



Commercial Kitchen Equipment Parts

SCOTSMAN DCE33

Scotsman DCE33 service-manual

Provided by PartHubz

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DCE33 Ice Machine

Technical Training

- Gravity Drain or
- Drain Pump models
- Reversible Door
- Air in and out the front



- Water
 - 1/4" OD copper tubing
- Power
 - 115/60/1 cord connected
- Drain
 - Gravity or pump
- Space
 - 15 & 1/4" wide

- Air Cooled
 - Route drain tubing
 - Route water supply

Water
Connection



- Gravity Drain installation is critical
 - Connect internally to bin drain
 - Route flexible tubing out the back
 - Route with downward pitch to drain receptacle - no dips, no upward slopes, no traps.
 - Use rigid tubing if possible
 - Vent the drain tubing
 - Must have air-gap at end

- Magnetic drive drain pump
- Tubing included
 - Do NOT kink!
- Can pump up to one story
- Field convertible





Water Cannot Collect in a Downward Sloping Straight Tube



Water CAN collect in a Downward Sloping Flexible Tube

**Trapped water restricts
draining!**

- Remove door
- Switch hinges top to bottom, left to right
- Return door to cabinet



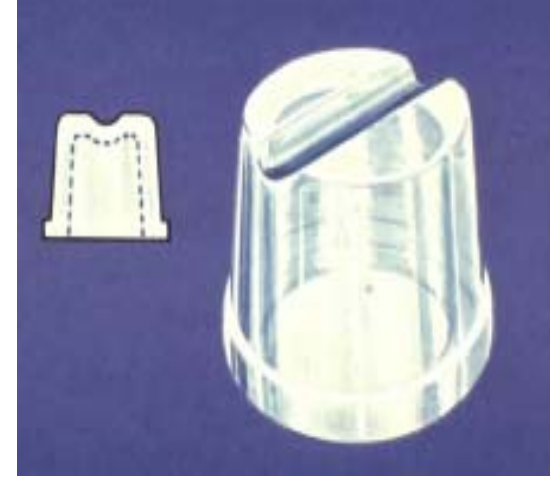
DCE33 Initial Start Up

- Check installation
- Remove control box cover
- Rotate timer CW to Harvest
- Rotate bin control to “Operating Range”
- After second batch, check cube size
 - Adjust cube size if needed



Timer in Harvest Position





Cubes too large or too small:

Adjust cube size control.

