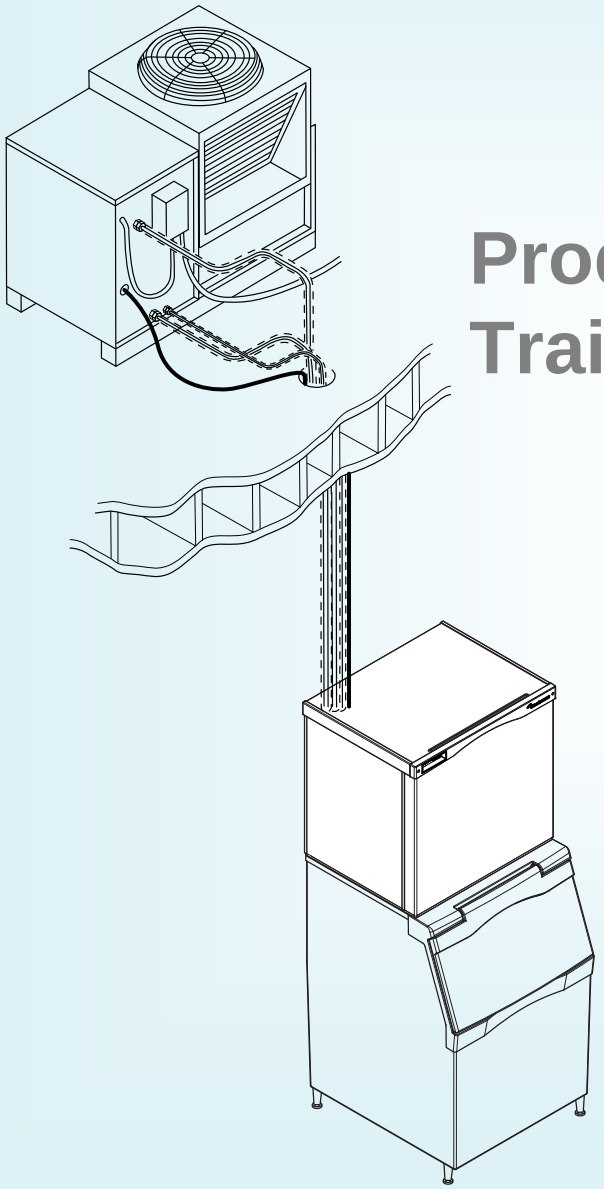


Prodigy Eclipse Cuber Technical Training

600
800
1000
1200
1400
1800
2000

In This Presentation

- What Eclipse is
- Components and their functions
- Installation
- Operation
- Maintenance
- Service Diagnosis

Scotsman Ice Systems

The Prodigy Eclipse System

- The remote system is made up of three parts:
  - Ice Making Section or Head Unit - 115 volt
  - Compressor Package - 208-230 volt
  - Condenser - 208-230 volt
- Flexible Modular System
  - 4 ice making heads, 6 compressor packages and 3 condensers can be combined to make 8 different capacity systems from 600 lb to 2000 lb

Scotsman Ice Systems

Prodigy Eclipse Heads

- Platforms
  - 30” wide, 29” tall head – 1400 to 2000 lb
    - EH430
  - 30” wide, 23” tall heads
    - EH130 – 600 lb with C0600CP
    - EH330 – 1200 lb with C1200CP
  - 22” wide head – 600 to 1000 lb
    - EH222
- Two cube sizes for each head
  - Small – half dice - any
  - Medium – full dice, all except EH222 600 lb.

Scotsman Ice Systems

Ice Making Section – the Head

- Remote Low Side Heads
- EH222
  - 22” wide by 16.5” deep
- EH130, EH330, EH430
  - 30” wide by 24” deep
    - EH430 is 29” high
    - EH130 and EH330 are 23” hig

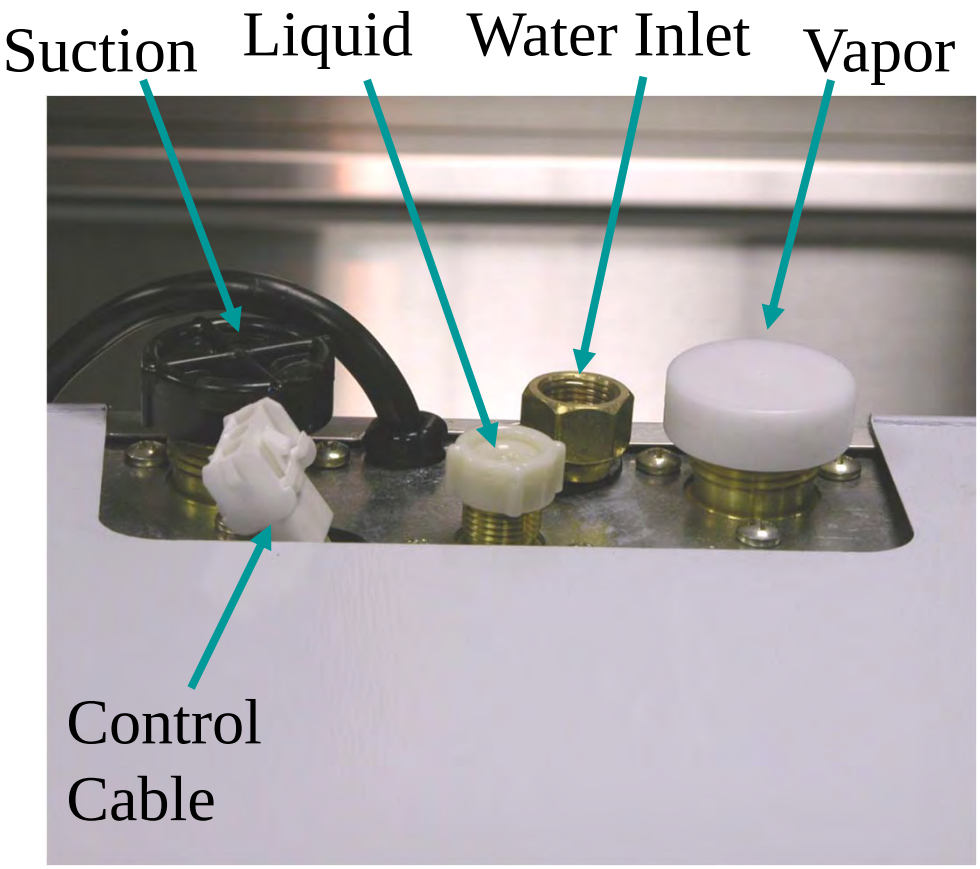
EH222

EH130, EH330, EH430

Scotsman Ice Systems

EH222 Head

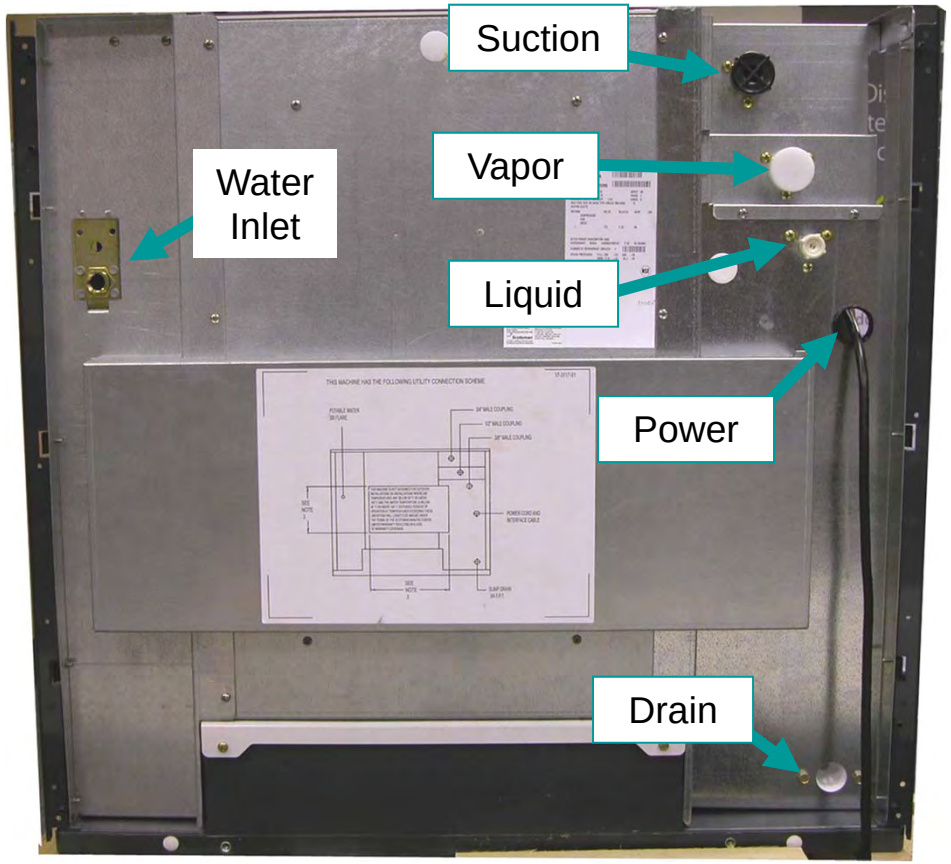
- Refrigerant Tube Connections
  - Vapor
  - Liquid
  - Suction
- Connections at center of the back of the top panel



Scotsman Ice Systems

EH130, EH330, EH430 Heads

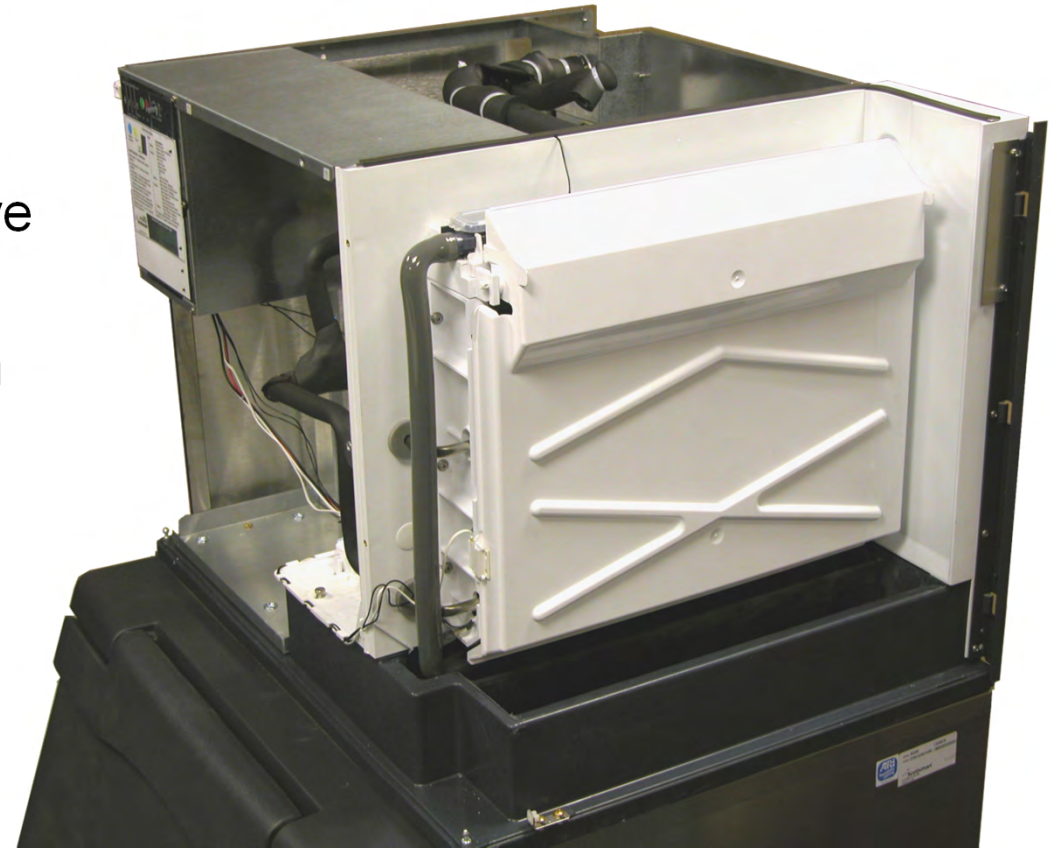
- Refrigerant Tube Connections
  - Vapor
  - Liquid
  - Suction
- Connections at the back of the cabinet
  - Tubing can route up or back



Scotsman Ice Systems

EH130 Head

- Single, 12 inch evaporator
  - Cabinet has
    - Pump
    - Inlet water valve
    - Purge valve
    - Control system
    - TXV
    - Vapor valve



Scotsman
Ice Systems

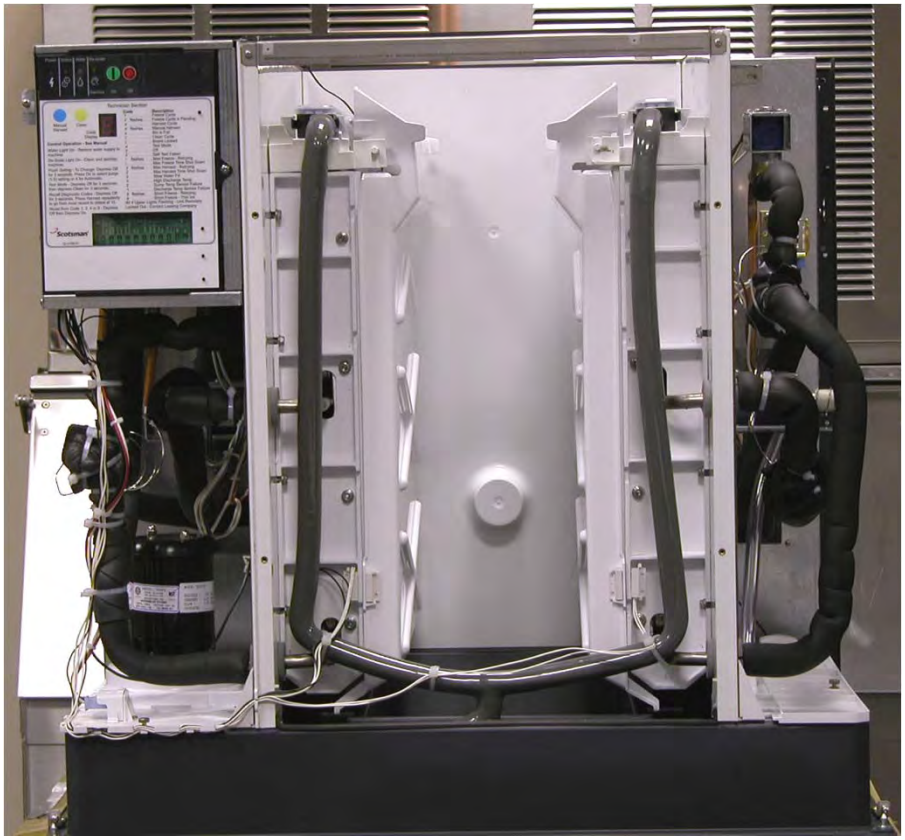
EH222 Head

- Ice making compartment
  - One evaporator – faces front
  - Controller in front of curtain

Scotsman Ice Systems

EH330, EH430 Head

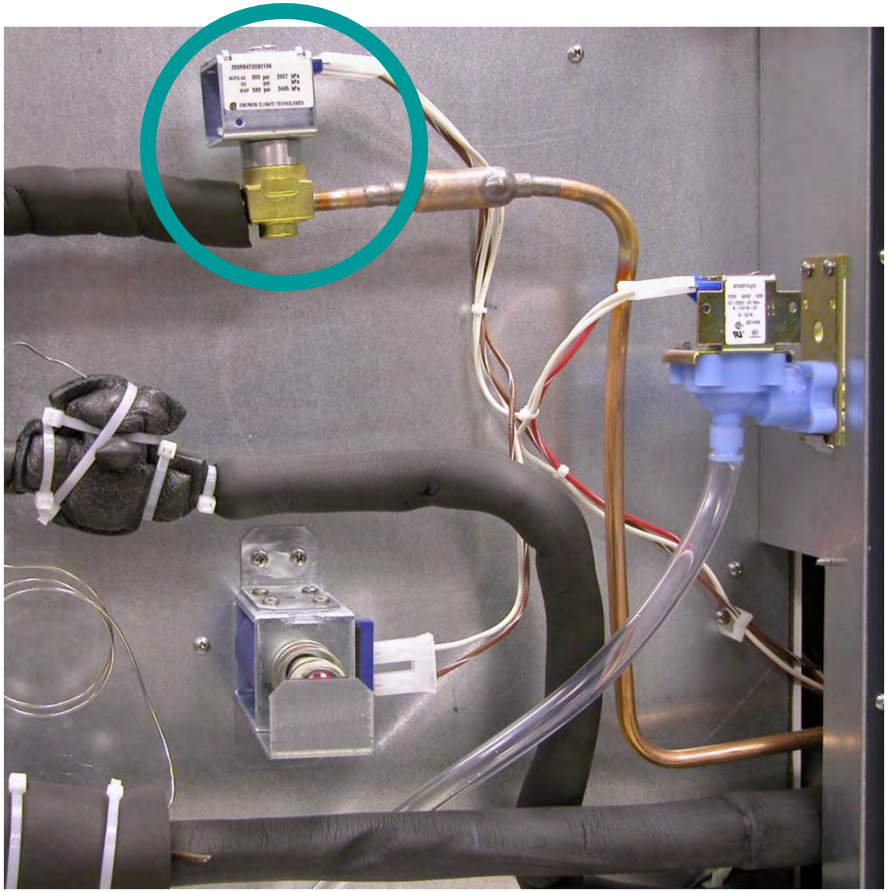
- Ice making compartment
  - Two evaporators – face each other
  - Two expansion valves
  - Two vapor valves
- Vari-Smart ice level control system is a field installed **option**



