Prodigy and Prodigy Plus Cuber Technical Training

C0330, C0530, C0630

C0322, C0522

C0830, C1030

C1448, C1848, C2148

C0722

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What's New – Prodigy Plus

- Panels
  - Air flow front to back
  - Front pulls out at bottom
  - Indicator lights and switch access at bottom front
- Controller
  - Connects to lower light and switch panel
  - New part number, new service controller will work on any Prodigy cuber
  - Cleaning process one button push
    - No longer has to empty sump to add water

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Cuber Overview

- Modular cubers
  - Air cooled, water cooled, remote air cooled
  - 22 and 30 inch platforms have 1 evaporator plate
- Common look and operation across models
- Front service access to most components

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Configurations by Evaporator Plate

- 3 single plate platforms
  - 6 inch (example C0330)
  - 12 inch (example C0530)
  - 18 inch (example C1030)
- 2 double plate platforms
  - 12 inch (EH330)
  - 18 inch (example C1448)

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Installation

Installation – All Models

- Set the machine in place
- Remove any packing
- Level the cabinet
- Connect drain (s)
- Connect water supply
- Remotes: Route and connect tubing to condenser
- Add any optional accessories
  - Smart Board, Vari Smart, Air Baffle, Front/Side Air In
- Connect power

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Installation – Air Cooled

- Potable water connects to 3/8 fitting on back of cabinet
  - Cuber fitting is 3/8” female pipe thread – direct connection to inlet water solenoid valve
- Reservoir or condensate pan drain fitting is ¾” female pipe thread
  - Vent for proper draining
  - Minimum slope of ¼” fall per foot of horizontal run

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Air Flow

- A, B or C series
  - Air flows in the left side and out the back
  - 48 inch is in the left and front and out the back
- **D series**, Prodigy Plus
  - Air flows **in the front and out the back**
  - 48 inch is in the left and front and out the back

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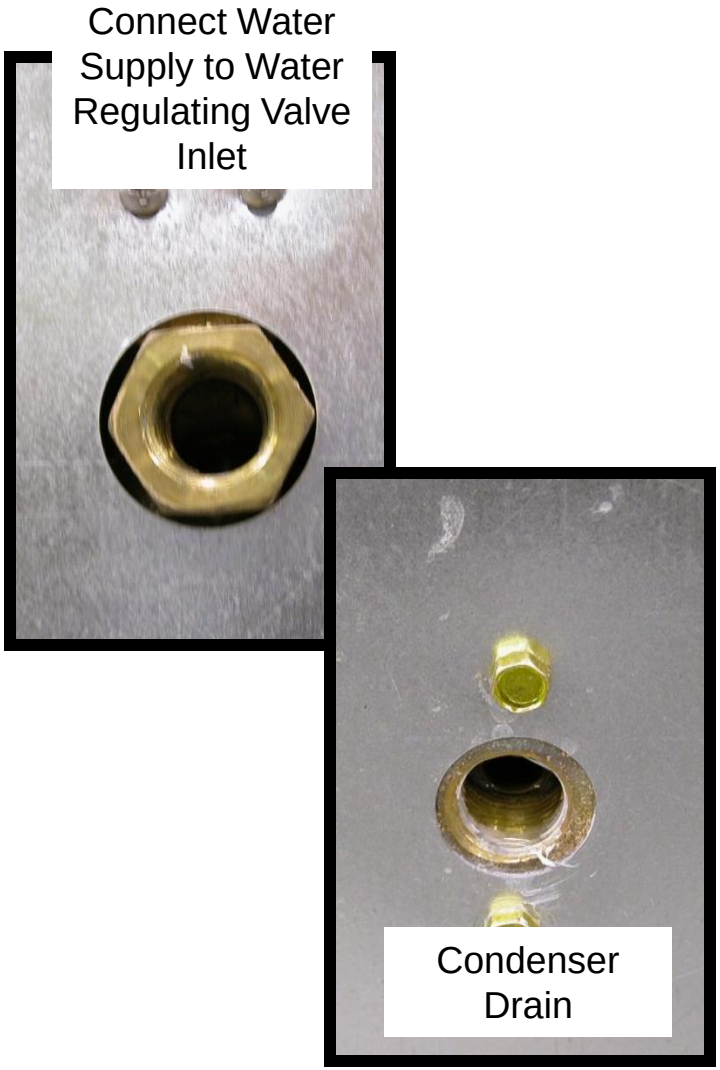
Installation – Water Cooled

- Same as air cooled plus an inlet and drain for the water cooled condenser (3/8 FPT)
  - Water cooled inlet should not be filtered
  - Water cooled drain tube should not be vented



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Prodigy Installation – Remote Air Cooled

- MUST use condensers with headmaster in them:
  - ERC111, 311 and 611
  - RTE line sets – 10, 20, 40, or 75 foot lengths
    - 3/8 liquid
    - 1/2 discharge
  - Power supplied by ice machine for fan motor

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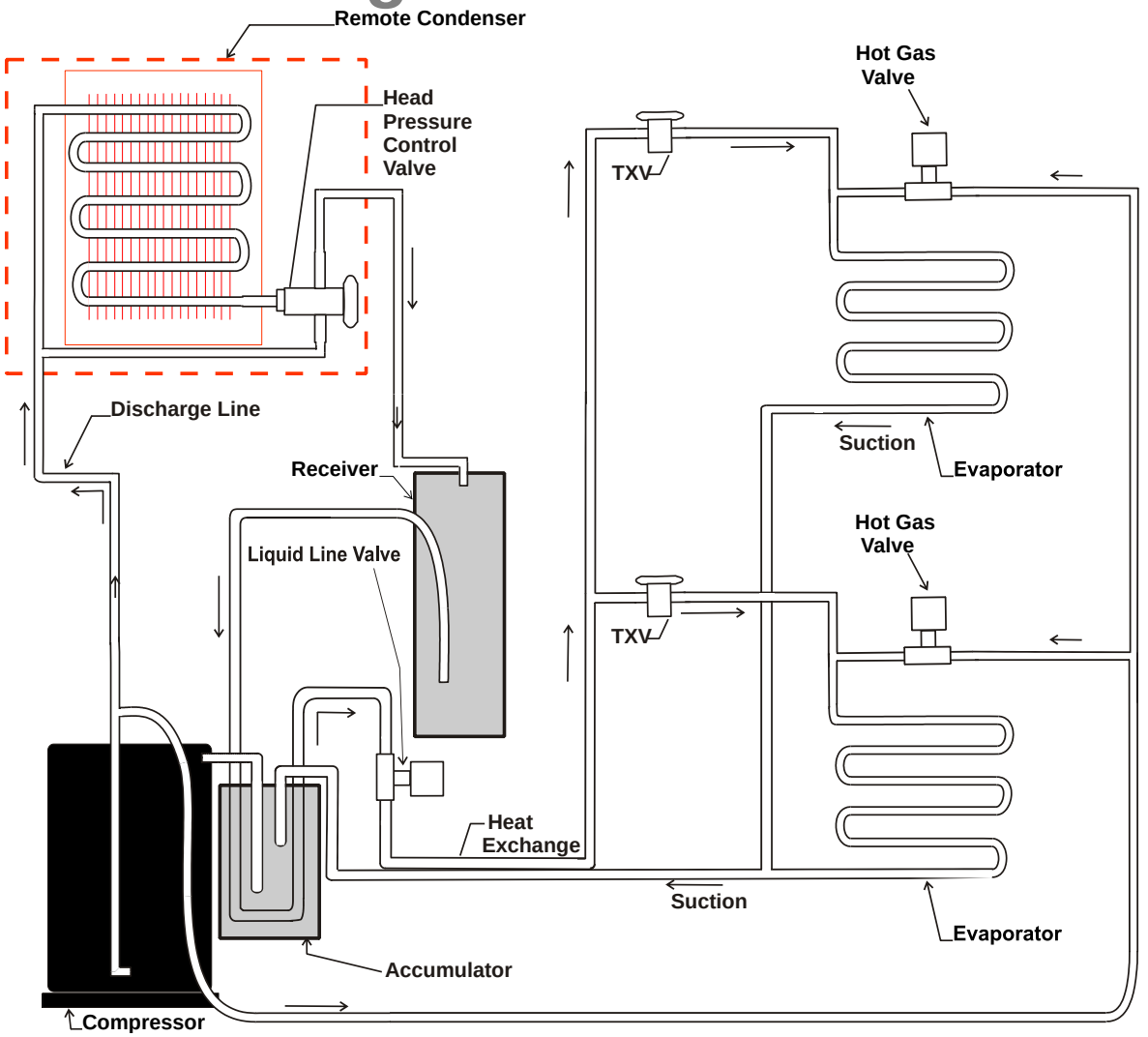
Remote System Configuration

C1448R,
C1848R,
C2148R
Refrigeration
Circuit



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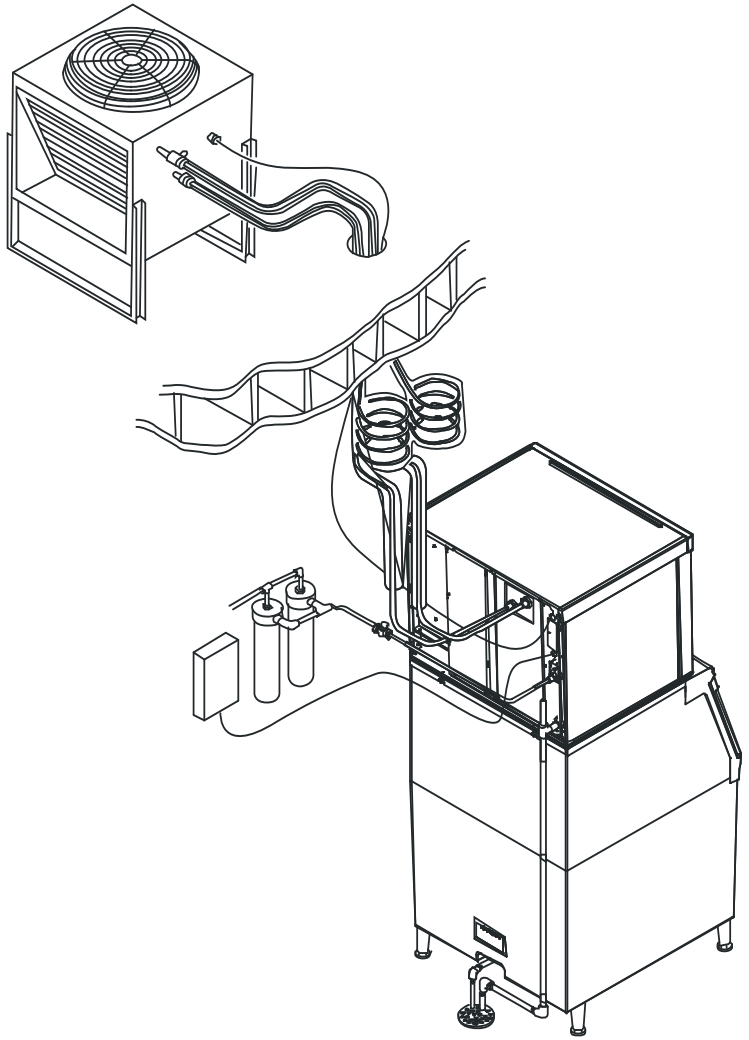
Remote Installation

- Typical Installation
  - Condenser above ice machine
  - Precharged line set coiled within building
    - Use horizontal coil
    - NEVER leave excess coiled up on the roof!



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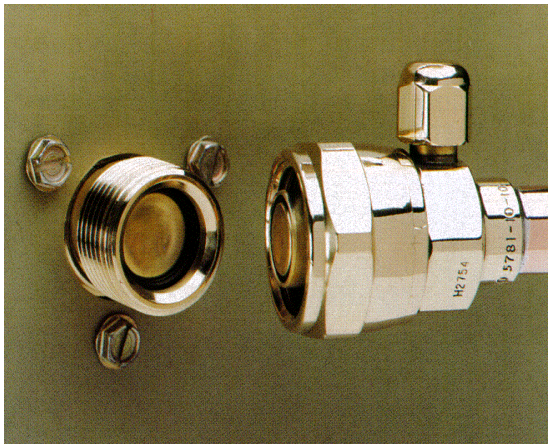
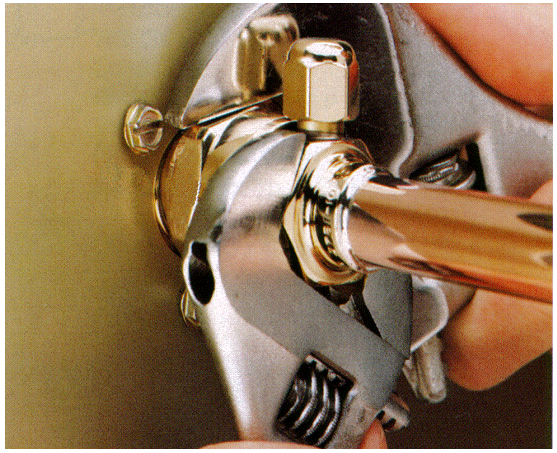
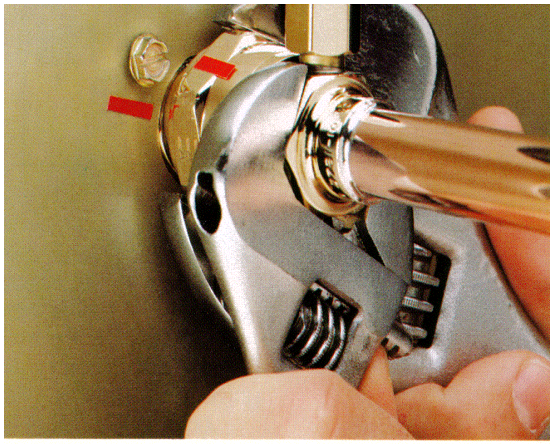
Remote Installation



Clean and **Lubricate** Quick Connect Couplings



Use Two Wrenches to Tighten



Rotate Swivel Nut **One Quarter Turn** More After Nut Becomes Tight

Incomplete Assembly: One Thread Showing

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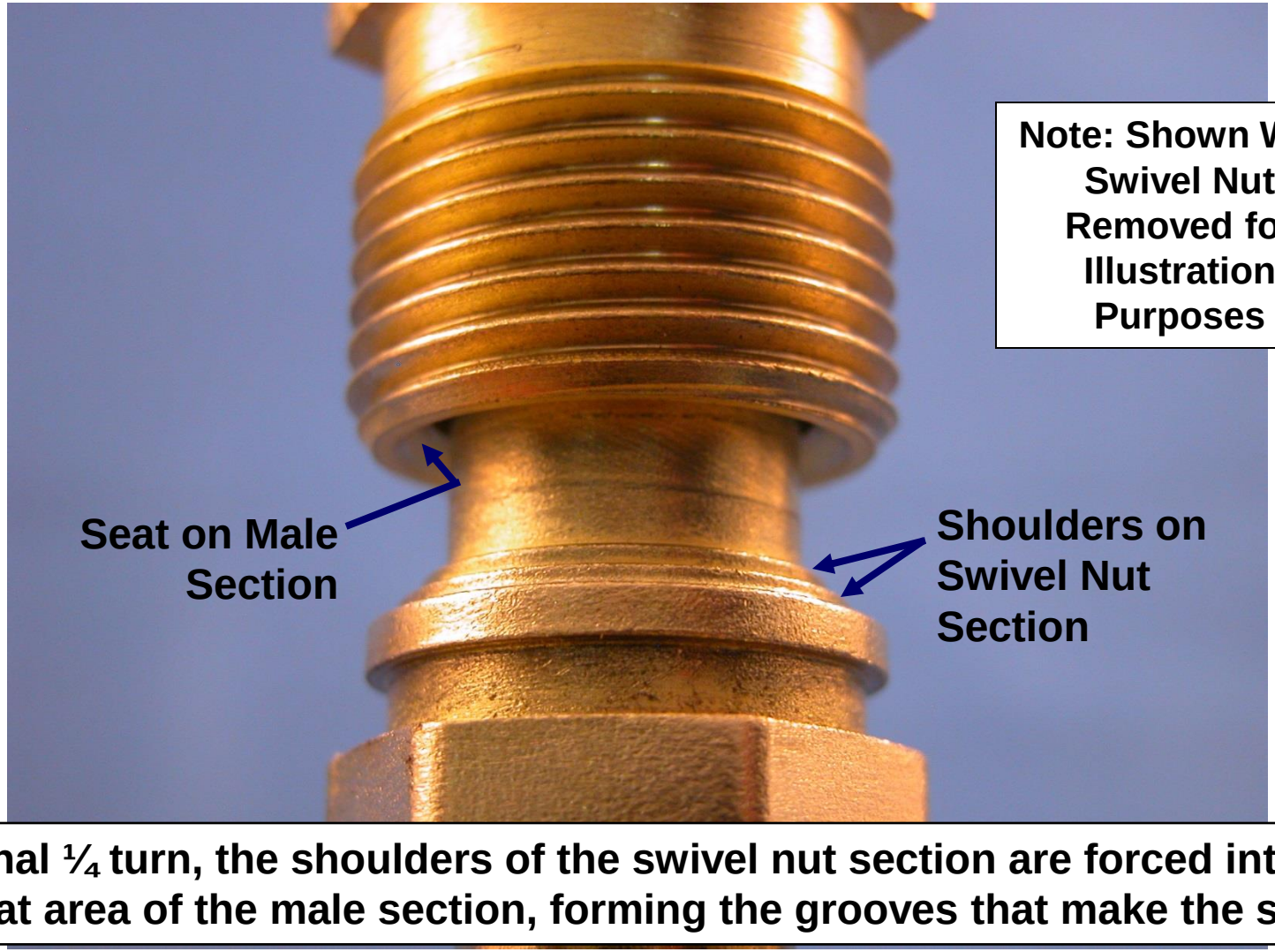
Quick Connect Joint



At final ¼ turn, the shoulders of the swivel nut section are forced into the seat area of the male section, forming the grooves that make the seal