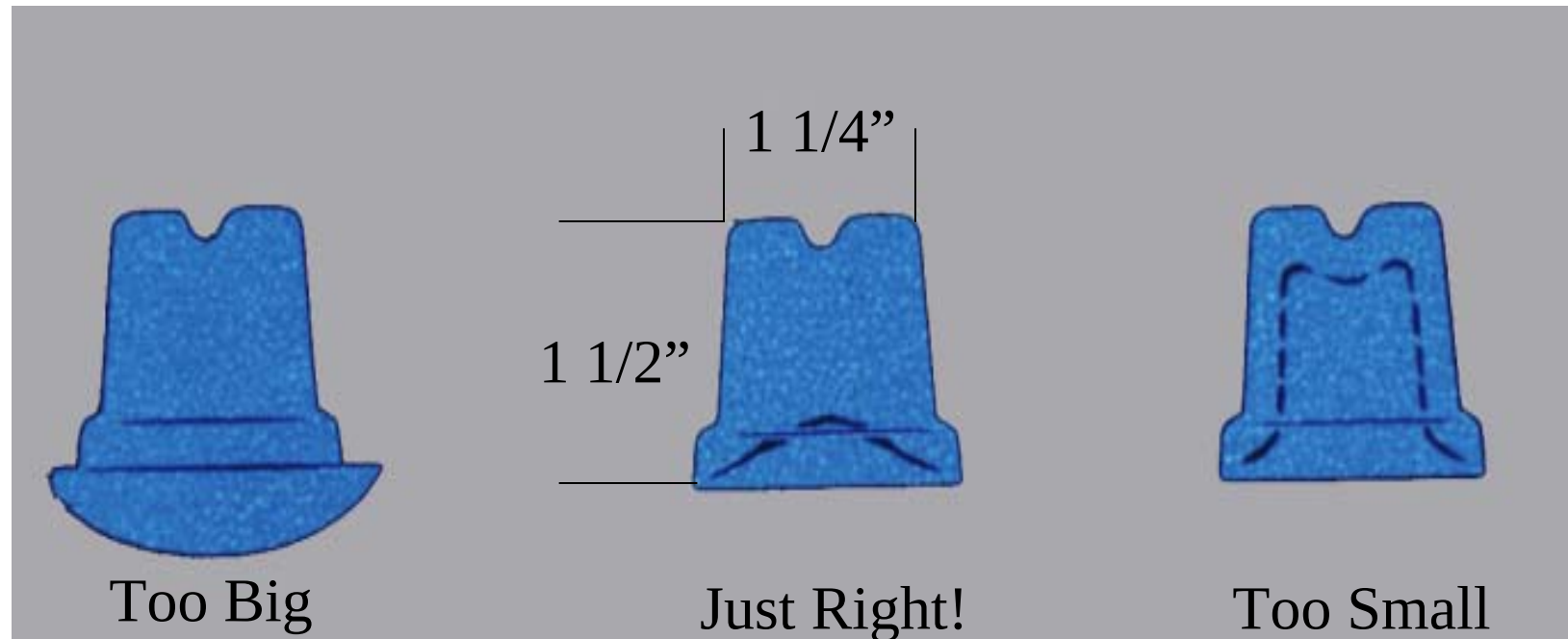
CW makes cubes larger

CCW makes cubes smaller

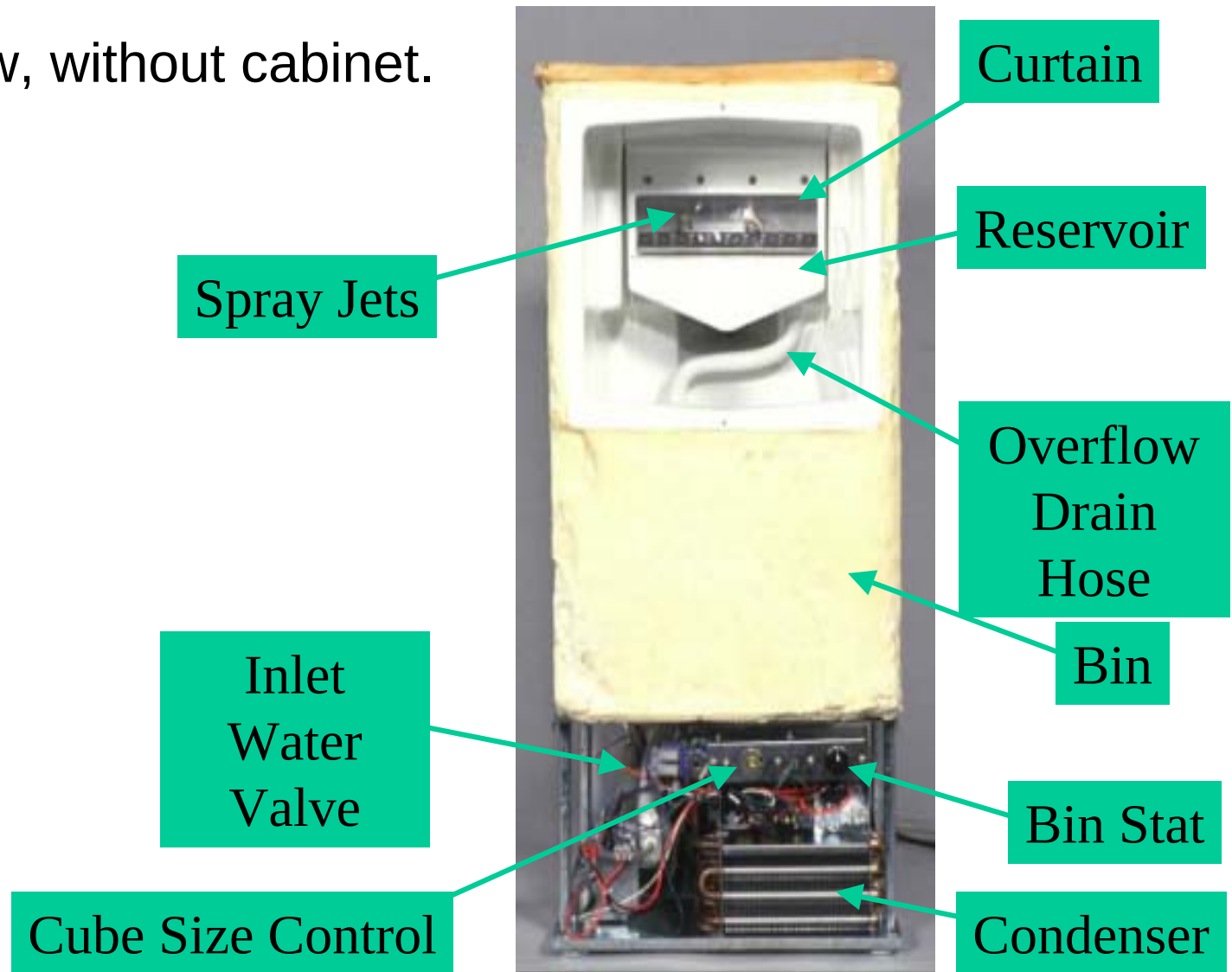


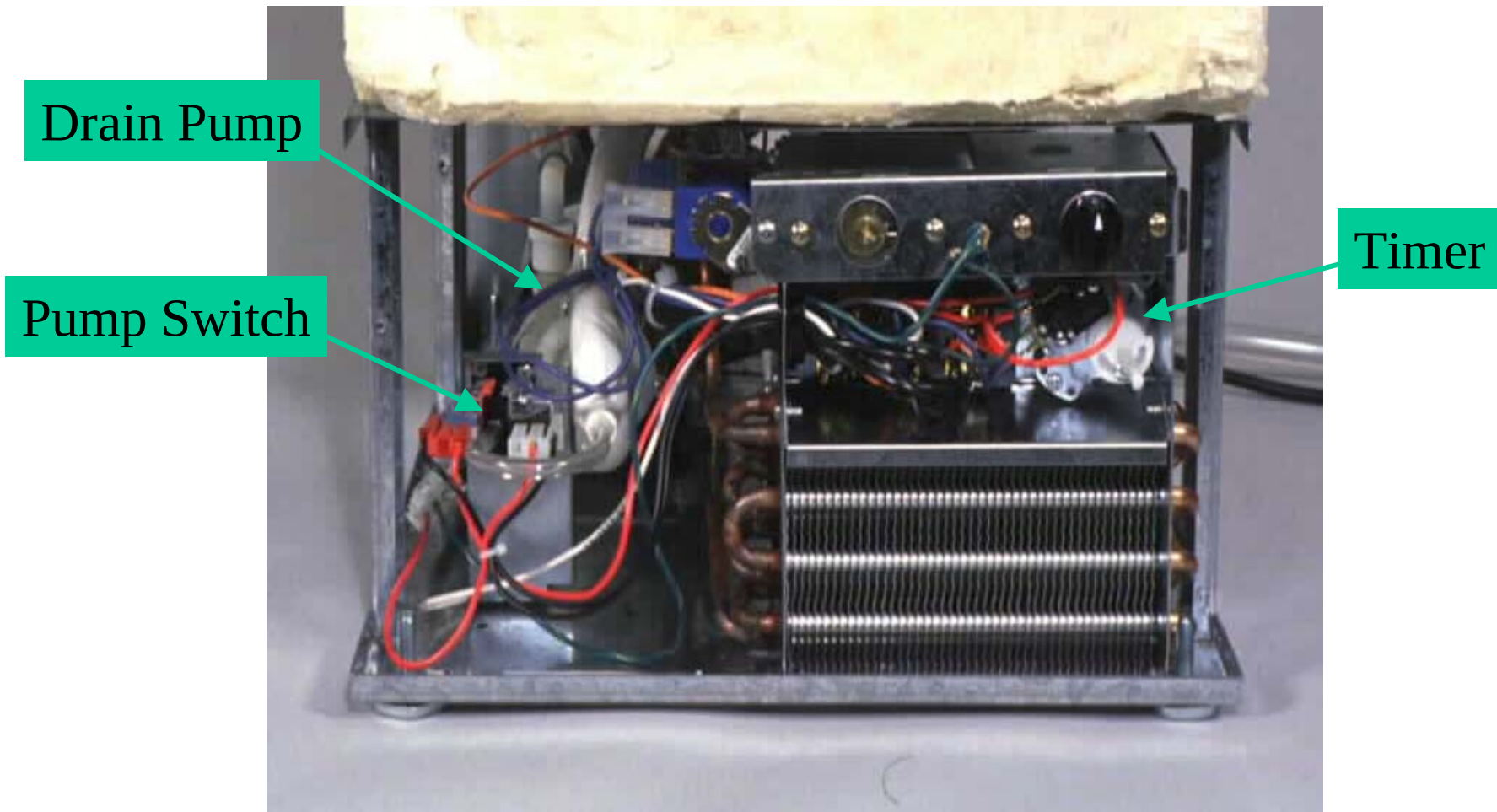


Scotsman® Cube Size: Only 1 Correct Size



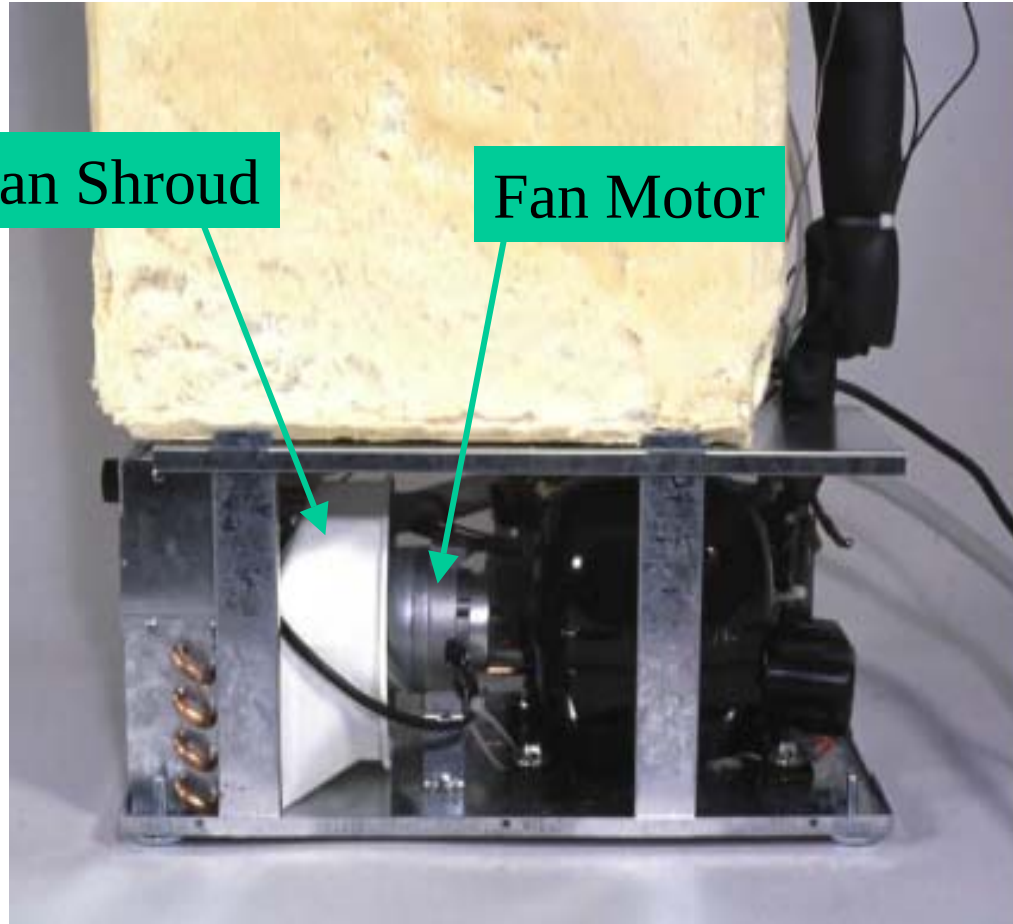
Front View, without cabinet.