Scotsman Ice Systems

Vapor Inlet Valve

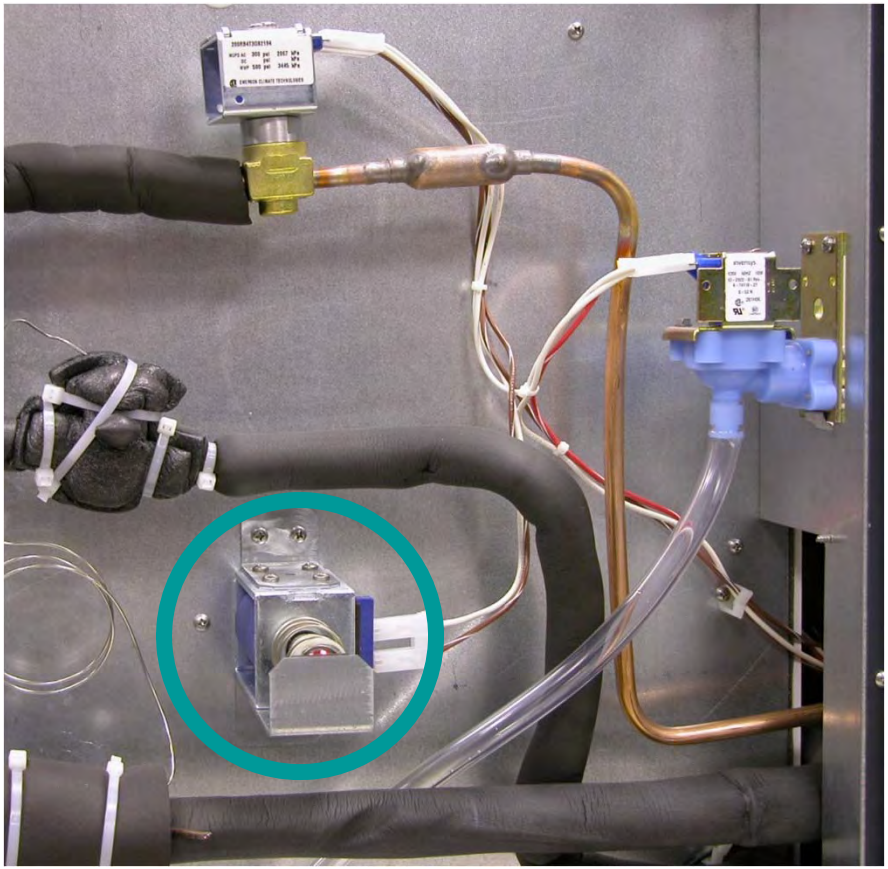
- Purpose: Opens during harvest to allow vapor to enter the evaporators
- 115 volt coil
- One per evaporator



Scotsman Ice Systems

Harvest Assist Solenoid

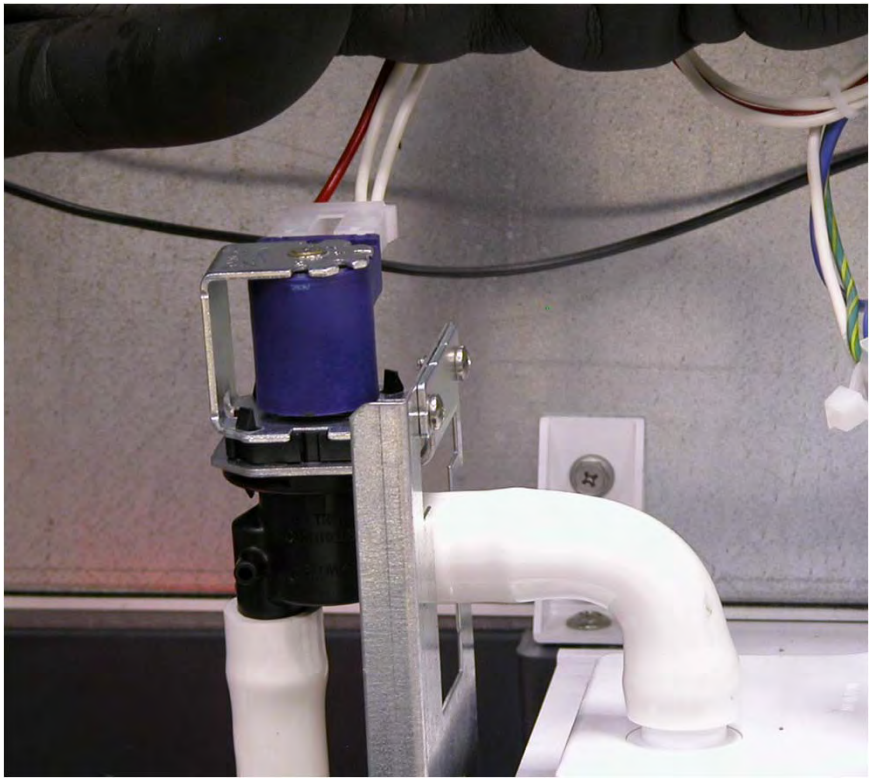
- Purpose: Adds extra force to back of ice to aid in harvest
- One per evaporator
- 115 volt coil
  - Do not use ohmmeter to check for continuity on this coil, will give false open reading



Scotsman Ice Systems

Purge Valve

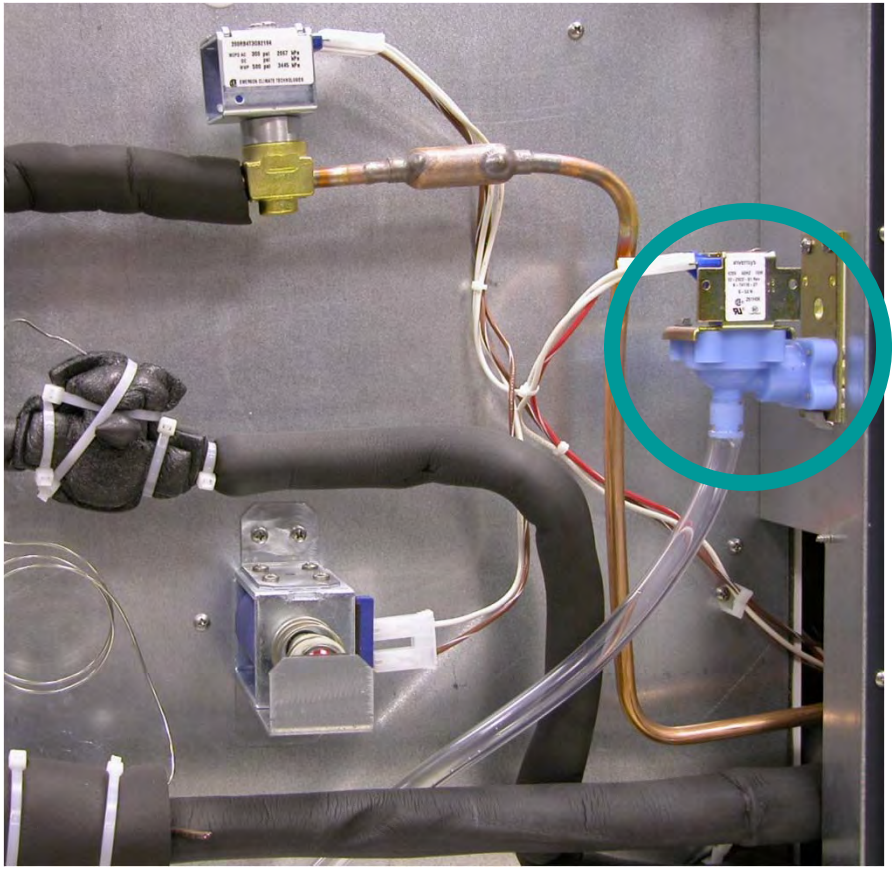
- 115 volt coil
- Opens to drain the reservoir during harvest
  - Do not use ohmmeter to check for continuity on this coil, will give false open reading



Scotsman Ice Systems

Inlet Water Solenoid Valve

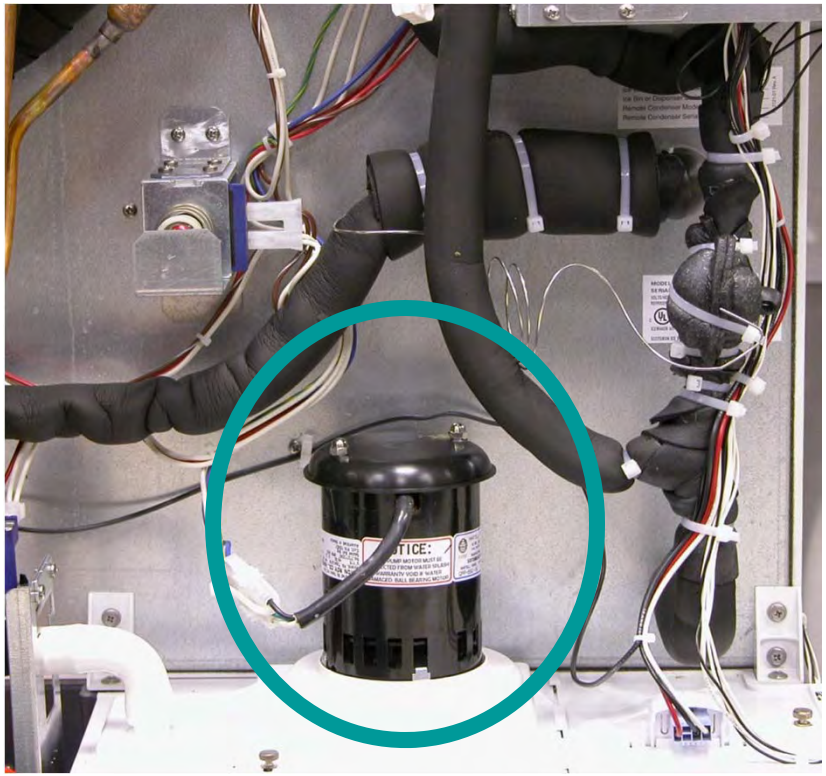
- Purpose: Opens to add water and fill reservoir
  - Fills at beginning of freeze
  - Should only fill once per cycle
    - Can add water anytime the water level sensor mid probe is dry
    - 115 volt coil



Scotsman Ice Systems

Water Pump

- 115 volt pump
- Pedestal type
- Pump motor separated from reservoir
  - Keeps motor drier
  - Motor cap keeps condensation off motor



Scotsman Ice Systems

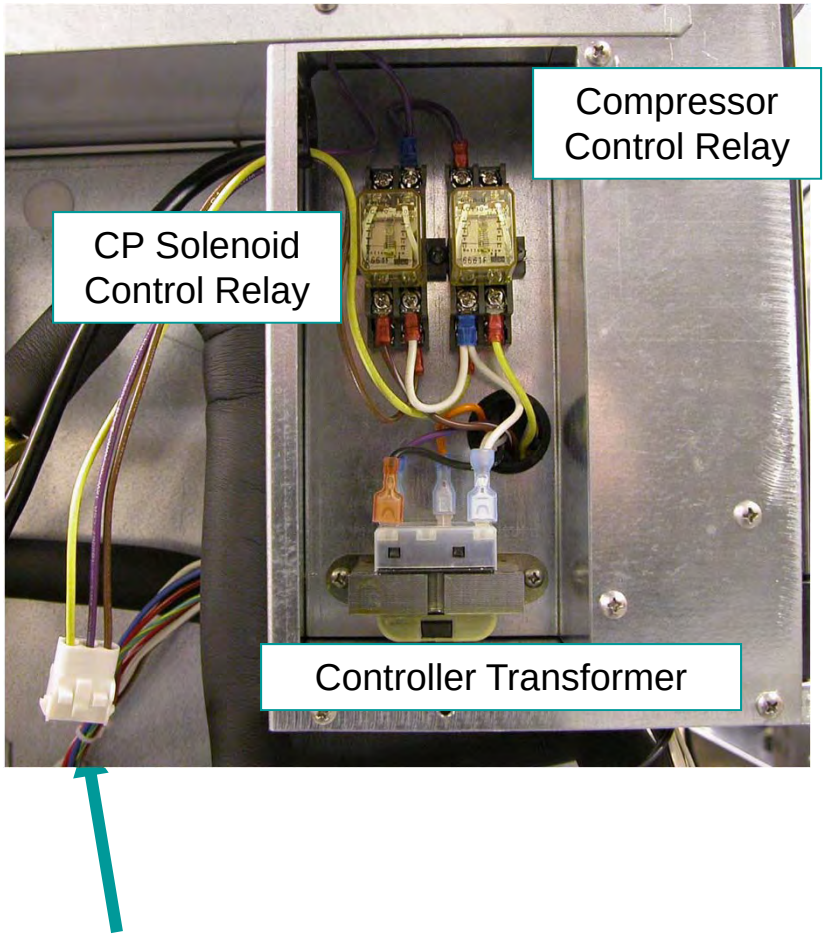
Controller

- AutoAlert external indicator lights
  - Indicate power, status, water availability and need for maintenance
- WaterSense adaptive purge control
  - Automatically selects the proper water purge level based on local water conditions

Scotsman Ice Systems

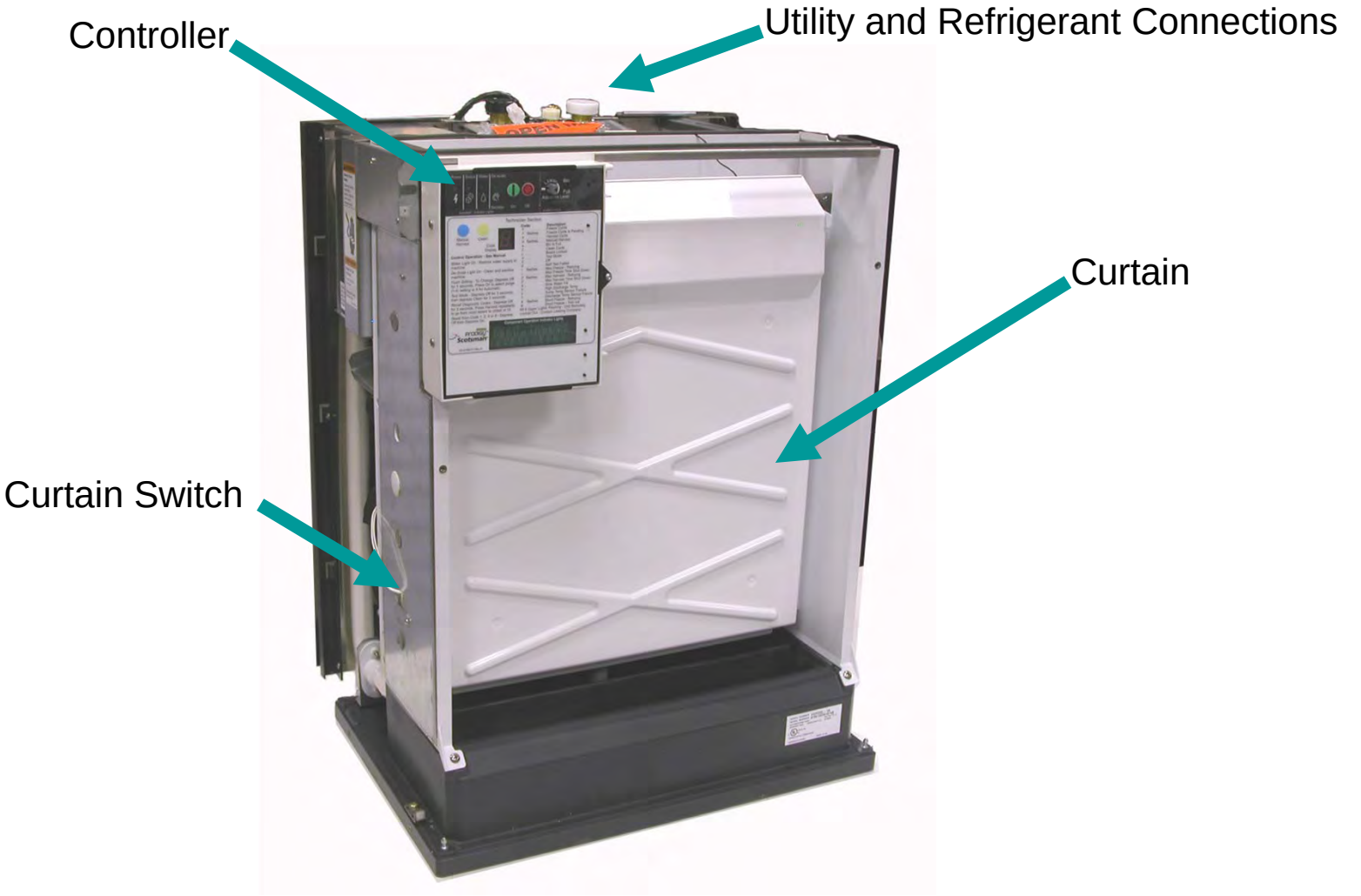
Electrical Box

- Two relays to operate the condensing unit
  - Compressor contactor
  - Solenoids
- Control wire connection nearby
  - Wire routes to compressor package
  - Controls contactor and solenoid valves



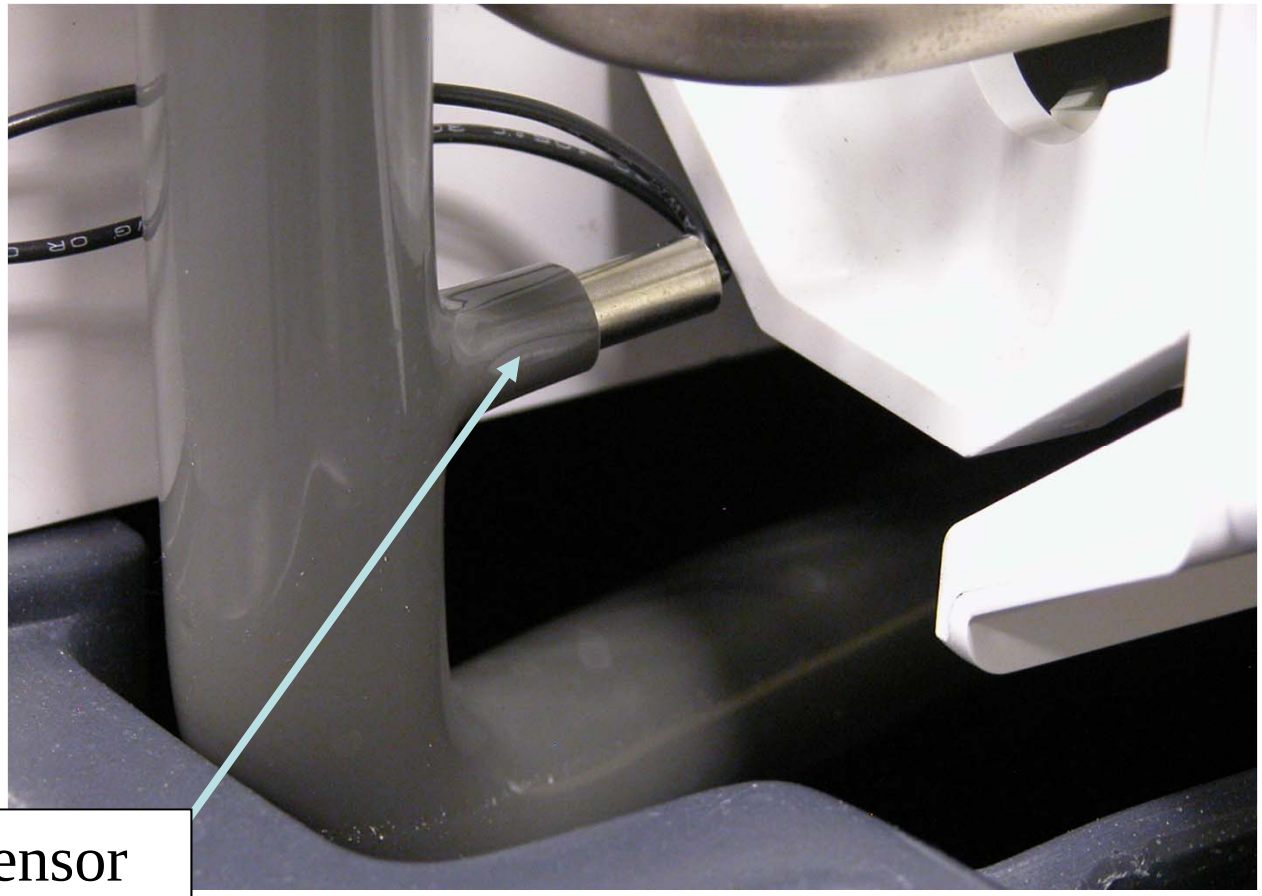
Scotsman Ice Systems

EH222 Freezing Compartment



Scotsman
Ice Systems

Temperature Sensor



Scotsman
Ice Systems

Curtain Switch

- EH222 – located to the left of the curtain
- When curtain is open, switch is open.
  - Curtain switch indicator light on controller will be ON when open.
    - EH130 and EH222 will always have one curtain switch light on.