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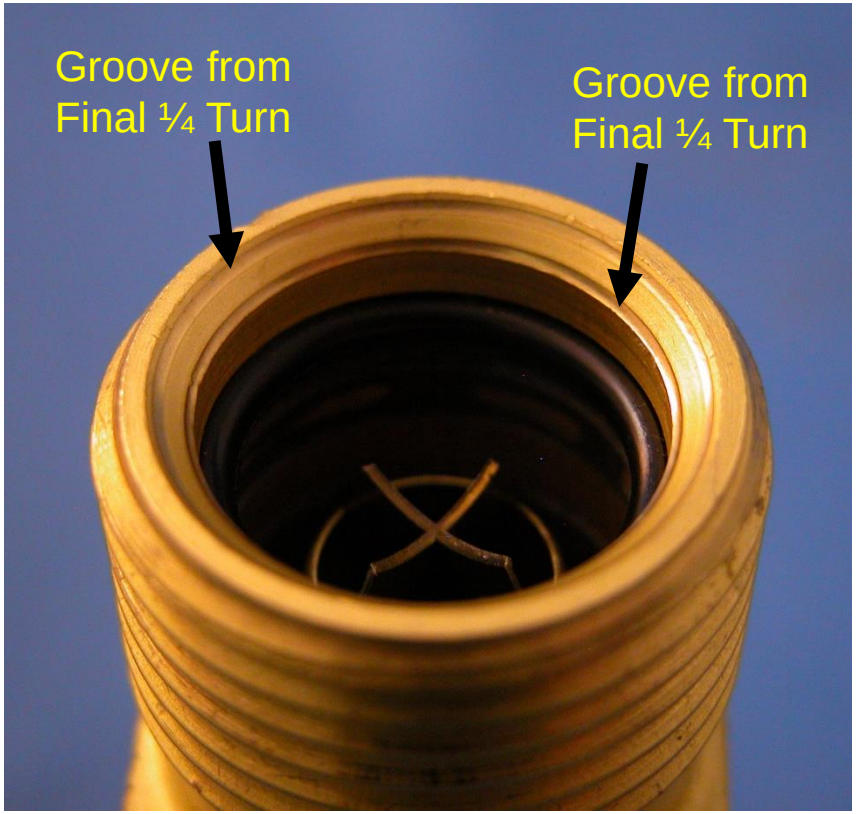
Coupling Sealing

Before



After

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Cuber Operation

Cuber Components

- Electrical
  - PTCR for single phase compressor starting
  - Harvest assist
  - Fan motor – air cooled and remote air cooled
  - Fan cycling pressure switch for self contained air cooled
- Control System
  - 12 volt transformer
  - Electronic controller
    - Operates all loads
- Sensors
  - Water level sensor
  - Ice thickness sensor
  - Curtain switch
  - Water temperature sensor
  - Discharge temperature sensor
  - High pressure cut out on some models

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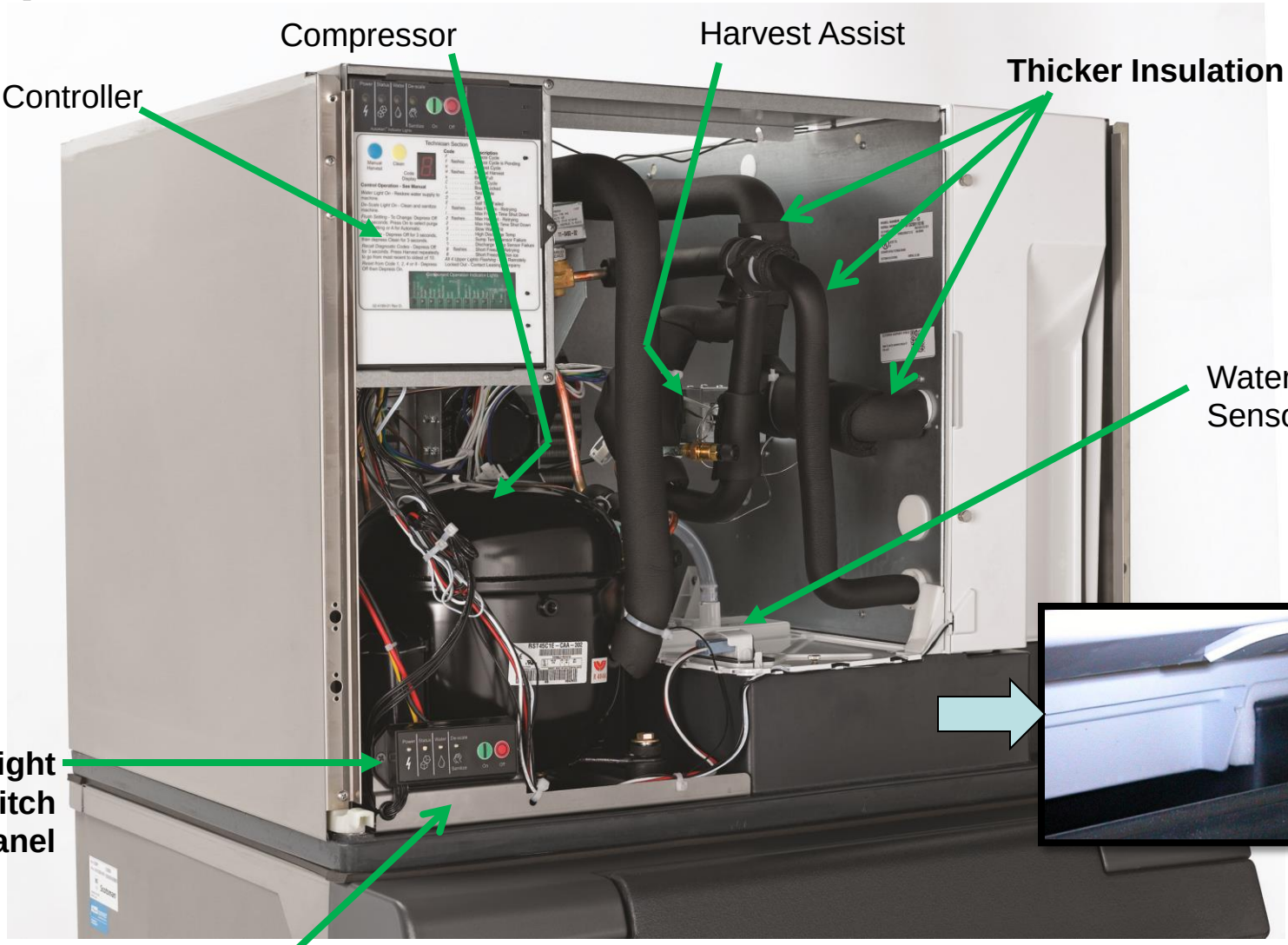
Component Location – 30” wide models



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Prodigy Operation

- Electrical Sequence
  - Power up, controller does self check
  - Power Light glows Green
  - Push and release the green ON button to start the unit

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Cuber Start Up – Air and Water Cooled

- Reservoir emptied and refilled
  - Purge valve opens, water pump starts
  - Hot gas and harvest assist solenoid activate
  - Inlet water valve opens, water fills the reservoir
  - Purge valve closes, pump shuts off
- When the reservoir is full, the water stops and the compressor and pump start
  - Fan motor will start when discharge pressure increases to cut in point of fan cycle switch

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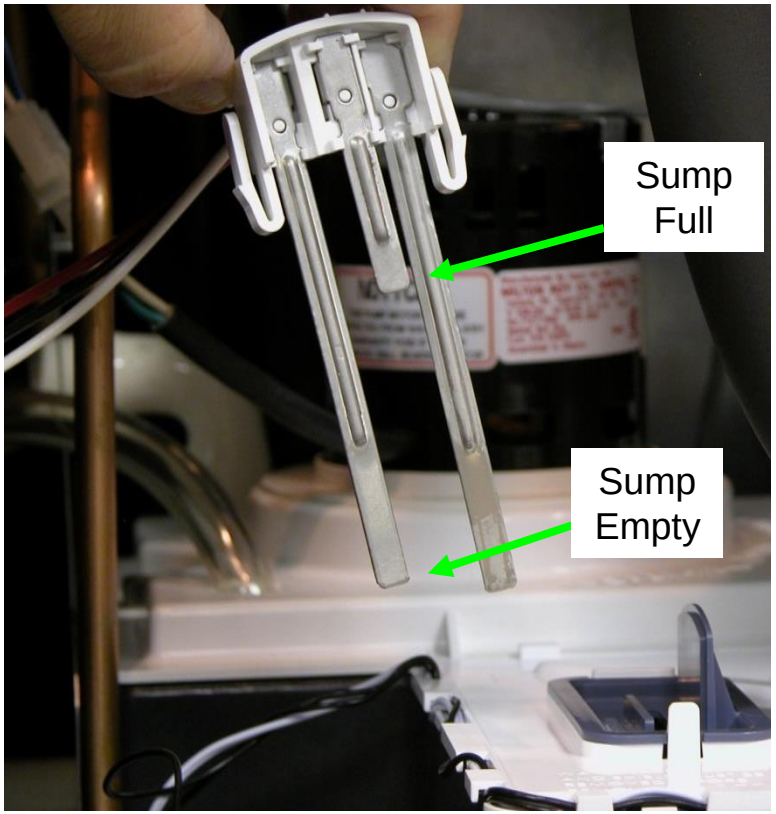
Water Control – All Cuber Models

- Water Level Sensor
  - Conductivity Probe
  - Water fills when mid-length probe is not touching water
  - Water stops filling when short probe touches water
    - Snaps out of reservoir cover for ease of maintenance



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Freeze Cycle

- Hot gas valve closes and harvest assist pin retracts after 5 seconds of freeze.
  - Allows compressor to start with minimal discharge pressure
- Freeze continues until reservoir temp falls to preset point, then pump stops for 30 seconds.
  - The dry freeze is an anti-slush process

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Operation - Freeze

- Compressor: ON
- Water pump: ON
- Fan motor: ON
- Purge valve: OFF
- Inlet water solenoid: OFF
- Harvest assist: OFF (after 5 seconds)
- Hot Gas valve: OFF (after 5 seconds)

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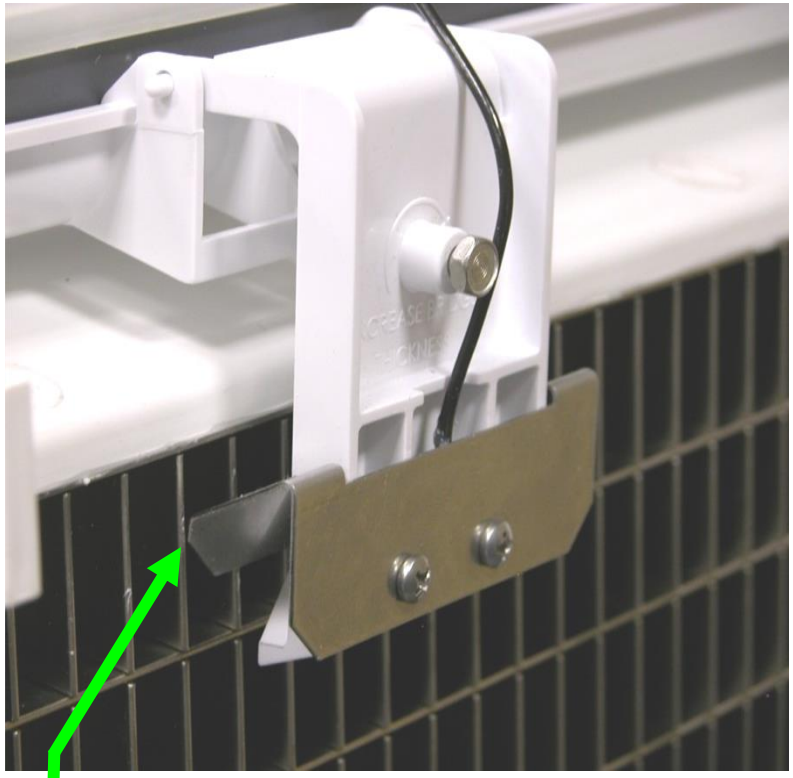
End of Freeze Cycle

- Freeze continues until ice thickness sensor is contacted by water for a few seconds, that triggers harvest
- Air cooled fan may shut down a few seconds before harvest to build up heat



Ice Thickness Sensor

Contact with water makes circuit from controller to cabinet, terminating freeze

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Operation - Harvest

- Compressor: ON
- Water pump: ON – will switch Off
- Fan motor: OFF
- Purge valve: ON – will switch Off
- Inlet water solenoid: ON – will switch Off
- Harvest assist: ON
- Hot Gas Valve: ON

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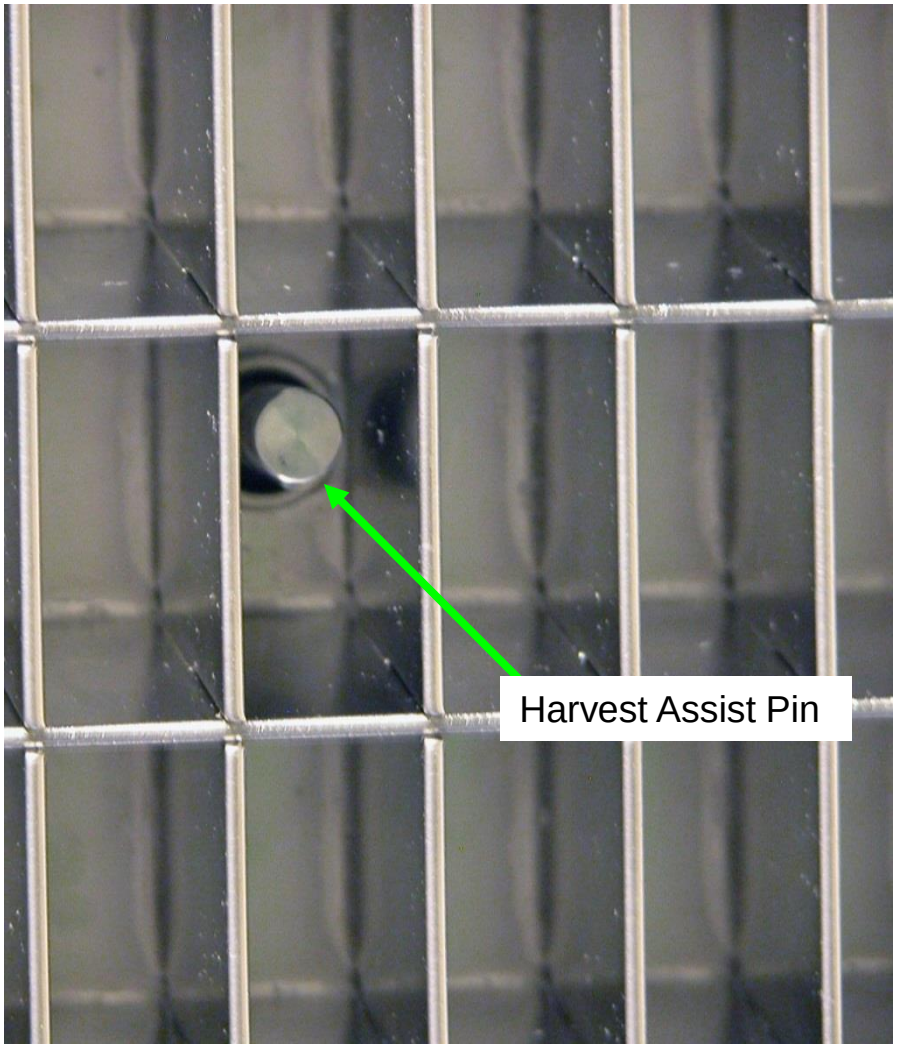
Harvest Assist Mechanism

- Harvest continues until the evaporator heats up enough to release the ice, the harvest assist pin will extend fully and the ice will release as a unit, forcing the curtain open



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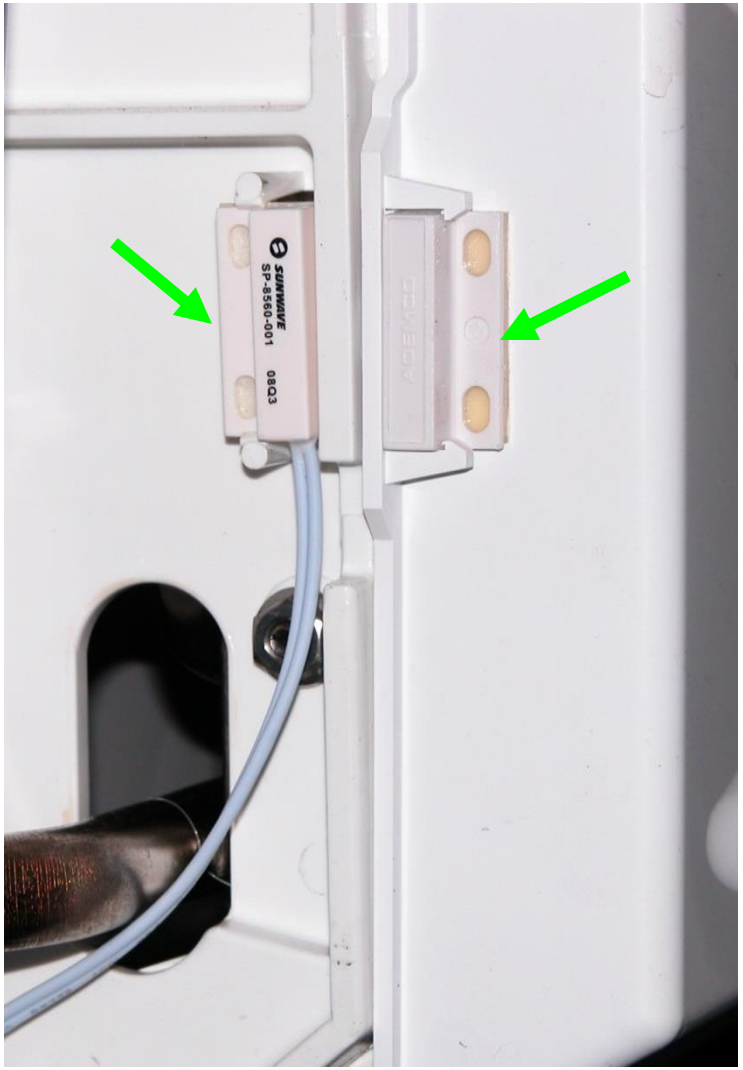
Curtain Switch

- The curtain switch opening terminates harvest.
  - Stays open = shuts off. If it closes again, a new freeze cycle begins.
  - Switch is the magnetic reed type



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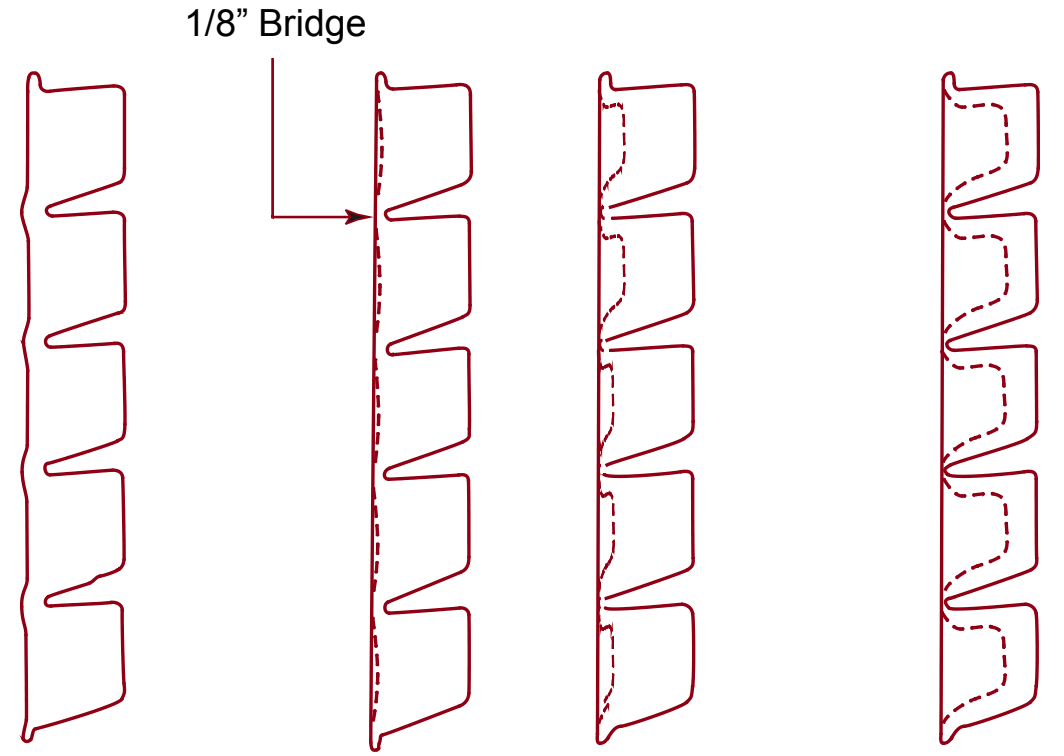
Ice Bridge



