

HID312, HID525 and HID540

- Meridian Ice Maker-Dispensers
- Technical Service



Scotsman[®]
ICE THE WORLD DEMANDS

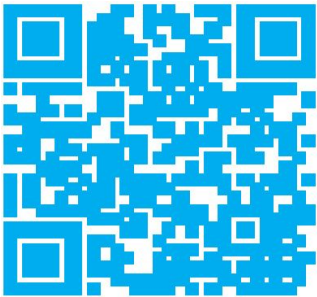


Scotsman® Service Support App



Check out the new mobile ready website

Service site



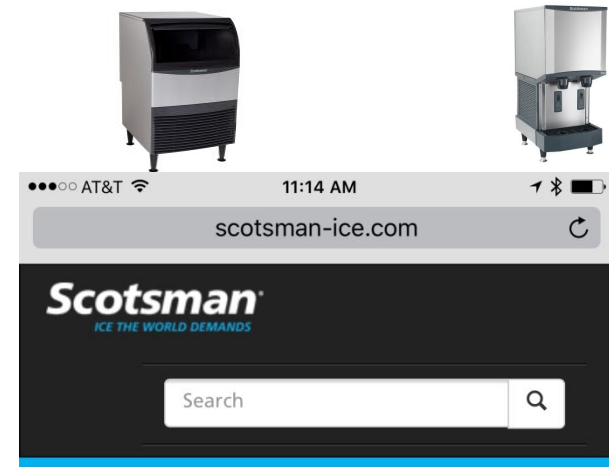
www.scotsman-ice.com/service

How to Video



<https://youtu.be/AuW7YuC9etg>

Scan the qr code above or go to www.scotsman-ice.com/service on your smart phone, the “add to home screen” and you are all set. For more info, got to <https://youtu.be/AuW7YuC9etg> or scan the qr code watch the how to video for iPhone and Android



Service Information Menu

PARTS BREAKDOWN

SERVICE MANUALS

USER MANUALS

CLEANING & MAINTENANCE

TECHNICAL & DIAGNOSTIC TOOLS

INSTRUCTIONS

BULLETINS



Technical Service Virtual Business Card



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ICE THE WORLD DEMANDS



What you will learn

- Introduction
- Installation
- Operation
- Maintenance
- Take It Apart
- Diagnostics

HID Ice Maker-Dispensers

- HID models replace MDT models
- 2 widths, 16 and 21 inches
 - 21 inch models have 2 heights, 35 and 41 inches
- Bin storage 12, 25 and 40
- Touch Free dispensing
- Cord connected – 15 amp
- New ice form

HID312

- 16 wide, 35 high
- 12 lb storage
- Air Cooled
 - Washable air filter standard
 - Air flow left to right
- Legs optional
- Wall mount version
 - No drip tray
 - Long splash panel



HID525

- 21 wide x 35 high
- 25 lb storage
- Air or Water Cooled
 - Air flow left to right
 - Washable air filter standard
- Legs optional
- Wall mount version
 - No drip tray
 - Long splash panel



HID540

- 21 wide by 41 high
- 40 lb storage
- Air or Water Cooled
 - Washable air filter standard
 - Air flow left to right
- Legs optional
- Wall mount version
 - No drip tray
 - Long splash panel



Common Parts to Models – Excluding Voltage

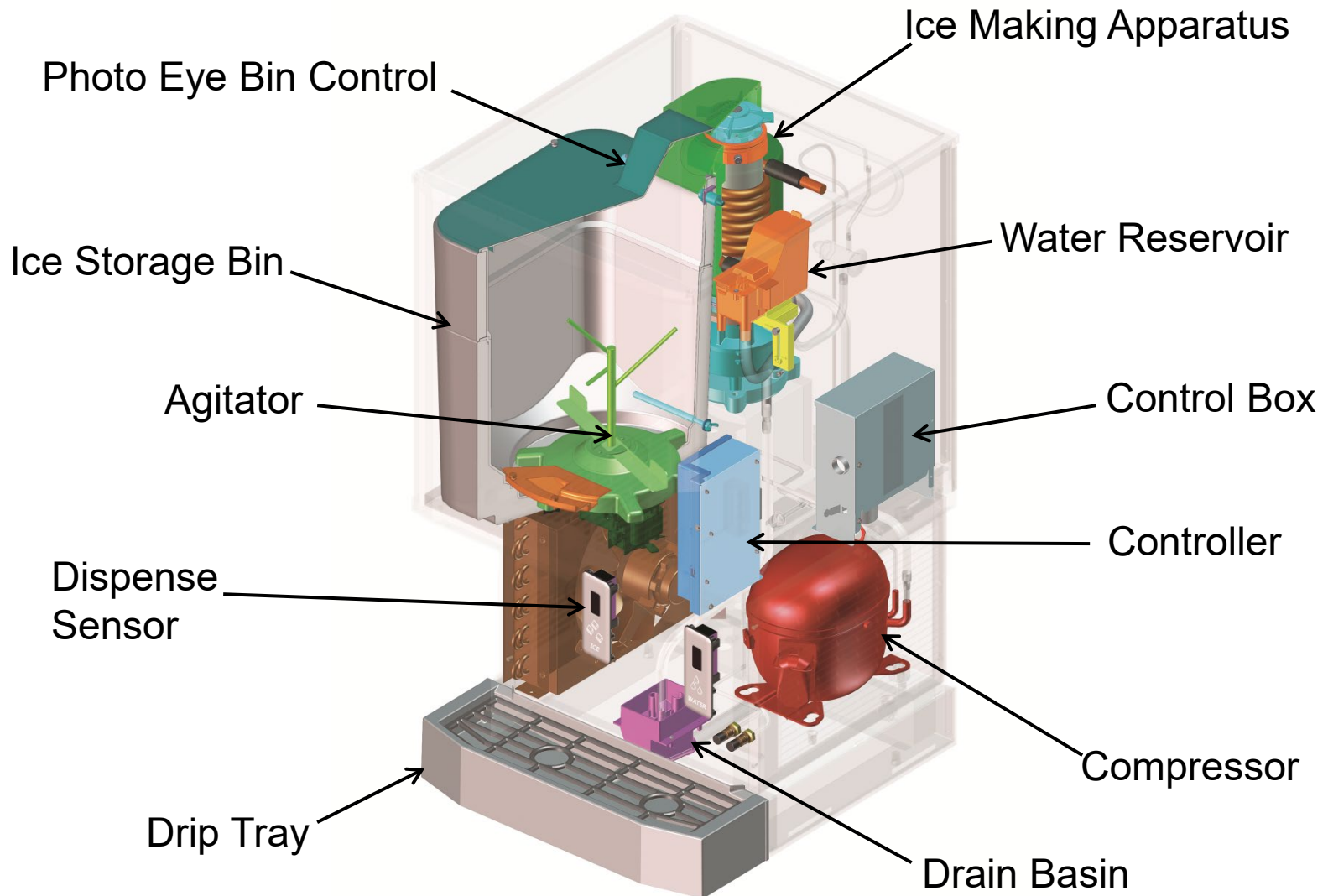
- Same:

- Gear reducer
- Auger
- Evaporator
- Breaker
- Bearings
- Water seal
- Controller
- Sensors