Scotsman Ice Systems

Vari-Smart

- Adjustable ice level
  - Standard on EH222
  - Optional on all others

Adjustment Knob

Scotsman Ice Systems

Compressor Packages (CP Unit)

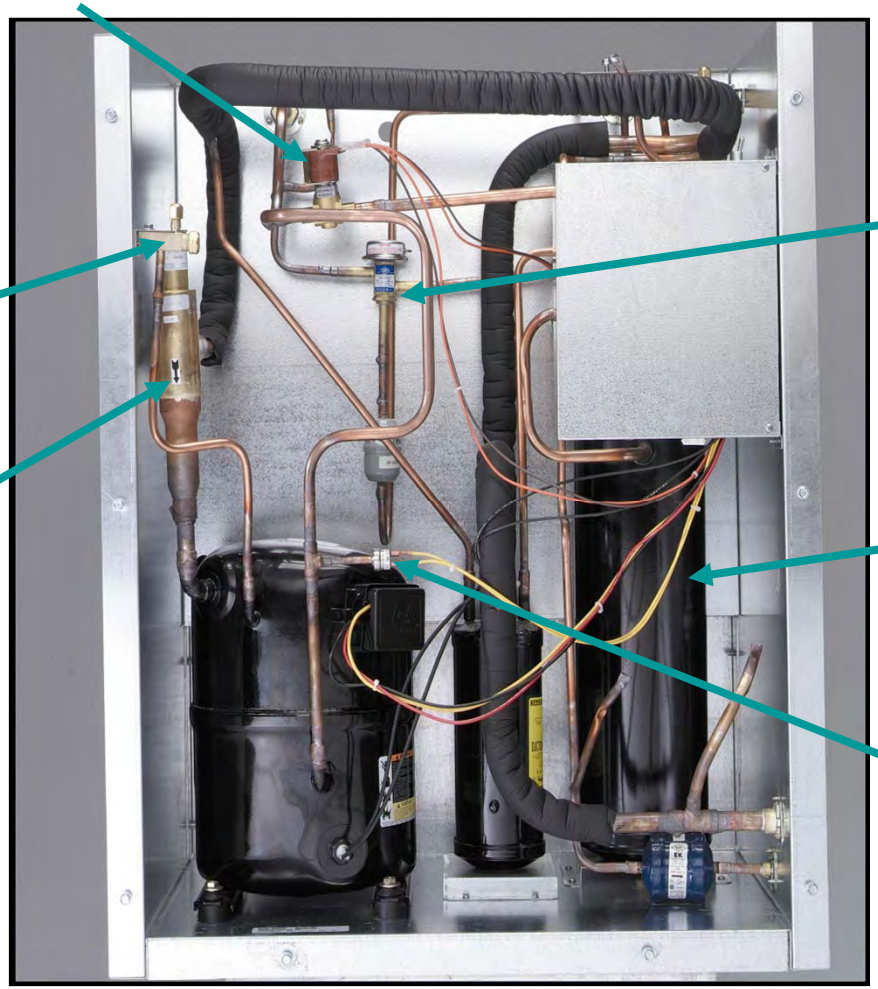
- Seven models
  - For EH130
    - C0600CP
  - For EH222
    - C0600CP
    - C0800CP
    - C1410CP
  - For EH430
    - C1410CP
    - C1800CP
    - C2000CP
  - For EH330
    - C1200CP

Shared

Shared

Scotsman Ice Systems

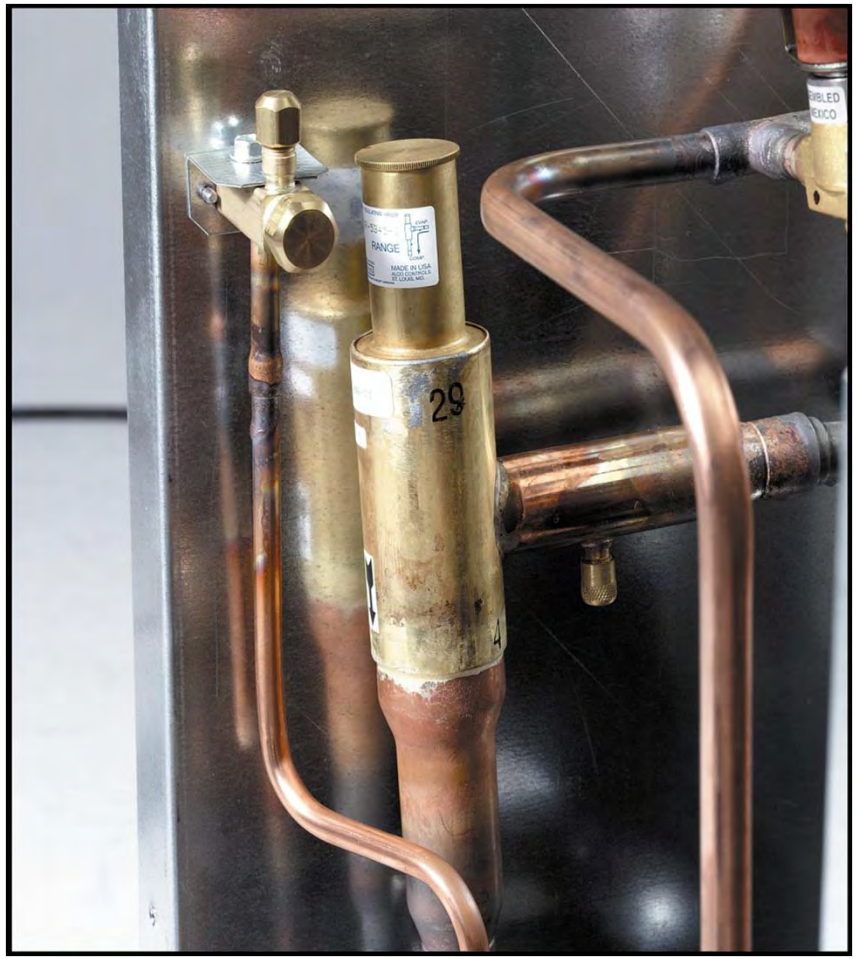
CP Unit



Scotsman Ice Systems

Crankcase Pressure Regulator

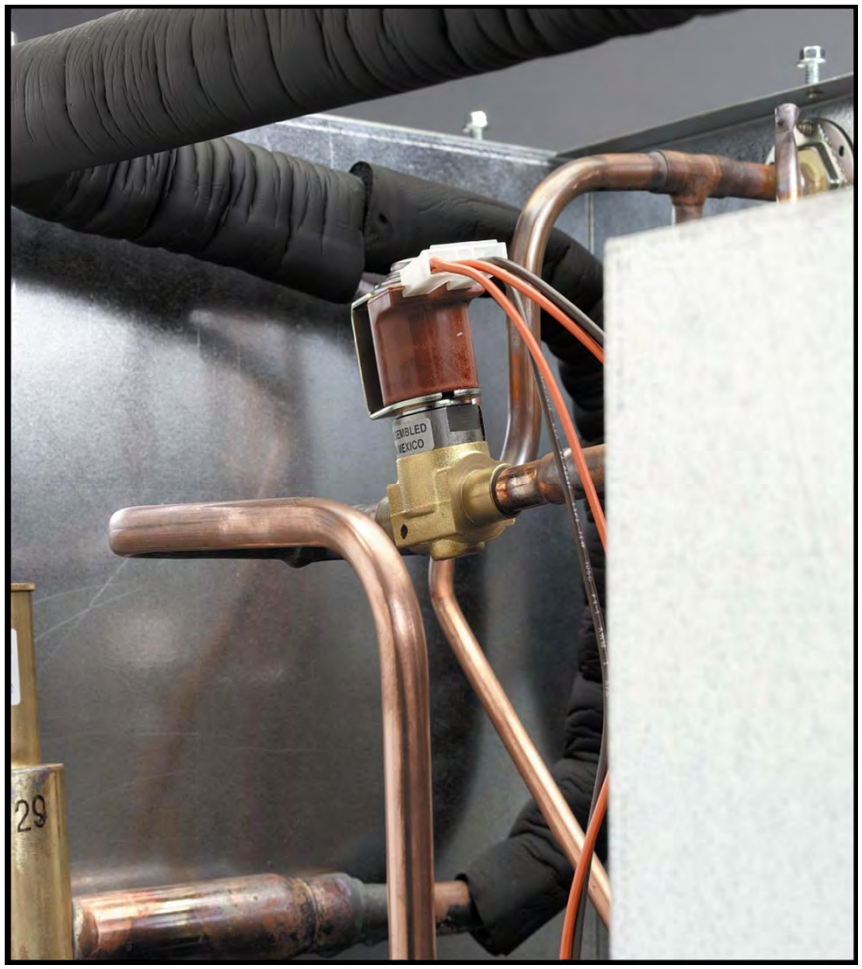
- CPR valve restricts compressor dome pressure during harvest
  - 55 to 60 PSIG
  - Pre-set - don’t adjust it!
- Low Side Access valve connected to compressor dome, has access to evaporator pressure during freeze, but not during harvest



Scotsman
Ice Systems

Condenser Bypass Valve

- Normally Closed, opens during harvest
- Bypasses condenser coil and directs discharge gas to vapor line



Scotsman Ice Systems

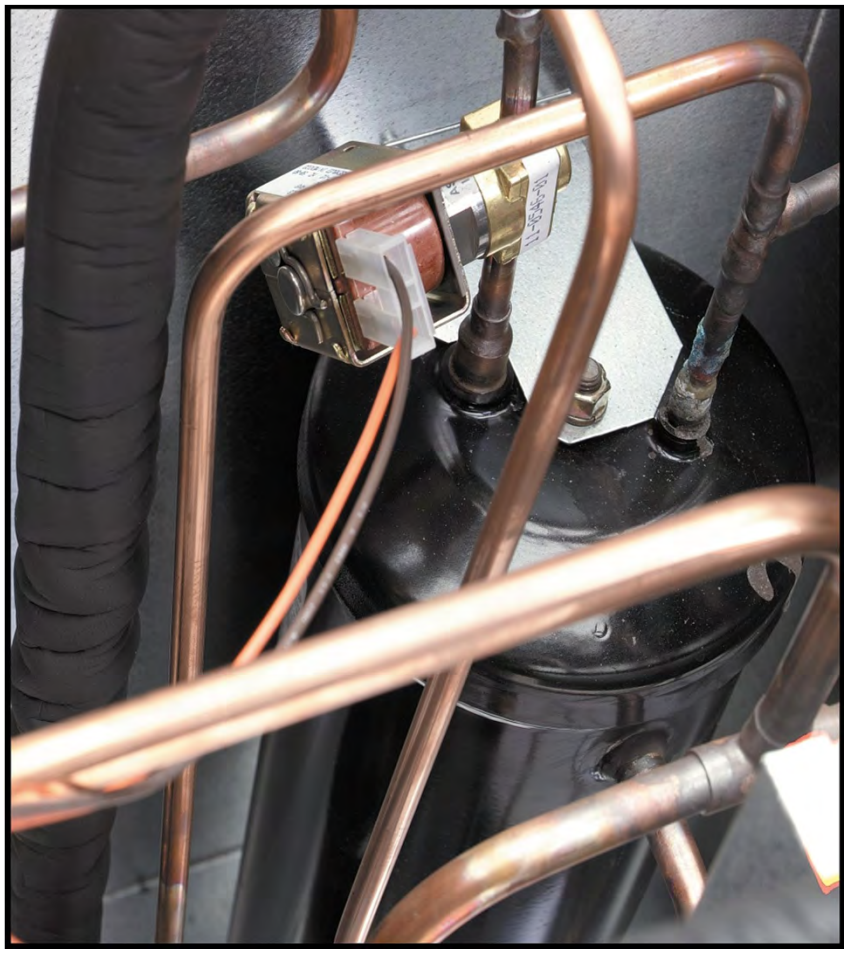
Headmaster

- Maintains discharge pressure during freeze
- Active at any temp below 70ºF.
  - Rated at 217 PSIG, freeze cycle pressure may be between 220 and 230 during cold ambient operation

Scotsman Ice Systems

Liquid Inlet Valve

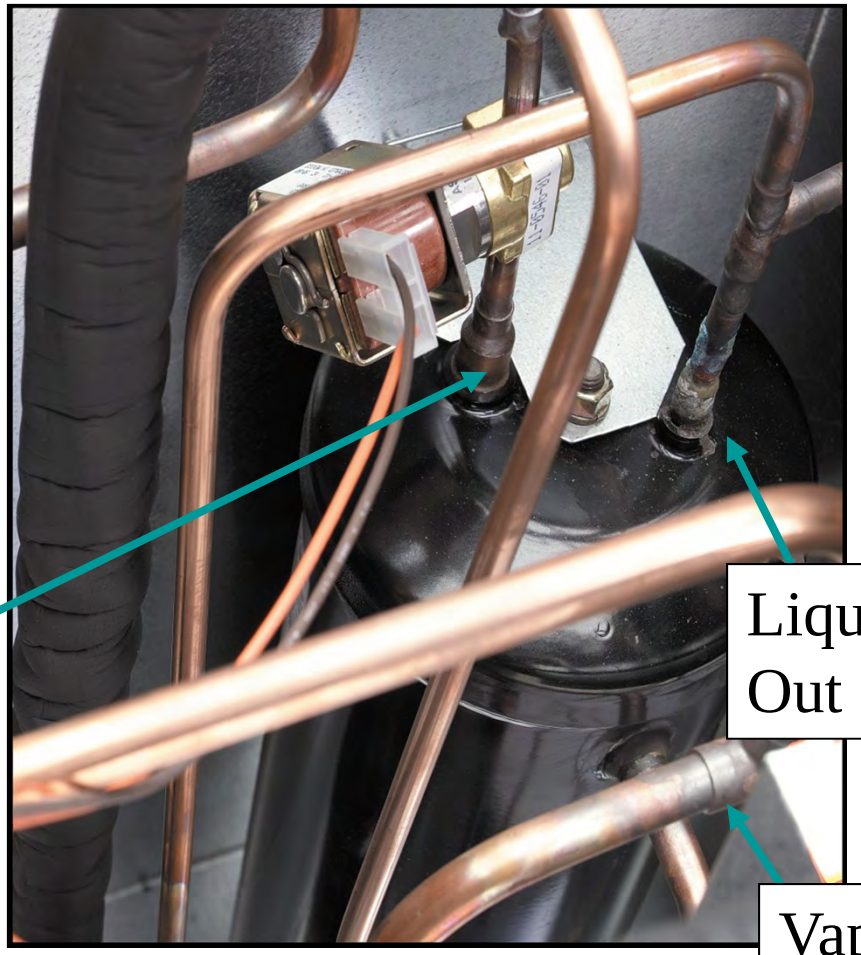
- Normally Open, closes during harvest
- Controls liquid flow into receiver
- Isolates refrigerant in condenser during harvest
- Improves cycle time



Scotsman Ice Systems

Receiver

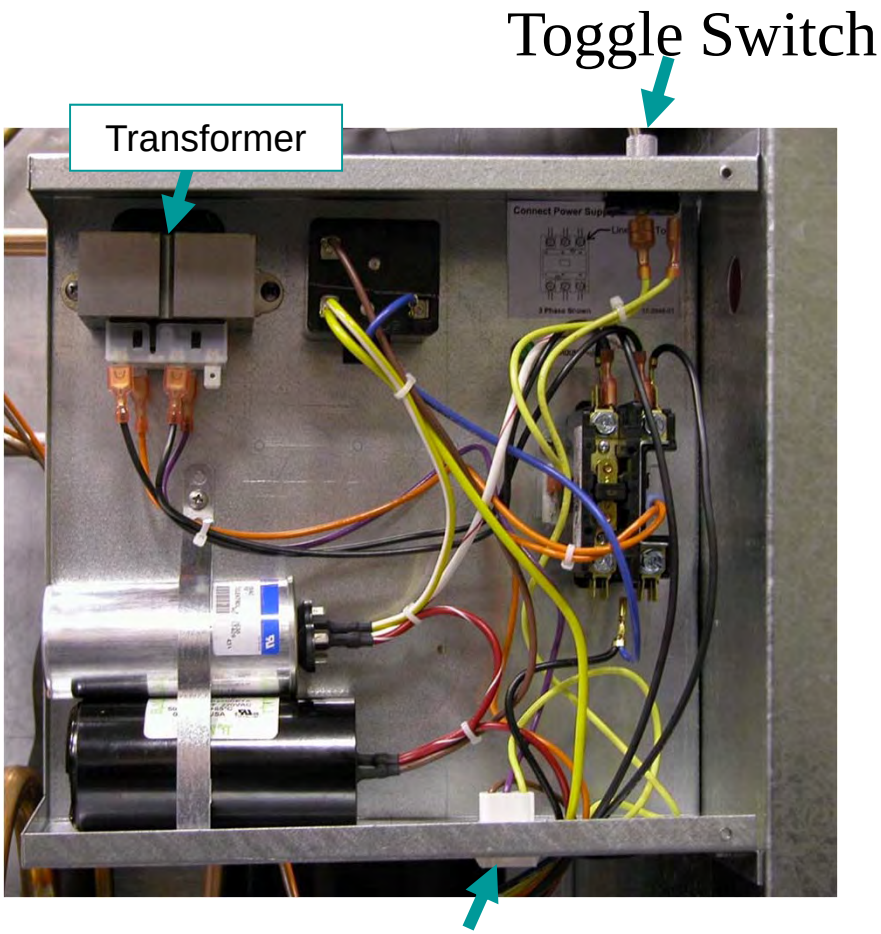
- Shipped with system charge
- Three ports
  - Liquid inlet
  - Liquid outlet
  - Vapor outlet