Too Big

Just Right, most models

Just Right, Medium cube, C0322 and C0330

Too Small

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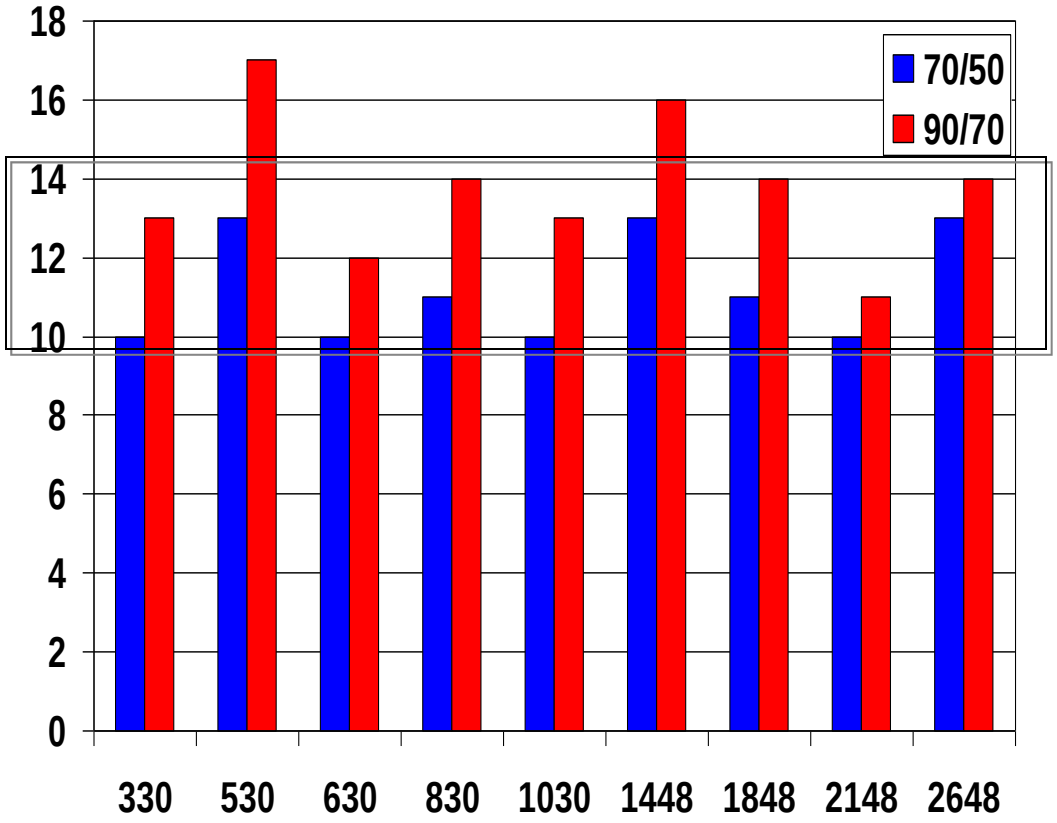
Total Cycle Times

Minutes



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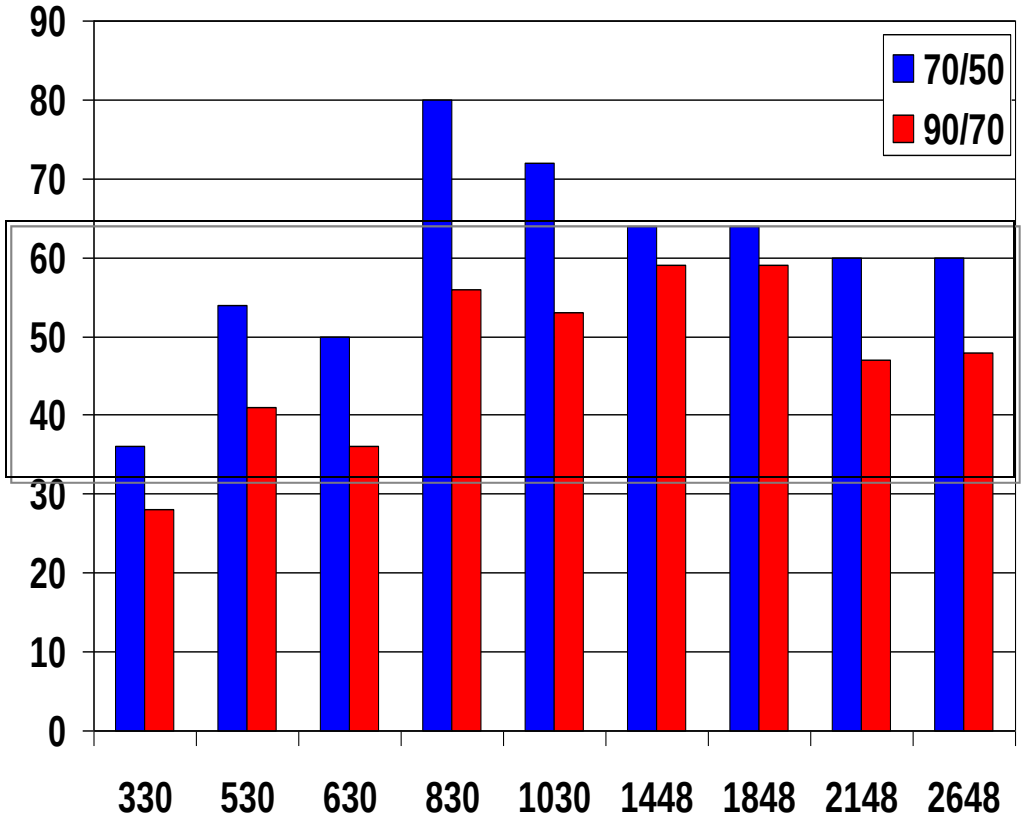
Harvest Cycle Times (seconds)

Seconds



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Bin Full

- The curtain switch is the bin full detector
  - A full bin keeps the curtain from closing
  - When open during harvest for more than 30 seconds shuts the unit off
  - 2 plate models must have both curtain switches open to end harvest, and at least one to stay open for more than 30 seconds to stop ice making.
- KVS / Vari Smart control can also shut the machine off
  - Based on ice level and setting of the control

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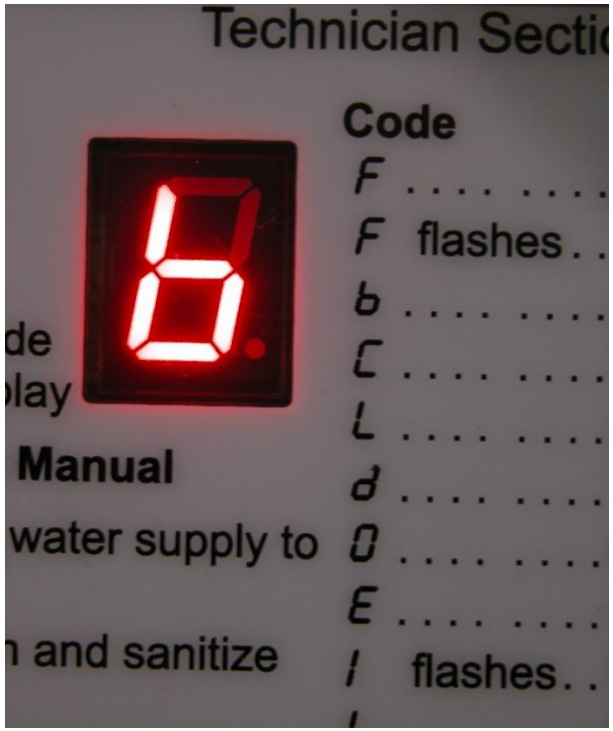
Bin Full Display

- Lower case b
- Remote models
  - Liquid line valve closes, everything off except compressor
  - Compressor off after 30 seconds
- Short restart delay when curtain switch re-closes



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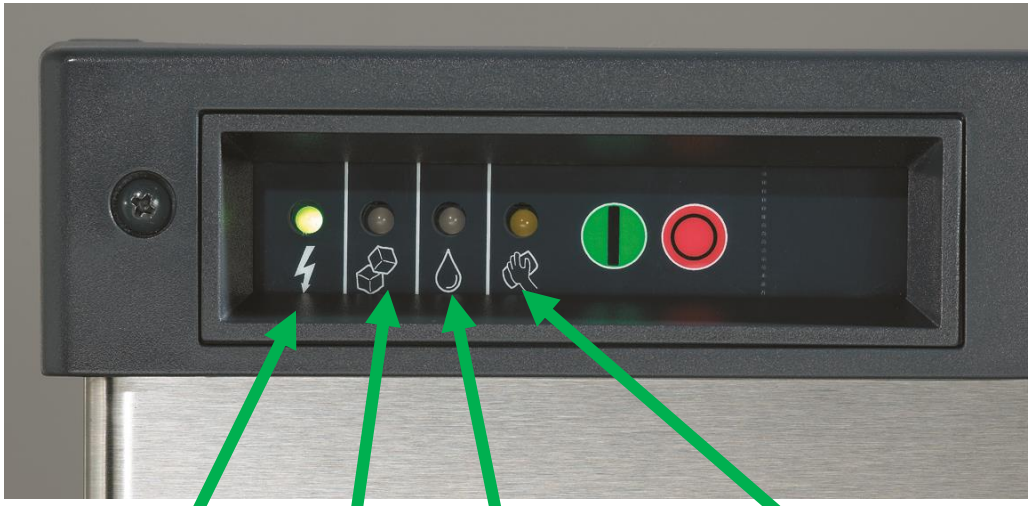
AutoAlert Light Panel – Duplicated in Prodigy Plus



Same Lights and Switches, different place

Status Light

Time to Clean Light

Power Light

Water Light

Prodigy Plus Lower Light and Switch Panel

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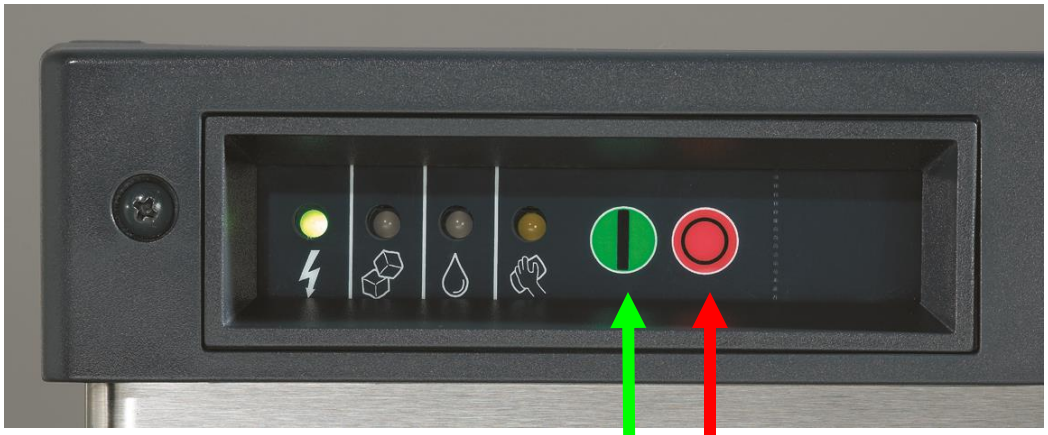
AutoAlert Light Panel



On Switch Button Off Switch Button

Prodigy Plus Lower
Light and Switch Panel

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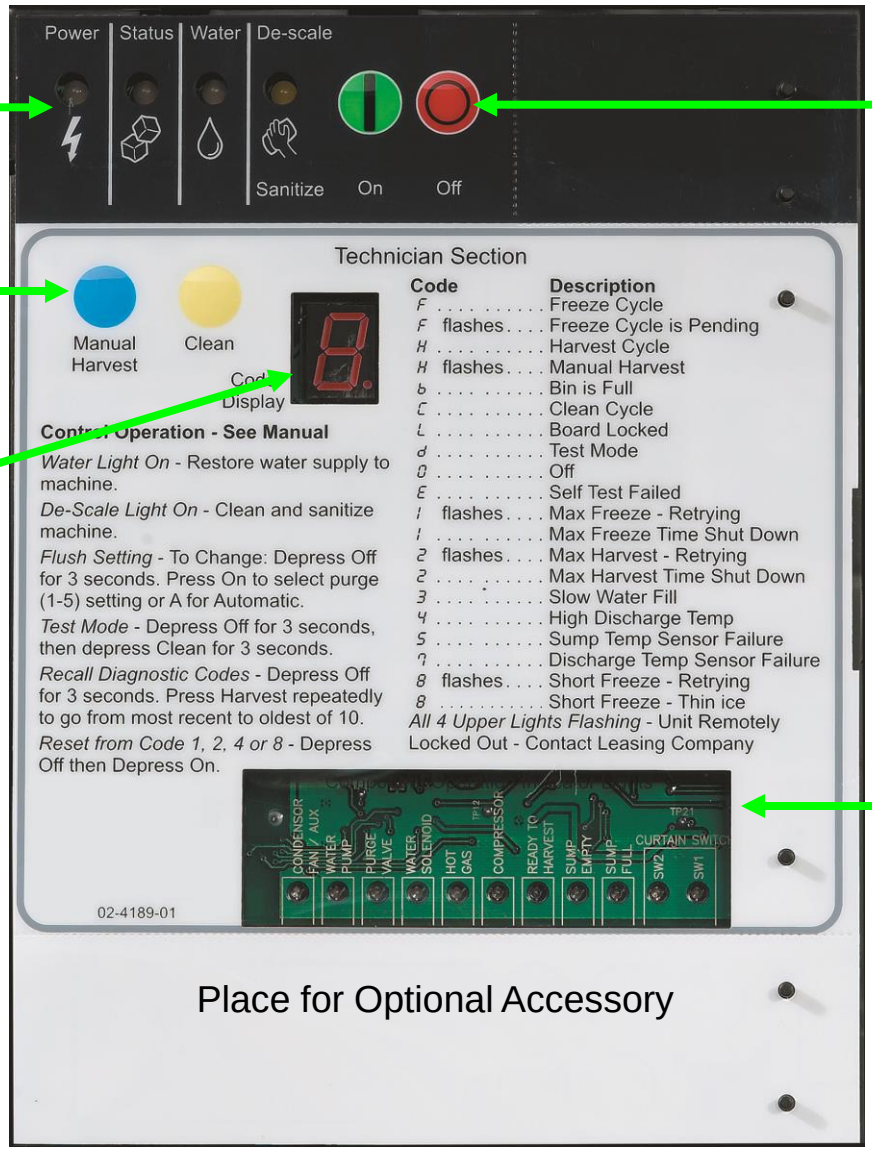
Prodigy Cuber Controller

AutoAlert Lights

Manual Harvest and Clean Switches

Code Display



On and Off Switches

Component Indicator Lights

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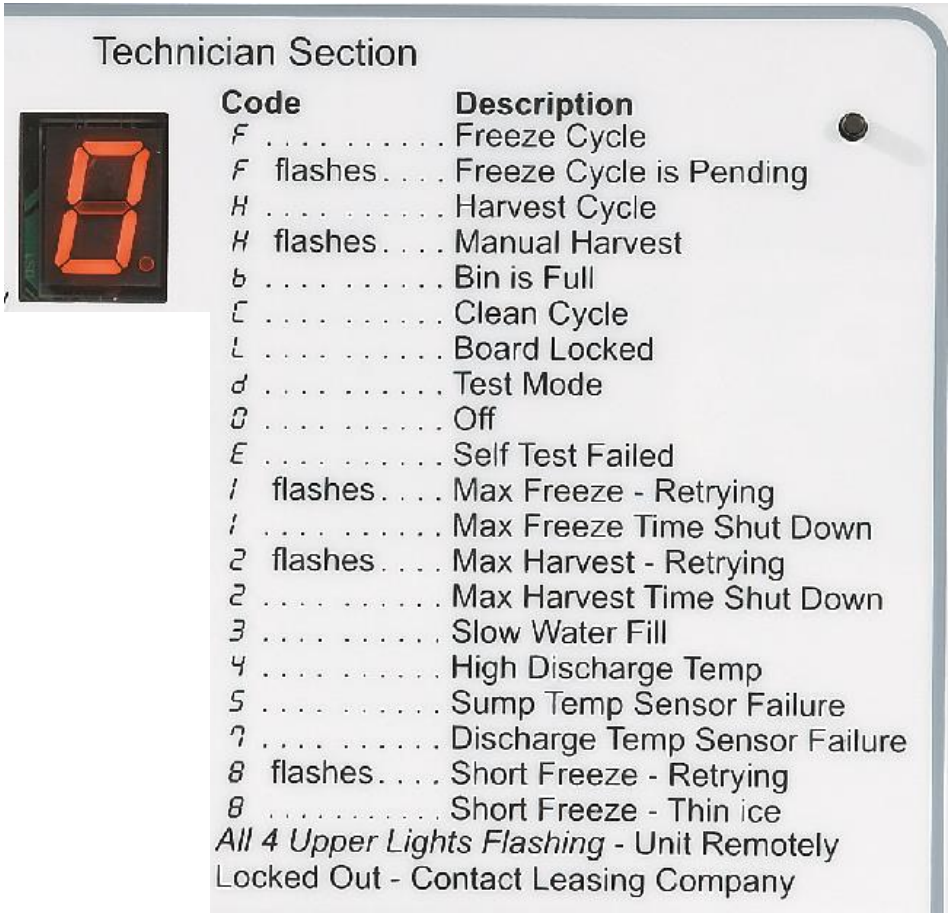
Code Display

- Letter codes show operational status
- Number codes show shut down causes



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5 Controller Shut Down Causes

1. Freeze time too long
   - 45 minutes (Code 1)
2. Harvest time too long
   - 3.5 minutes (Code 2)
3. Water fill too long
   - 5 minutes (Code 3)
4. Discharge temperature too high
   - Exceeds 250 degrees F. (Code 4)
5. Freeze too short
   - Before 6 minutes into the freeze cycle (Code 8)

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Controller Reaction

- Maximum freeze time (Code 1)
  - Completes harvest, tries another cycle
- Maximum harvest time (Code 2)
  - Shuts down, restarts after 50 minutes
- Maximum limit on water fill time (Code 3)
  - Shuts down, attempts refill every 20 minutes
- Discharge temp exceeds 250 degrees F. (Code 4)
  - Immediate shut down
- Minimum freeze (Code 8)
  - Completes timed harvest, tries another cycle.