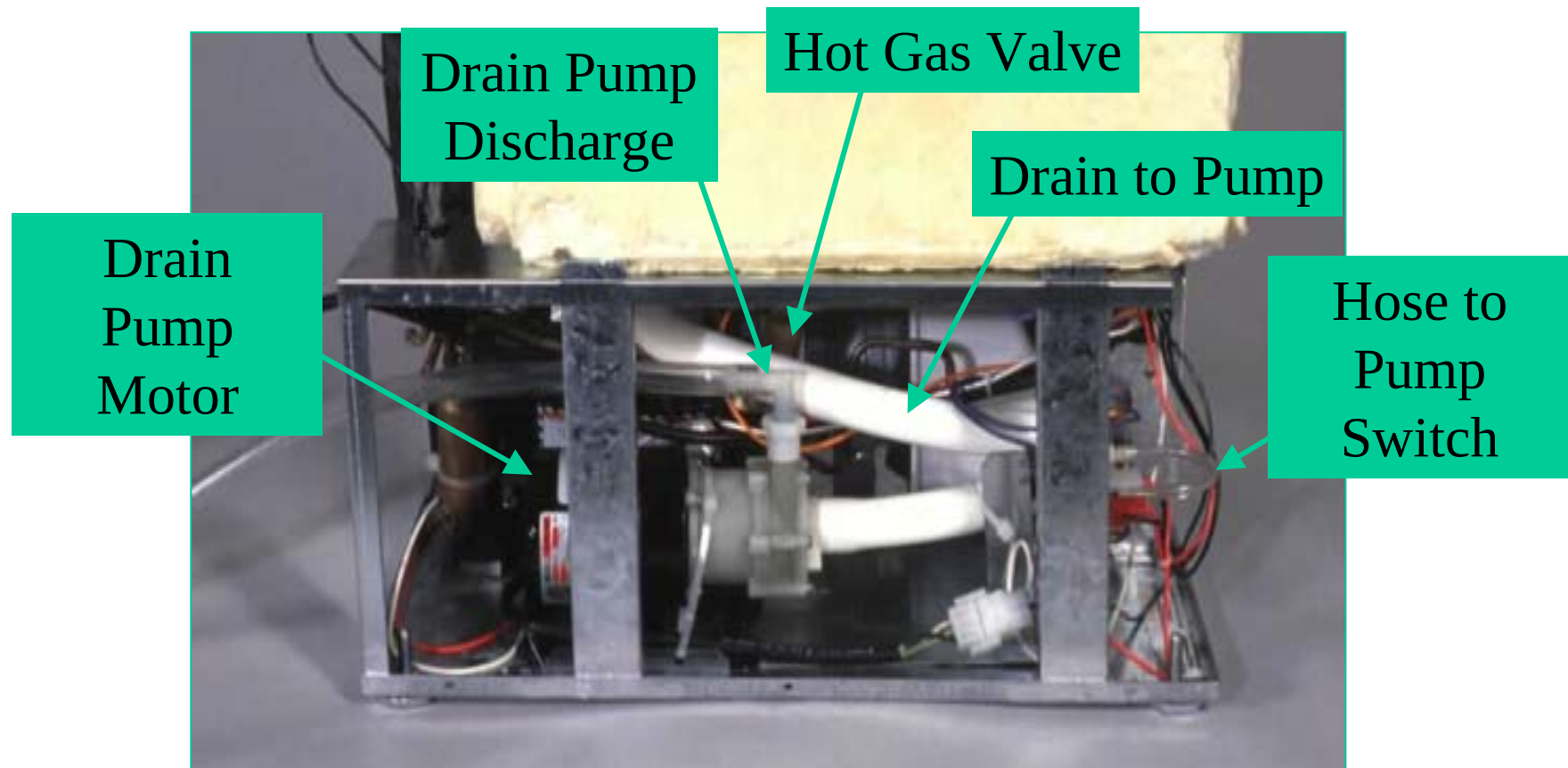




Condenser Fan Shroud

Fan Motor





Back View

Suction Line/Accumulator



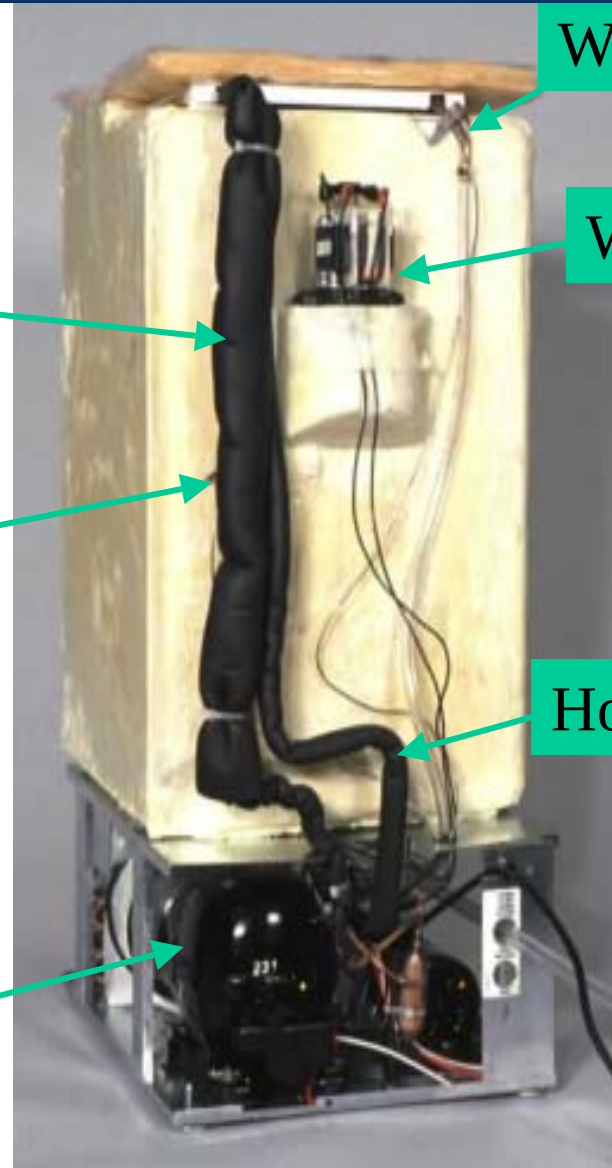
Bin Thermostat Capillary Tube

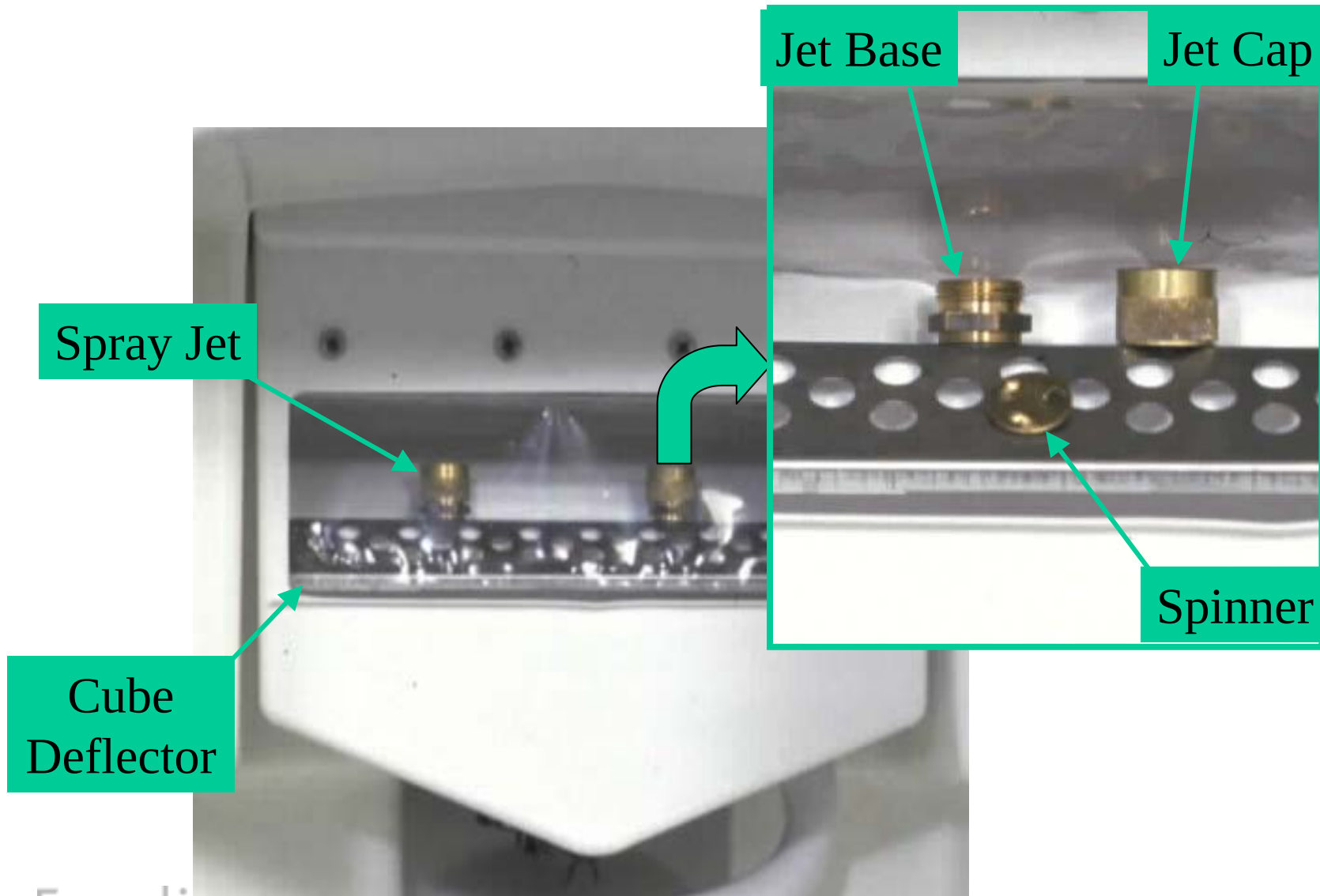
Compressor

Water Fill Tube

Water Pump

Hot Gas Tube







- Clear, thin plastic sheet
 - Flip up to access jets
- Hangs from plastic frame
- Frame is attached with 4 screws
- Must not be curled or torn

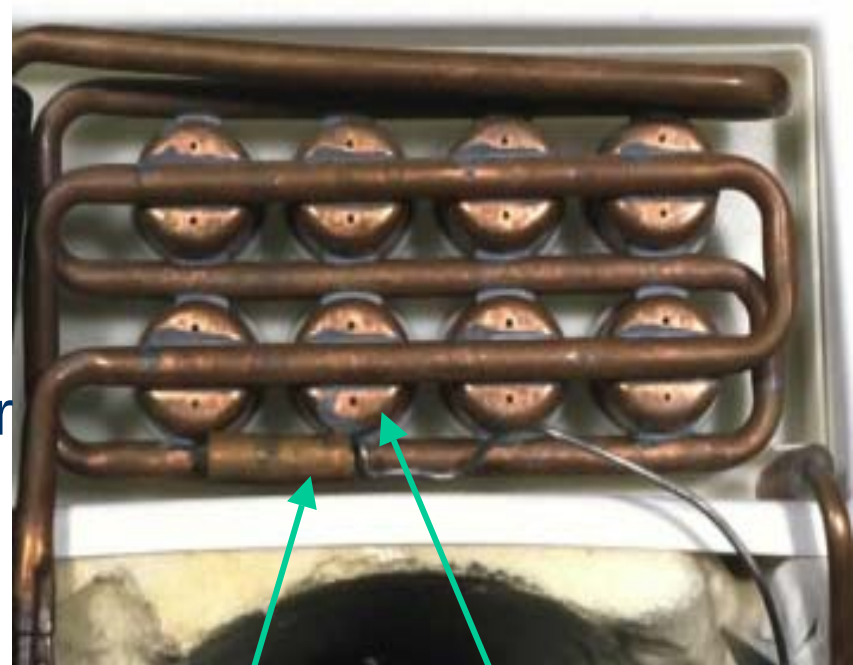


- Water flows in during harvest