- Same

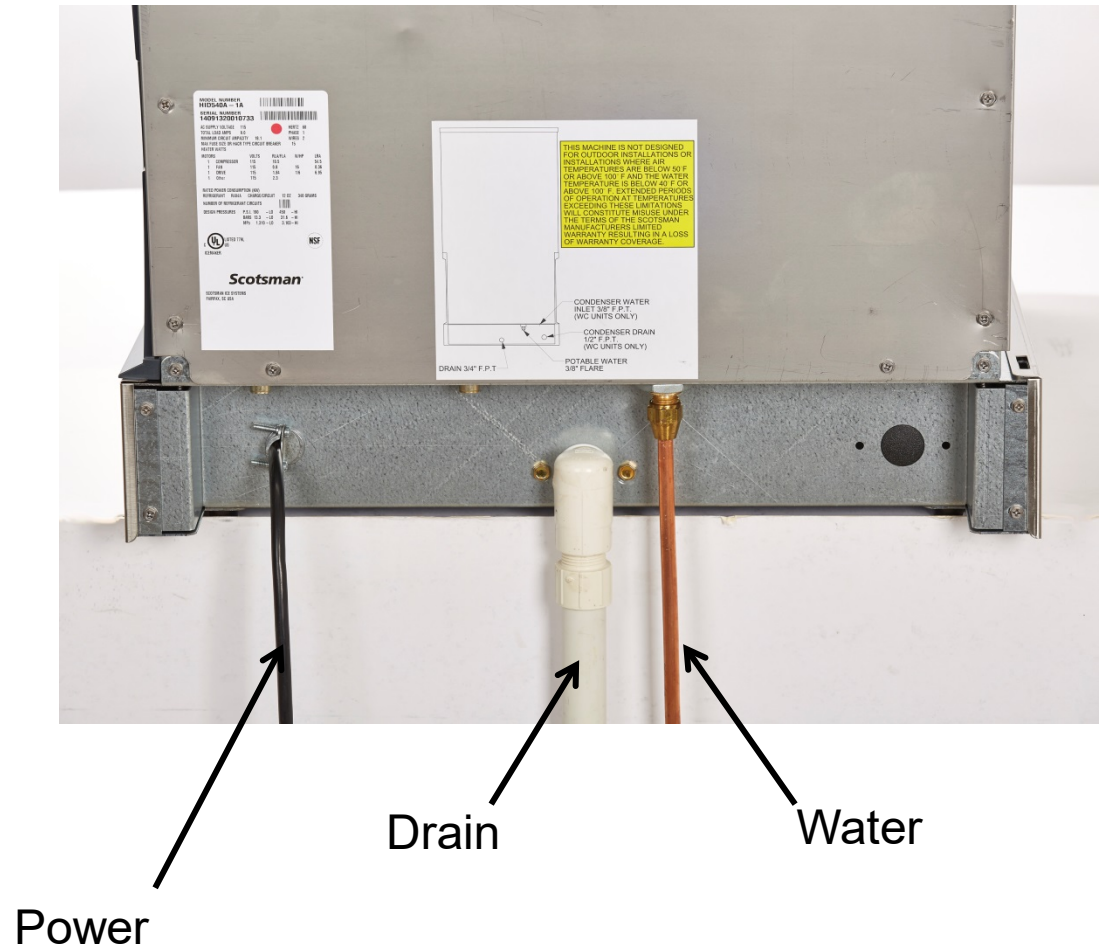
- Compressor
 - HID525 and HID540
- Dispense drive motor
- Construction
 - Chutes
 - Many panels
- Operation

Component Location



Installation - Utilities

- Recessed area
 - Power cord
 - 5-15P plug
 - Water fitting
 - 3/8 male flare
 - Remember to flush the line!
 - Drain fitting
 - 3/4 FPT
 - Vent horizontal runs



Water Filtration and Treatment

- Water conductivity limit: 10 microSiemens/cm
- Taste and Odor Filters
 - Use if water has objectionable taste
 - This type contains activated carbon
 - T & O Filters remove chlorine
 - Chlorine frequently added by water treatment plant to kill bacteria
- Risk of increased bacteria growth by using a Taste and Odor filter
 - Other types available

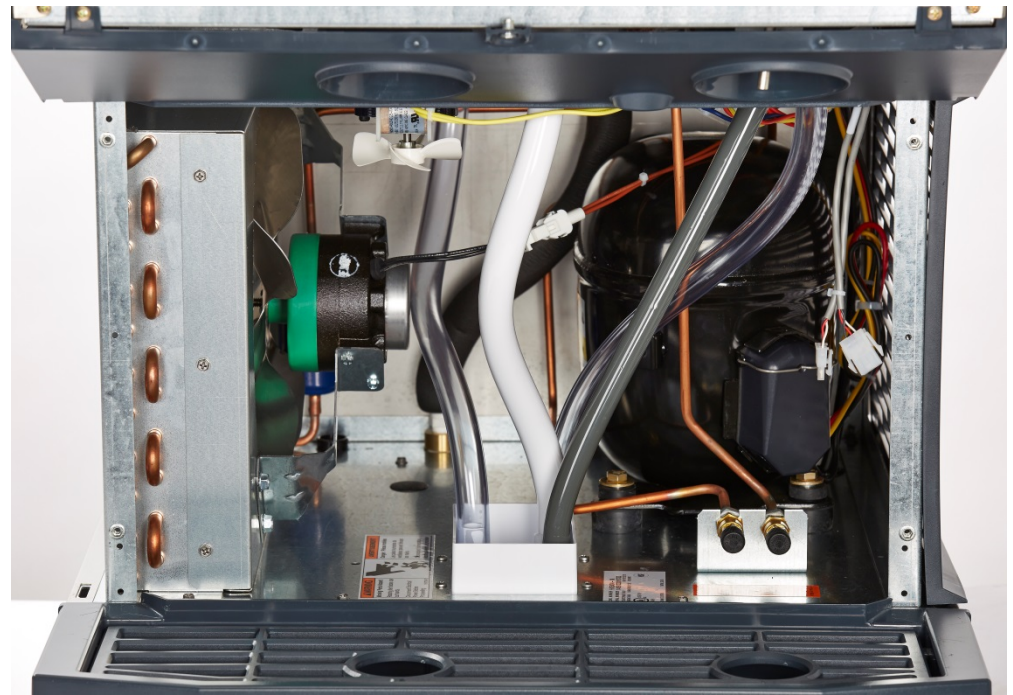
Installation

- No parts to assemble
- Place on counter
 - Do NOT lift on drip tray
 - Rubber bumpers on bottom
 - Seal cabinet to counter
 - Or use legs
- Place on stand
 - Bolt to stand
 - Seal cabinet to stand



Pre – Start Check

- Remove front panel
- Remove splash panel, check for:
 - All hoses in place
 - Drip tray on all the way
 - Tubes chaffing
 - Loose parts



Installation – Start Up

- Turn on water supply
 - Confirm no leaks
- Connect power
- Push On-Off button
 - *F* displayed
 - Auger motor starts
 - Auger light on
 - Compressor starts
 - Compressor light on



Start Up

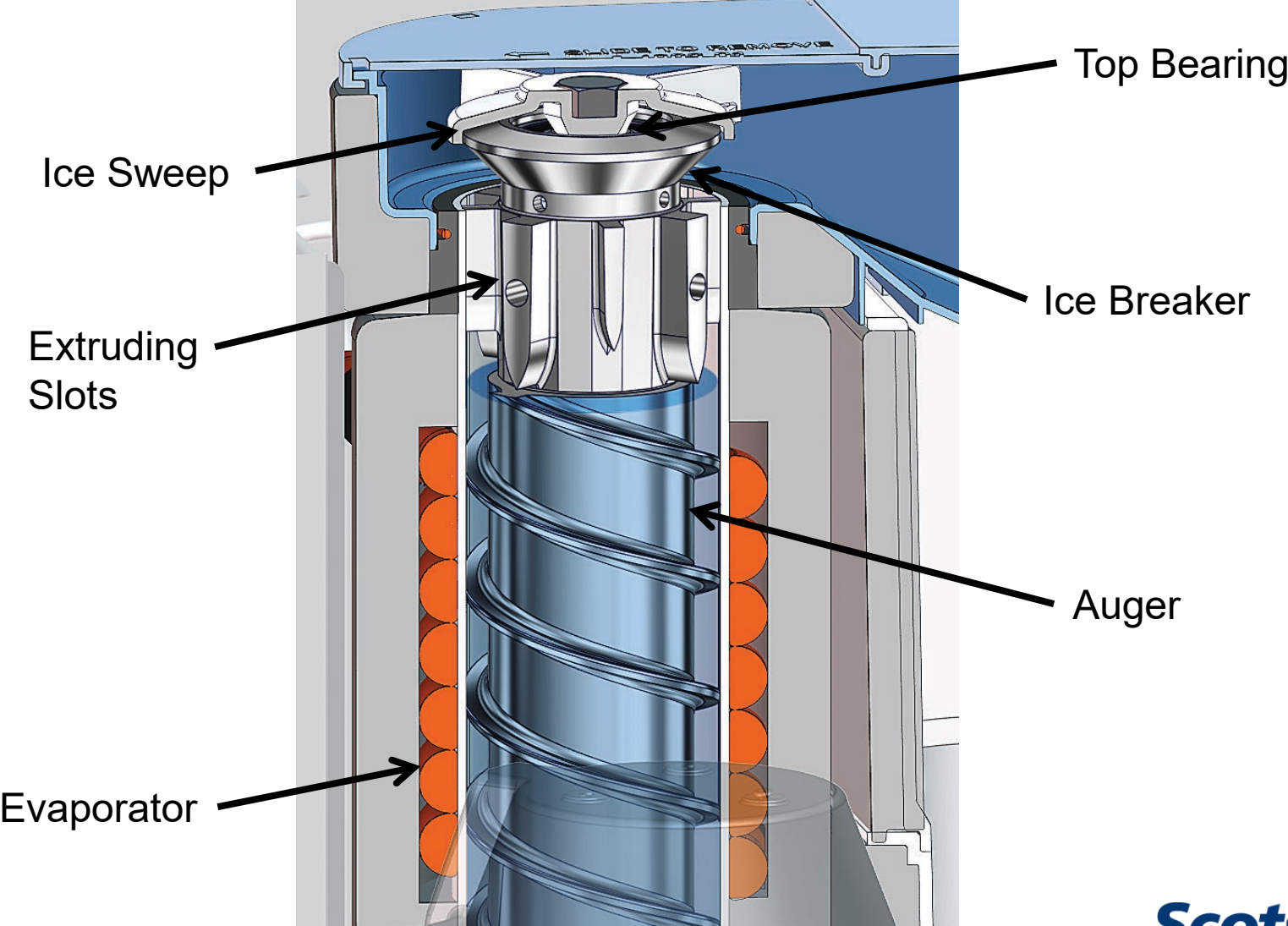
- Check dispensing of ice and water
- Check bin control for shut off
 - Remove bin cover, block eyes in chute
- Pour water in drip tray, check draining
- Return front panel to unit
- Return splash panel to unit