Scotsman Ice Systems

Electrical Box

- Transformer to power EH relays
- Toggle switch controls condensing unit
- Control Wire connection from EH to control the system
- Electrical power connected at contactor
- Remote condenser fan connects at contactor



Scotsman Ice Systems

Single Circuit Condensers

- Three models
  - ERC680 – for 600s and 800s
  - ERC1086 – for 1000s, 1200s and 1400s
  - ERC2086 – for 1800s and 2000s
- No headmaster in condenser
  - Headmaster is in CP unit

Scotsman Ice Systems

Two Circuit Condensers

- Prodigy Eclipse
  - ER2C6810 for any combination of one or two 600, 800 and 1000 systems
  - ER2C1316 is a two circuit model for one or two 1400 systems

Scotsman Ice Systems

System Installation

- Must match components to create system

Scotsman
Ice Systems

22” System Combos

- 600 -
  - EH222SL, C0600CP, ERC680
- 800 -
  - EH222, C0800CP, ERC680
- 1000 -
  - EH222, C1410CP, ERC1086
- CP units may also be connected to approved central condenser coil using tubing kit RTE10
  - Coil must NOT have headmaster

Scotsman Ice Systems

23” tall 30” wide System Combos

- 600 –
  - EH130, C0600CP, ERC680
- 1200 -
  - EH330, C1200CP, ERC1086

Scotsman Ice Systems

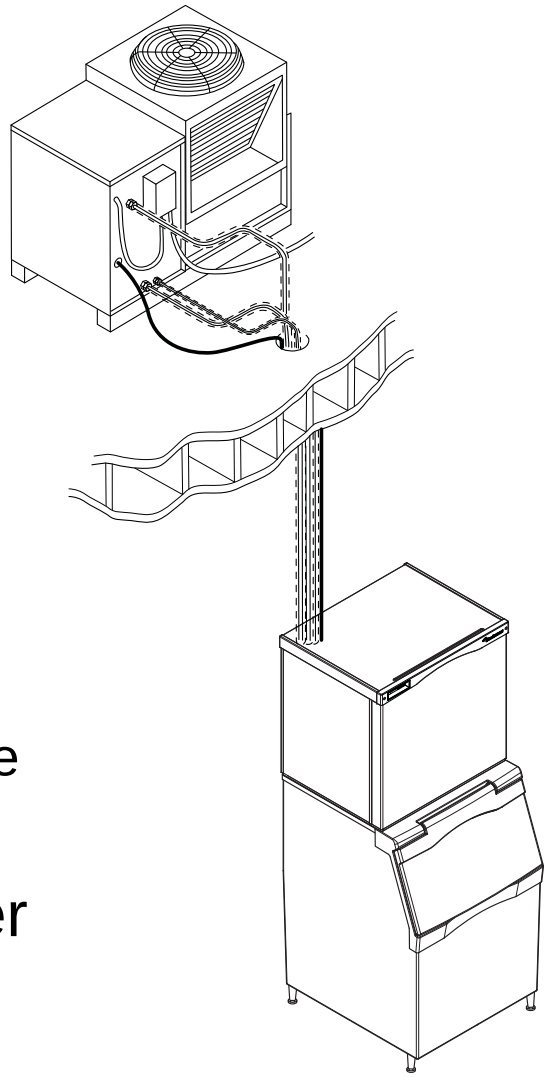
High Capacity 30” System Combos

- 1400 -
  - EH430, C1410CP, ERC1086
- 1800 -
  - EH430, C1800CP, ERC2086
- 2000 -
  - EH430, C2000CP, ERC2086
- CP units may also be connected to approved central condenser coil using tubing kit RTE10
  - Coil must NOT have headmaster

Scotsman Ice Systems

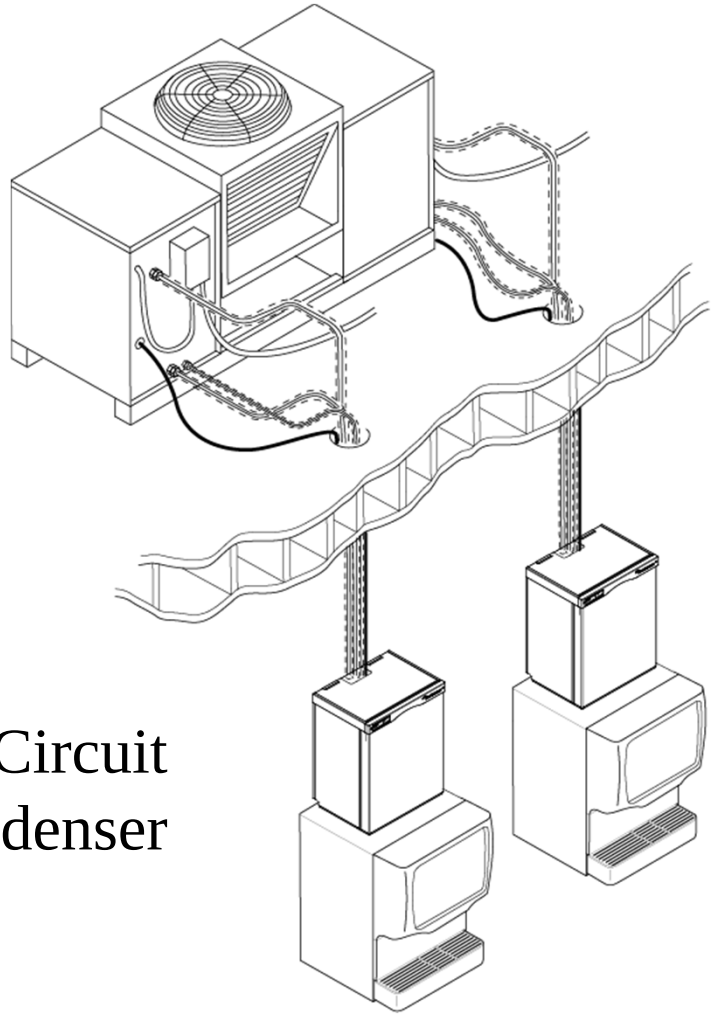
Equipment Location

- Head can be above or below condensing unit
  - If above, limit is 15 feet
- Pre-charged lines are used
  - 3RTE20, 35, 50 or 75 - EH
  - No extra refrigerant charge required
  - S trap in suction tube required when condensing unit is over 20’ above ice making head
- Must have bin or dispenser adapter for the EH222 head



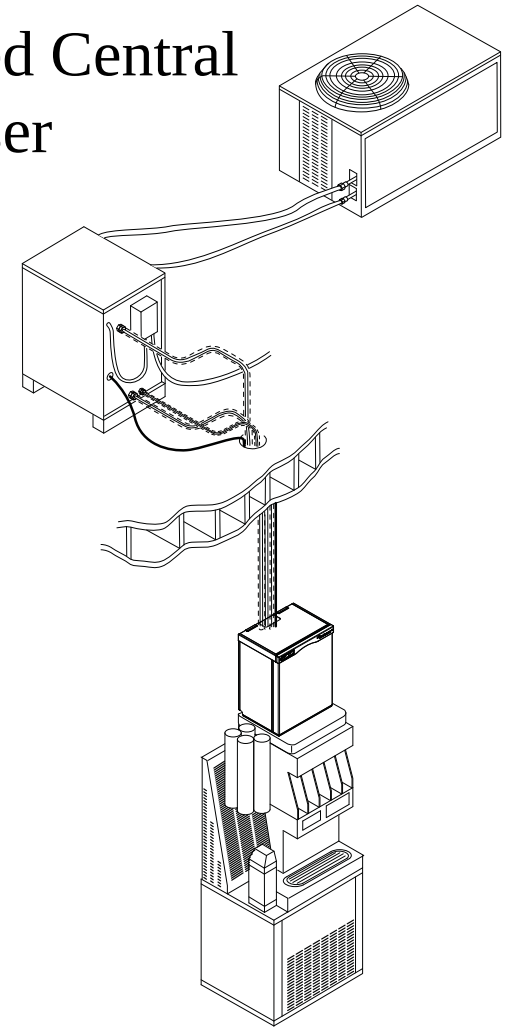
Scotsman Ice Systems

Other Configurations



Two Circuit Condenser

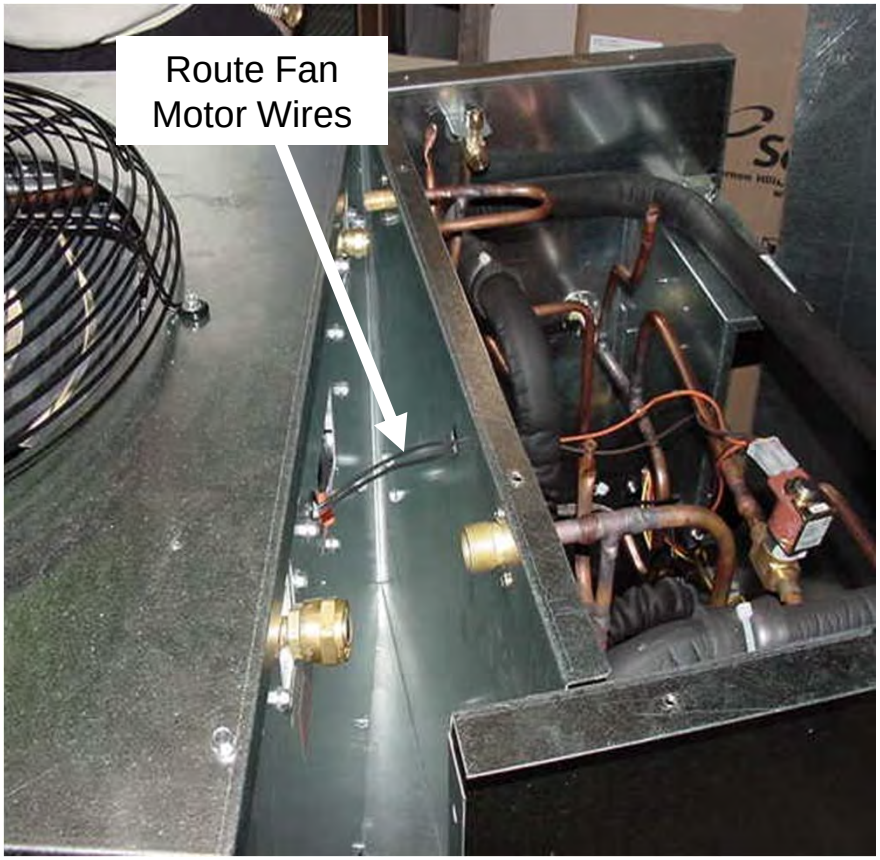
Approved Central Condenser



Scotsman Ice Systems

Assemble Condensing Unit

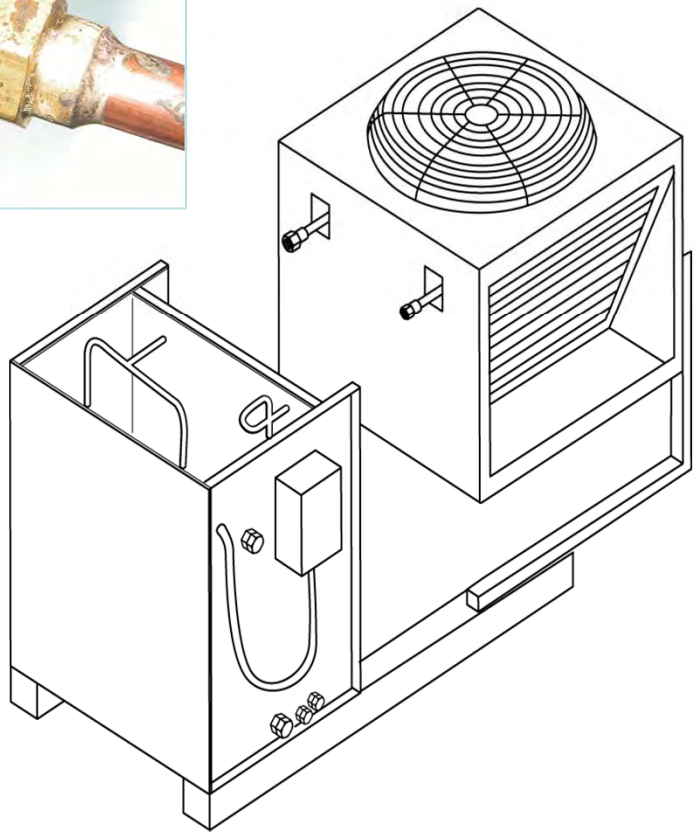
- Modular system - connect CP to ERC
  - Assemble on roof or ground
  - ERC has back legs and two braces
    - Assemble legs and braces to condenser
  - Connect wires to junction box
  - Place ERC on back of CP - lip on CP holds ERC up



Scotsman
Ice Systems

Condensing Unit

- Fasten CP to ERC
- Connect liquid and discharge line connections
- Route wire to CP control box and connect to contactor



Scotsman Ice Systems

Line Set – New for Prodigy

- Three tubes
- Reversible
- Head routing & which head determines which end goes to head
  - EH222
    - Up – use straight ends at head
  - EH130, EH330, EH430
    - Up – use 90 degree ends at head

Scotsman Ice Systems

Line Set Installation

- Route lines in two groups
  - Liquid and Vapor
  - Suction separately for ease of routing
    - 3/4” tube requires careful handling
  - Check for holding charge before installation
  - Route control wire with line set
  - Only shorten if necessary

Scotsman Ice Systems

Two Circuit Condenser Installs

- Mark Lines, Wires and CP Units
- Example:
  - Mark one unit “A”
  - Mark line set “A” and control wire “A”
  - Unit A’s pre-charged lines route to Unit A
  - Unit A’s control wire connects to Unit A
  - Confirm before connecting
- Start one unit at a time to confirm proper operation and control wire routing

Scotsman Ice Systems

Install Head

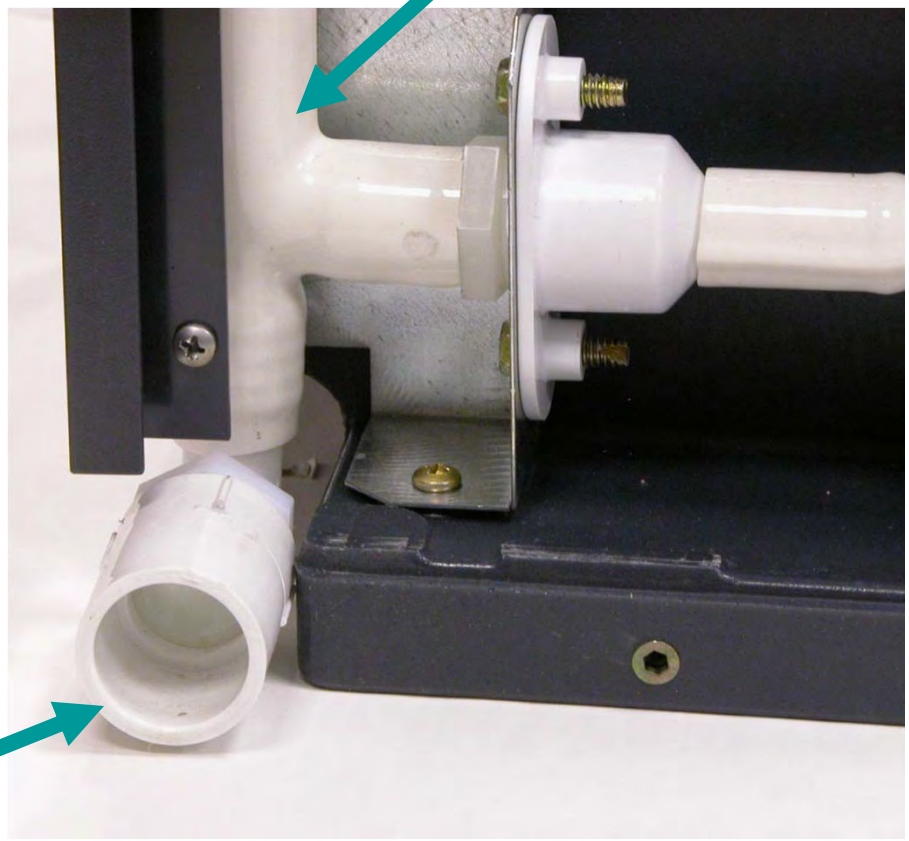
- Against wall capability
  - EH222 fully flush
  - EH130 limited by utility connections
  - EH330, EH430 limited by chase panel
- Drains left, right or back
- Water inlet and power inlet from the top or back
- Refrigerant line connections back or top
- 115 volt unit, cord provided

Scotsman Ice Systems

Flush Installations - EH222

- Attach water inlet
  - 3/8” union flare ships in hardware package
- Attach drain - 3/4”
  - EH222 ships with drain hose fitting attached
  - EH222 no vent required, vent is internal

Drain Fitting Rotates to left, right or back.