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Cuber Controller Auto Restart

- From diagnostic 1,2,8 causes
  - Retries 2 times, if fails again 3rd time, machine must be manually reset
- From water interruption
  - Will continuously restart every 20 minutes
- From power failure
  - Goes thru a timed harvest (3 minutes)

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Controller Button Processes

- Reset
  - Push and release Off, push and release On

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Cuber Control Button Use

- Recall diagnostic code
  - Push and hold Off to shut the machine down
  - Push and hold Off again until the display code changes
  - Push and release the Harvest button to cycle thru the last 10 diagnostic codes, from latest to oldest

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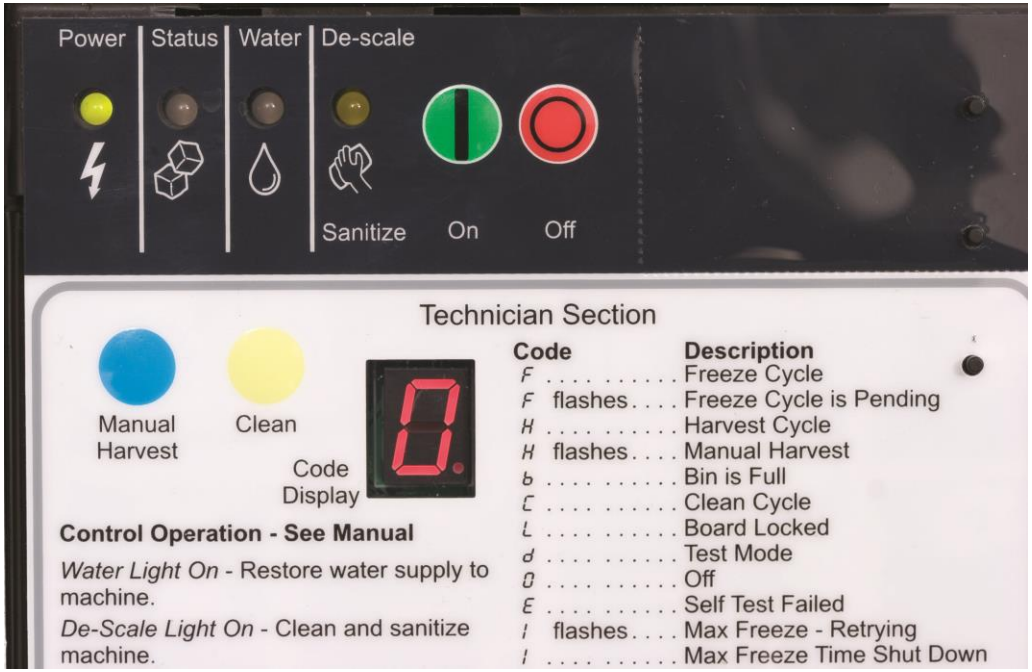
Cuber Controller Button Use

- Clear all diagnostic codes
  - Push and hold Off to shut the machine down
  - Push and hold both the Clean and Harvest buttons for 3 seconds



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Cuber Controller Button Use

- View/Change water purge
  - Push and hold Off to shut the machine down
  - Push and hold Off again until the display code changes – code displayed is the current purge setting
  - Press and release the On button to cycle to another setting – 1 to 5 or A for Automatic
  - Push Off to lock it in

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WaterSense Automatic Purge

- Checks conductivity of reservoir water at start up
  - Must be not less than 10 microSiemens/cm
- Adjusts purge water amount based on water's TDS
  - Display shows an A if set to Automatic (factory default)
- Purge can also be manually set
  - 1 is minimum
  - 5 is maximum

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Other Controller Button Processes

- Empty reservoir
  - Push and hold Off to shut the machine down
  - Push and hold **Clean** button until the display shows a dash, pump will drain the reservoir for 30 seconds, repeat as needed

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Cuber Diagnostics

Most Common Service Call

- No Ice
  - Why?
  - **Dirty ice machine** – sensors and water distributor fouled, purge ineffective
  - **Lack of water** – filter plugged
  - **Lack of air** – filter plugged, condenser dirty

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Second Most Common Service Call

- Poor performance – not keeping up
  - Why?
  - Machine is too hot, cycle time long
    - Dirty
    - Installed too close to other equipment
    - In a corner, in a closet
    - Not enough HVAC
    - Bad installation

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Cuber Cycle Time

- Freeze plus harvest time equals total cycle
- Example: C1030 air cooled at 70/50 = 9-10 minutes cycle time.
- Hot environment, air, water or both, adds heat load and makes the machine have longer cycles
- Sometimes it isn't broken. Measure cycle time, if normal and the bridge thickness is also correct, the machine is making all it can.

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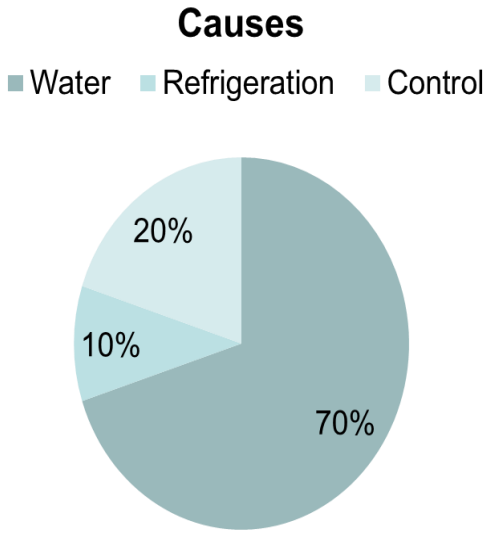
Diagnostic Process

- Check diagnostic code
  - Use codes as a guide to the root cause
  - Codes listed on the controller overlay
- Remember the Recipe for Ice – a malfunction will be in one of these areas:
  - Water
  - Refrigeration
  - Electrical



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Diagnostics

- Max freeze time diagnostic – Code 1
  - See Code in display
  - Shows why unit shut off
  - Use Code as a tool to guide to root cause

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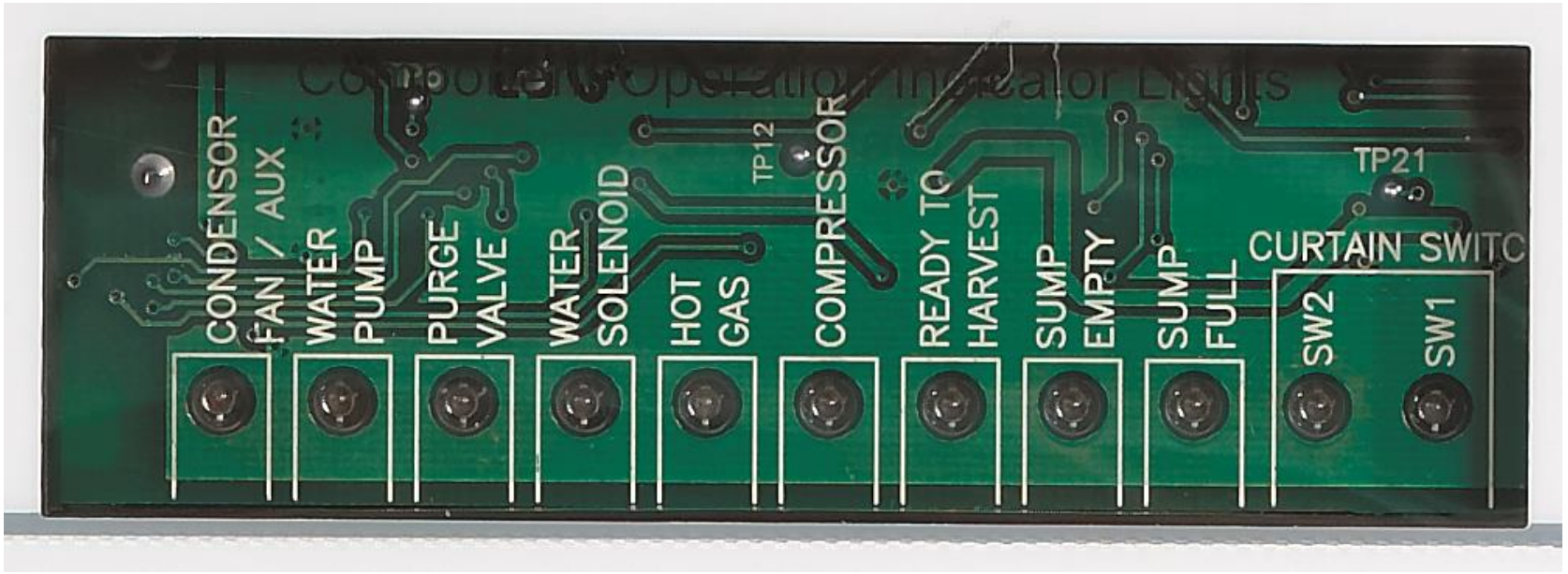
Diagnostic Aids

- Use the controller's component indicator lights to check if a component is operating when it should be.



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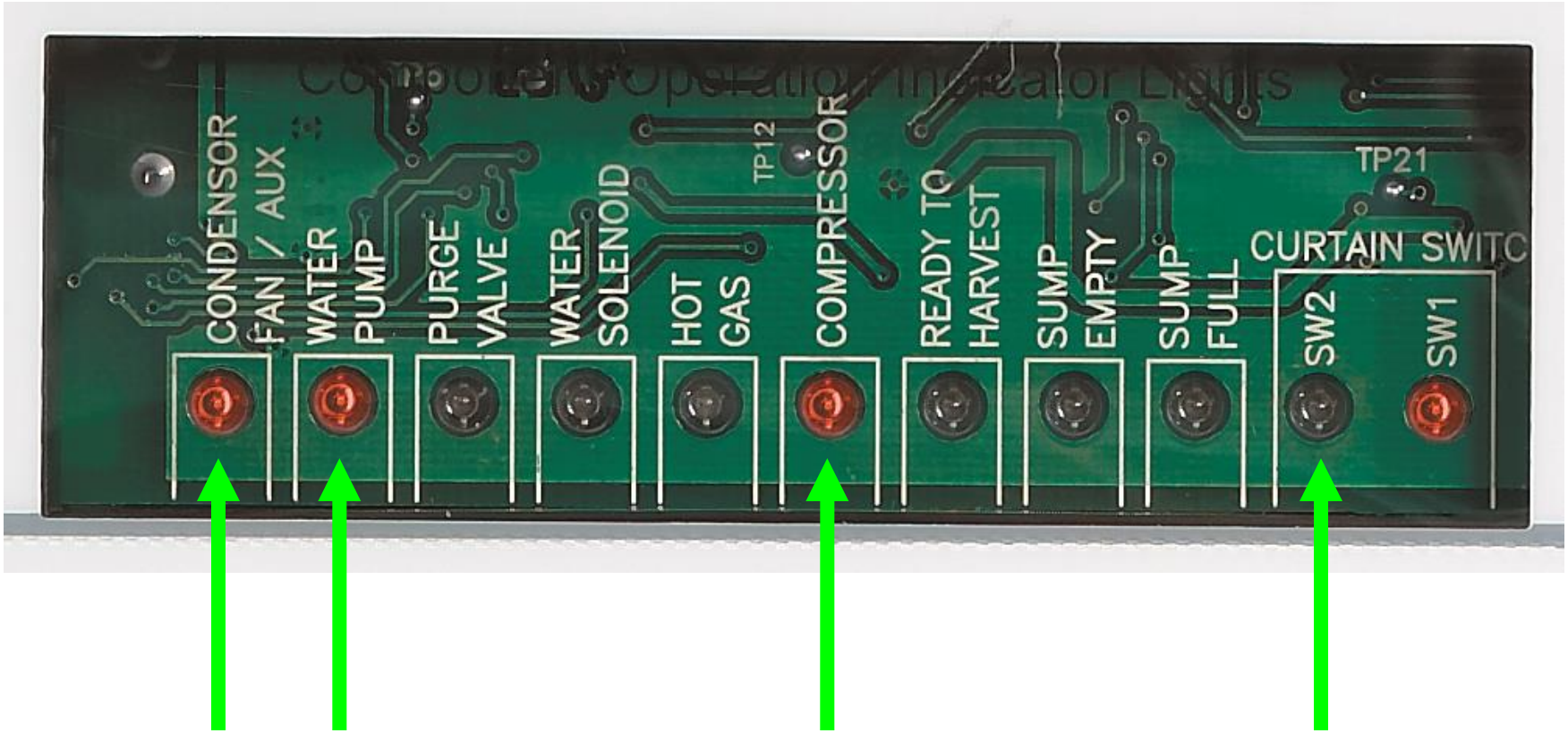
Example: Freeze Cycle



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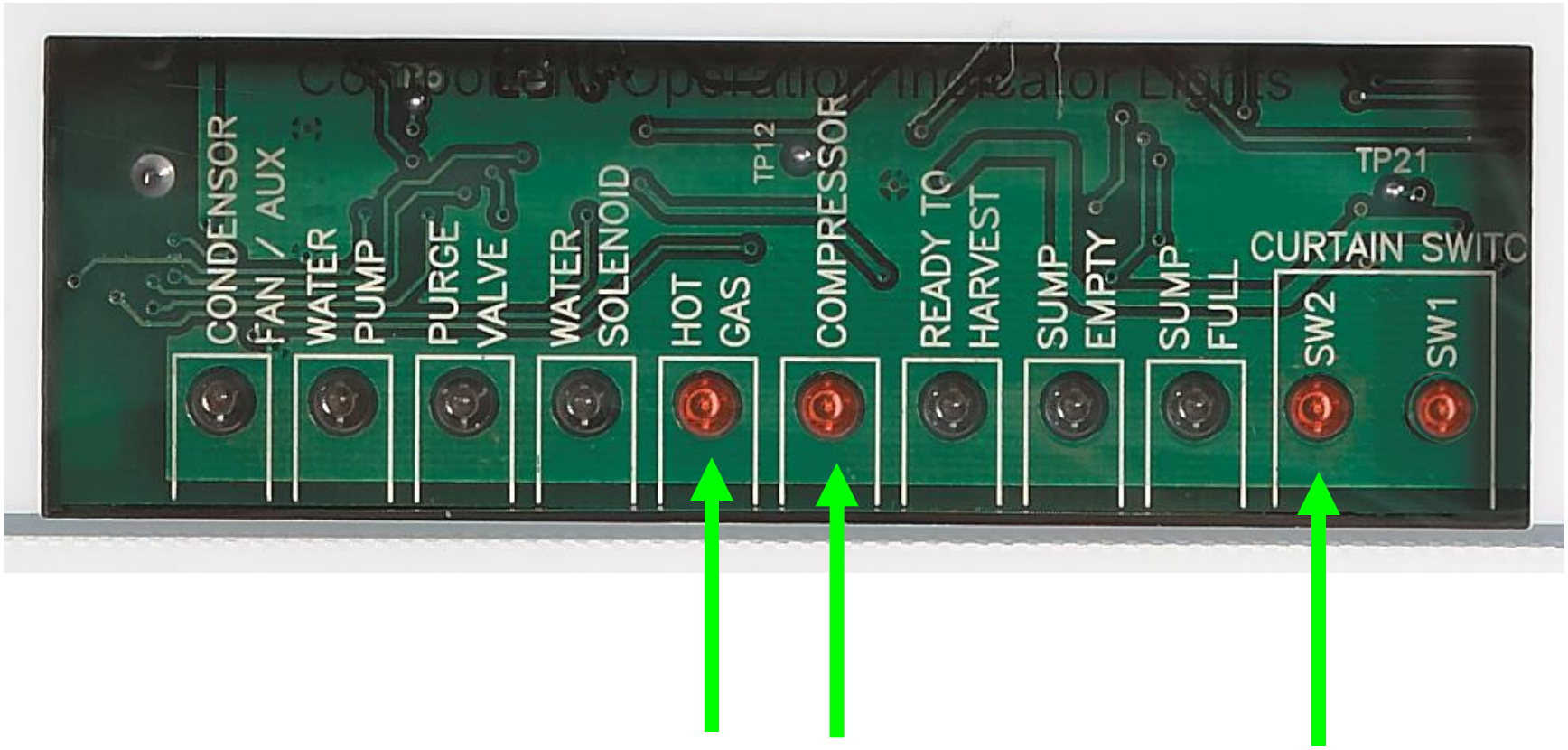
Example: Harvest Cycle



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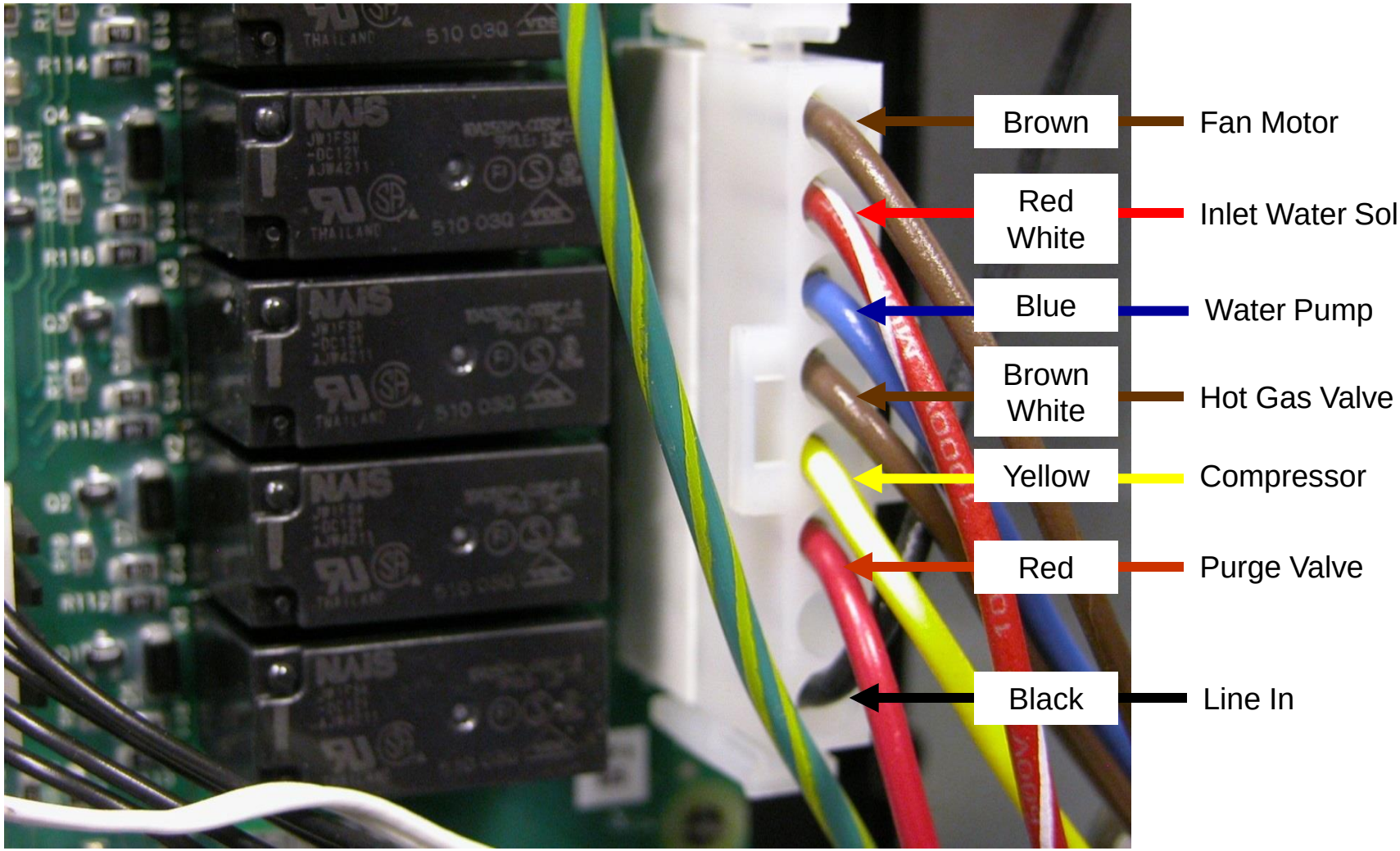
Diagnostic – Line Voltage Outputs