- Harvest cycle is timed
 - Pump is off
 - Fan is off
 - Compressor is ON
 - Hot gas and Water valves are ON
- When the timer cam pushes in the switch button, the freeze cycle starts.

- At the beginning of freeze
 - Fan is ON
 - Pump is ON
 - Compressor is ON
 - Timer is OFF
 - Hot gas and water valves are OFF

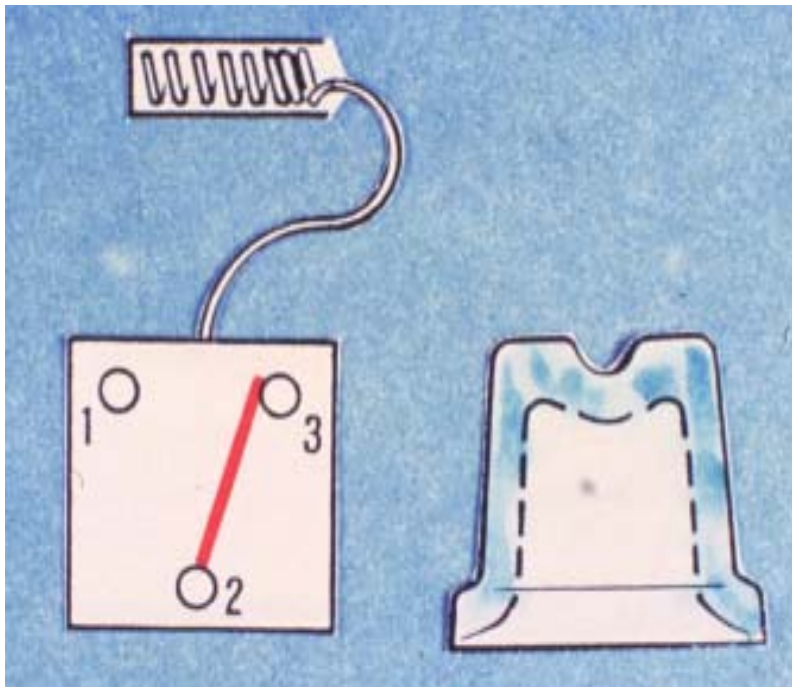
- Reverse acting thermostat
 - Senses evaporator temperature
 - Closes upon temperature fall
 - Connects power to timer motor
 - Timer cam rotates to finish the cycle