Ice Form

- Extruded ice
- The new H2 nugget ice



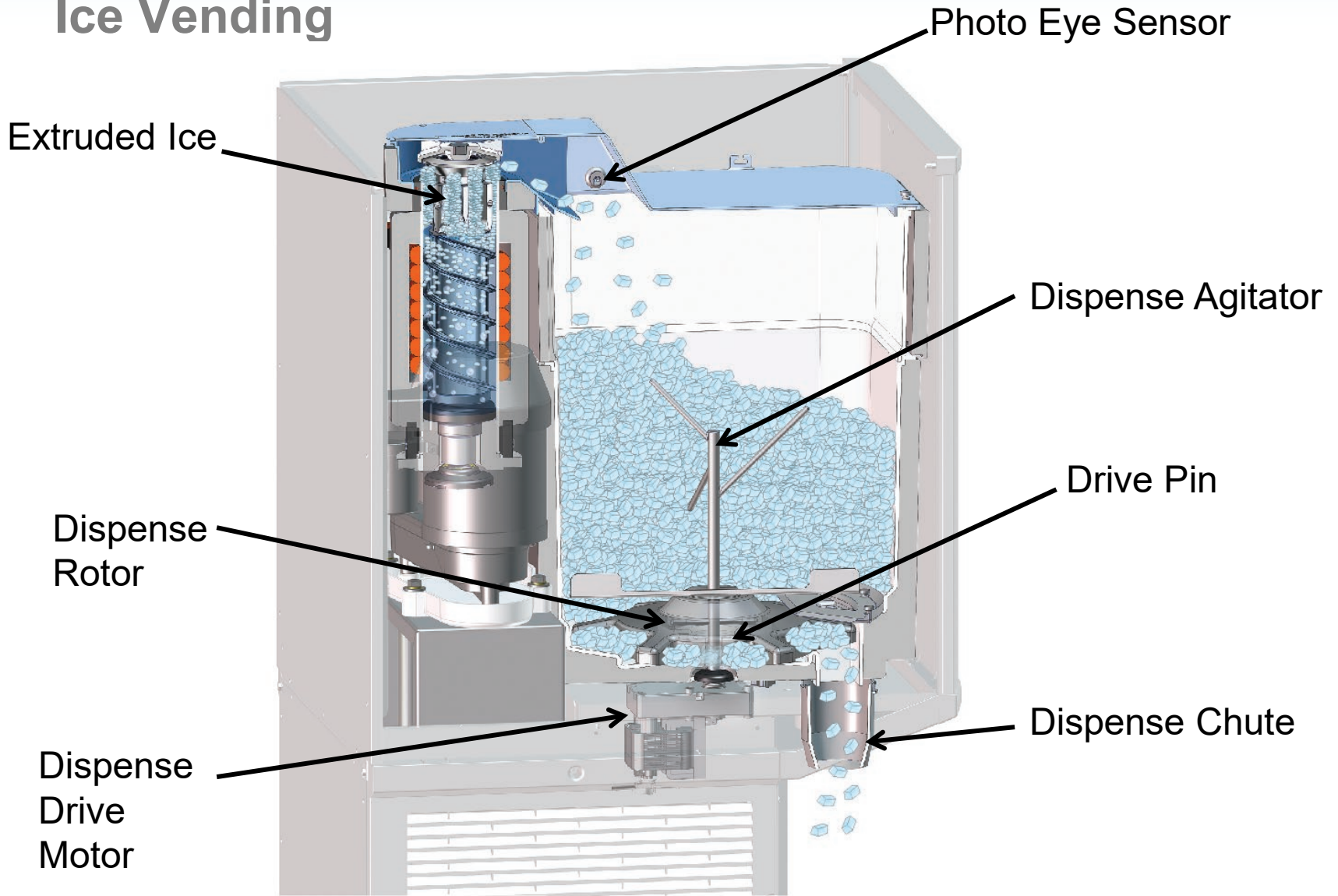
Ice Making Type: Continuous Flow



Ice Making



Ice Vending



Operation – 115 volt models @ 70/50

HID312 - R-134a (PSIG)		HID525 or 540 - R-404A (PSIG)	
Suction	Discharge	Suction	Discharge
6 - 8	102-105	30-32	235-250

	Compressor Amps	Gear Reducer Amps
HID312	4.1 – 4.3	1.1 – 1.3
HID525 or 540	5.5 – 5.9	1.1 – 1.5

Maintenance

- Flush out drain
- Drip tray removal and cleaning
- Air filter cleaning
- Water system cleaning and sanitizing
- Dispense system cleaning and sanitizing

Clean out and flush drain

- Remove visible debris
 - Coffee grounds
 - Stir sticks
- Pour hot water into drip tray to flush out drain
 - Suggest weekly flush if beverages are commonly dumped in it
 - Can remove drip tray if drain is slow or plugged

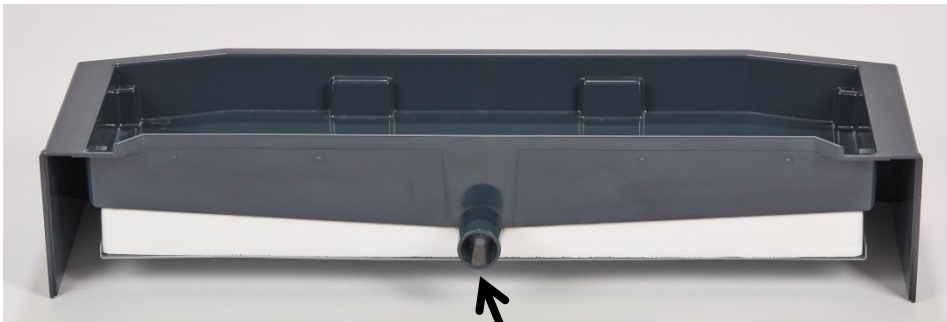
Drip Tray

- Remove splash panel
- Pull drip tray out to remove



Drain System

- Drip tray drains into basin
- Basin drains to rigid PVC pipe
 - .8" ID
- 15" from inlet to back of unit



To ease removal add very small amount of food grade lube to drain stub or o-ring.



Air Filter

- Pull air filter out
 - Wash off, dry and return
 - Also in water cooled
 - For appearance only



Air Cooled Condenser

- Remove louvered panel to access inlet surface
 - One screw, push down and remove
- Brush off any loose lint
- Vacuum



Water System Maintenance

- Scale Removal
- Sanitizing
- Cleaning Reminder Indicator Light
 - On after 6 months of power connected time
 - Reset after following the factory cleaning process



Scale Removal

- Remove front and splash panels
- Push On-Off button to shut ice making off
- Shut water off
 - At reservoir float valve or at hand valve to machine