Scotsman Ice Systems

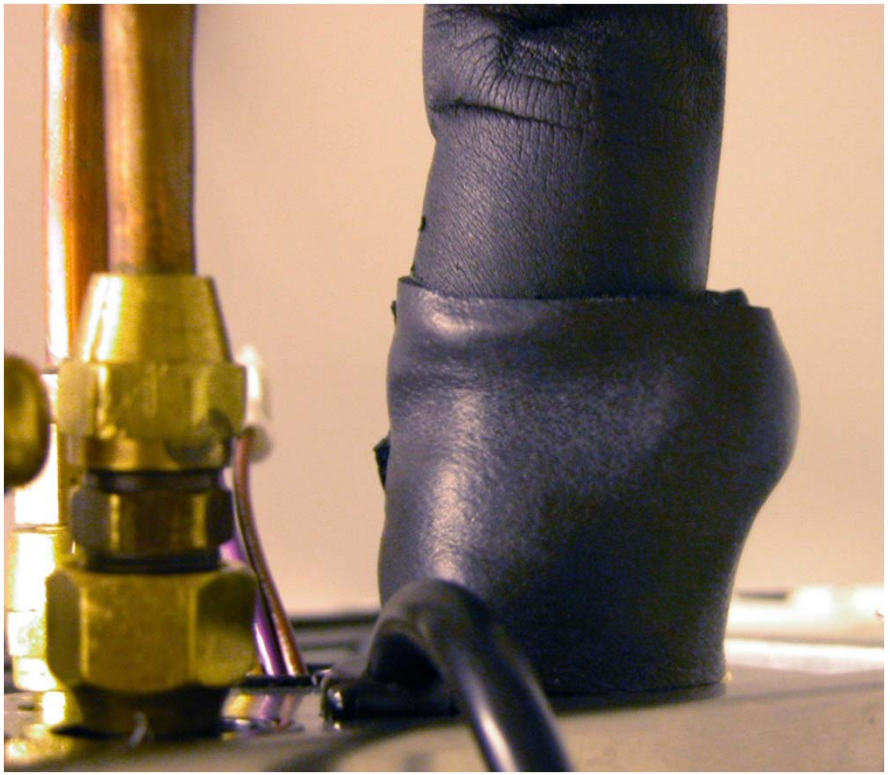
EH222 - Place on Adapter

- Many different adapters
  - Gasket tape at mounting area
- Remove all panels
- Place unit
- Connect control wire

Scotsman Ice Systems

Connect Pre-Charged Lines

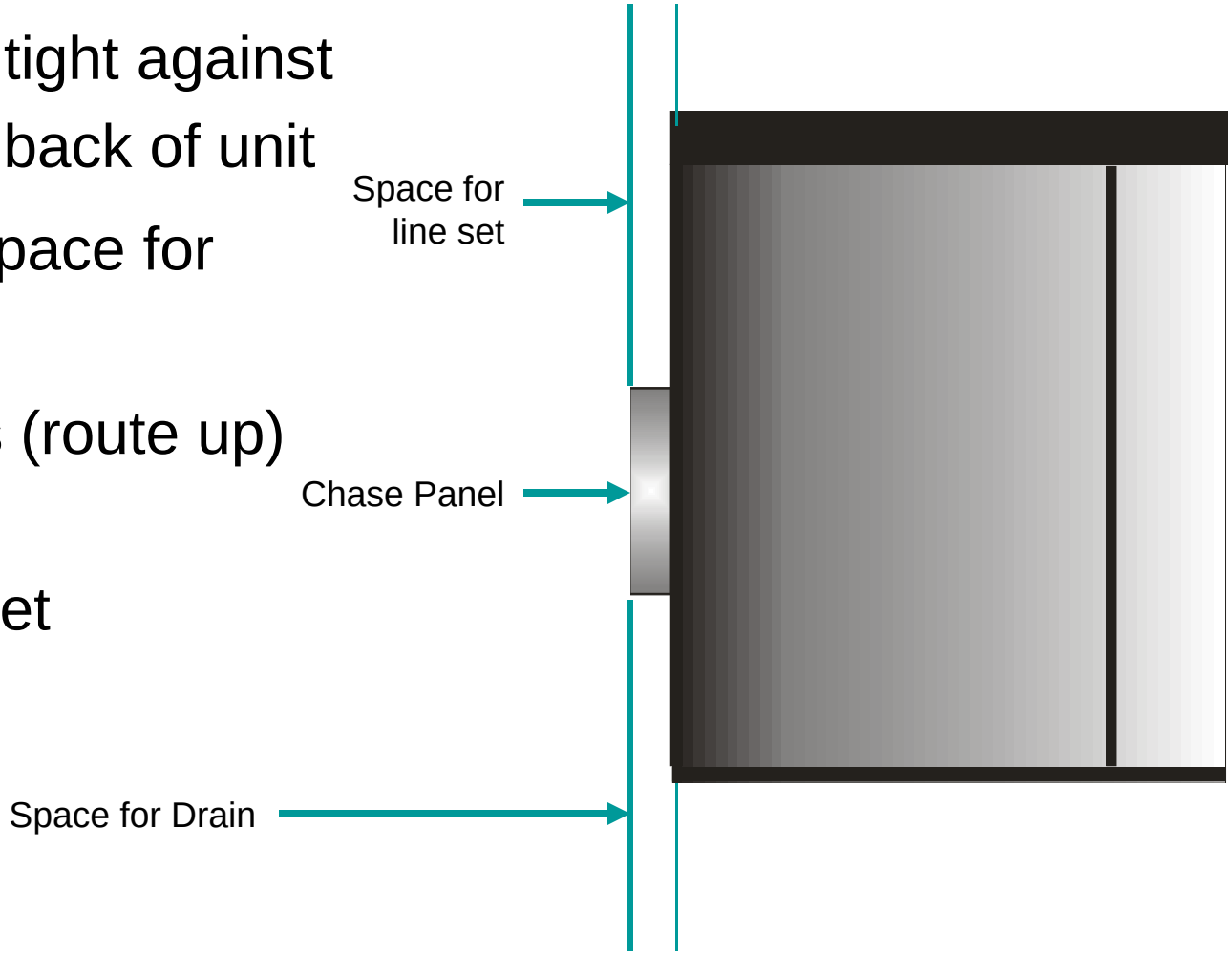
- Add foam tape/cork tape to suction line nut
- Secure unit at sides or back with provided strap-clips



Scotsman Ice Systems

Tight Installations – EH330 or EH430

- Chase panel tight against wall – gap to back of unit
- Gap allows space for tubing
  - Line sets (route up)
  - Drains
  - Water inlet



Scotsman Ice Systems

Quick Connects

Partial Assembly, One Thread Showing

Status: Not Ready, diaphragms partially pierced

Scotsman Ice Systems

Quick Connects

Partial Assembly, Threads are Flush

Status: Not Ready, diaphragms pierced but connection not leak proof.

Scotsman Ice Systems

Quick Connects

Completed Assembly

Status: Ready, diaphragms fully pierced and joint is leak proof

Scotsman Ice Systems

Condensing Unit

- Connect precharged lines
  - Use refrigerant oil
  - Use two wrenches to prevent quick-connect diaphragm damage from rotating tube
- Connect control wire
- Connect power, check voltage

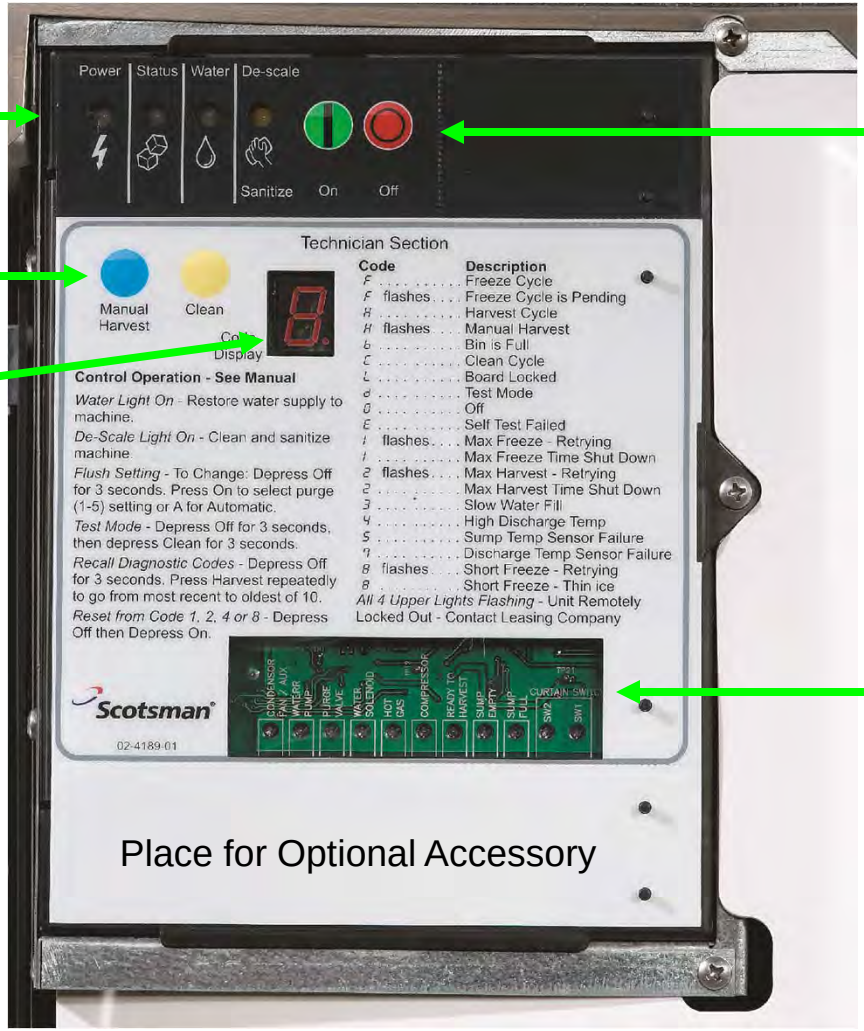
Scotsman Ice Systems

Prodigy Controller

AutoAlert Lights

Manual Harvest and Clean Switches

Code Display



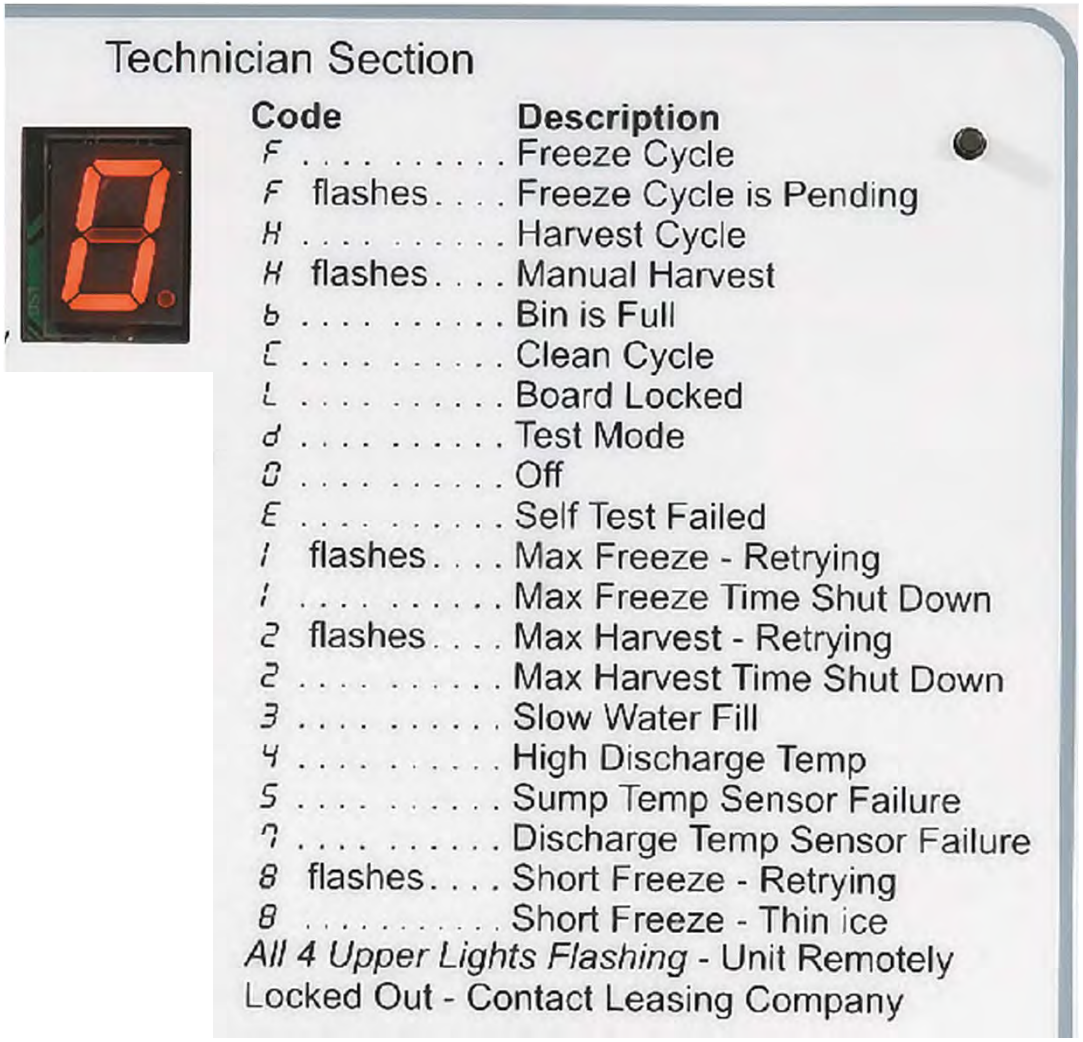
On and Off Switches

Component Indicator Lights

Scotsman Ice Systems

Code Display

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



Scotsman Ice Systems

5 Controller Shut Down Causes

- Exceeds limit on water fill time
  - 5 minutes
- Exceeds limit on maximum freeze time
  - 45 minutes
- Exceeds limit on maximum harvest time
  - 3.5 minutes
- End of freeze triggered too soon
  - Before 6 minutes into the freeze cycle
- Discharge temperature too high
  - Not used in Eclipse

Scotsman Ice Systems

Controller Reaction

- Exceeds water fill time
  - Shuts down, attempts refill every 20 minutes
- Exceeds maximum freeze time
  - Completes harvest, tries another cycle
- Exceeds maximum harvest time
  - Shuts down, restarts after 50 minutes
- End of freeze triggered too soon
  - Completes timed harvest, tries another cycle.
- Discharge temperature exceeds 250 degrees F.
  - Not used in Eclipse

Scotsman Ice Systems

Initial Start Up

- Check installation
  - Power
  - Water
  - Drain
  - Tube Routing
- No soak out needed
  - Plug in head unit
  - Push On to start

Scotsman
Ice Systems

Start Up

- EH head unit
  - Drains reservoir (pump and purge valve on)
  - Fills with water
  - Switches on Pump
  - Switches on Condensing Unit
    - Compressor and fan begin to operate
- Adjustments
  - Controller is factory set to automatically adjust purge level
  - Bridge thickness is also factory set

Scotsman Ice Systems

Operation - Control System

- Prodigy control system
  - Water level sensor for
    - Reservoir water fill and empty
  - Ice Thickness Sensor to sense
    - End of freeze cycle
  - Curtain switch to sense
    - End of harvest
    - Bin full
  - Water temperature sensor for anti-slush process

Scotsman Ice Systems

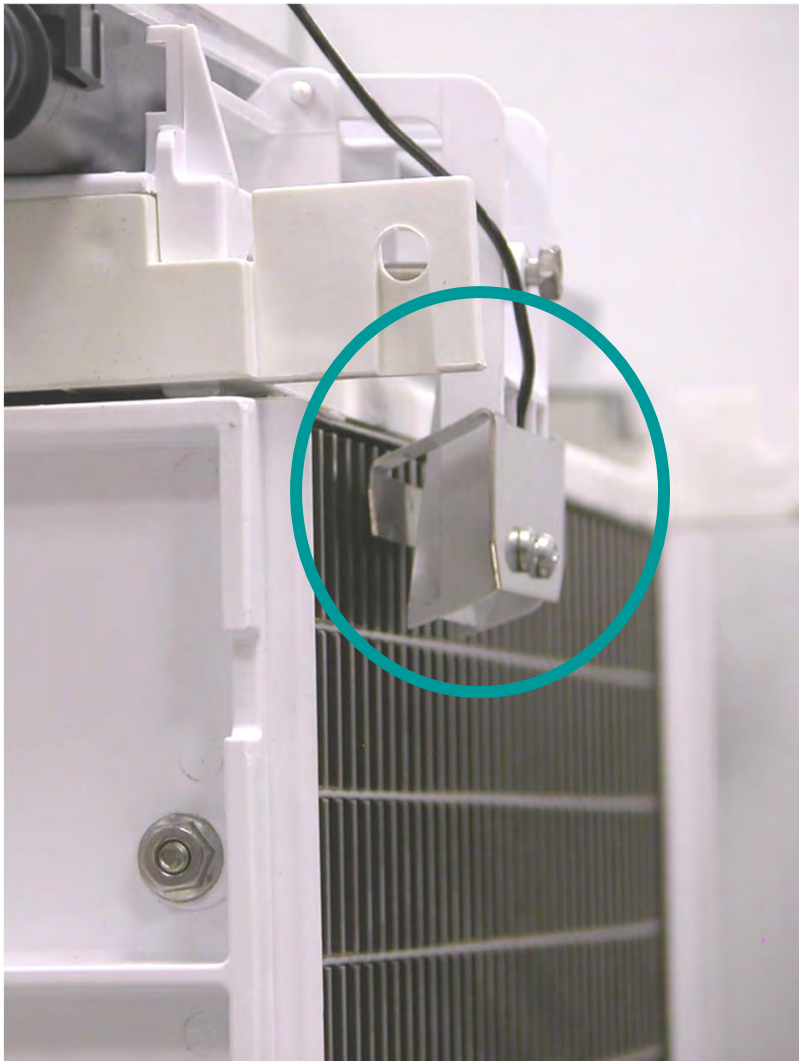
Control Details

- Water level sensor
  - Three probes
    - Short
    - Mid-length
    - Long
  - Mid-length probe is dry
    - Sump empty, water refills
  - Short probe is wet
    - Sump full, water stops refilling

Scotsman Ice Systems

Control Details

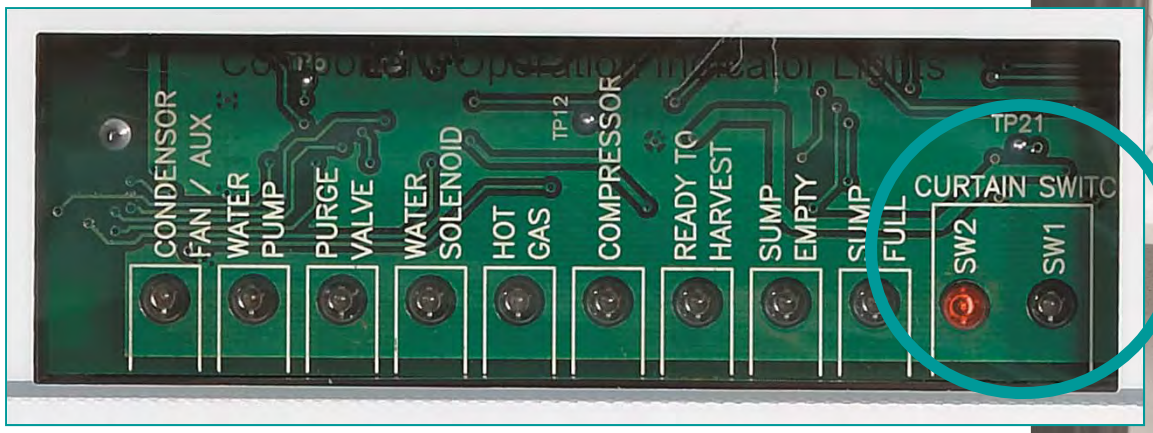
- Ice Thickness Sensor
  - Same on all Prodigy
  - Continuity probe
  - As the ice grows during freeze, the water flowing over it gets closer to the probe.
  - When water touches it for a few seconds, the freeze cycle ends.