Top View of Evaporator

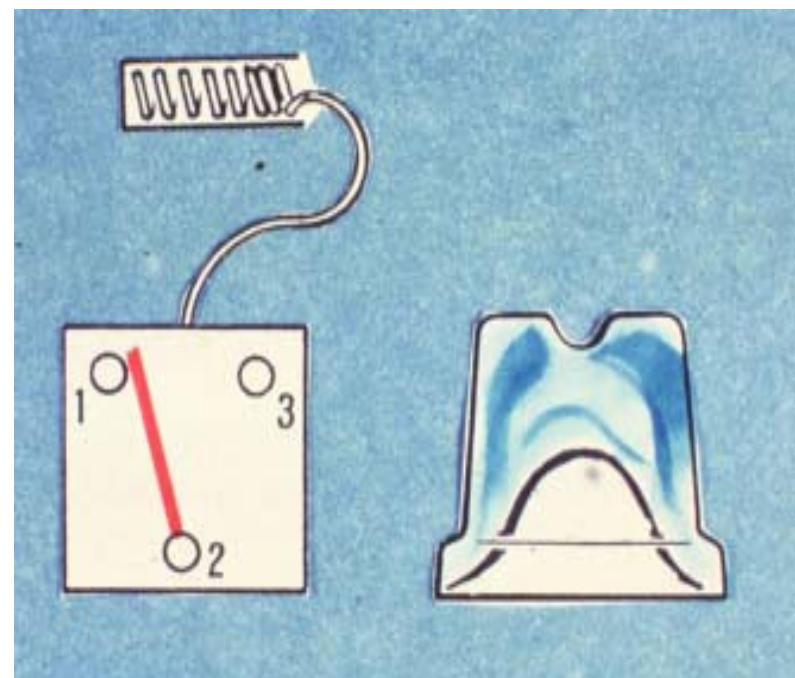


Cube Size Bulb

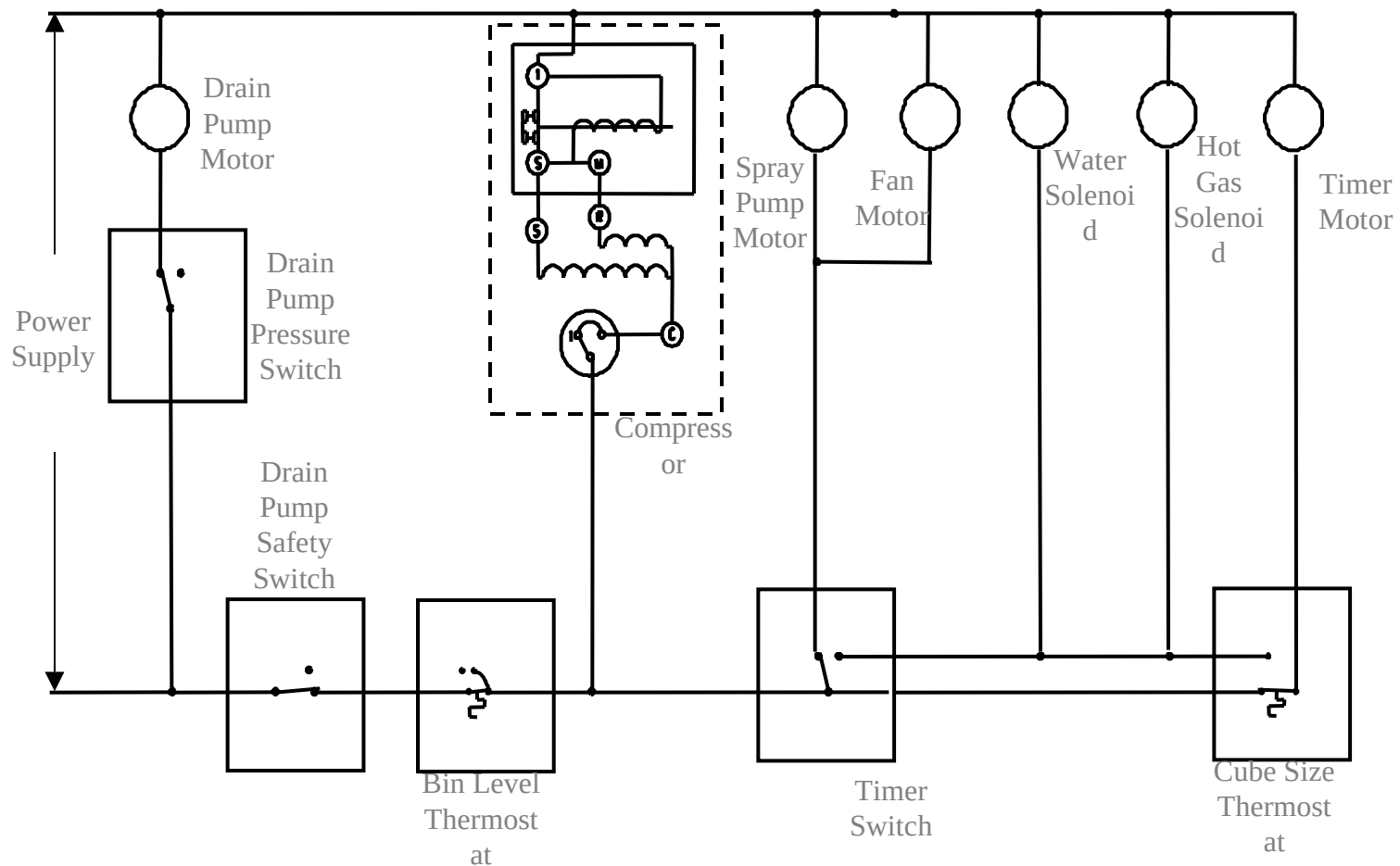
Cube Molds

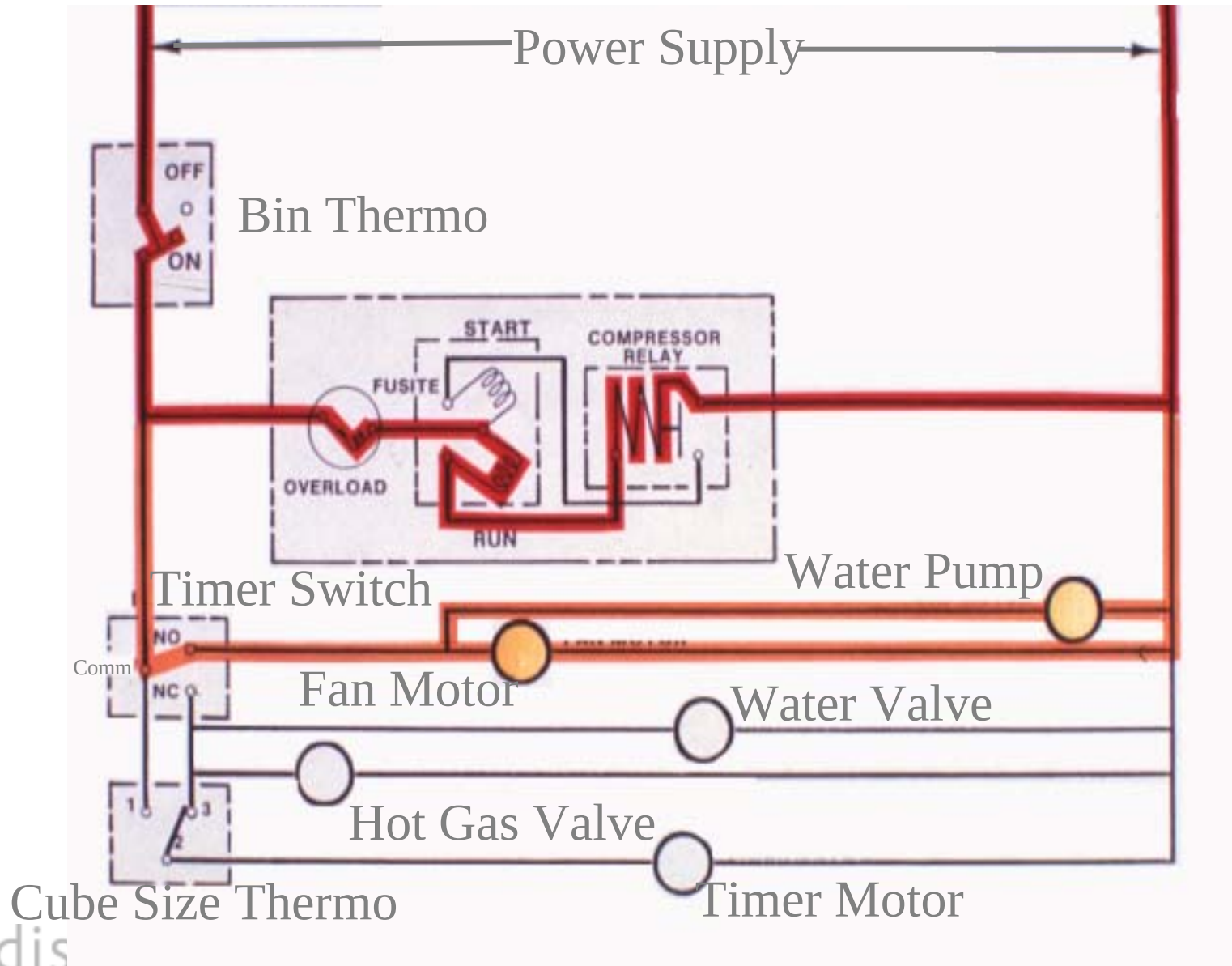


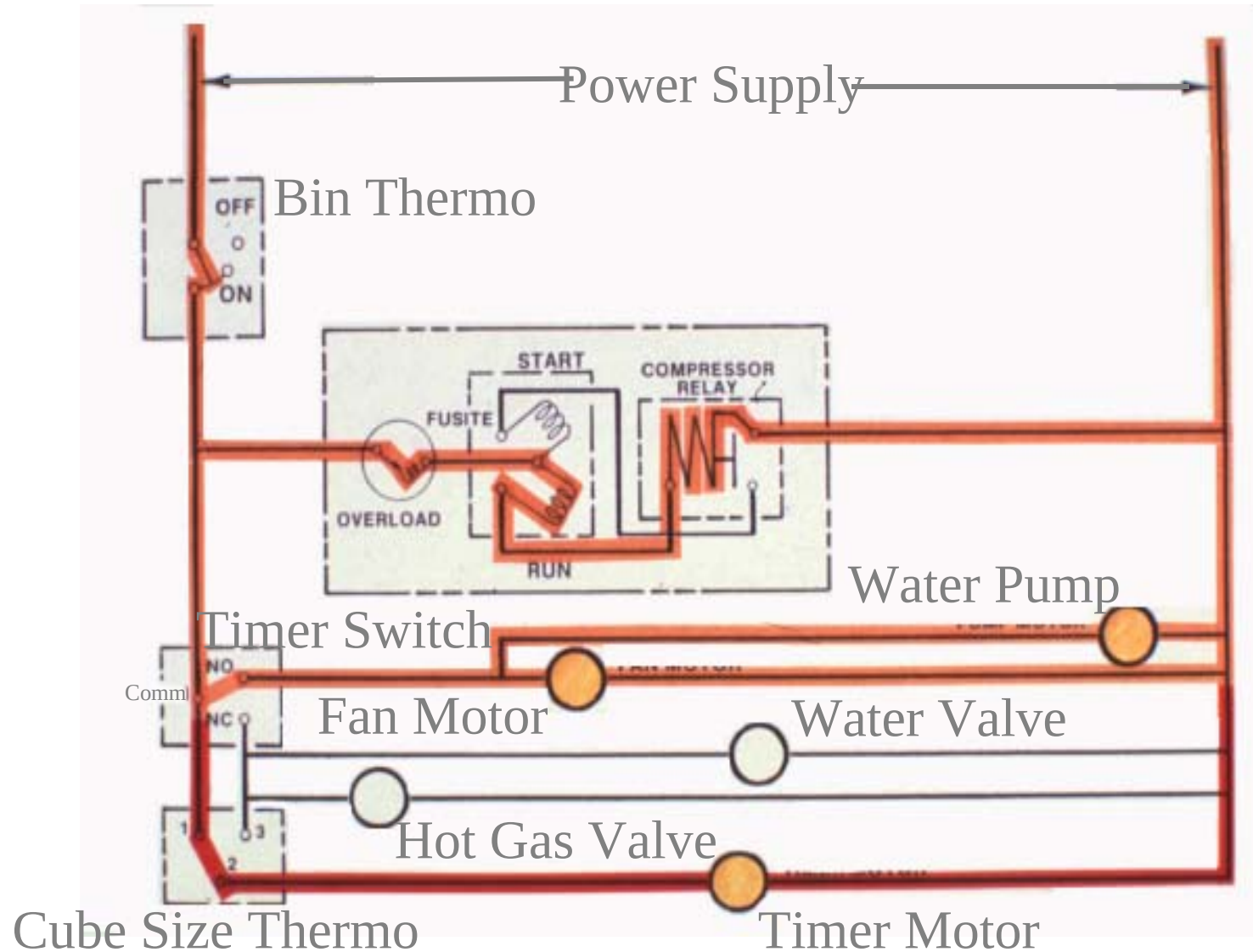
Beginning Freeze

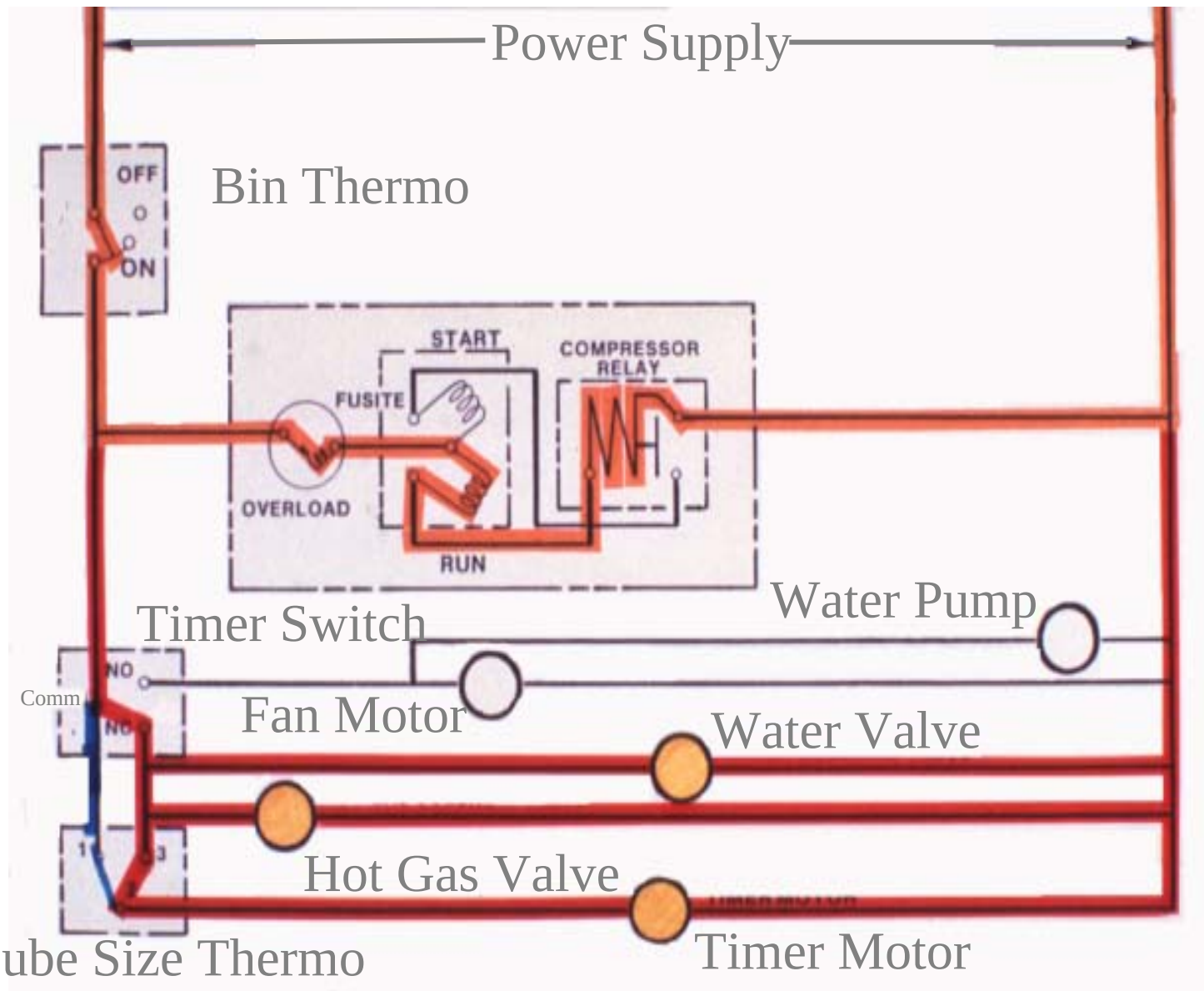