Scale Removal

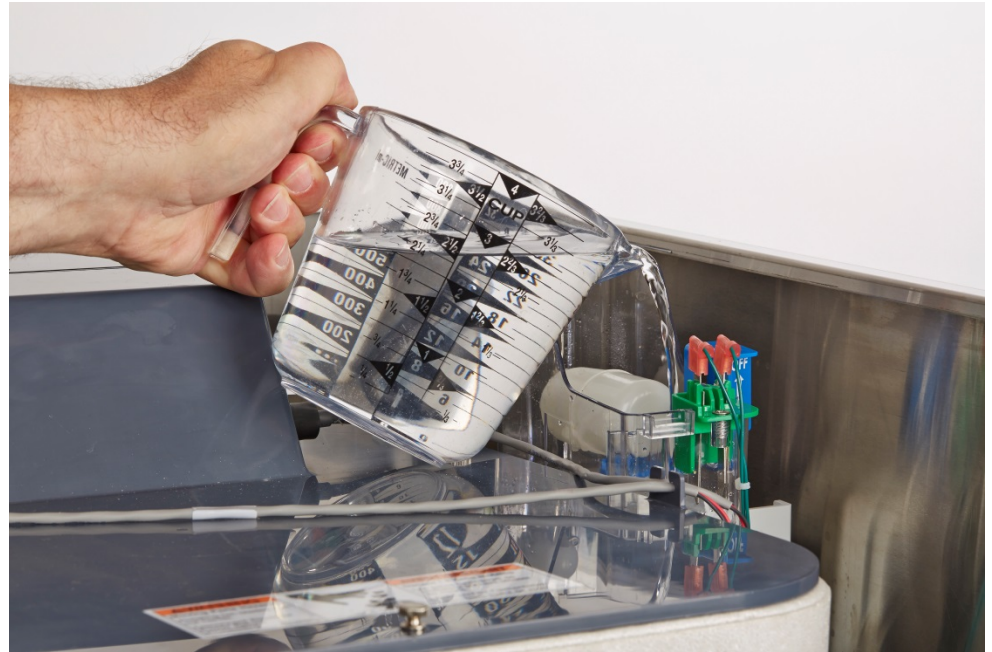
- Drain water system
 - Pull reservoir drain hose off its plug at drain basin
 - Reconnect hose to plug when done



Note: Drip Tray
Must Be Attached

Scale Removal

- Remove reservoir cover, add hot water to fill reservoir and evaporator
- Soak for 2 minutes
- Drain the hot water



Scale Removal

- Mix a solution of 50/50 scale remover and potable water
 - 12 ounces each Clear 1 and water
- New ratio – do NOT use on other models that make ice during cleaning



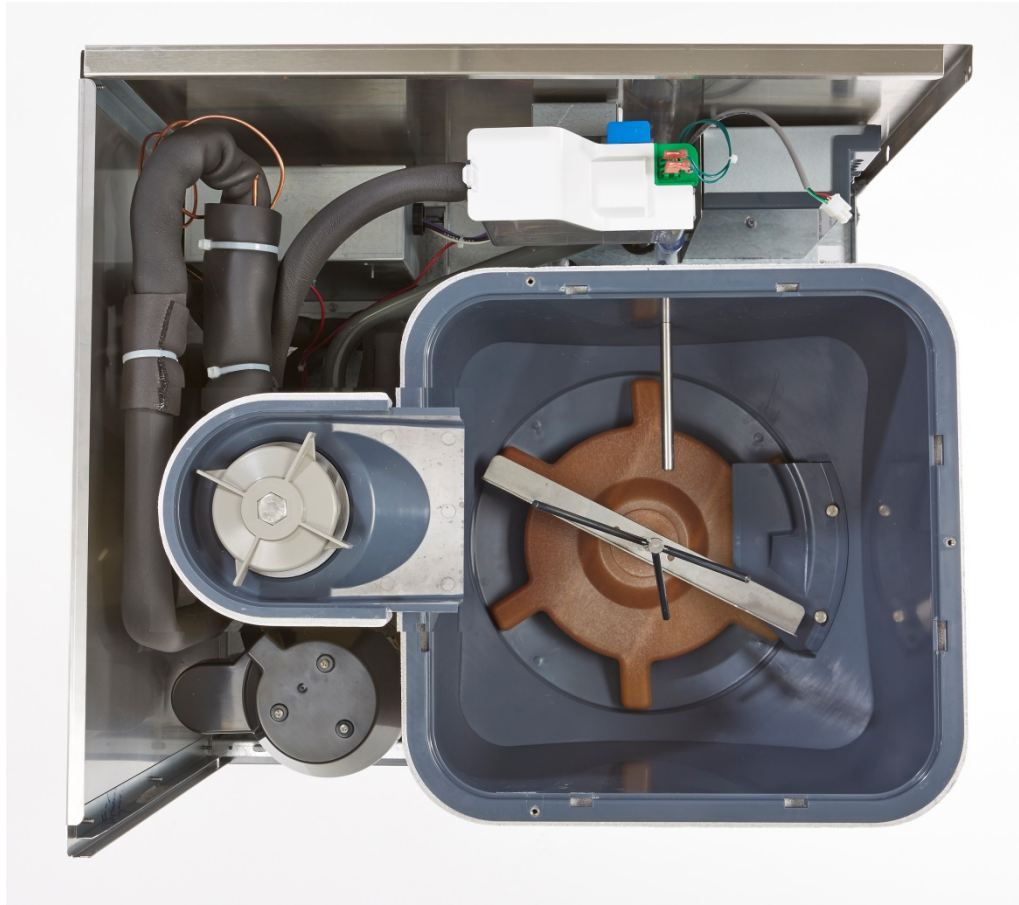
Scale Removal

- Loosen thumb screw holding reservoir to post
- Lift reservoir to top of slot, retighten thumb screw



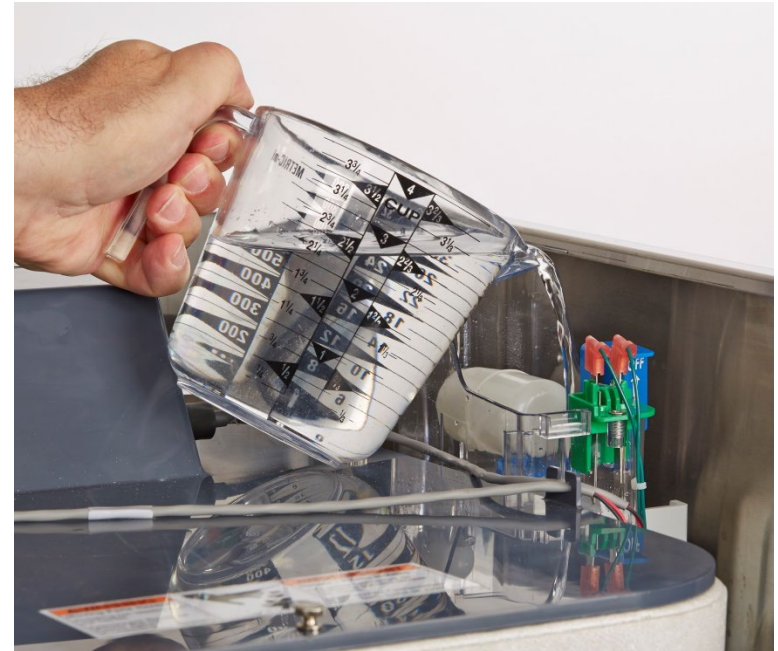
Scale Removal

- Vend all ice from the bin
- Remove cover from bin



Scale Removal

- Pour the scale remover mixture into the reservoir
- Push the Clean button



Auger will operate for 30 minutes and then shut off. Stop at any time by pushing the on off button

Scale Removal

- Unplug or disconnect electrical power
- Drain the scale remover
- Add fresh water to reservoir
- Drain again



Scale Removal

- Mix 4 ounces of Clear 1 scale remover to 16 ounces of water.
 - Wash the reservoir cover, ice discharge chute, ice dispense chute, storage bin cover and bin liner with the solution.
 - Pour half of remainder into the bin and half into the drip tray.