Scotsman Ice Systems

Control Details

- Curtain Switch
  - Magnetic reed switch
  - Open when curtain is open
  - Check with indicator light or ohmmeter



Scotsman Ice Systems

Operation - Freeze

- Compressor: ON
- Water pump: ON
- Fan motor: ON
- Purge valve: OFF
- Inlet water solenoid: OFF
- Harvest assist solenoid: OFF
- Vapor valves: OFF
- Receiver inlet valve: OFF, but Open

Scotsman Ice Systems

Operation - Harvest

- Condensing Unit may be located outside
  - Temperature Range between -20 and 120 F.
  - Receiver is with the condensing unit
  - Vapor line connects discharge gas and receiver vapor to vapor inlet line in ice making section
  - Vapor contains latent heat - even at sub-zero temperatures
  - Condensing vapor in the evaporators transfers the heat
  - Evaporators warm up and ice is released

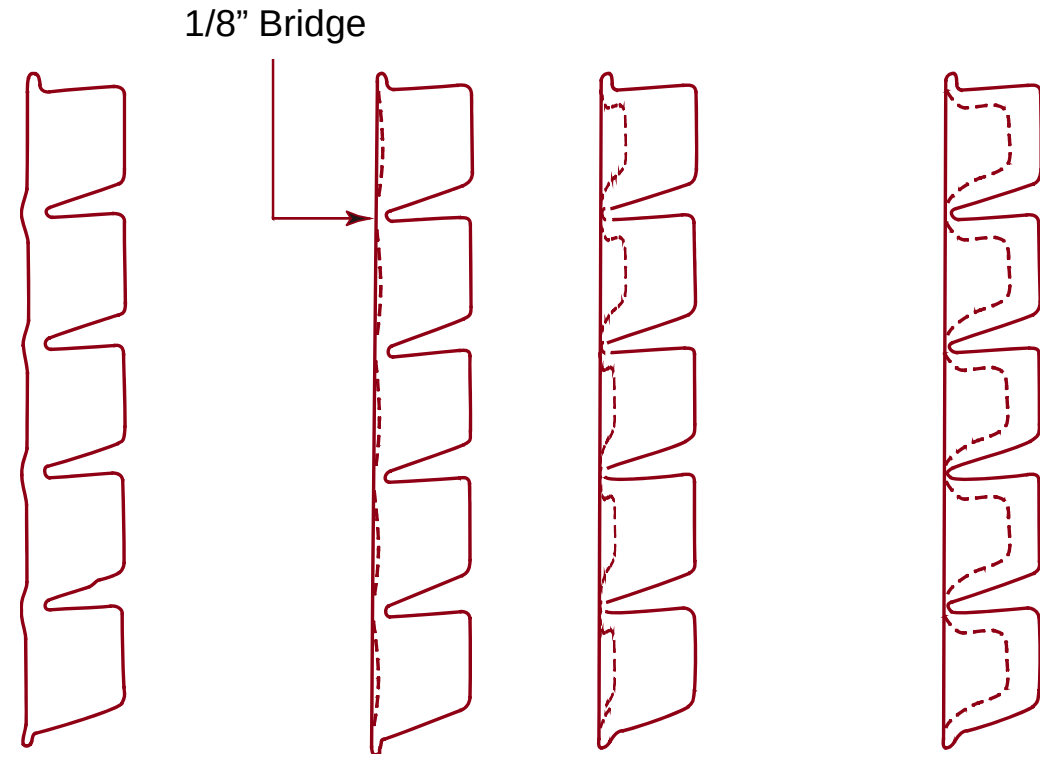
Scotsman Ice Systems

Operation - Harvest Details

- Vapor inlet valve opens
- Condenser bypass valve opens
- Receiver inlet valve closes
- Reservoir is drained per the purge setting and refills.
  - Pump stops, purge valve closes
  - Reservoir refills
- Harvest continues until the curtain switch opens
  - EH430 must open both curtain switches

Scotsman Ice Systems

Ice Bridge



Scotsman
Ice Systems

EH222 Operation

- Freeze Cycle Time:
  - 1000 - between 6 and 18 minutes
  - 800 - between 10 and 21 minutes
  - 600 - between 13 and 31 minutes
- Harvest Cycle Time
  - 1000 - between 1 and 1.5 minutes
  - 800 - between 1 and 1.5 minutes
  - 600 - between 1 and 1.5 minutes

Scotsman Ice Systems

EH130 Operation

- Freeze Cycle Time:
  - 9 to 11 minutes at 70/50
  - 11 to 13 minutes at 90/70
- Harvest Cycle Time
  - 30 to 90 seconds

Scotsman Ice Systems

EH330 Operation

- Freeze Cycle Time:
  - 9 to 11 minutes at 70/50
  - 12 to 14 minutes at 90/70
- Harvest Cycle Time
  - 30 to 90 seconds

Scotsman Ice Systems

EH430 Operation

- Freeze Cycle Time:
  - 1400 - between 10 and 25 minutes
  - 1800 - between 10 and 19 minutes
  - 2000 - between 7 and 19 minutes
- Harvest Cycle Time
  - 1400 - between 1 and 1.5 minutes
  - 1800 - between 1 and 1.5 minutes
  - 2000 - between 1 and 2 minutes

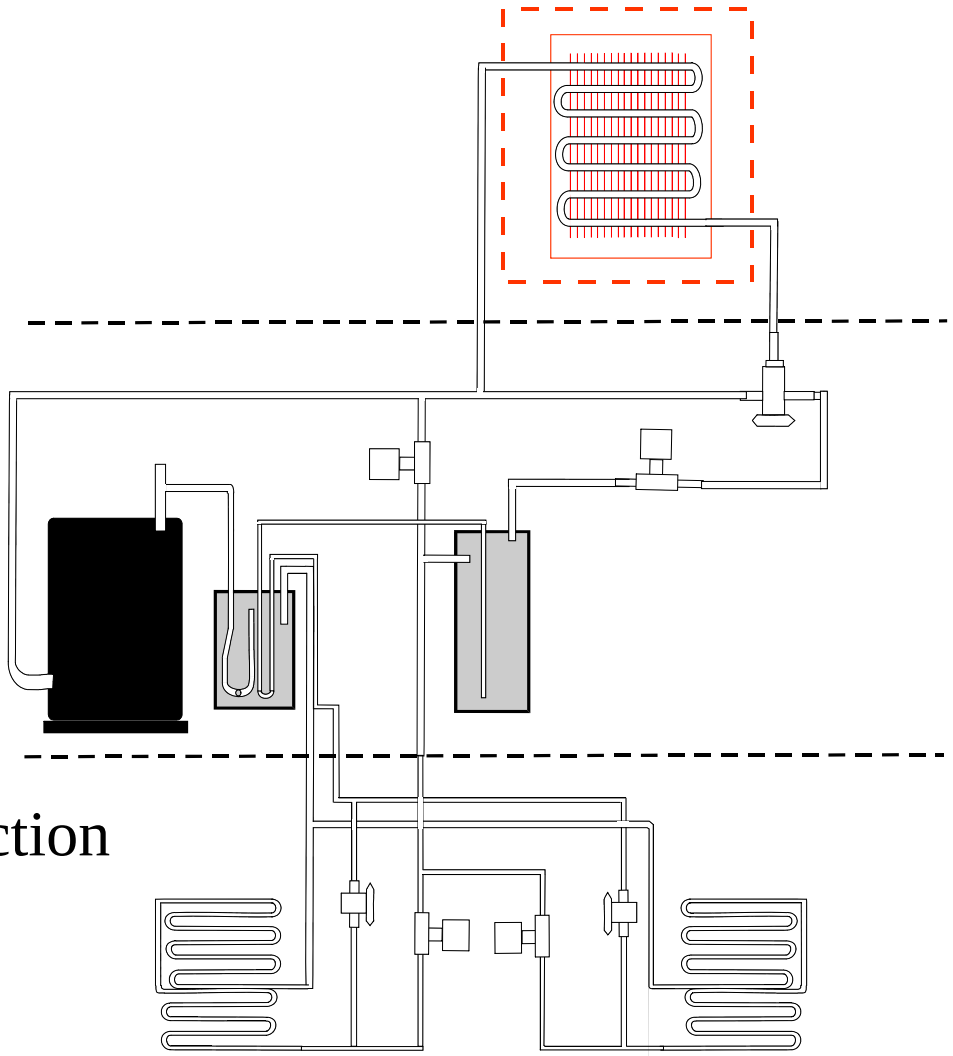
Scotsman Ice Systems

Refrigeration Schematic

Condenser

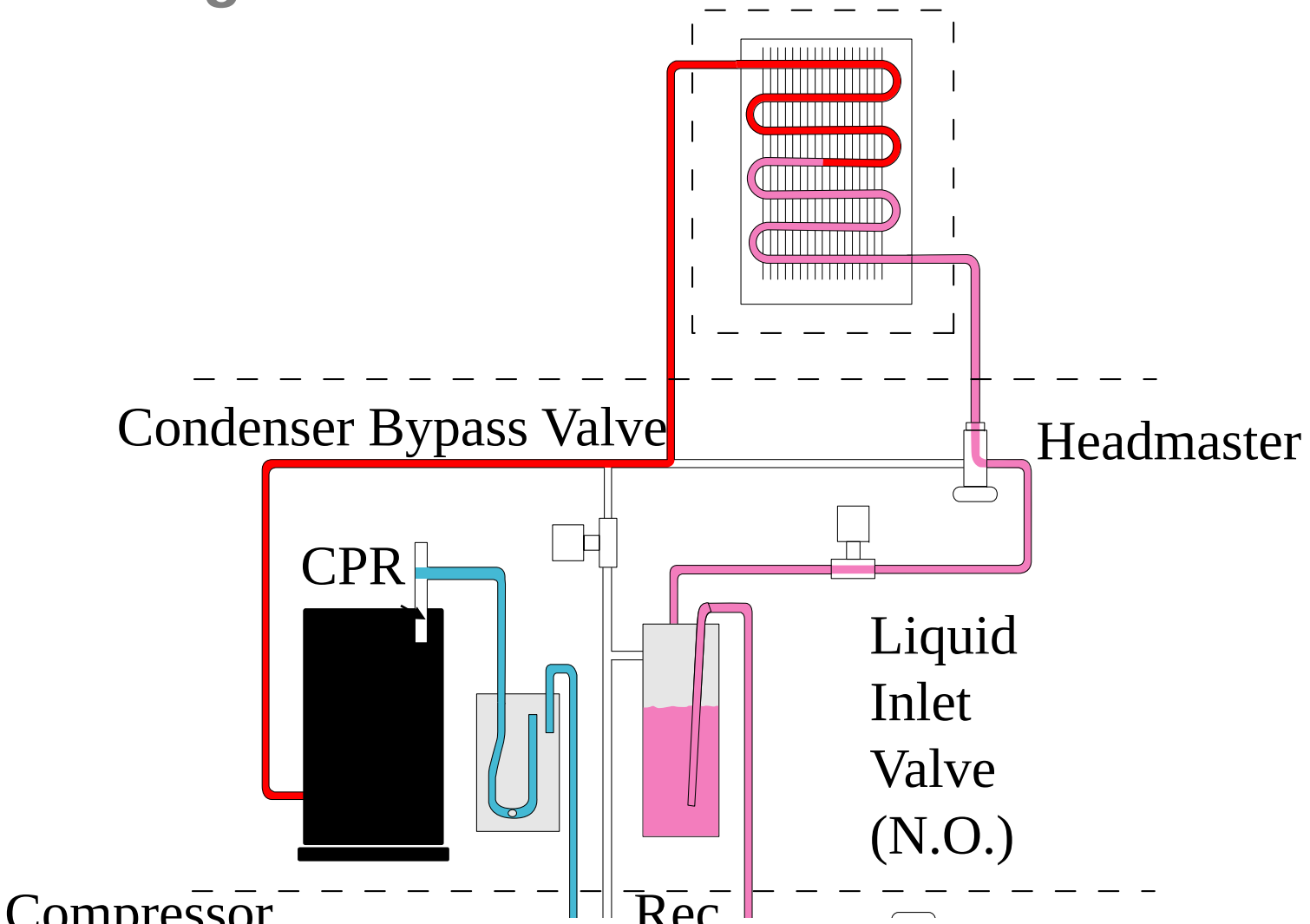
Compressor Package

Ice Making Section



Scotsman Ice Systems

Condensing Unit



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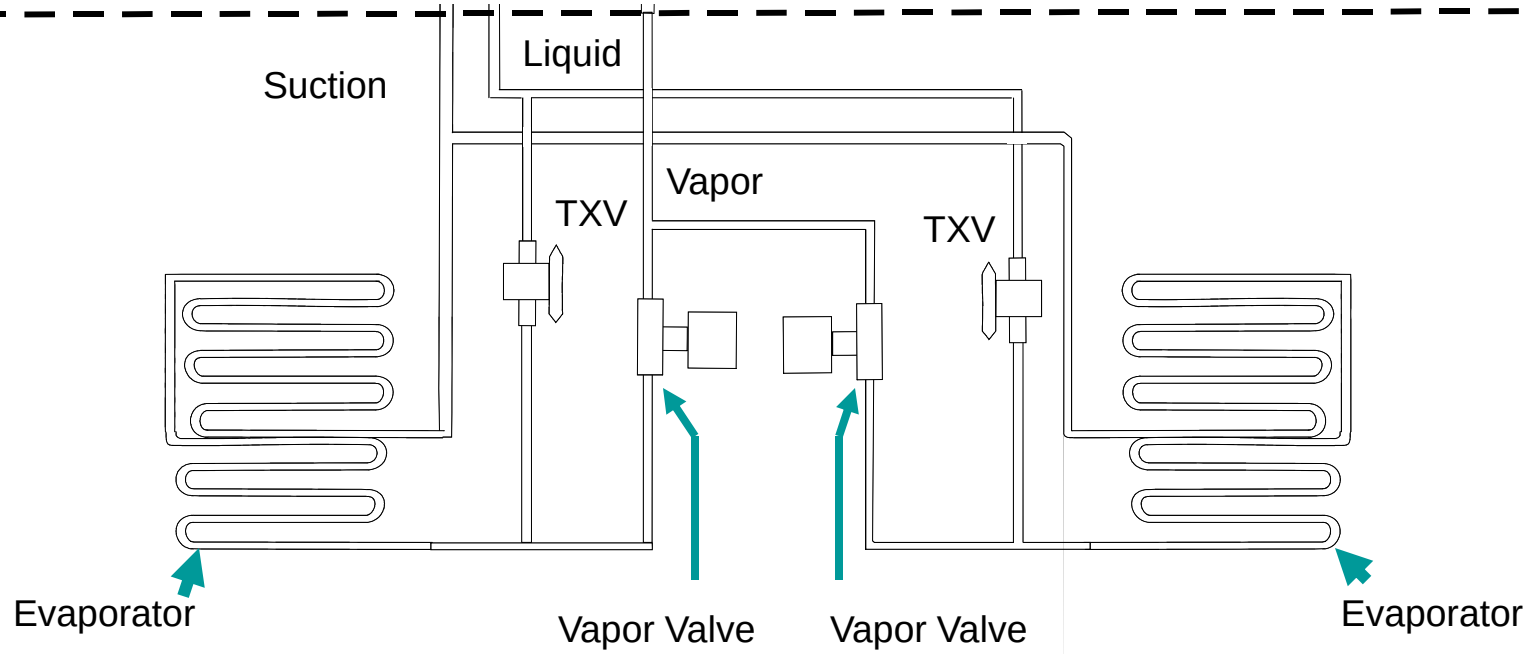
Scotsman
Ice Systems

Ice Making Section – EH430 Example



Scotsman Ice Systems

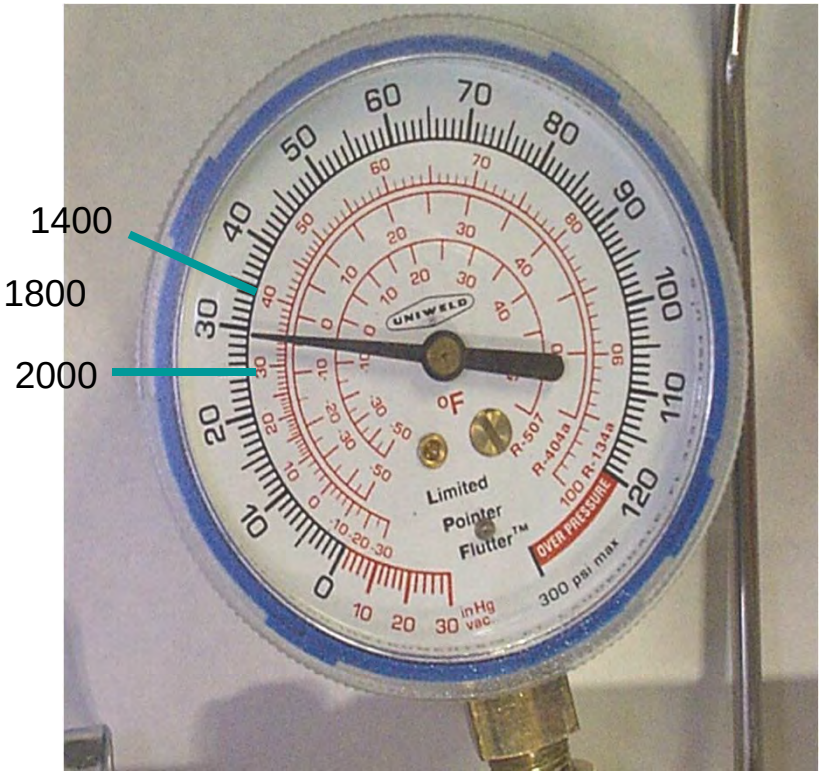
System Pressures – EH330

- Freeze Cycle
  - Normal ranges vary by ambient
  - Finishes cycle at:
    - 30 PSIG at 70/50
    - 35 PSIG at 90/70
    - 37 PSIG at 120/100
  - Pressures at CP unit and head are equal during Freeze