Timed Freeze

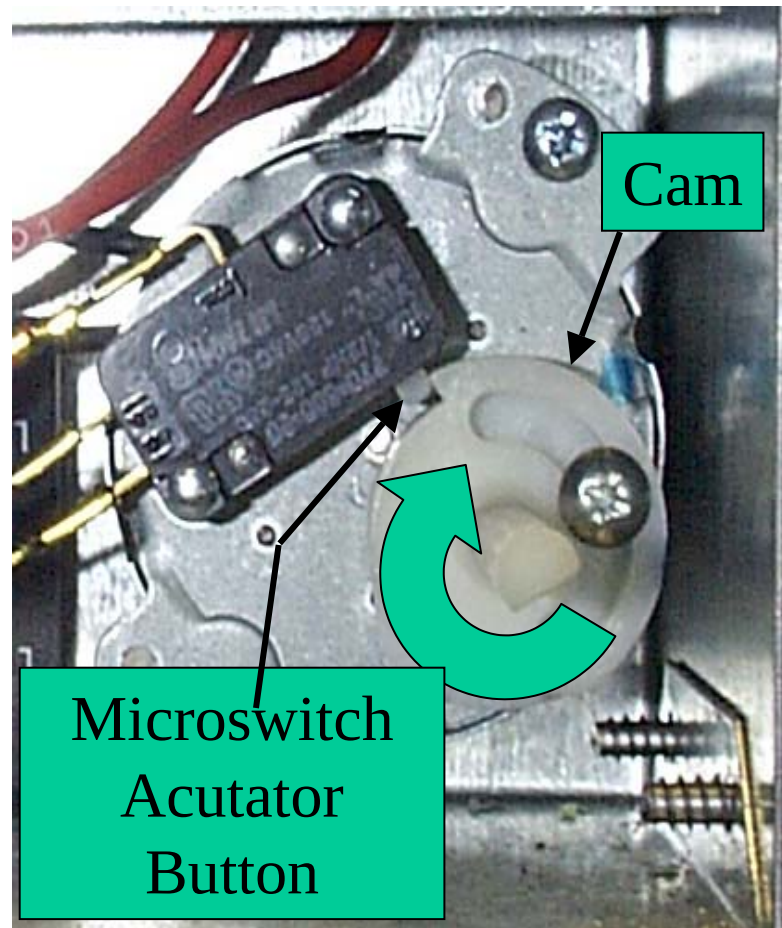








- Timer Controls end of Freeze cycle and Harvest cycle
- Shown in Harvest Position
- Clockwise ONLY!



- Cube Size Thermostat controls timer motor
- Rotate Adjustment Screw Clockwise to make LARGER cubes