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Controller Relay Contact Check

- Check high voltage connector
  - 115 volt models will have full voltage to ground when a contact is **closed**.
  - 230 volt models will have
    - partial voltage to ground when a contact is open,
    - 115 volts to ground when **closed**, and
    - full voltage to the other leg (L2) when **closed**

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Diagnostics

- Max freeze time diagnostic – Code 1
  - Limit is 45 minutes
  - Typical cycle is much shorter
    - 15 to 20 minutes
  - Long freeze cycle causes:
    - Lack of water
    - Lack of refrigeration effect
    - Not sensing ice formation

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Diagnostics – Code 1

- Lack of water flow potential causes:
  - False Sump Full signal from Water Level Sensor – dirt buildup
    - Water will not be added if Sensor is shorted and signaling Sump Full
  - Water pump failure – potential scale caused
  - Leaking Purge Valve – potential scale caused

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Diagnostics Code 1

- Lack of refrigeration may be caused by:
  - Dirty air filters
  - Fan motor or fan pressure control failure
  - Water supply to water cooled condenser failure
  - Low charge
  - TXV superheat not correct
  - Compressor contactor failure
  - Compressor overheated or off

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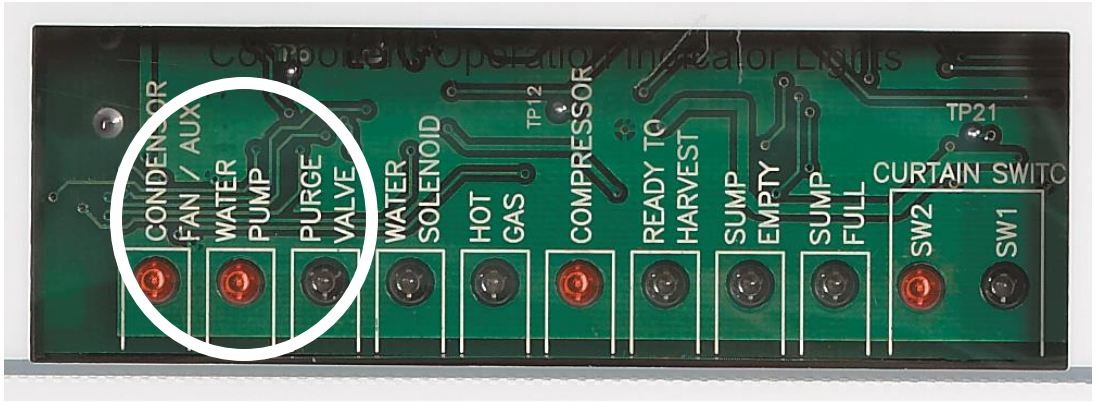
Diagnostic – Water Pump

- Check pump for operation during freeze
  - When diagnostic light is ON pump should be operating



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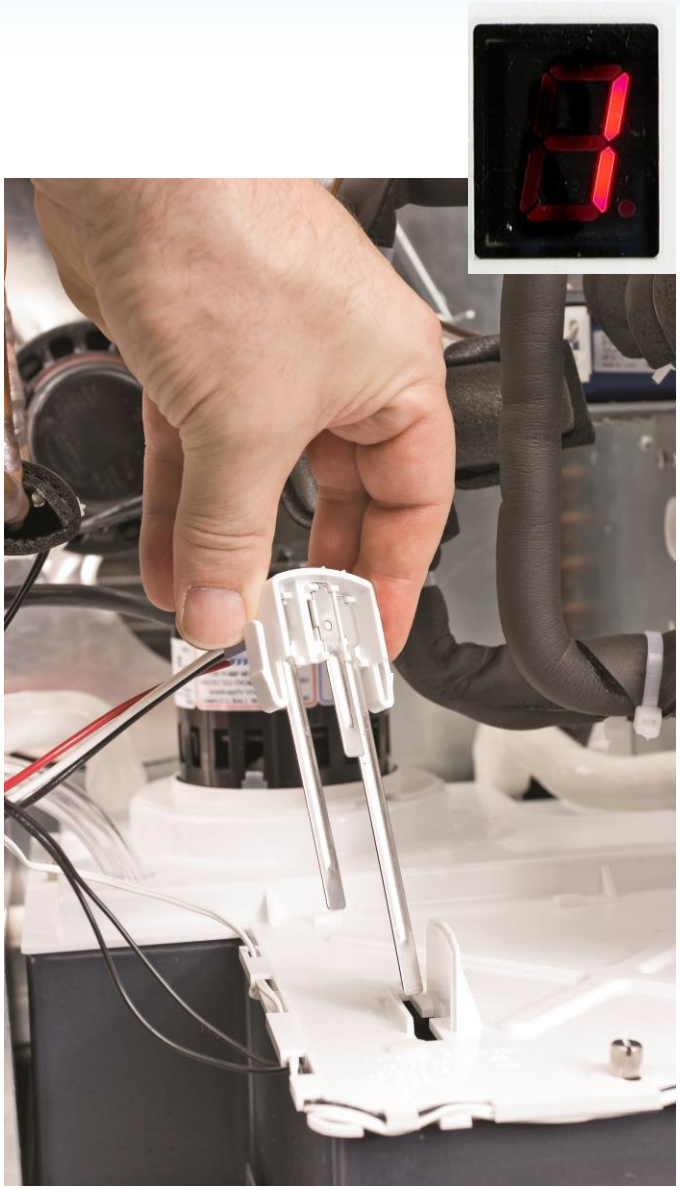
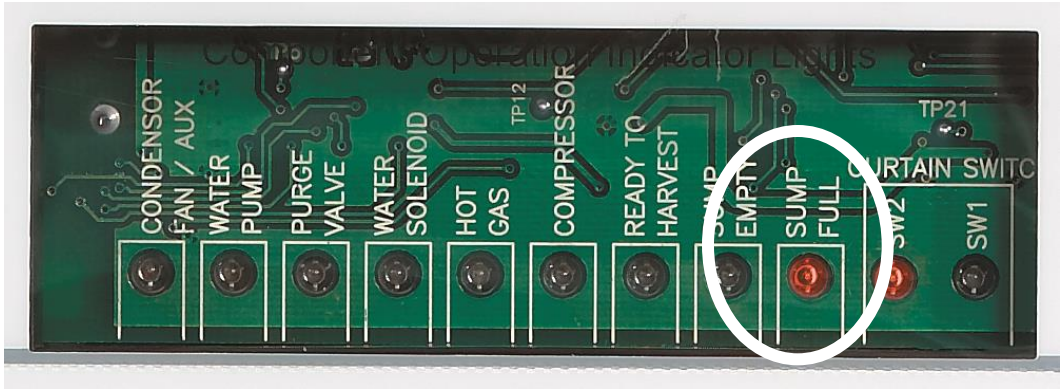
Diagnostic – WLS

- Water Level Sensor
  - Continuity probe
  - Must be OFF if nothing touches the probes





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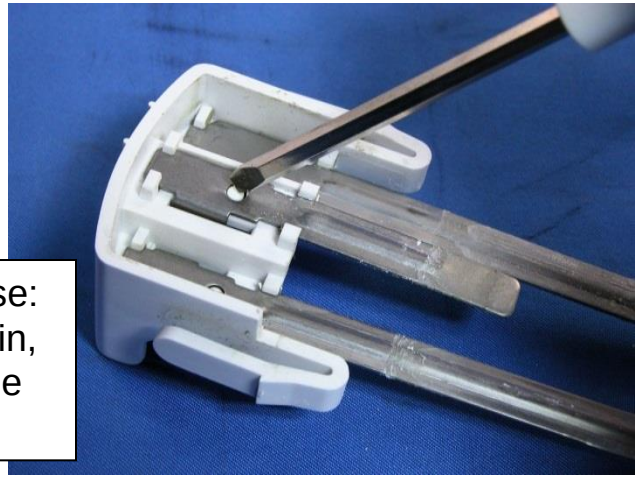
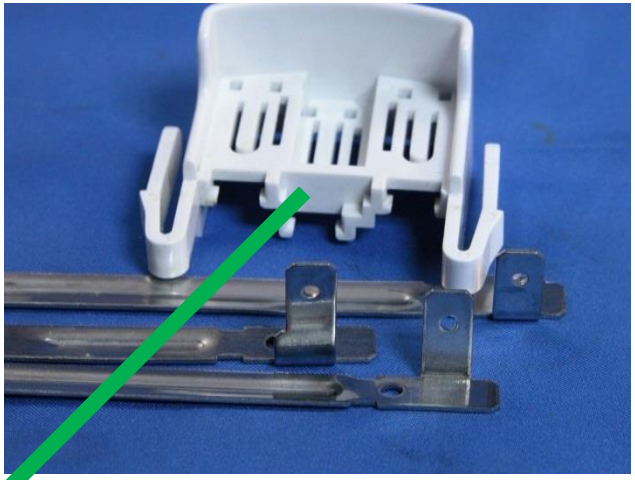
Diagnostic – Water Level Sensor

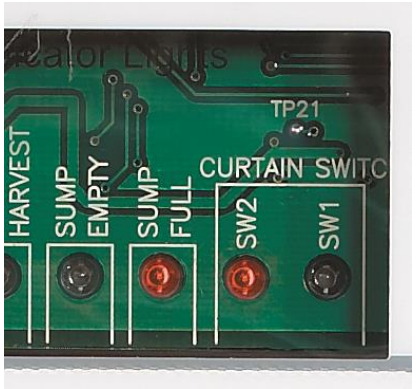
- Sump Full light ON, but no water in reservoir
- Cause: dirty sensor
  - Solution: clean sensor
    - Release probes from housing
    - Clean housing thoroughly
      - Housing is the insulator



To Release: Push pin in, pull probe down



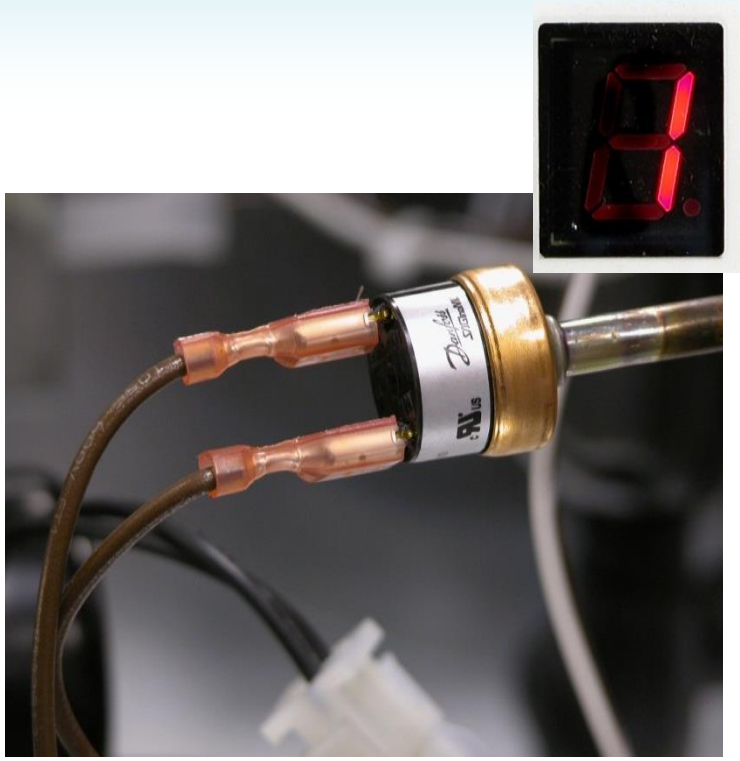
Key Area to Clean

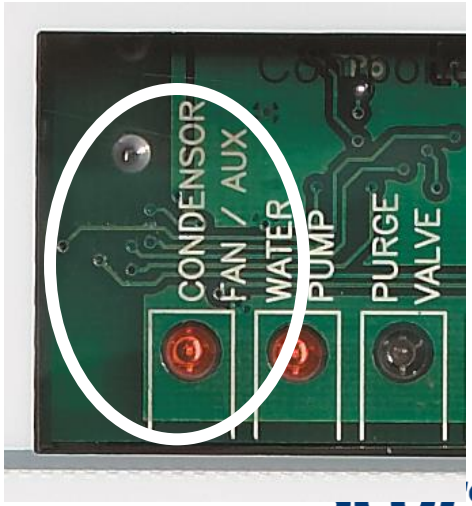


Scotsman
ICE THE WORLD DEMANDS

Diagnostic – Fan Motor

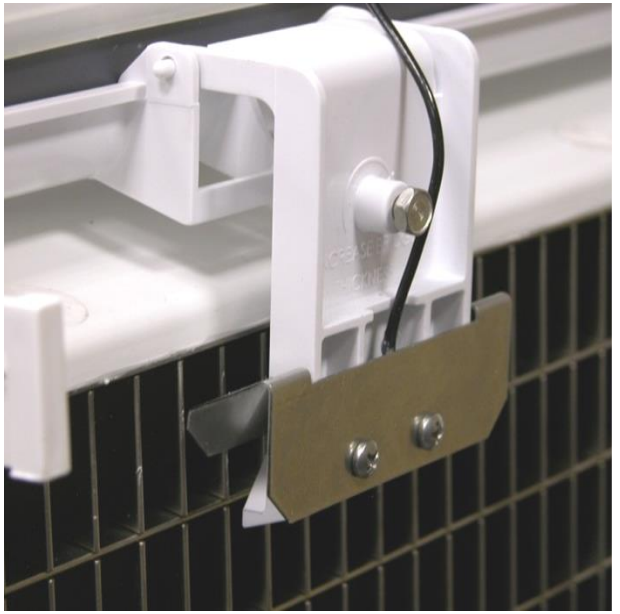
- Two controls – controller and fan pressure switch
  - Controller light ON when fan should be ON
  - Pressure switch then controls power to fan motor
    - 22 & 30 - CI: 240, CO: 190
    - 48 - CI: 280, CO: 220
    - Jump pressure switch wires together, then power up unit and check fan motor operation

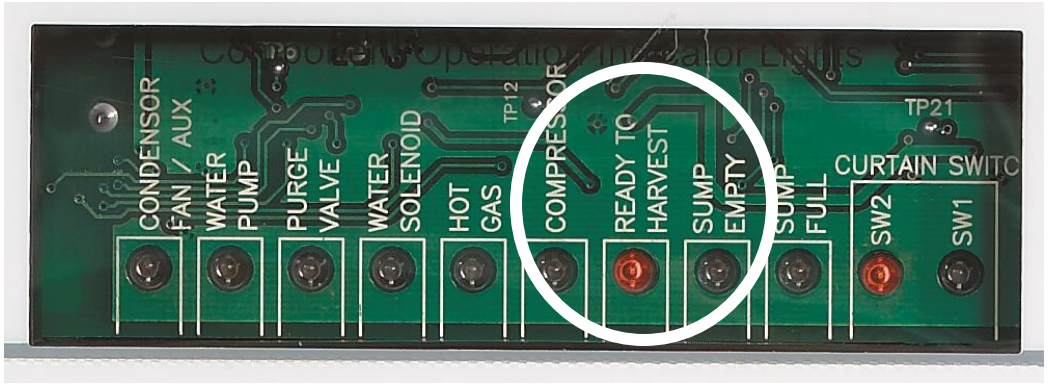




Diagnostics - Sensors

- Ice thickness sensor
  - It is a continuity probe
  - Check by grounding metal tip to cabinet and observing Ready To Harvest light





Scotsman
ICE THE WORLD DEMANDS

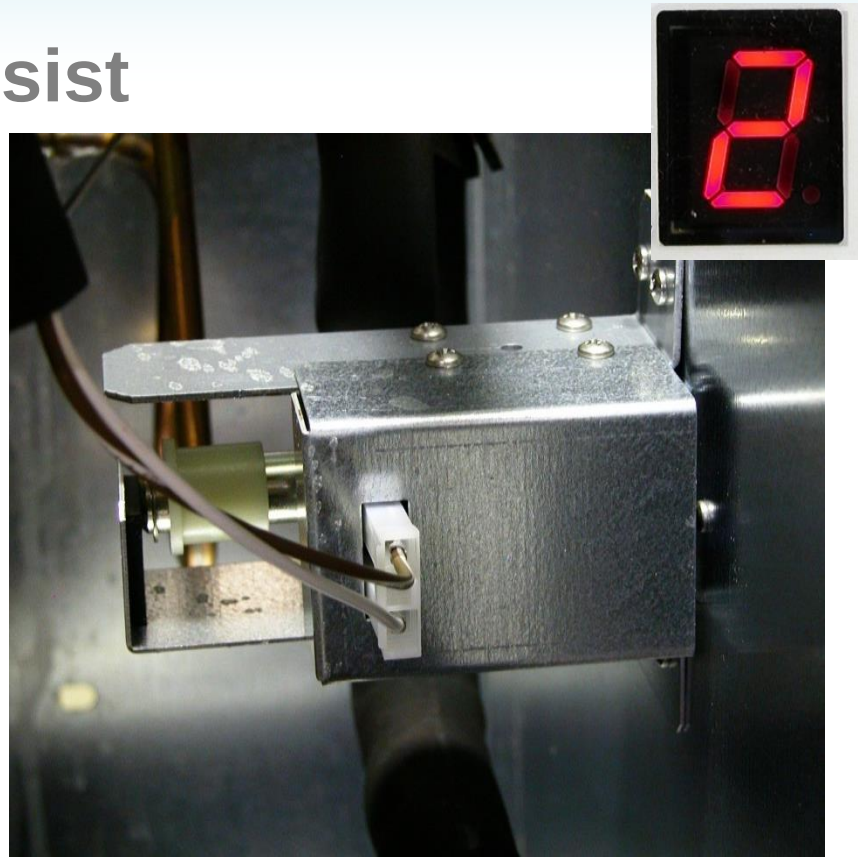
Diagnostics

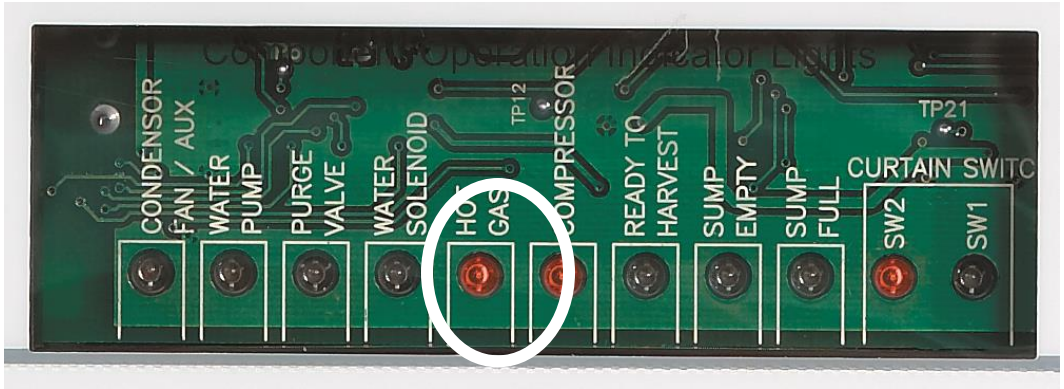
- Max harvest time – Code 2
  - Limit is 3 ½ minutes
  - Normal time is between one and two minutes
  - Long harvest cycle possibly caused by:
    - No ice due to no water after max freeze
    - Harvest assist not functioning correctly
      - Not extending or retracting
    - Hot gas valve not opening
    - Curtain switch not sensing when curtain opens
    - Poor or No ice formation
    - Low refrigerant charge