Sanitize Now

- Use locally approved sanitizer. Scotsman offers Stera Sheen Green Label
 - Mix 2 gallons of solution
 - Pour sanitizer solution into reservoir until full
 - Reconnect electrical power and push On Off to restart ice making
 - Bin cover must be electrically connected
 - Keep adding sanitizer as needed to keep reservoir full
 - Stop after 10 minutes
- Unplug power cord or disconnect electrical power

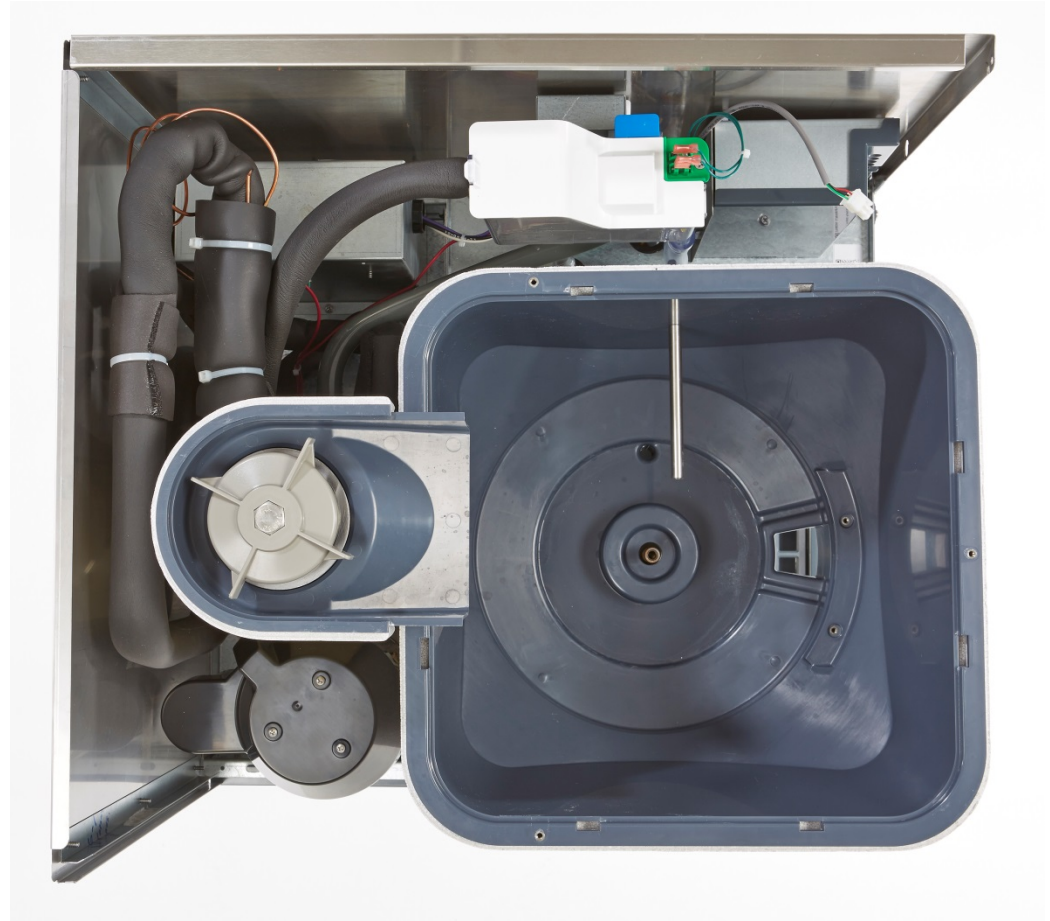
Sanitize

- Pour 16 ounces of hot water into bin to melt ice, repeat until ice is gone
- Remove agitator, ice outlet cover, dispense rotor, and drive pin from the bin.
 - Wash all in the sanitizer solution



Sanitize

- Wash the inside of the bin and ice discharge chute with the sanitizer solution



Sanitize

- Wash the ice discharge chute cover, ice sweep and metal below the ice sweep with the sanitizer solution



Sanitize

- Remove and Wash the ice dispense chute
 - Do the same for the water dispense chute
- Wash the drip tray and grill with the sanitizer solution
- Pour the rest into the bin, do not overfill



Sanitize

- Drain sanitizer
- Refill reservoir with clean water
- Drain reservoir again
 - Be sure drain hose is reconnected to its plug



Sanitize

- Lower reservoir
 - Re-secure with thumb screw
- Return cover to reservoir
- Put ice dispense parts back into bin
 - Drive pin
 - Rotor
 - Agitator
 - Cover



Sanitize

- Plug power cord in or reconnect power
- Push On-Off to restart ice making
 - Bin cover must be electrically connected
- Make ice for 5 minutes, then shut off
- Pour 16 ounces of hot water into bin to melt ice, repeat until ice is gone
- Put the bin cover back on
- Push On Off to restart ice making
- Reattach all panels