 - Delays start of timer motor



Cube Size Adjustment

- Bin Thermostat

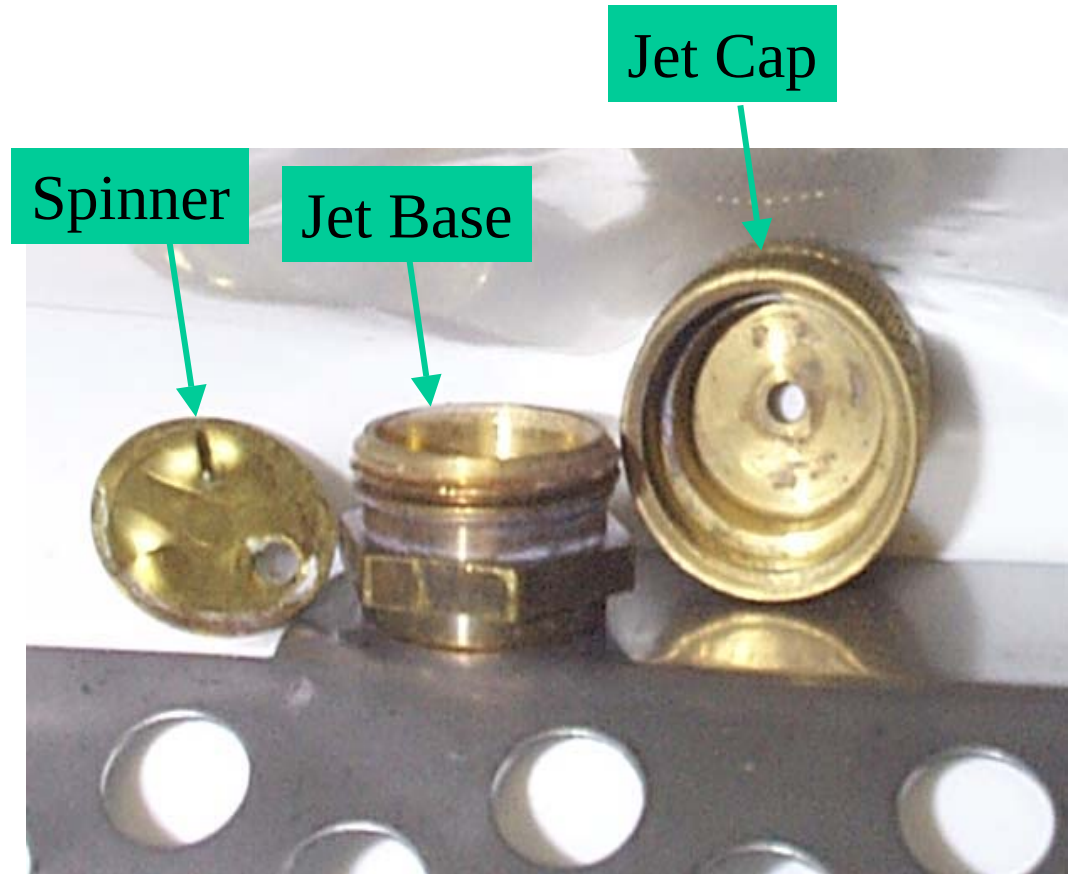


- Frequency depends upon conditions
- Water System Cleaning
 - Spray Jets
 - Curtain Inspection
- Water System & Bin Sanitizing
- Air Cooled Condenser Cleaning