Scotsman
Ice Systems

System Pressures – EH430

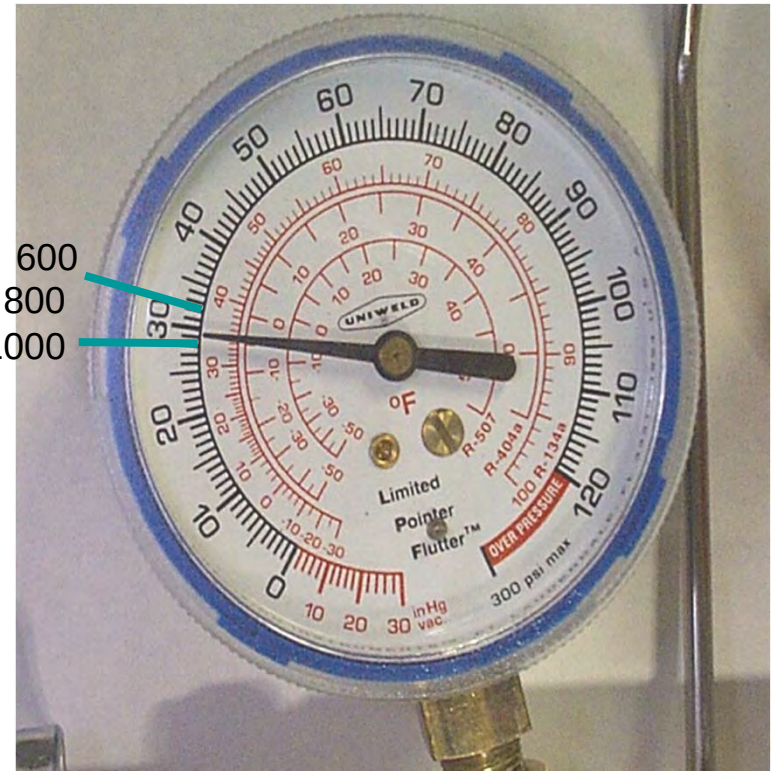
- Freeze Cycle
  - Normal ranges vary by capacity and ambient
  - At 70/50:
    - 2000 lb finishes at about 25 PSIG
    - 1800 lb finishes at about 30 PSIG
    - 1400 lb finishes at about 35 PSIG
    - Will be slightly higher in higher ambient
  - Pressures at CP unit and head are equal during Freeze



Scotsman
Ice Systems

System Pressures – EH222

- Freeze Cycle
  - Normal ranges vary by capacity and ambient
  - At 70/50:
    - 1000 lb finishes at about 28 PSIG
    - 800 lb finishes at about 30 PSIG
    - 600 lb finishes at about 32 PSIG
    - Will be slightly higher in higher ambient
  - Pressures at CP unit and head are equal during Freeze



Scotsman Ice Systems

System Pressures – EH130

- Freeze Cycle
  - Normal ranges vary by ambient
  - Finishes cycle at
    - 32 PSIG at 70/50
    - 33 PSIG at 90/70
    - 40 PSIG at 120/100
  - Pressures at CP unit and head are equal during Freeze

Scotsman
Ice Systems

System Pressures

- Harvest Cycle
  - At the ice making section, low side pressure rapidly increases to 95 - 105 PSIG
  - At the CP unit compressor access valve, dome pressure is limited by the CPR valve to 55 - 60 PSIG during harvest

Scotsman
Ice Systems

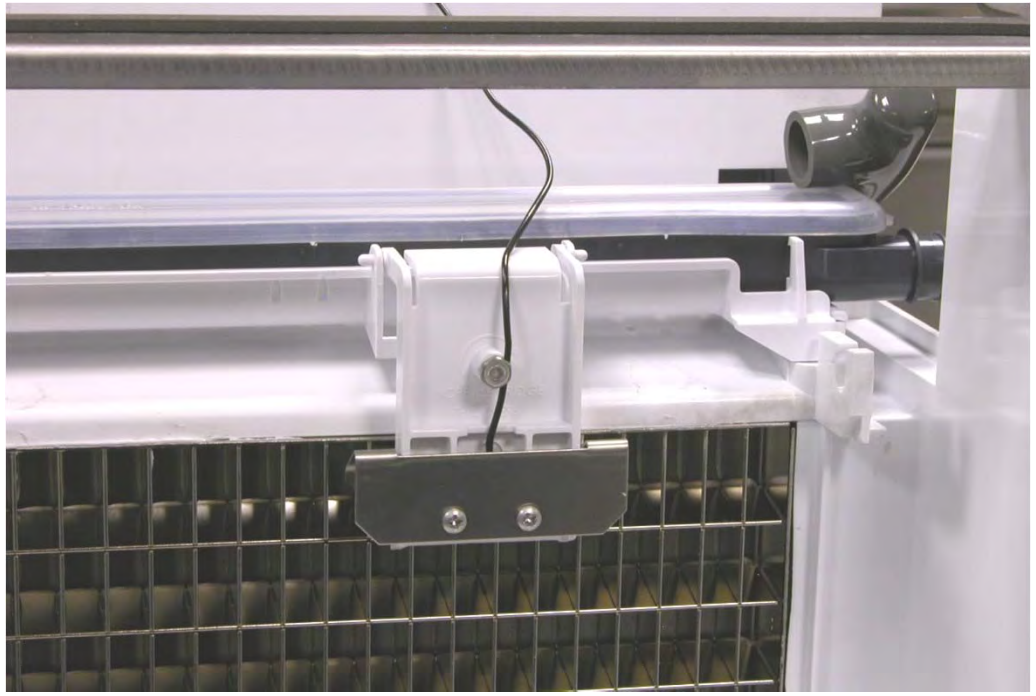
System Pressures

- CP Unit
  - Discharge during low ambient freeze will be about 225 PSIG
    - Headmaster rated for 217, there is some variation unit to unit
  - Discharge during harvest will be about 100 PSIG
  - High Pressure Cut Out opens at 450, closes at 350 PSIG

Scotsman
Ice Systems

Maintenance

- De-lime with Scotsman Clear 1 Ice Machine Scale Remover
- Check distributor for scale build up



Scotsman Ice Systems

Service Diagnosis

- What happens if?
- Vapor Inlet Valve Does Not Open
  - Vapor line hot
  - Discharge pressure increases
  - Low side pressure not as high as normal - 80
  - No or partial ice release
  - Code 2

Scotsman Ice Systems

Service Diagnosis

- What happens if?
- Control wire becomes unplugged
  - CP unit does not operate
  - Exceeds maximum freeze time
  - Code 1

Scotsman Ice Systems

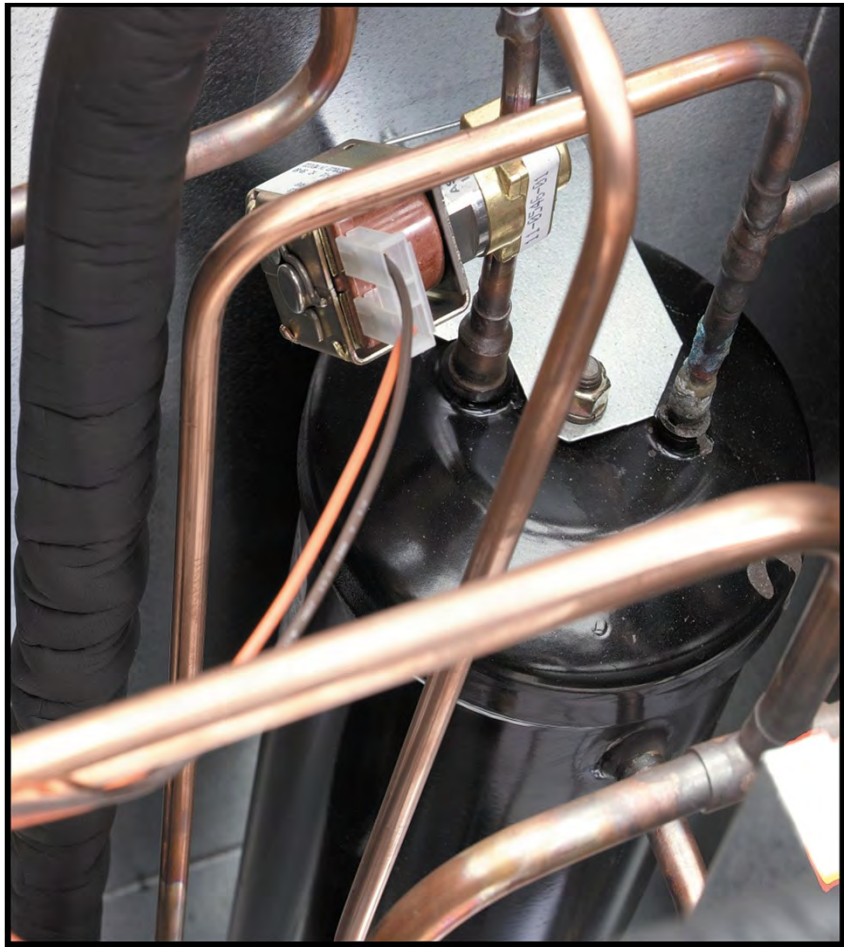
Service Diagnosis

- What happens if?
- Condenser by pass valve does not open
  - High pressure cut out opens and closes
  - No ice release
  - Code 2

Scotsman Ice Systems

Service Diagnosis

- What happens if?
- Receiver inlet valve does not close during harvest
  - Very little change
- If it sticks closed
  - Hi discharge pressure cut out opens
  - Code 1



Scotsman Ice Systems

Service Diagnosis

- What happens if?
- Headmaster is stuck in bypass
  - Very little liquid flow to TXVs
  - Long freeze cycle
  - Controller shows code 1

Scotsman Ice Systems

Service Diagnosis

- What happens if?
- There is a refrigerant leak
  - No change until refrigerant level drops below the operational threshold for the ambient
    - Headmaster will try to maintain minimum discharge pressure - but will be hissing as gas flows through
    - Ice formation will be poor
    - Low capacity/long freeze cycle will result
  - Add charge to confirm, if ice making resumes with normal discharge pressure there is a leak

Scotsman Ice Systems

Service Diagnosis

- What happens if?
  - TXV has high superheat?
    - Poor ice formation, ok at top of evaporator, thin in the middle
    - Similar to low refrigerant charge
  - TXV has low superheat?
    - Long freeze cycle

Scotsman Ice Systems

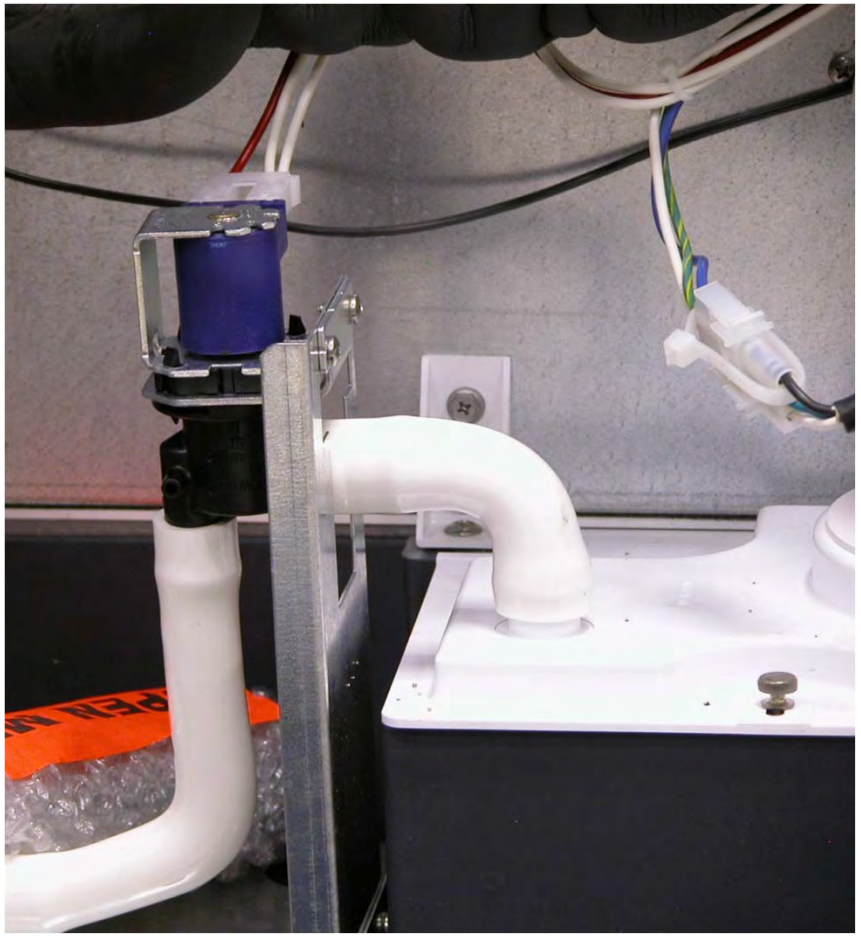
Service Diagnosis

- What happens if?
- There is no water to the ice making section
  - Water is part of the recipe for ice!
  - Controller will stop unit operation but retry filling every 20 minutes until water is restored

Scotsman Ice Systems

Service Diagnosis

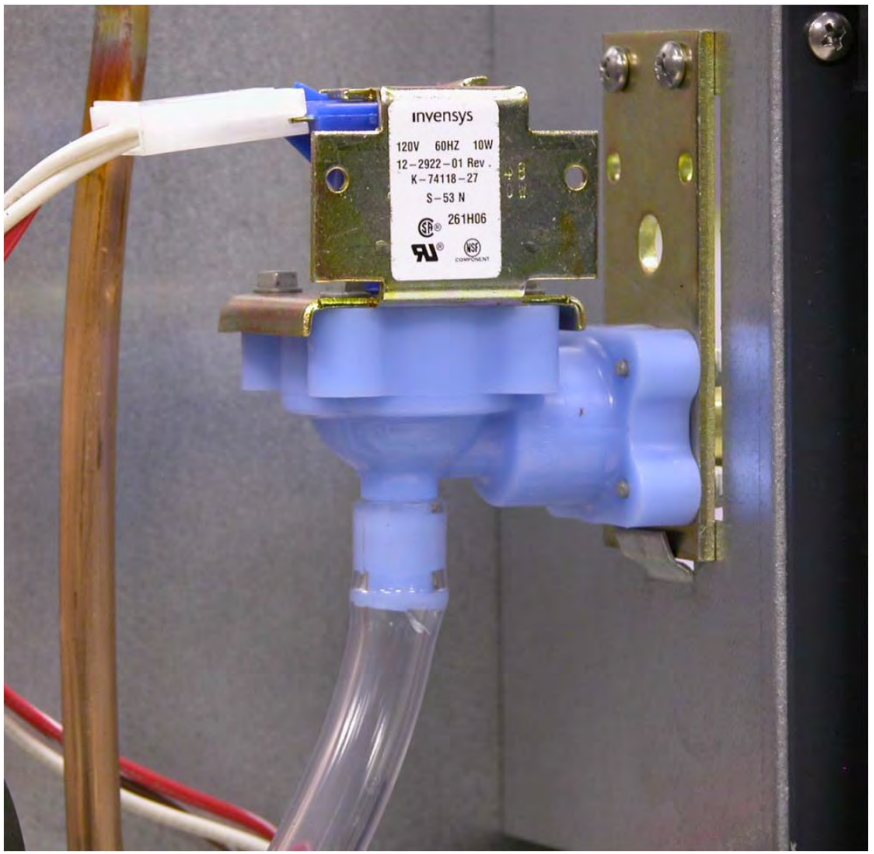
- What happens if?
- The purge valve leaks and drains the reservoir
  - Reservoir may refill during the freeze cycle
  - Thick ice at bottom of slab



Scotsman Ice Systems

Service Diagnosis

- What happens if?
- The inlet water valve leaks through
  - Keeps adding water (heat load) to reservoir
  - Result is a long freeze cycle



Scotsman
Ice Systems

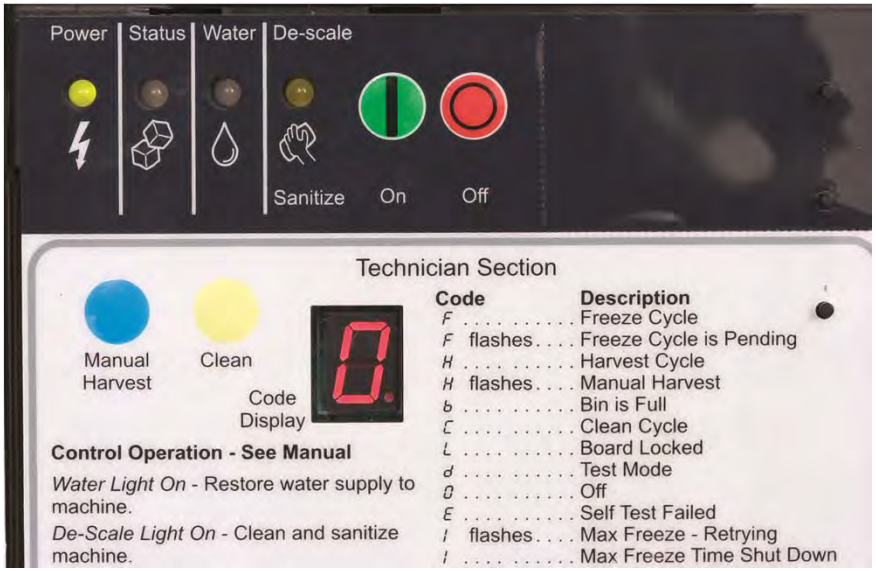
Control Button Processes

- Recall diagnostic code
  - Push and hold Off to shut 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