Take It Apart

- Remove front and splash panels



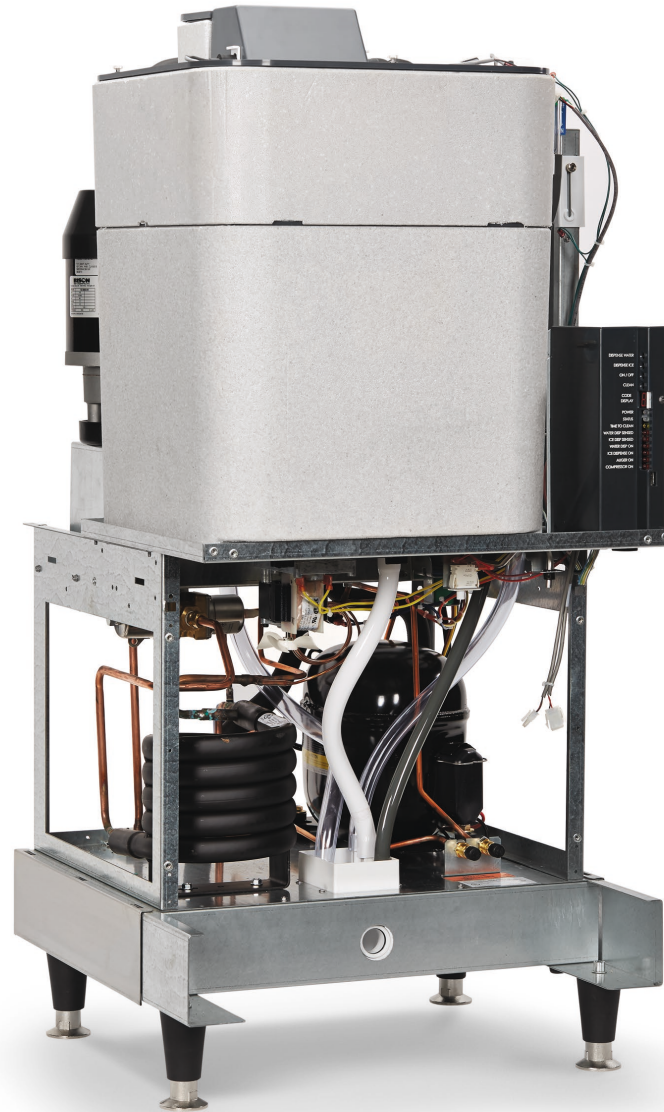
Take It Apart

- Splash Panel
 - 4 screws
 - 2 disconnects



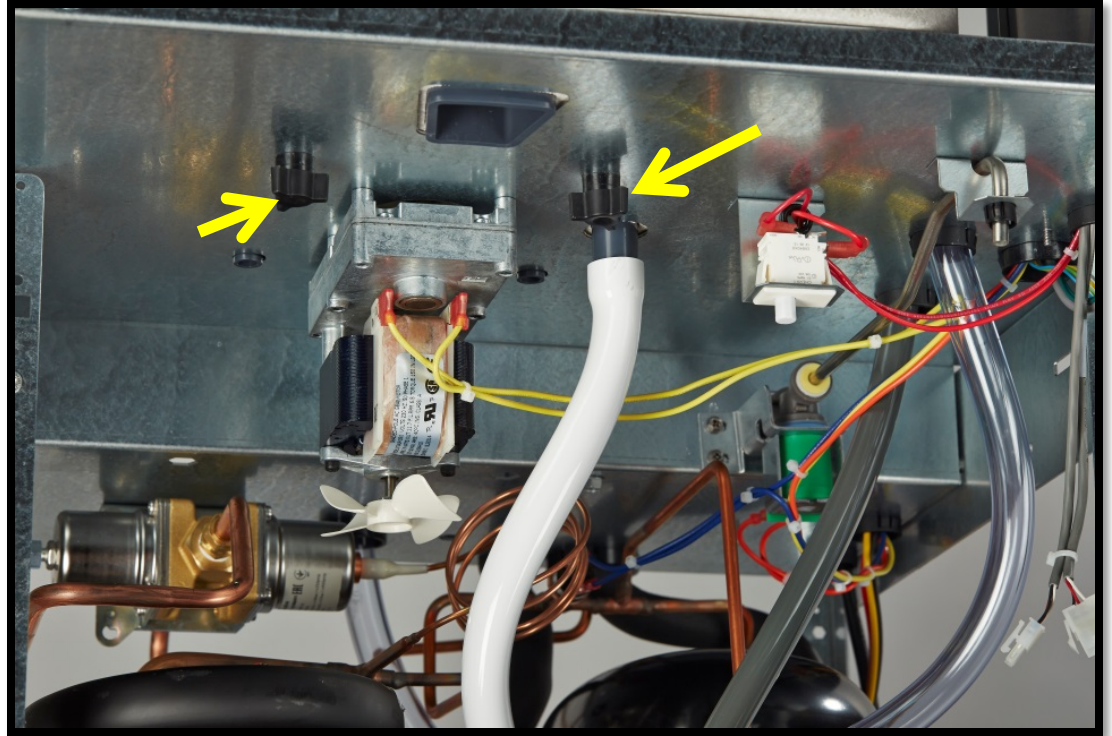
Take It Apart

- Remove all panels
 - Top and side panels
 - Louvered panels
 - Two back panels



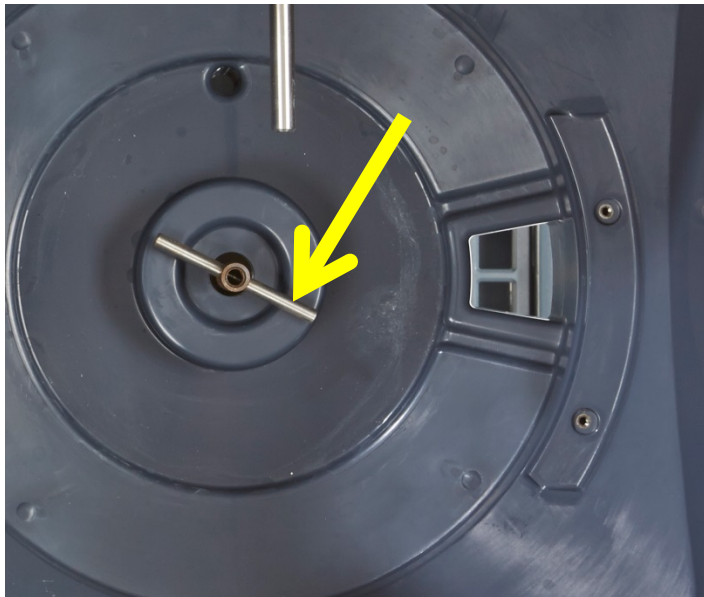
Take It Apart

- Remove bin
 - Splash panel
 - Front panel
 - Top panel
 - Bin cover
 - Chute
 - Chute bracket
 - Drain hose
 - 2 fasteners