Scotsman
ICE THE WORLD DEMANDS

Diagnostic – Harvest Assist

- Operates when the Hot Gas valve is energized
  - Check during harvest, if voltage is present, pin should extend when ice releases



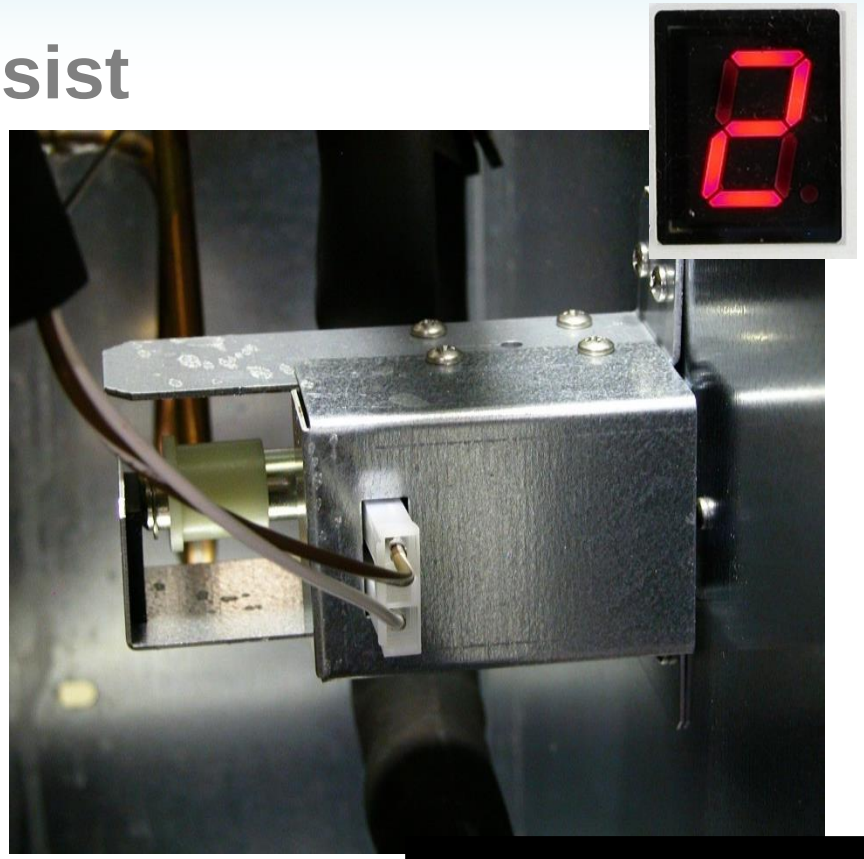


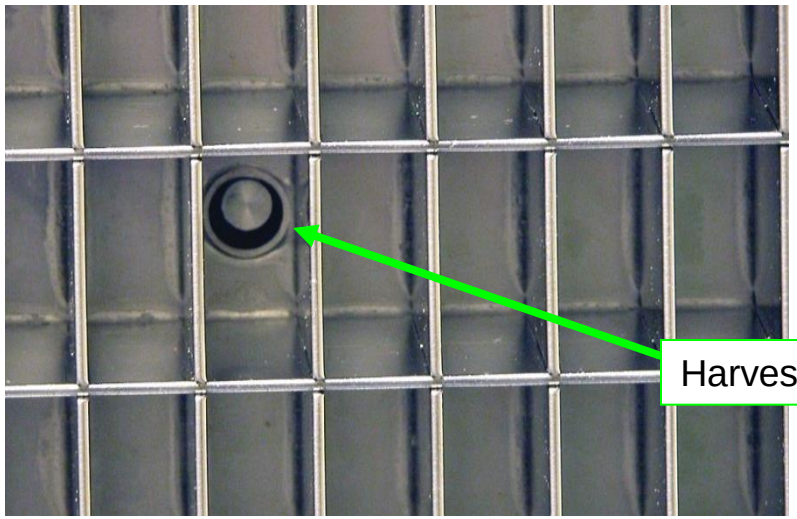
Note: Harvest assist solenoid coil cannot be checked with an ohmmeter. Check voltage instead.

Scotsman
ICE THE WORLD DEMANDS

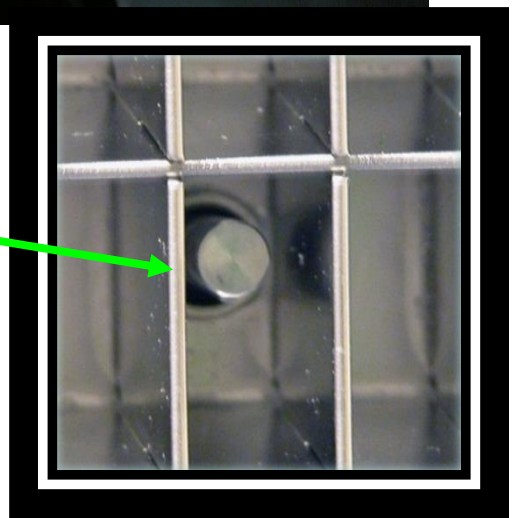
Diagnostic – Harvest Assist

- Spring retracts pin when power is off
  - If pin does not retract, check for binding in evaporator bushing

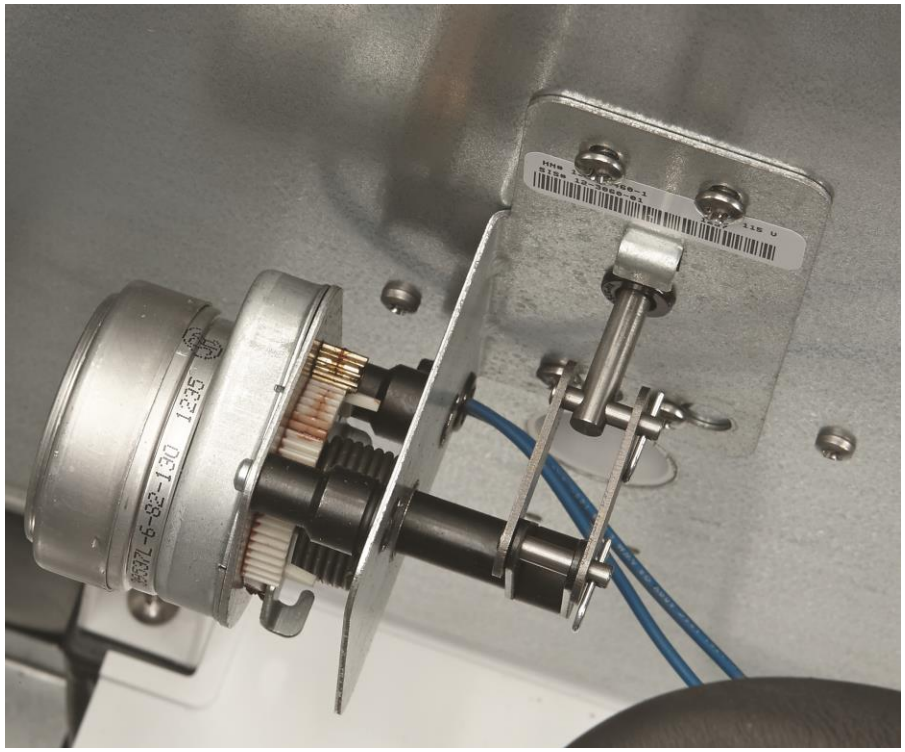




Harvest Assist Pin



Motor actuated Harvest Assist Mechanism, used on some models (Beginning March 2013)

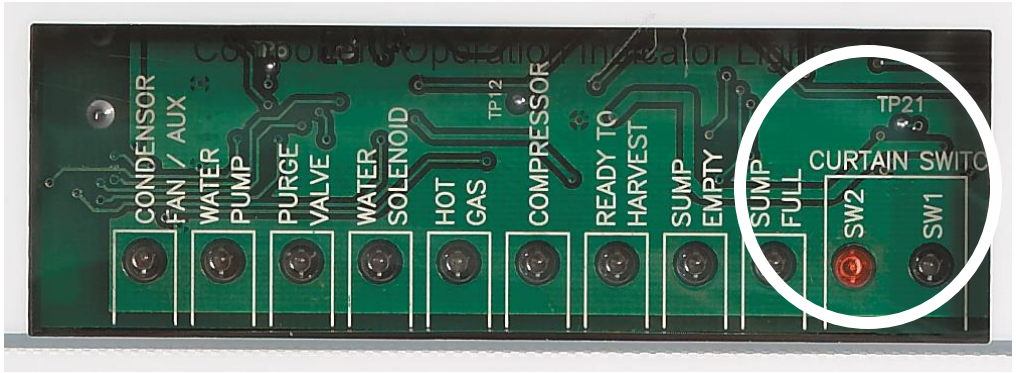


- 115V 12-3060-21, Replacing both 12-3035-21 and 12-3036-21
- 230V 12-3060-22, Replacing both 12-3035-22 and 12-3036-22

Scotsman
ICE THE WORLD DEMANDS

Diagnostic - Sensors

- Curtain Switch
  - Magnetic reed switch
  - Check with indicator light or ohmmeter
  - When curtain is CLOSED, light is OFF
    - Single plate models have 1 light on all the time



Scotsman
ICE THE WORLD DEMANDS

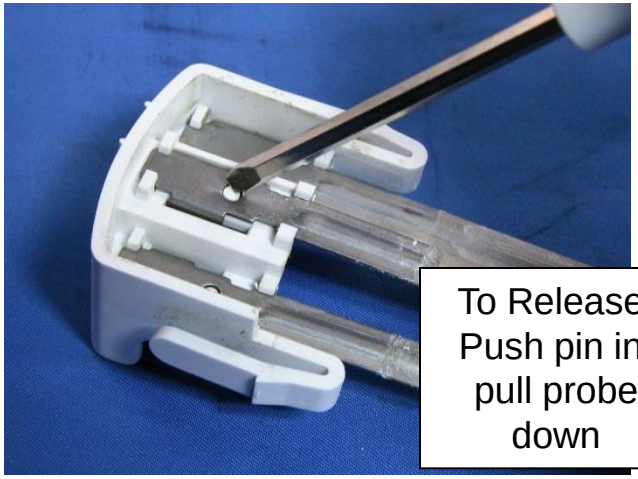
Diagnostic – Hot Gas Valve

- Opens at start up and during harvest
- One per evaporator
- Line voltage coil
- Check power to coil when hot gas indicator light is on

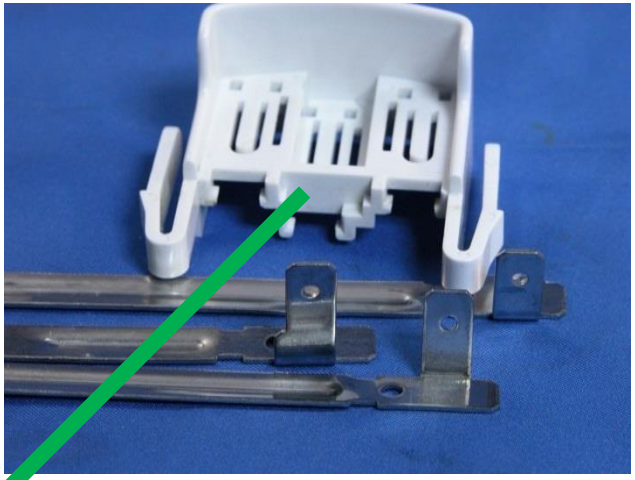
Scotsman
ICE THE WORLD DEMANDS

Diagnostic – Water Level Sensor Code 2

- Sump Full light ON, but no water in reservoir - Code 2 displayed.
  - No water, no ice, no harvest
- Cause: dirty sensor
  - Solution: clean sensor
    - Release probes from housing
    - Clean housing thoroughly
      - Housing is the insulator



To Release: Push pin in, pull probe down

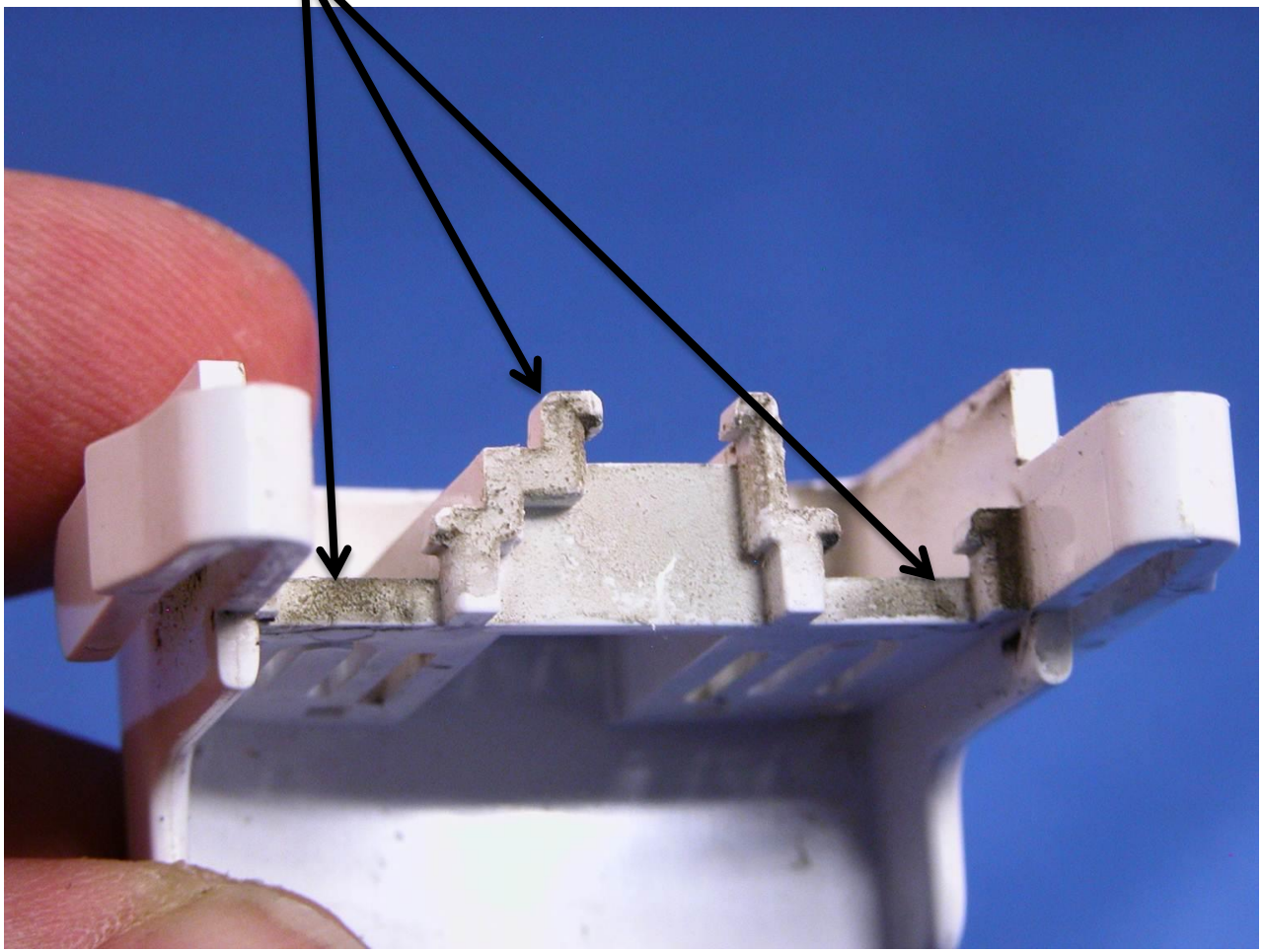


Key Area to Clean

Scotsman
ICE THE WORLD DEMANDS

Diagnostic – Water Level Sensor

Key Area to Clean



Scotsman
ICE THE WORLD DEMANDS

Late 2011: Water Level Sensor Guard

- Water level sensor probes shielded from water splash and separated from air upflow
  - Guard surrounds probes
  - Reduces false sump full signal
    - Reduces code 1 and 2 shut downs
- Applied to all Prodigy modular cubers
- Kits available:
  - Include sensor, harness, guard and sump cover

Scotsman
ICE THE WORLD DEMANDS

Diagnostics

- Slow or no water fill – Code 3
  - Limit on fill time is 5 minutes
  - Longer fill times possibly caused by:
    - Water supply shut off
    - Water filters plugged up
    - Inlet water solenoid valve failure
    - Controller not opening inlet water solenoid valve
    - Purge valve leak