Scotsman
Ice Systems

Controller Button Processes

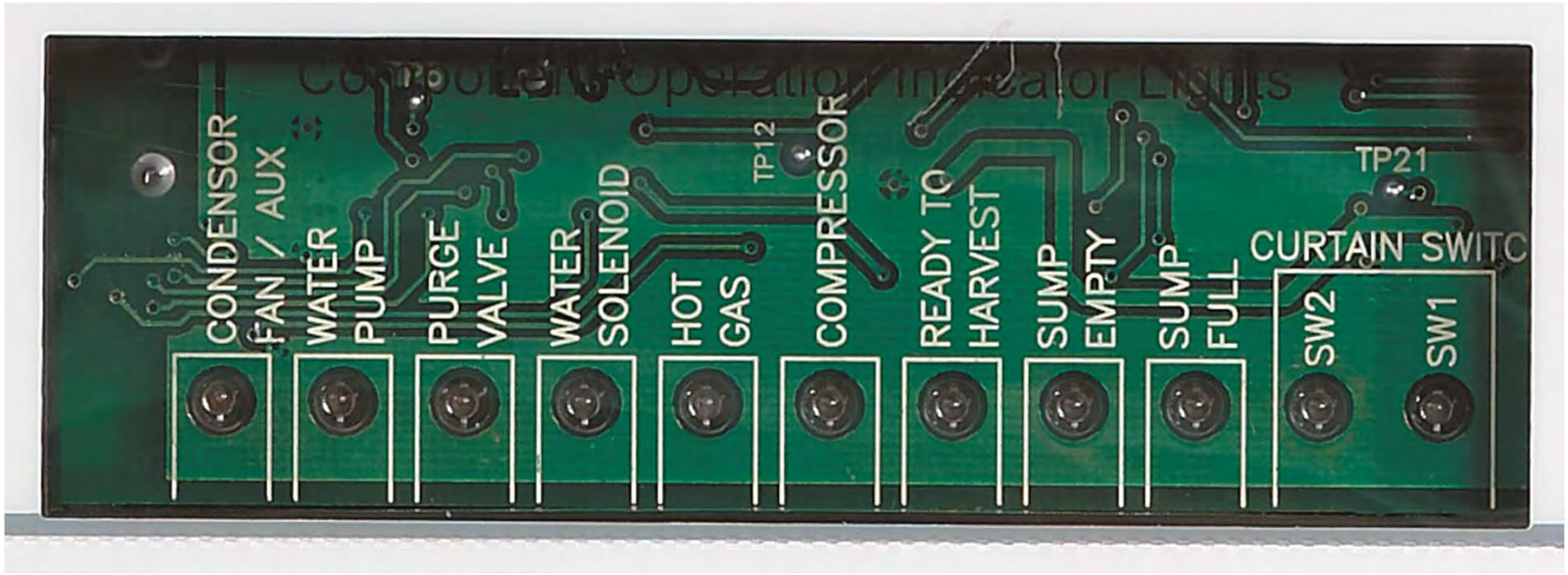
- Clear all diagnostic codes
  - Push and hold Off to shut the machine down
  - Push and hold both the Clean and Harvest buttons for 3 seconds



Scotsman Ice Systems

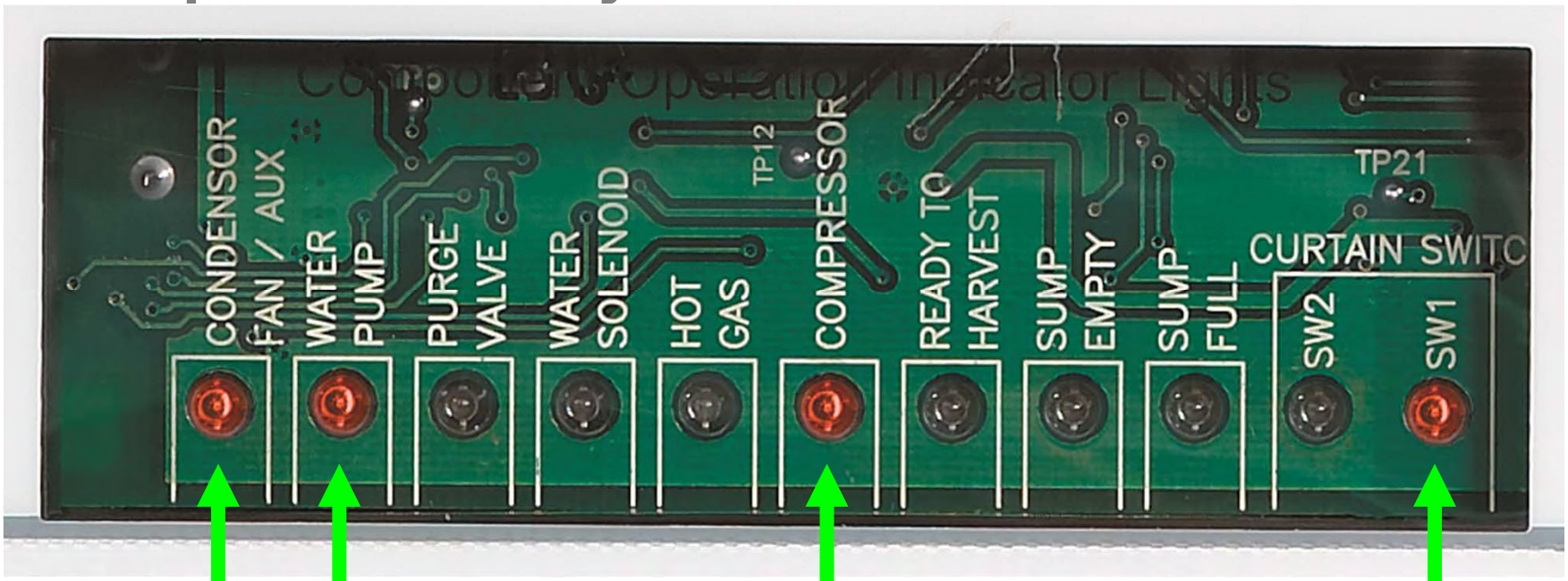
Prodigy Diagnosis

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



Scotsman Ice Systems

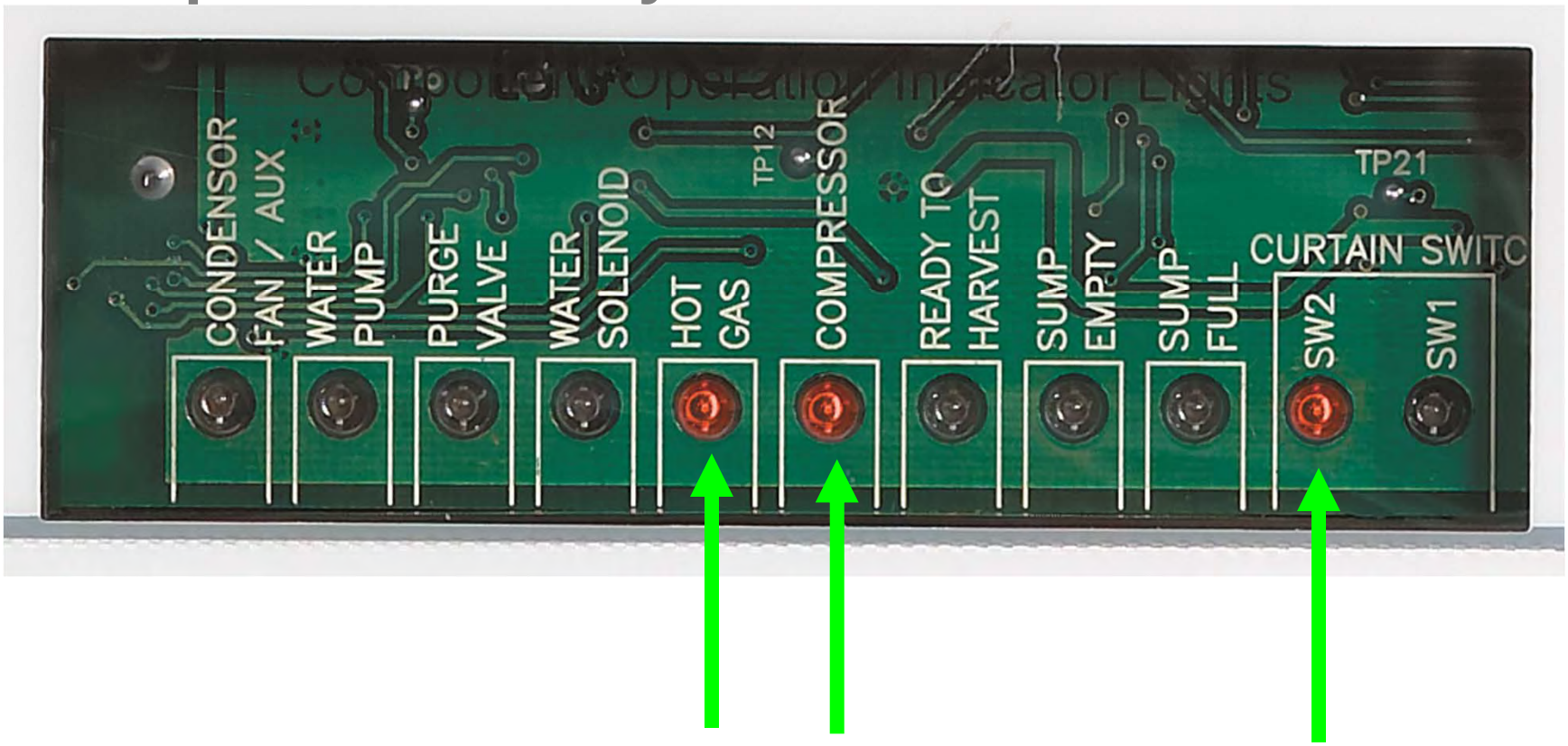
Example: Freeze Cycle



On but not used in Eclipse

Scotsman Ice Systems

Example: Harvest Cycle



Scotsman
Ice Systems

Service Diagnosis

- What happens if?
- The condenser fan stops
  - CP unit's hi pressure cut out will open
  - Maximum freeze time will be exceeded
  - Head's controller will shut system off
  - Controller will display code 1

Scotsman Ice Systems

Service Diagnosis

- What happens if?
- Both the solenoid valves in the condensing unit do not work
  - Very, very unlikely, but
    - The discharge pressure during harvest will be about 150 PSIG
    - The low side pressure during harvest will be less than 90 PSIG
    - The ice will harvest slowly
    - The refrigerant flowing out of the receiver will make a whistling noise

Scotsman Ice Systems

Service Diagnosis

- What happens if?
- The CPR valve fails
  - Pressure during harvest will not be at the pre-set point
    - 55 to 60 PSIG
  - Will not hold an adjustment
  - No external symptom
- CPR setting should be checked if compressor is replaced

Scotsman Ice Systems

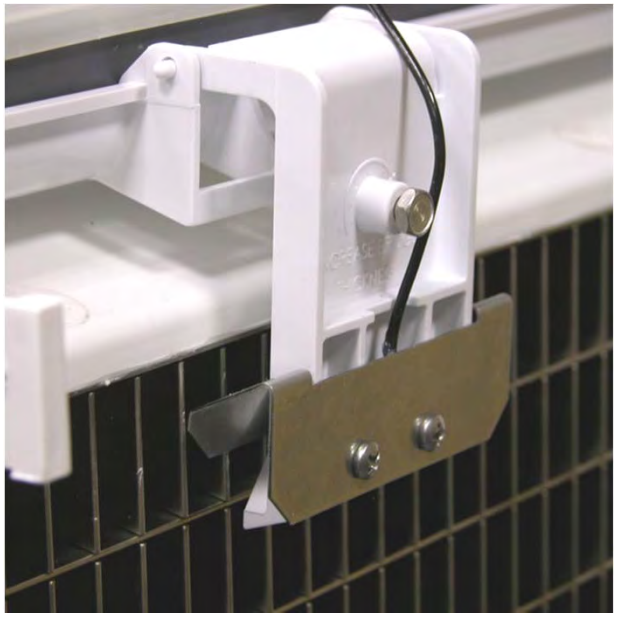
Service Diagnosis

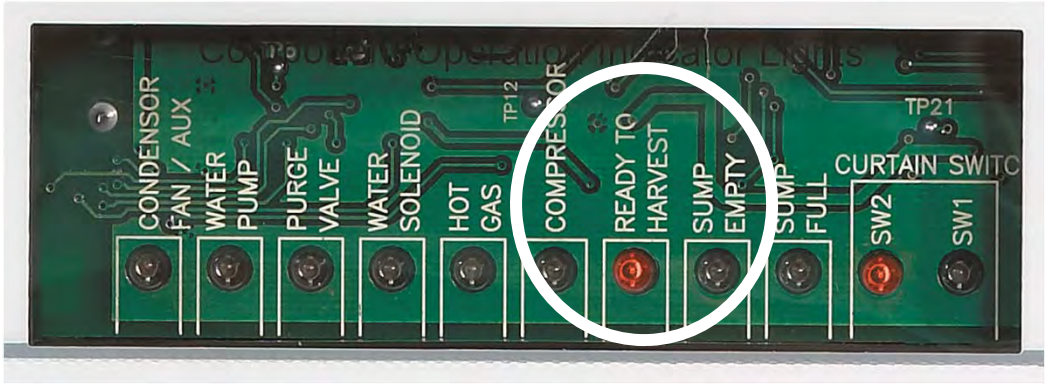
- What happened if?
- The controller displays code **1**
  - Maximum **freeze** time exceeded
    - Dirty condenser coil
    - Fan motor inoperative
      - Hi discharge pressure caused compressor to shut off
    - No water over evaporator, no ice made
    - Lack of refrigerant, no ice made

Scotsman Ice Systems

Diagnostics - Sensors

- Ice thickness sensor
  - Continuity probe
  - Check by grounding metal tip to cabinet and observing Ready To Harvest light





Scotsman Ice Systems

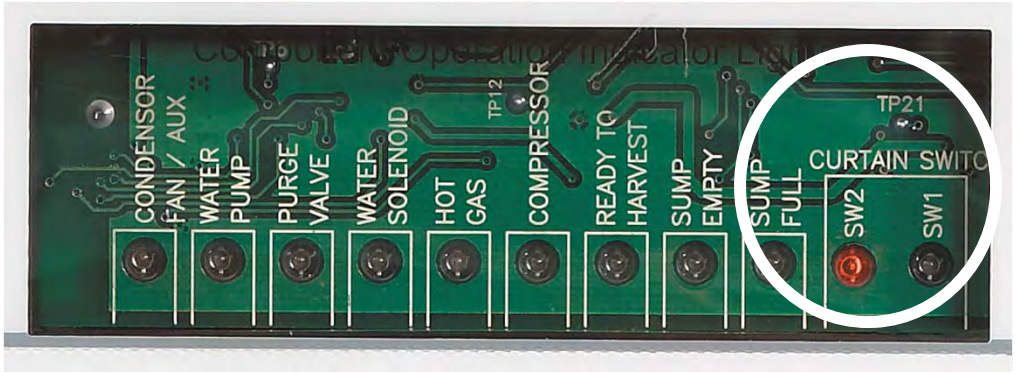
Service Diagnosis

- What happened if?
- The controller displays code **2**
  - Maximum **harvest** time exceeded
    - Vapor valves did not open
    - Curtain did not open
      - Ice too thin
      - Ice normal at top, thick on bottom

Scotsman Ice Systems

Diagnostic - Sensors

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



Scotsman Ice Systems

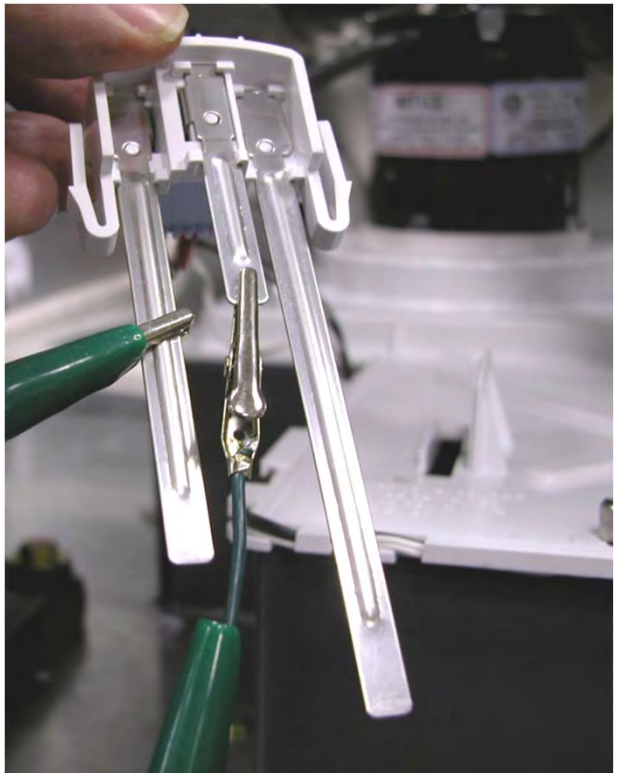
Service Diagnosis

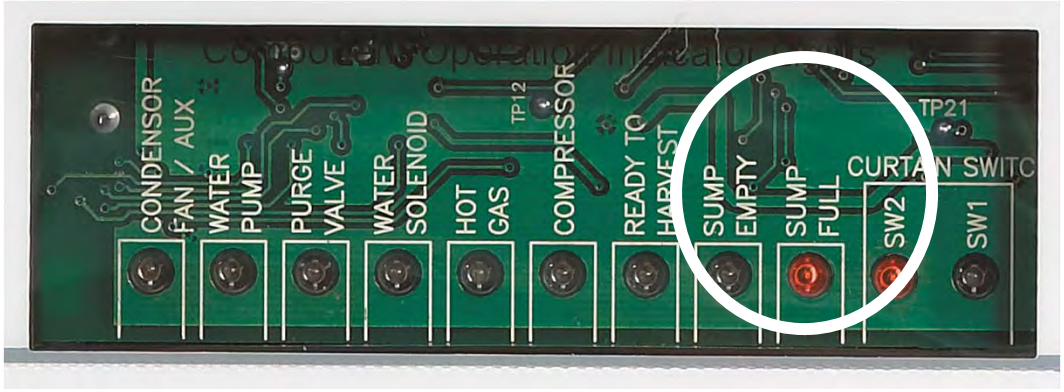
- What happened if?
- The controller displays code **3**
- Slow or **no water** fill
    - Possible clogged water filters
  - Low water level - leaks out
  - Water level sensor not working or harness connection poor

Scotsman Ice Systems

Diagnostic - Sensors

- Water Level Sensor
  - Continuity probe
  - Check by connecting two short probes
  - Sump full light should be On





Scotsman Ice Systems

Service Diagnosis

- What happened if?
- The controller displays code 4, 5 or 7
  - This indicates that the temperature sensors are not working or not plugged in. They need to be plugged back in or replaced.
  - The ice machine will operate without the thermistors working, but it is limited in its diagnostics that way

Scotsman Ice Systems

Service Diagnosis

- What happened if?
- The controller displays code **8**
  - Freeze cycle **too short** – less than 6 minutes
    - Excess water flowing near the ice thickness sensor
    - Incomplete harvest of previous cycle

Scotsman Ice Systems

Summary

- Eclipse is a three part ice making system
- There are four ice making heads
- There are six compressor packages
- There are three single circuit condensers
- There are two 2 circuit condensers
- R-404A refrigerant

Scotsman Ice Systems