Remove Bin

- Parts in bin
 - Agitator
 - Chute cover
 - Rotor
 - Drive pin

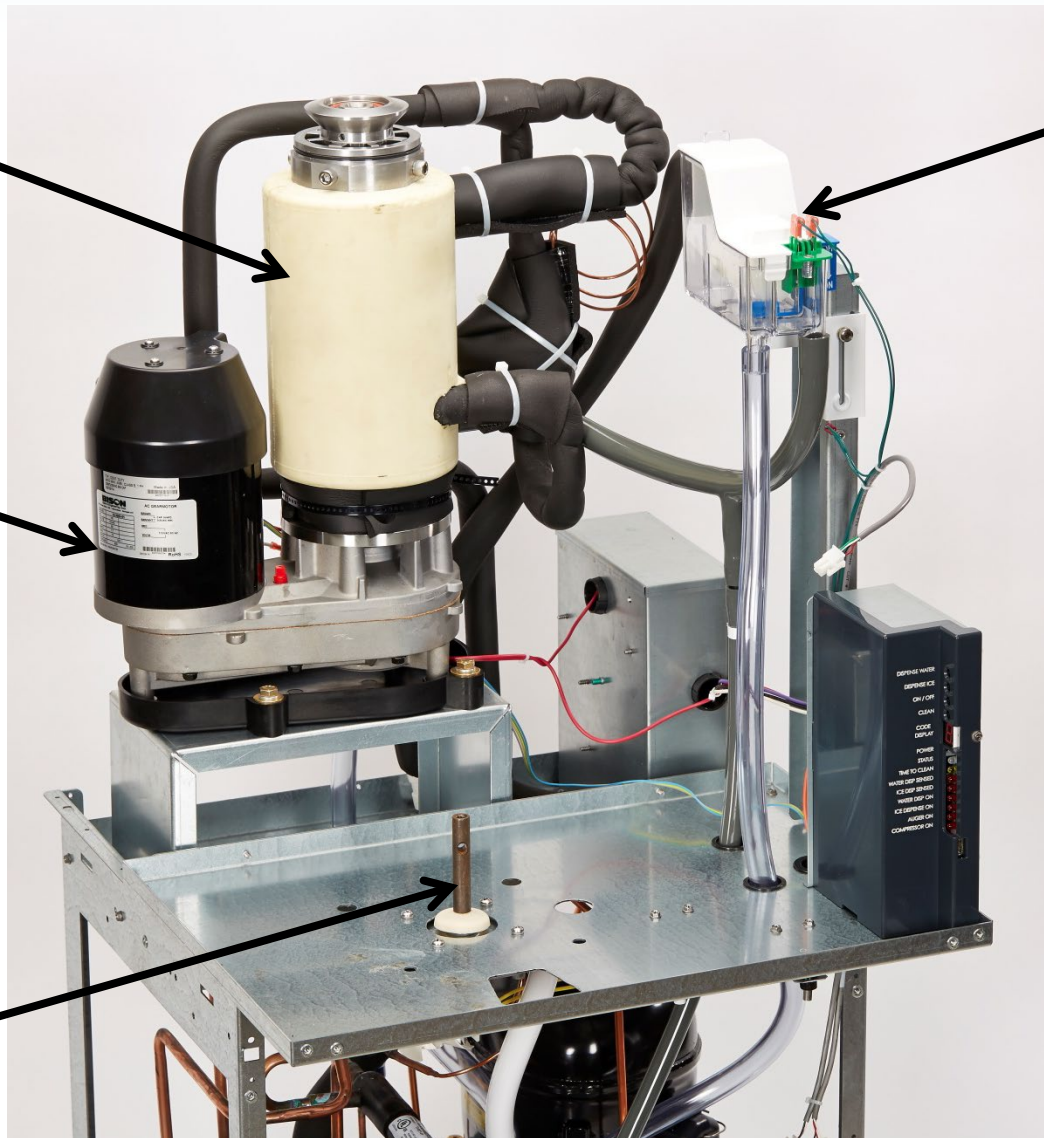


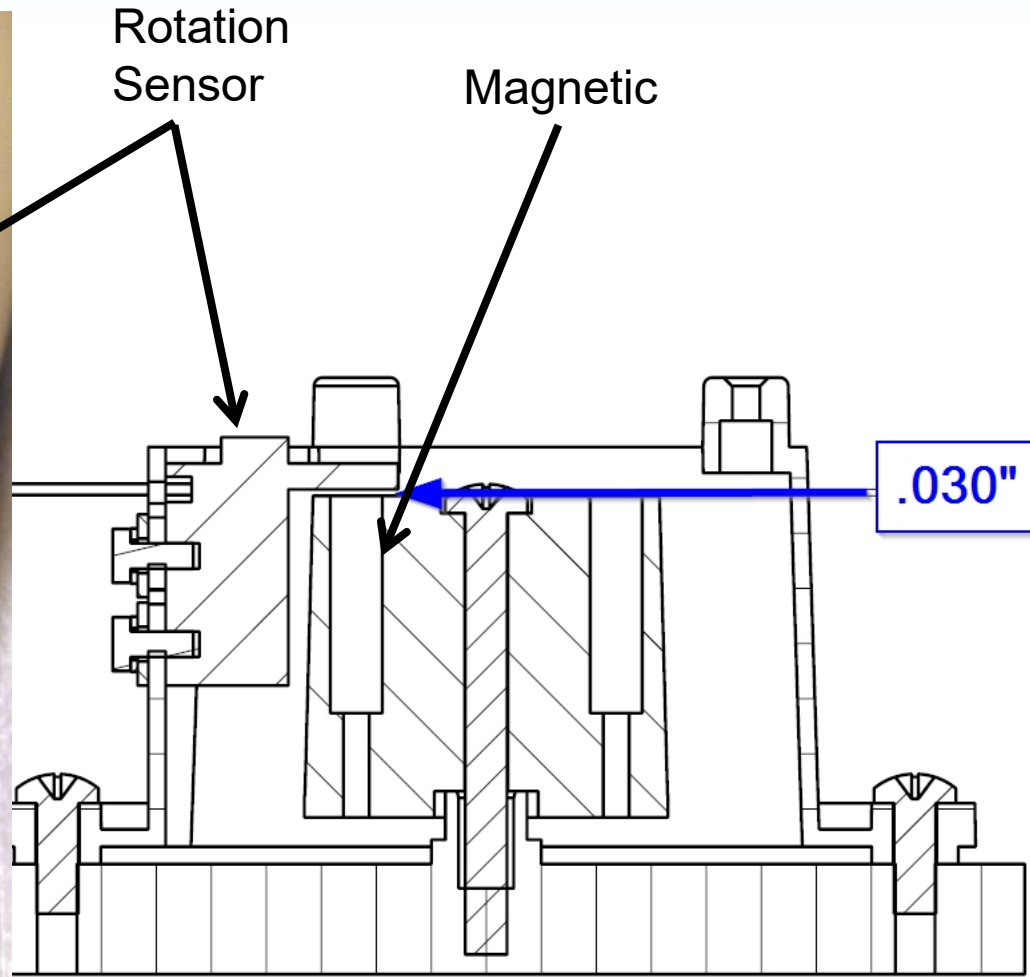
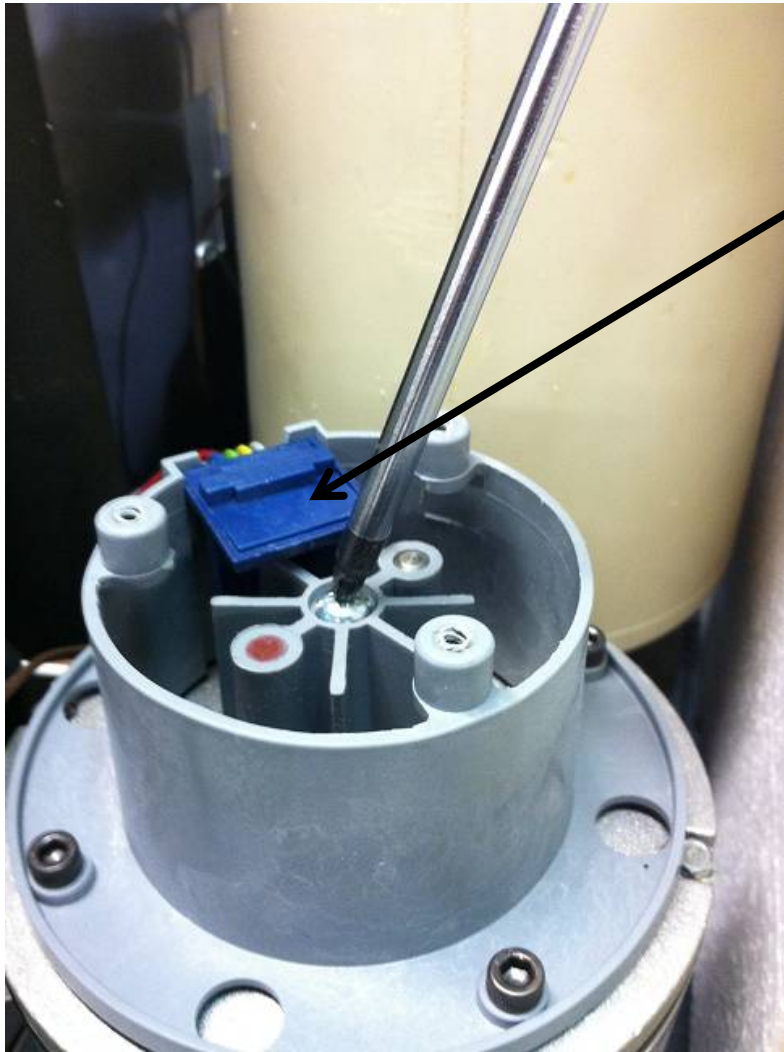
Evaporator

Auger Drive Motor

Dispense Drive Motor Shaft

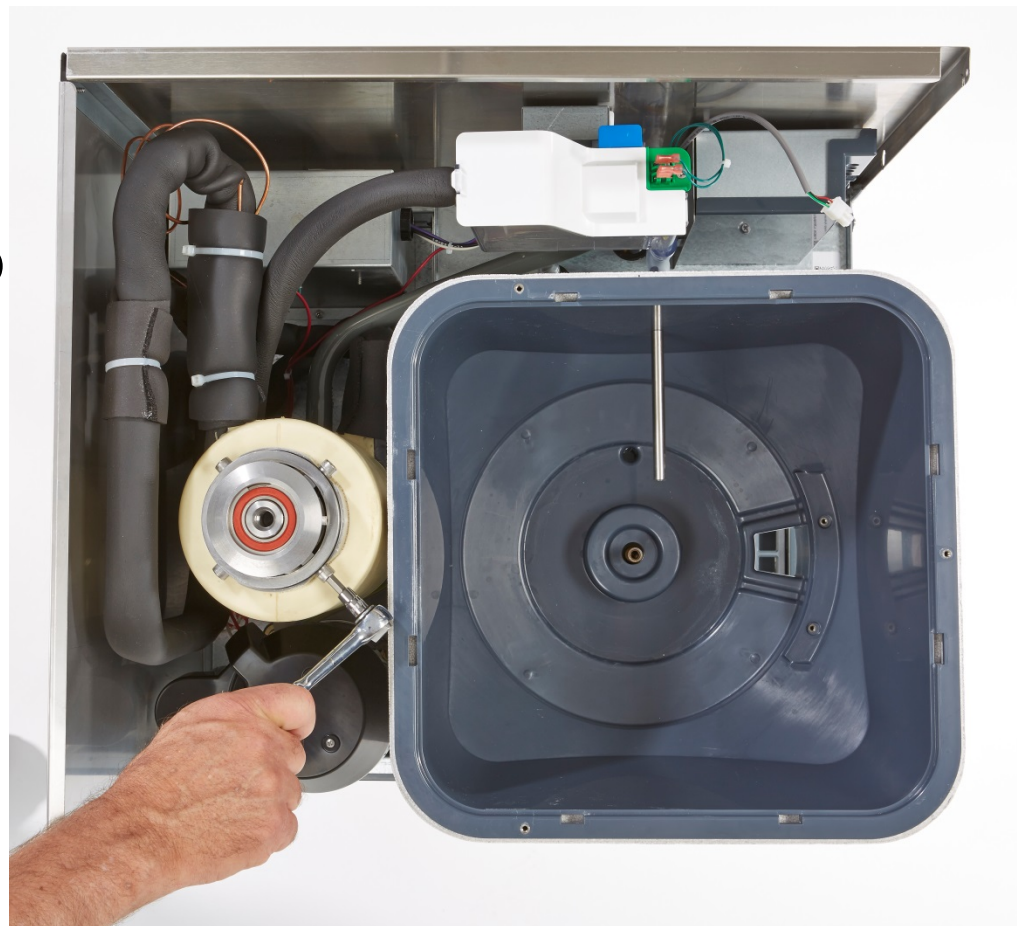
Water Reservoir, Float Valve and Water Sensor





Take It Apart

- Remove Extruder Head
 - Remove ice sweep
 - Remove chute
 - Remove 4 bolts
 - 1/4" allen head