Scotsman
ICE THE WORLD DEMANDS

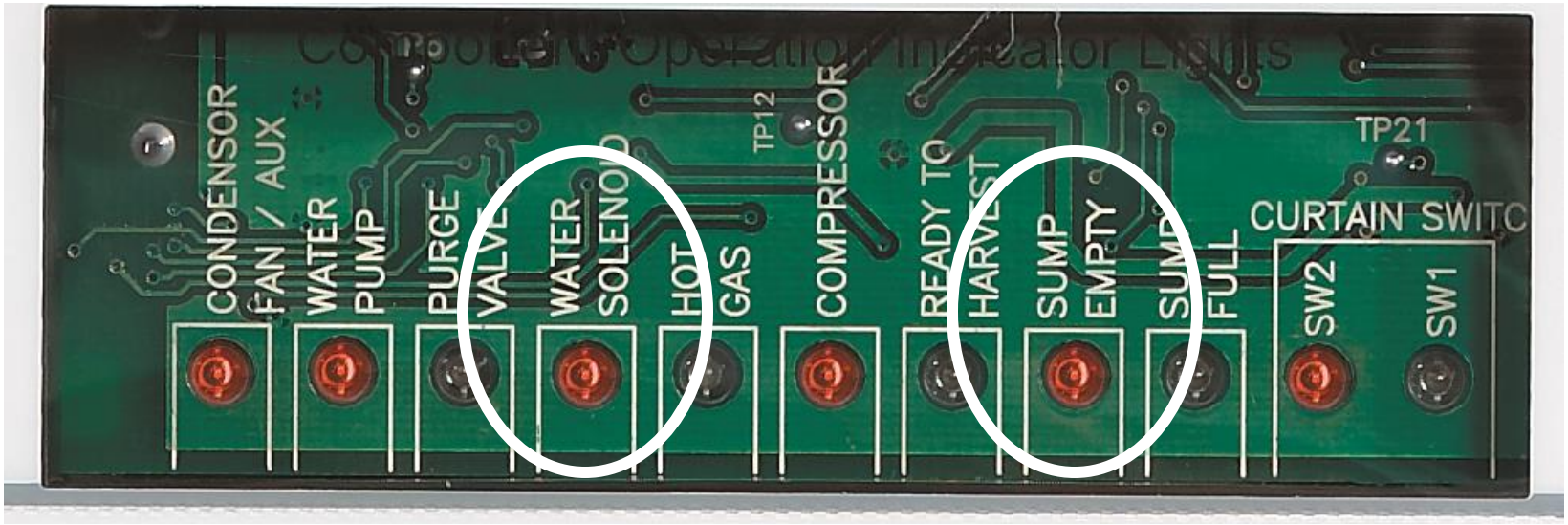
Purge valve

- Opens every cycle to drain some water; dilutes mineral buildup
  - Must drain freely – gravity drain
    - External tubing can be a restriction – check for venting and kinks
  - Must open
  - Must not leak by
    - Reservoir will refill if Sump Empty detected
  - Purge can be mis-adjusted by controller setting

Scotsman
ICE THE WORLD DEMANDS

Inlet Water Solenoid Valve

- **Quick test**: In Freeze, pull Water Level Sensor out of reservoir – Sump Empty light will switch ON and Inlet Water Solenoid Valve should open to fill the reservoir.
  - Note: If Sump Full light is ON water valve will not open



Scotsman
ICE THE WORLD DEMANDS

Diagnostics

- High discharge temperature – Code 4
  - Immediate and complete shut off if discharge temperature reaches 250ºF.
  - Possible causes of high discharge temperature
    - Fan motor failure
    - Extreme high ambient
    - Hot gas valve leak thru
    - Too much superheat

Scotsman
ICE THE WORLD DEMANDS

Diagnostic - Sensors

- Display codes 5 or 7 indicate a sensor failure
  - Check by measuring resistance of thermistor and comparing to the table at that temperature
    - Table of resistances in manual or handbook, same as for CM3
- Operation can continue without thermistor use, diagnostic code 5 will be displayed when they are disconnected

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ICE THE WORLD DEMANDS

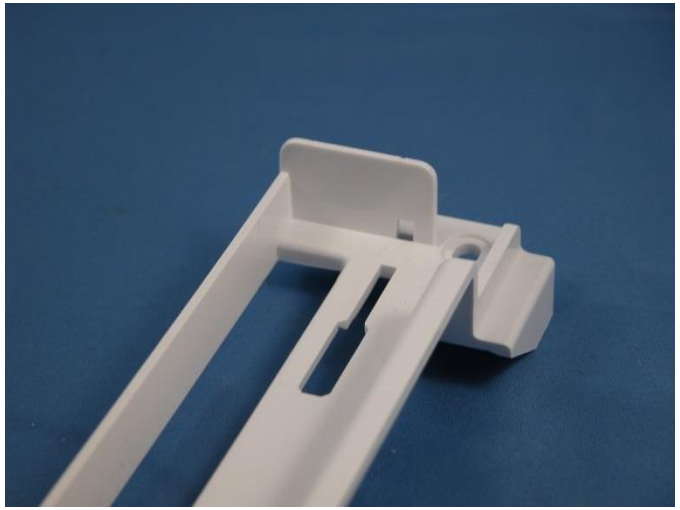
Short Freeze Time

- Short freeze cycle – Code 8
  - Primary cause is erratic water flow from spillway
    - Spillway surface needs scrubbing
    - Sagging bracket (02-4205-01) needs replacing – plastic from bracket sags into water path
  - Secondary cause is ice bridge too thin, ice harvests bottom half, top half stays on plate
  - Another cause is scale on the Ice Thickness Sensor and wire

Scotsman
ICE THE WORLD DEMANDS

Water Distributor Mounting Bracket

- Applies to all Prodigy cubers
- Effective November 2012
- Change made bottom of bracket stronger to eliminate sagging into water path



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ICE THE WORLD DEMANDS

Code 8 – Water Flow Correction

- Lightly sand or scrub the spillway across the flow of water
  - Evens out water flow
  - Reduces splash onto ice thickness sensor probe

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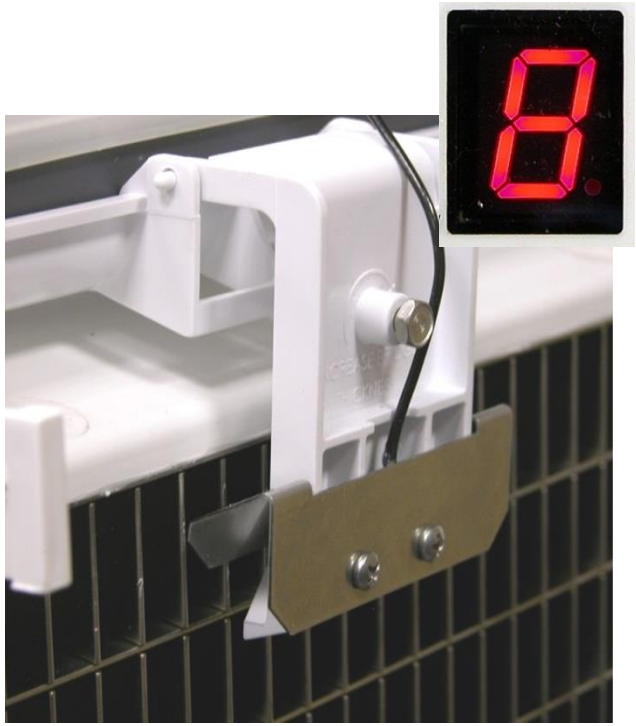
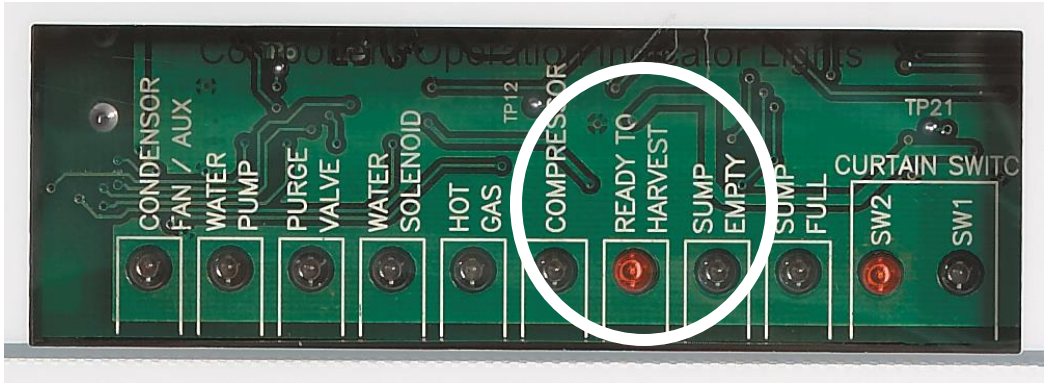
ICE THE WORLD DEMANDS

Diagnostics - Sensors

- Ice thickness sensor
- Short freeze may be caused by
  - mis-adjusted ice thickness sensor ~ gap 3/16 – 7/32
  - Scale on the bridge thickness control

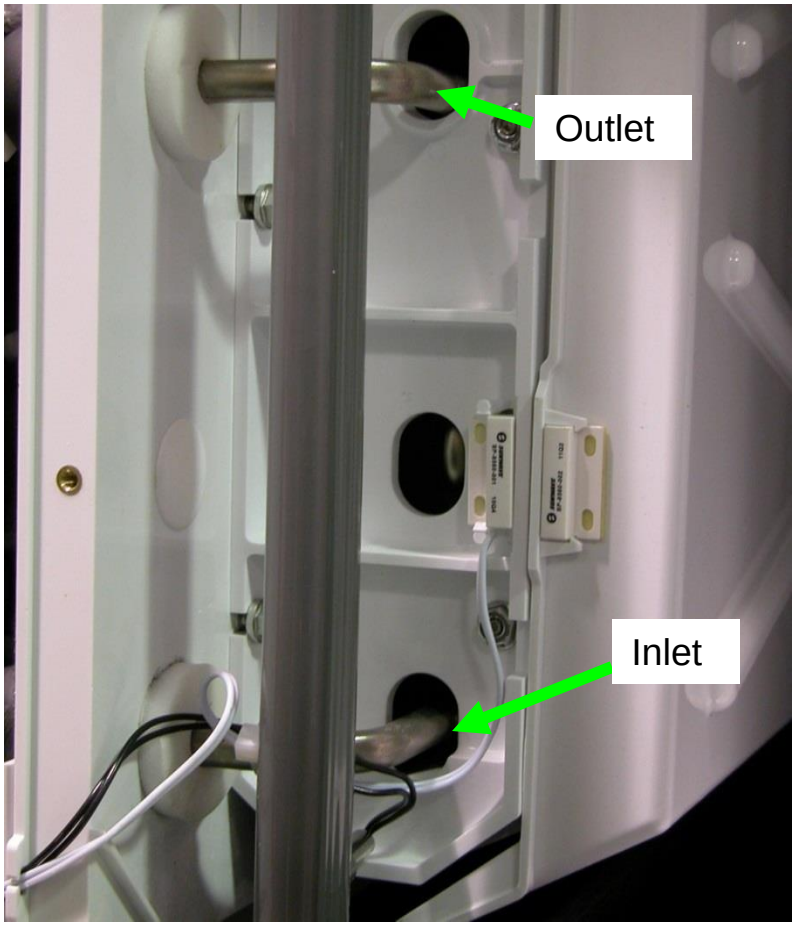




Scotsman
ICE THE WORLD DEMANDS

Service Notes: Refrigerant Charge

- Ice machines are critically charged
- Refrigerant leak symptoms are progressive – they change as the amount of refrigerant lost increases
  - Thinner ice at evaporator area near tube outlet
  - Longer cycle times, both freeze and harvest



Scotsman
ICE THE WORLD DEMANDS

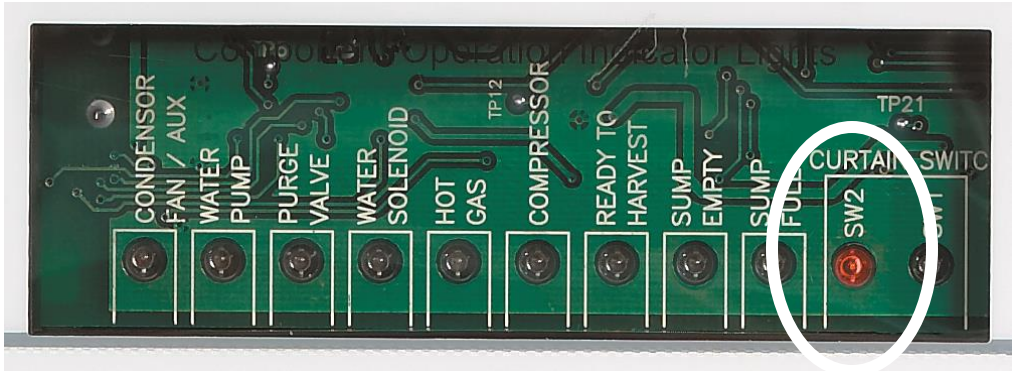
Diagnostics

- No ice complaint
  - Machine is not making ice
  - Bin is not full
  - Status light is on
  - Code b is displayed
  - Possible causes:
    - Curtain is open or off the unit
    - Curtain switch is open
    - Vari-smart is installed and set too low

Scotsman
ICE THE WORLD DEMANDS

Diagnostics – Curtain Switch

- Light is ON when switch is Open
  - Unused switch light is always on
- Move the curtain
  - Check if the light cycles with the curtain's movement or
  - Use ohmmeter on switch leads
    - Good is less than 5 ohms when closed



Scotsman
ICE THE WORLD DEMANDS

Diagnostic – Test Mode

- Test Mode:
  - Hold Off button in for 3 seconds. Release.
  - Hold Clean button in for 3 seconds.

Time (seconds)	On
0	WIV - 30 seconds
30	WP - 10 seconds
40	WP, PV, HGV - 10 seconds
50	HGV, Comp - 5 seconds
55	Comp - 15 seconds
70	None - 5 seconds
75	HGV - 10 seconds
85	Fan - 10 seconds
95	None

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ICE THE WORLD DEMANDS

Diagnostic - Power

- Continuous power supply is critical
- Remember: Auto restarts from power interruption
  - Poor electrical connection can cause frequent to continuous auto restarts
  - If cord connected, try another outlet as a diagnostic
    - Outlets wear out, can be defective and have poor connections

Scotsman
ICE THE WORLD DEMANDS

Maintenance and Cleaning

Maintenance

- Mineral scale
  - Water sensors and distributor become coated with scale
  - Use Scotsman Clear 1 scale remover to dissolve scale
  - Pay special attention to:
    - Water distributor
    - Ice thickness sensor
    - Water level sensor

Scotsman
ICE THE WORLD DEMANDS

NEW FROM SCOTSMAN ICE SYSTEMS®

STERA SHEEN® GREEN LABEL MACHINE SANITIZER.

Scale Removal and Sanitizing

- Begin by removing the ice from the bin or dispenser.
- Sanitize the bin or dispenser at the end of the ice machine cleaning process.
- You will need:
  - Nickel safe ice machine cleaner
  - Sanitizer
  - Bucket, spray bottle, cloths, soft brush, gloves

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ICE THE WORLD DEMANDS

Two Cuber Cleaning Methods

1. All models up to Prodigy Plus (D)
    1. Multi-step, manual process
2. Prodigy Plus D
    1. Single step, timed process

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ICE THE WORLD DEMANDS

Two Step Cuber Clean Cycle

- Harvest ice / stop machine
- Push clean button
  - When Purge Valve Light goes OUT, add scale remover per machine volume
  - Circulate scale remover as long as you like
- Push Clean button **again**
  - Drains and refills
  - Operate this way for 20 minutes or more
- Push Off to stop
  - Resets the Cleaning Indicator Light

Scotsman
ICE THE WORLD DEMANDS

Single Step Prodigy Plus

- Push and release Clean
  - Starts timed harvest – 3 minutes
  - Drains reservoir
  - Code blinks A d 1 – add scale remover at this point
  - Fills reservoir
  - Circulates scale remover for about 11 minutes
  - Drains and refills for 20 minutes
  - Shuts off when complete
  - Approximately 35 minutes total

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ICE THE WORLD DEMANDS

Clear 1 Scale Remover by Model

- C0322 or C0330 – 8 ounces
- C0522, C0530 or C0630 – 10 ounces
- C0830, C1030 – 12 ounces
- C1448, C1848, C2148, C2648 – 24 ounces
- EH222 – 12 ounces
- EH330 – 20 ounces
- EH430 – 24 ounces

Scotsman
ICE THE WORLD DEMANDS

Cleaning Tip – Water Not Filling

- At start of Clean Mode water reservoir must pump out and cause Sump Empty or no water will be added
- Temporarily lift sensor so it rests on snaps
- Retry Clean Mode
- Corrected on D models

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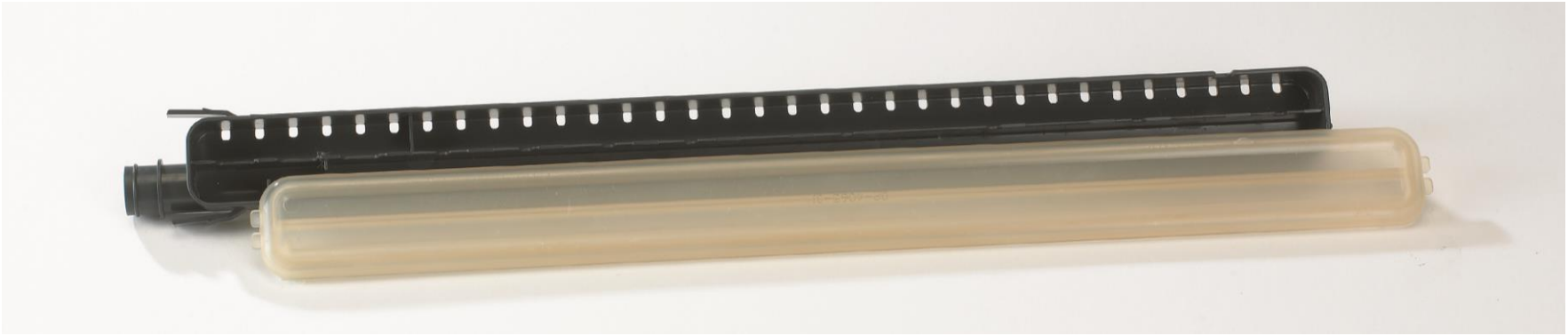
ICE THE WORLD DEMANDS

Water Distributor

- Release catches, pull and lift off mounting track
- Pull cover off, rinse out



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ICE THE WORLD DEMANDS

Restricted Water Distributor

- Mineral build up clogs outlet holes
- Causes
  - Code 8 – short freeze because of poor water flow
  - Code 1 – long freeze if totally plugged stopping all water