- Switch Unit OFF
- Discard old ice
- Pour 4 ounces of Scotsman Ice Machine Cleaner into Reservoir
- Switch Unit ON
- Operate for 2 hours
- Rinse bin with hot water



- All Orifices must be open
- Remove jet cap to confirm
 - Do NOT rotate base!



- Mix Sanitizer
 - One ounce of household bleach to Two gallons of potable water will produce a sanitizing solution
 - Spray or wash all interior surfaces of the bin and door with the sanitizing solution
 - Pour excess down the bin drain
 - Allow to air dry

- Cubes are mal-formed
 - Check spray jets
 - Check curtain
 - Check water fill
 - Water supply
 - Inlet Water Valve
 - Water Filters (if used)



- Cubes are mal-formed
 - Water may be leaking out of reservoir
 - Check pump hoses
 - Check curtain

- Low Capacity
 - Normal capacity takes about 24 to 36 hours to fill up & shut off after start up
 - If slow, check cube count
 - Should be 8 full cubes
 - Check cycle time
 - Should be about 1/2 hour
 - » If long, check condenser or
 - » Inlet water valve might be leaking through
 - Check bin for proper draining
 - Accumulating water will melt ice

- Makes too much noise
 - Check fan blade for shroud contact
 - Check pump fan for foil contact (loose foil)
 - Foil no longer used
 - Check back panel for loose screws
 - Check pump for tight bearings



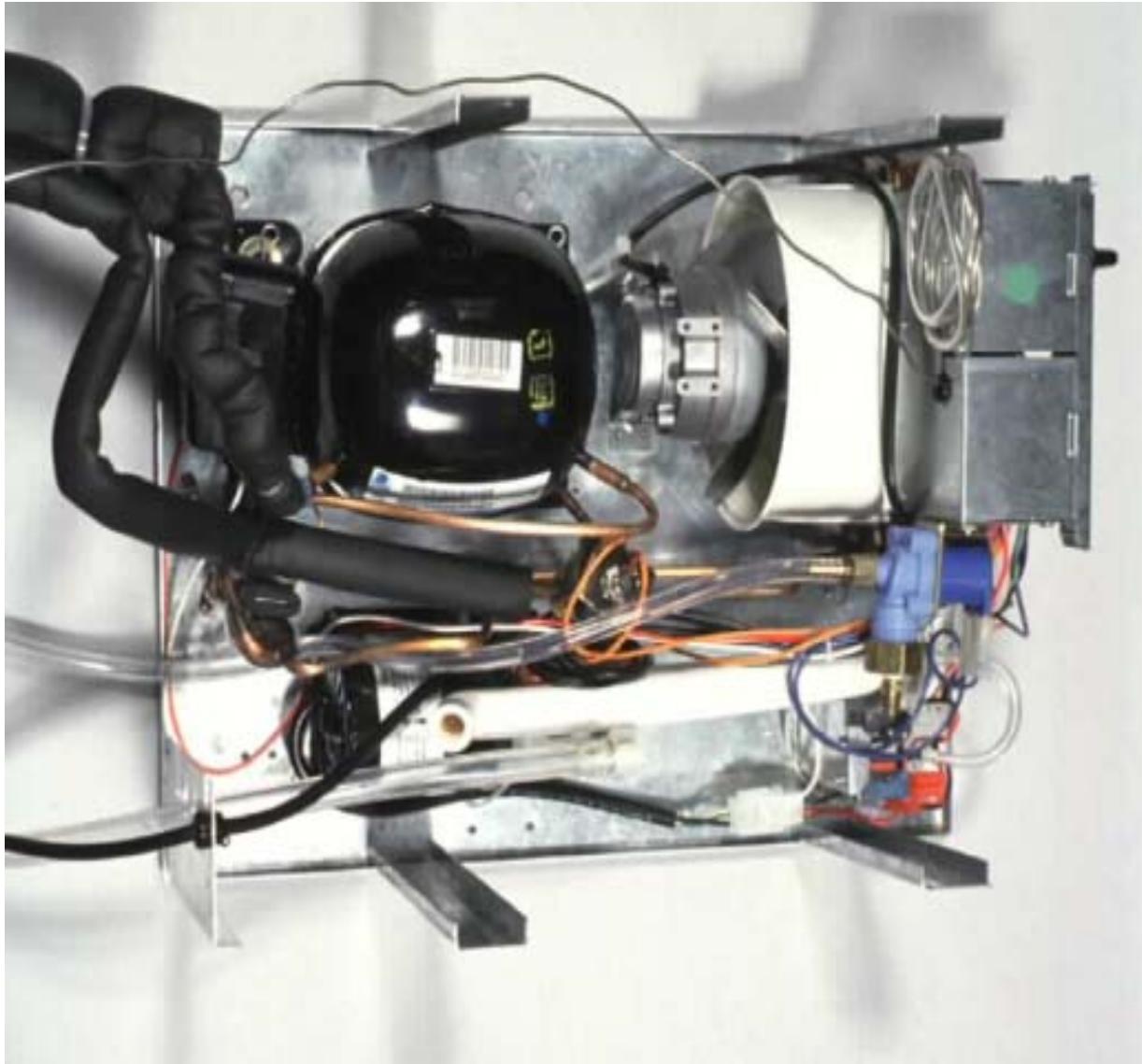
- Does not make ice - nothing working
 - Bin thermostat open
 - Pump model pressure switch open
 - Water backed up and pump not running
- Pump and fan on, compressor not
 - Check compressor and start relay



- Compressor, fan and pump on, water spraying, no ice
 - Cube size thermostat not closing
 - Too much heat load from water leaking through inlet water valve
 - Can't reject heat due to dirty condenser
 - Thermostat failed

- Makes partial cubes
 - Spray jet dirty
 - Water level low
 - Water trapped on top of evaporator
 - Weep hole restricted
 - Low charge because of a refrigerant leak

- R-134a system
 - Uses Tecumseh compressor (1/8 HP)
 - Hot gas bypass to defrost evaporator during harvest
 - 5 ounce charge
 - Do not connect high side gauge - too much charge will go into the hose!
 - Suction at the end of freeze is about 5 PSIG



- Compact ice machine
- Can be built in
- Pump or Gravity Drain model
 - Drain pump is magnetic drive - no leaks!
- Reversible Door
- 8 cubes per cycle
- Makes commercial quality ice



Commercial Kitchen Equipment Parts

Find more Scotsman equipment resources at

parthubz.com/equipment/scotsman

Need parts or service?

Call 833-700-8006

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