | | | | | | | | | |
|--------------------|------------------------|-----|----|-----------|--|------------------------|------------------------|-----------------------------|-------------|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|
| | Power On Start Up Only | | | Operation | | | | | Diagnostics | | | | | Clean Cycle | | | | | | | | | | | | |
| | Minutes | 2 | 1 | 2 | Ice Making 15 min / 25 max > 6.5°F | Harvest T < 52°F | Ice Bin Full < 35°F | *Ice Bin Not Full > 41°F | 3 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 20 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Water Valve | On | Off | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |
| Condenser Fan | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |
| Hot Gas Solenoid | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |
| Recirculating Pump | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |
| Compressor | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |
| LED | On | On | On | On | On | On | On | On | A | B | C | On | On | On | On | On | On | On | On | On | On | On | On | On | On | On |

IMPORTANT: If you are replacing either 2185947 or 6100499 Control Board this sheet must be retained on the product with the original Tech Sheet for future reference if service is needed again.