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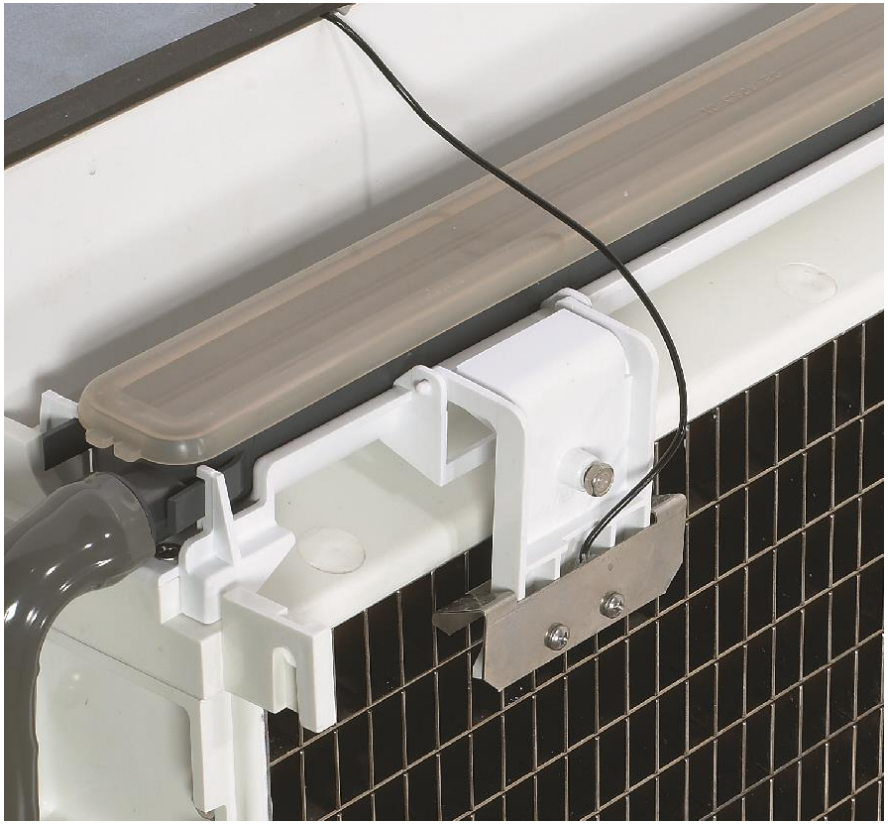
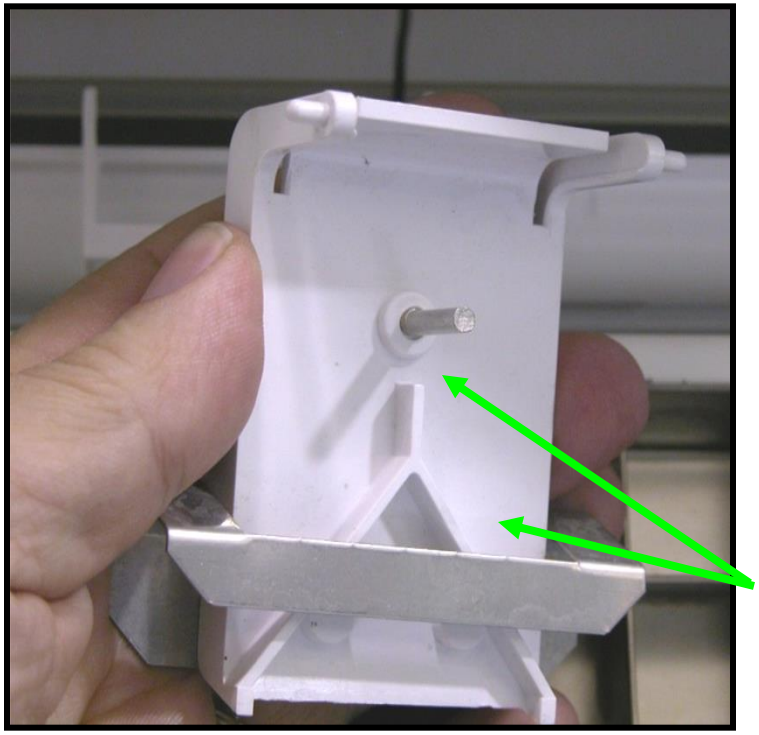
ICE THE WORLD DEMANDS

Ice Thickness Sensor

- Wipe inside surface clean with scale remover





Clean this surface

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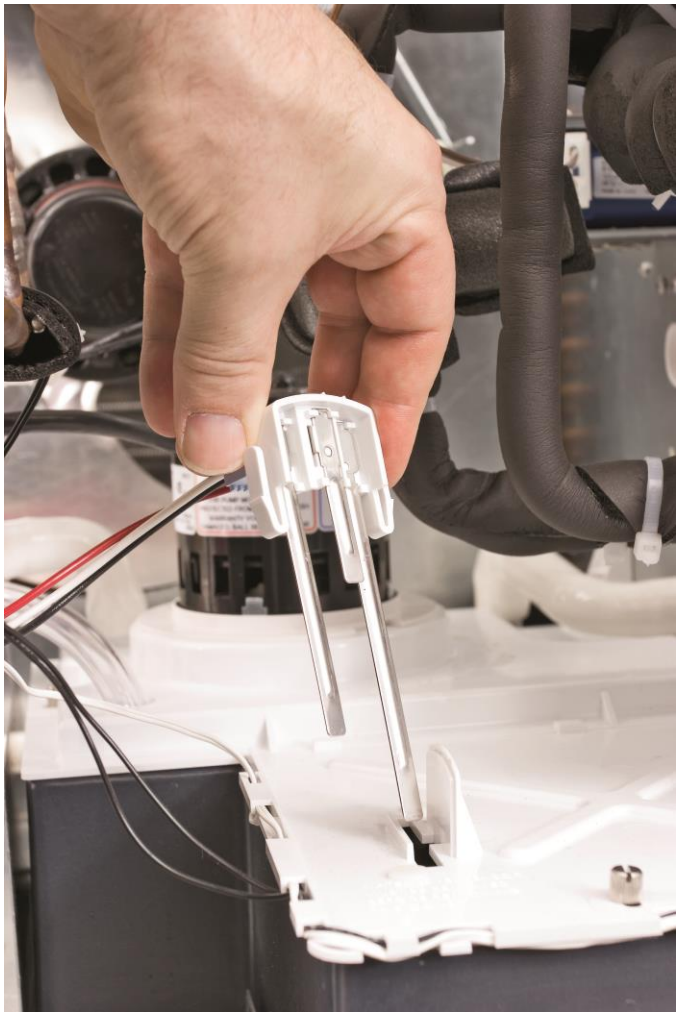
ICE THE WORLD DEMANDS

Water Level Sensor

- Release snaps and pull out
- Wipe metal probes clean with scale remover
  - Include base of plastic housing
  - White housing must be clean

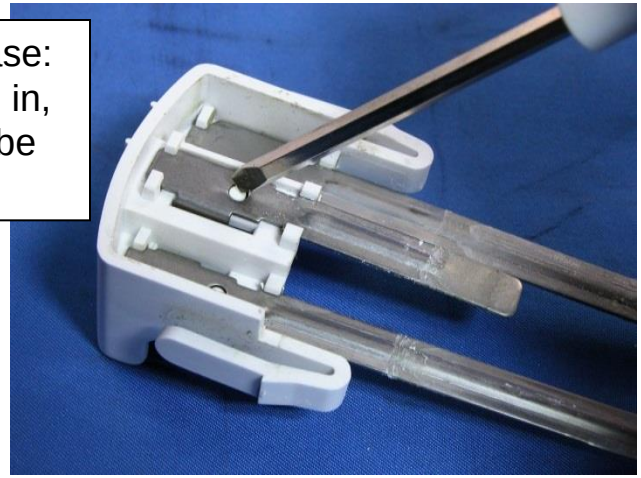


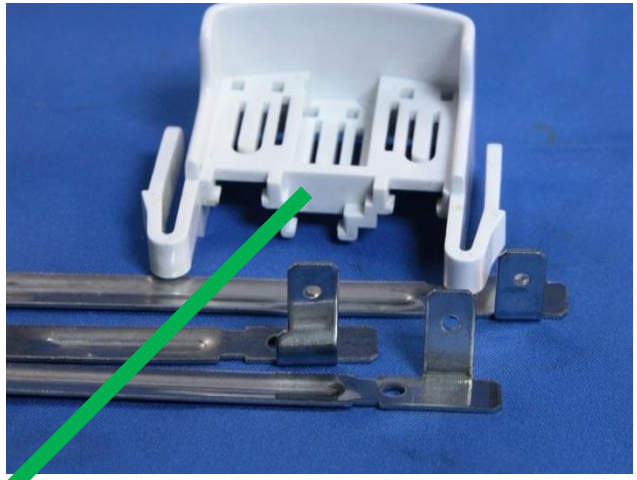
Scotsman
ICE THE WORLD DEMANDS

Diagnostic – Water Level Sensor Code 2

- Sump Full light ON, but Code 2 displayed.
- Cause: dirty sensor
  - Solution: clean sensor
    - Release probes from housing
    - Clean housing thoroughly
      - Housing is the insulator

To Release: Push pin in, pull probe down





Key Area to Clean

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ICE THE WORLD DEMANDS

Additional Item to Clean

- Curtain – remove
- Right side liner - remove
- Sump cover – remove
- Pump – remove from bracket
- Pump bracket – remove
- Hose – remove
- Wash curtain, liner, sump cover, pump bracket and hose in sink

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ICE THE WORLD DEMANDS

Air Filter

- Slide out, wash off, return.
  - One filter up to 600 lb.
  - Two filters from 800 to 1000 lb.
  - Four filters 1400 lb and higher

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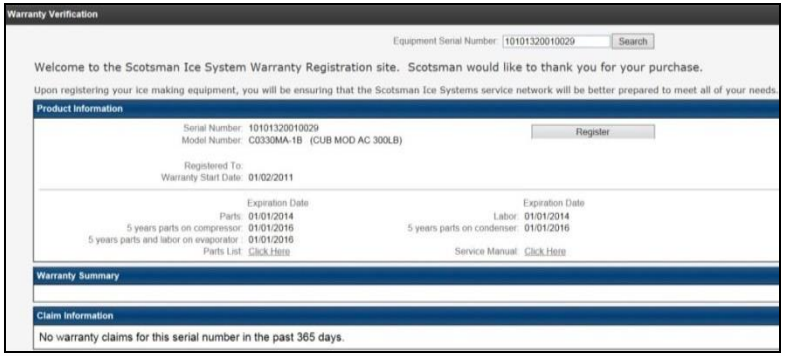
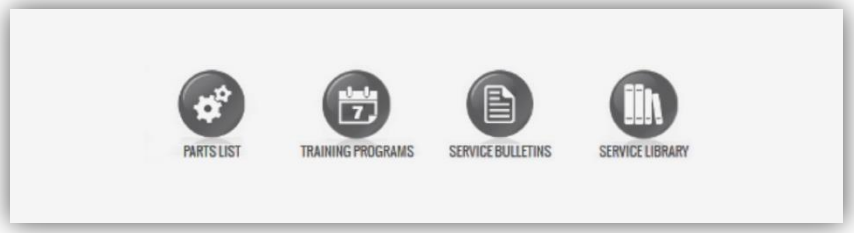
ICE THE WORLD DEMANDS

Cuber Service and Updates

QR Code

- Added to product in 2013
  - Scan with smart phone
  - Connects to Scotsman website warranty verification
  - Shows
    - Warranty dates
    - Recent warranty history
  - Links to
    - Parts list
    - Service manual





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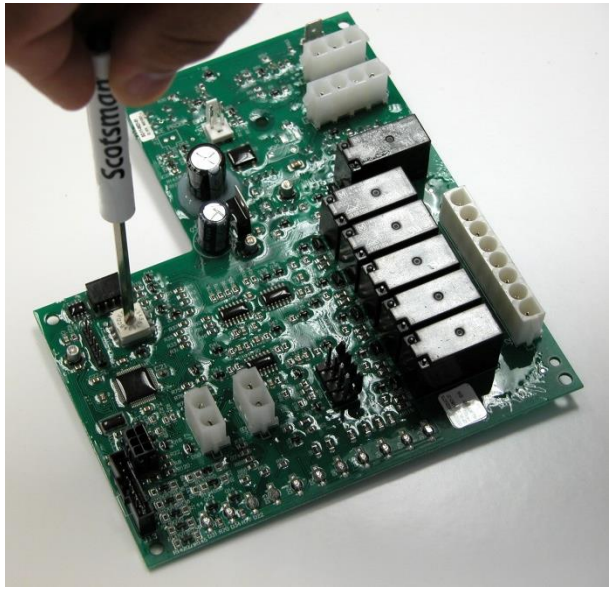
Service Notes: New Service Controller

- New controller – use on any
  - Prodigy Plus: connect lower switch panel harness
  - Prior models: Nothing to connect
- All
  - Discharge static electricity by touching metal cabinet before touching controller
  - Rotate selector switch to correct position for model
    - Will NOT operate as shipped, must be set



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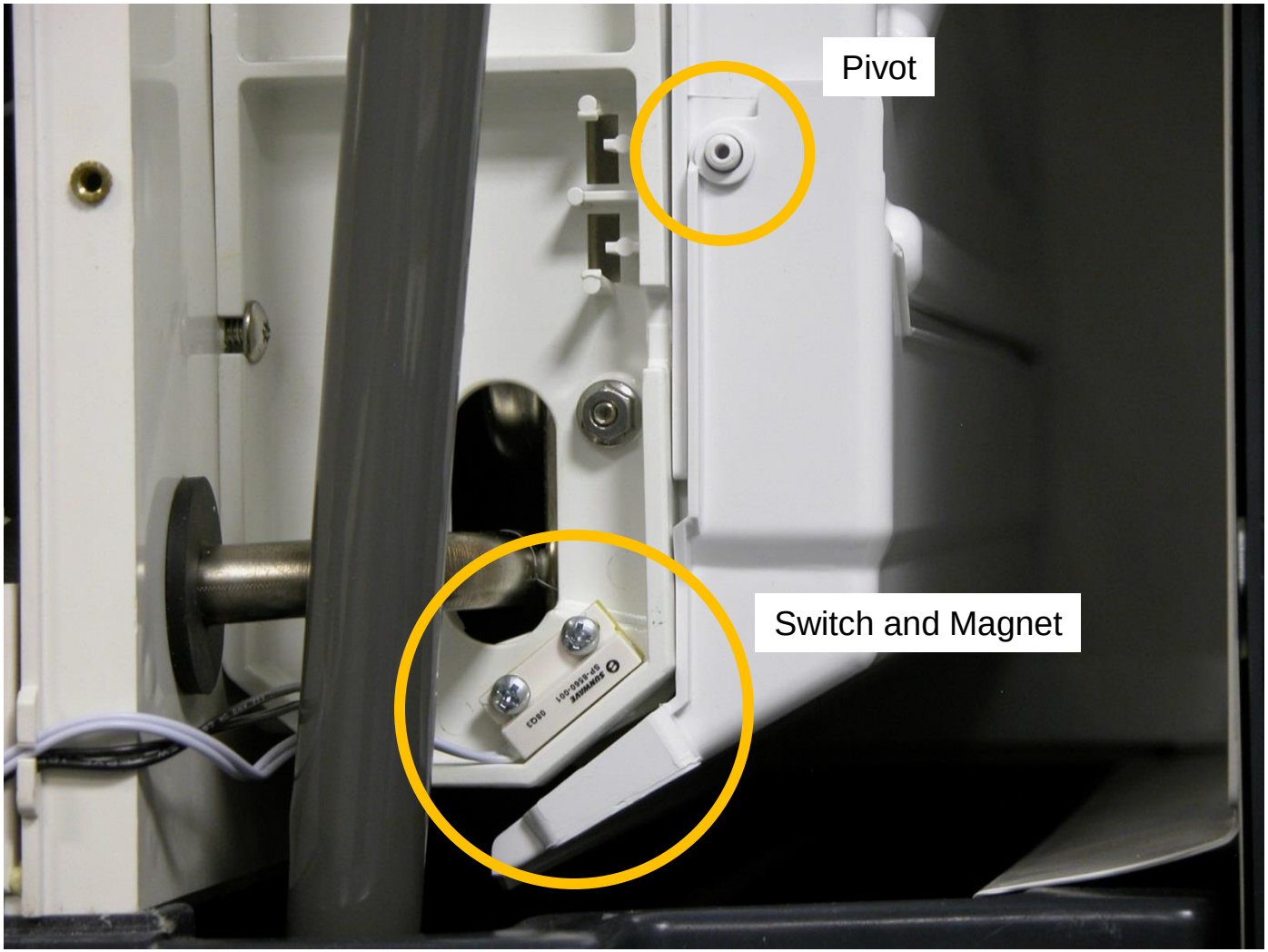
C0830 thru C2648 – New Curtain



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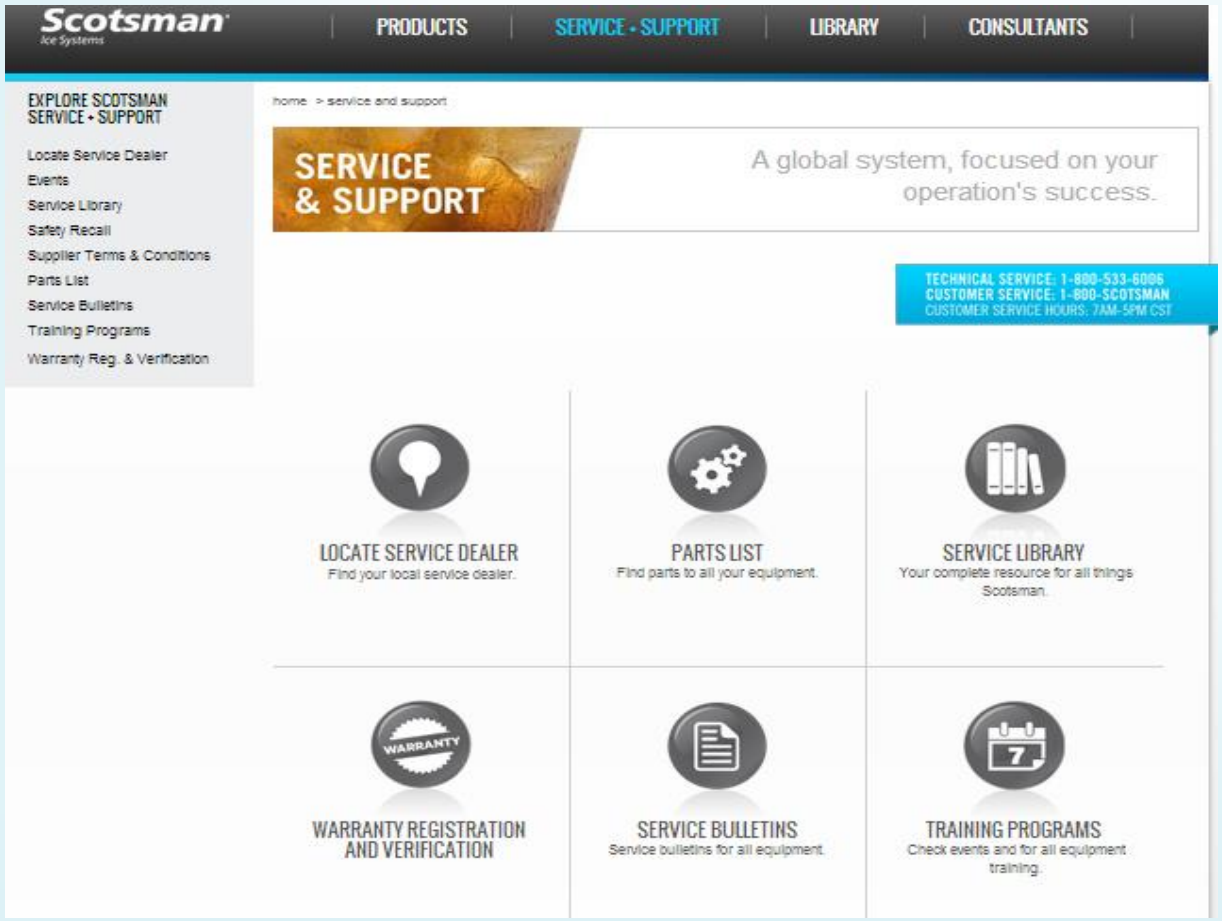
Key Items to Remember

- Most common service is for a dirty machine
- Includes too short or too long freeze cycles
- Cleaning the machine with the Clean Mode resets the clean light and resets the auto purge

Scotsman
ICE THE WORLD DEMANDS

Technical Service: 1-800-533-6006

www.scotsman-ice.com



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Are there any questions?

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