Take It Apart

- Lift extruder head off

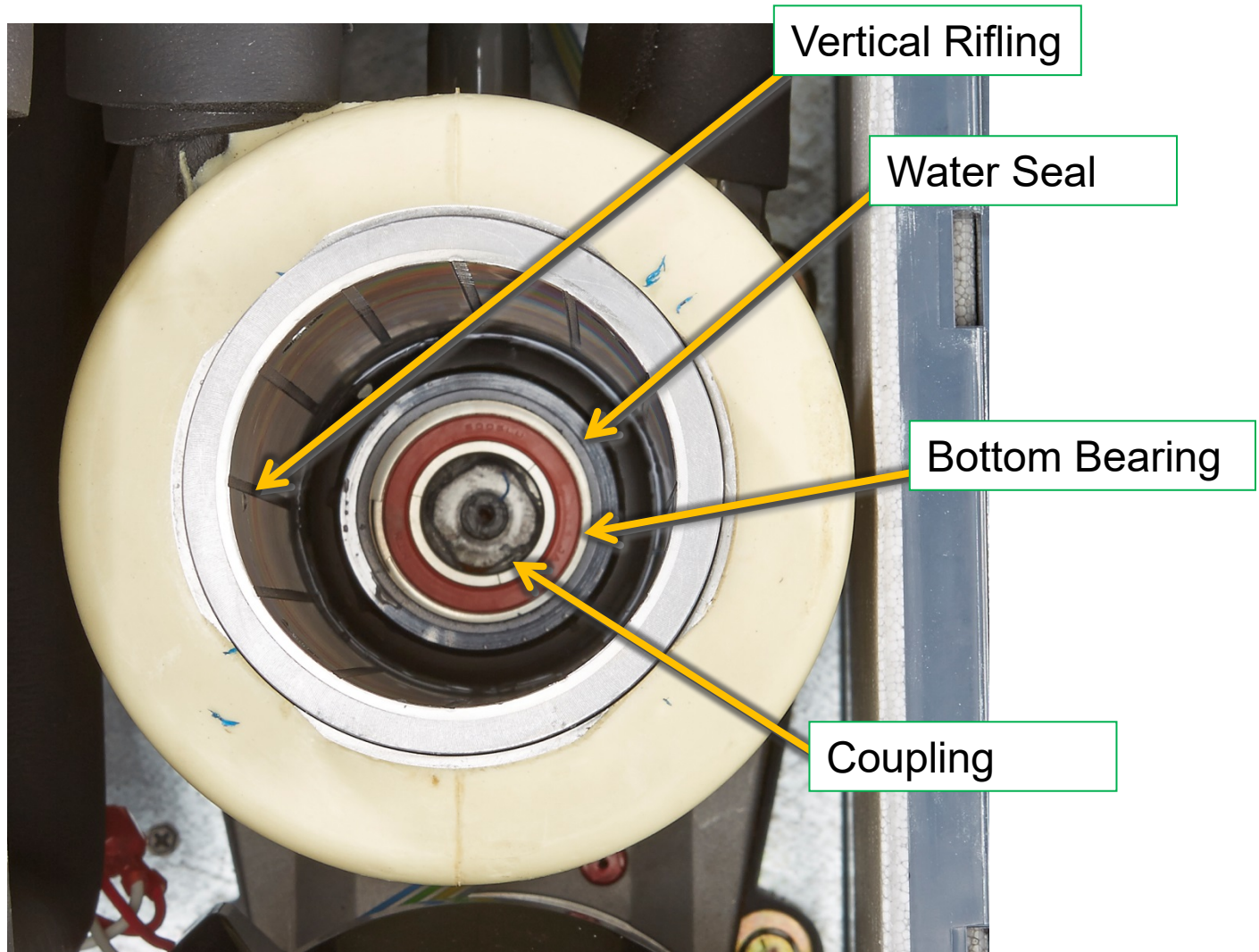


Take It Apart

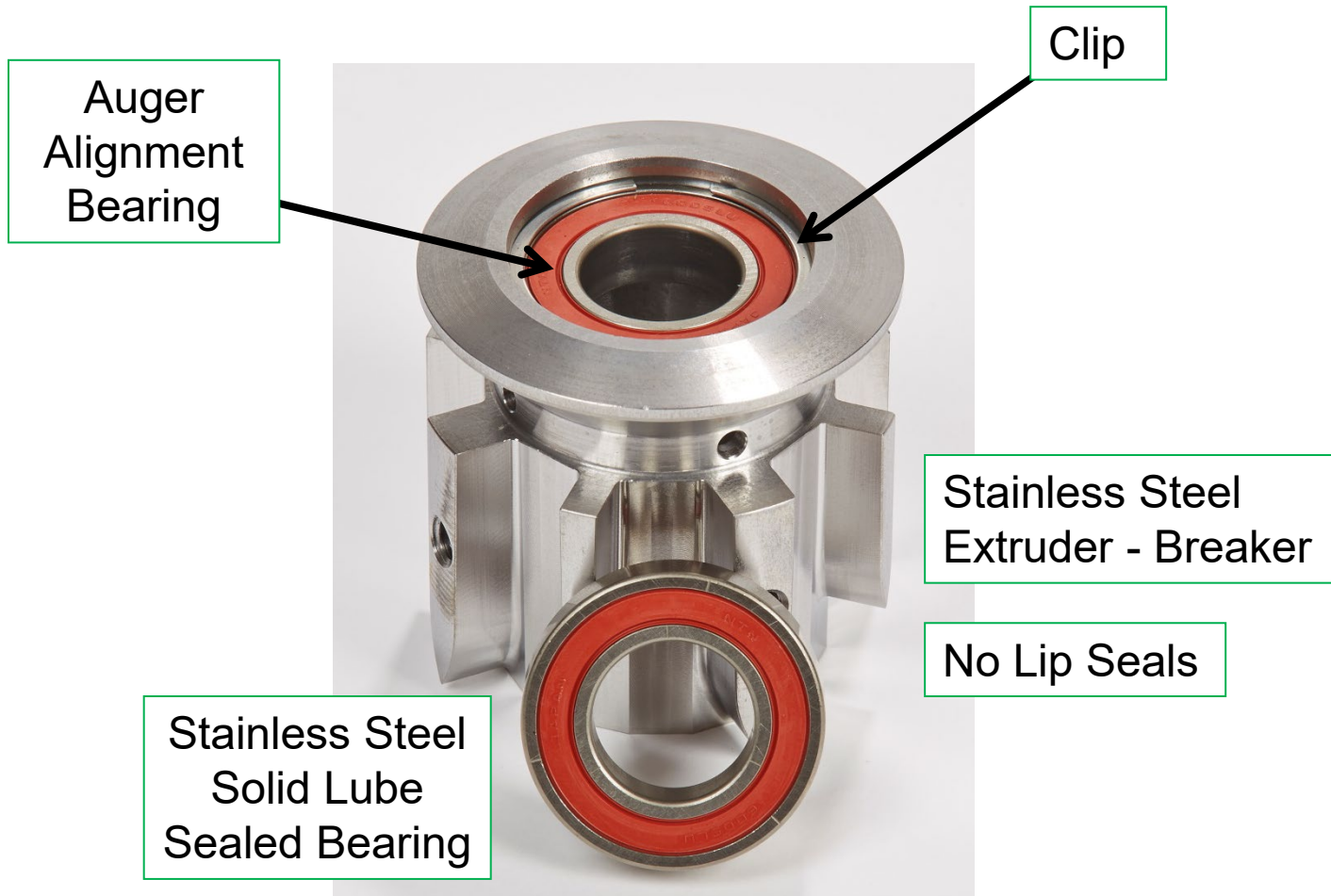
- Remove Auger
 - Remove ice sweep
 - Remove chute
 - Remove allen head bolts
 - Reattach ice sweep
 - Lift auger



Down The Barrel



Extruder - Breaker

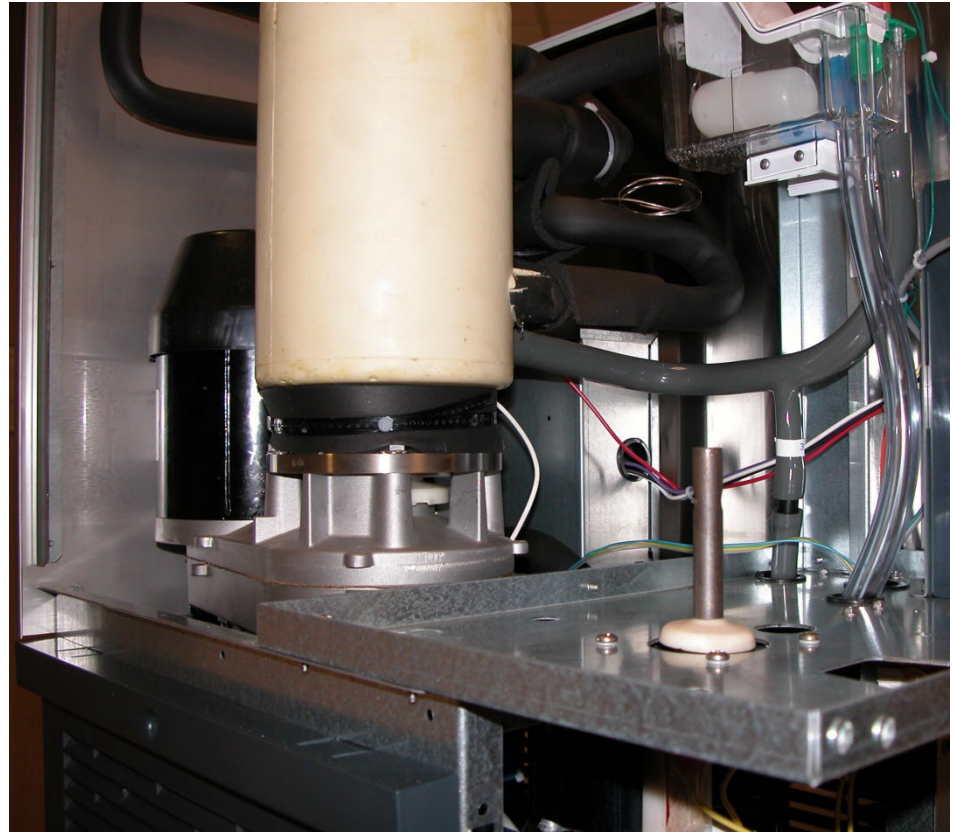


Auger Bearing Service

- Do NOT grease the bearing
- Do NOT substitute bearings
- ONLY use OEM bearings
 - Any other bearing will VOID THE WARRANTY
- Change both bearings and water seal together

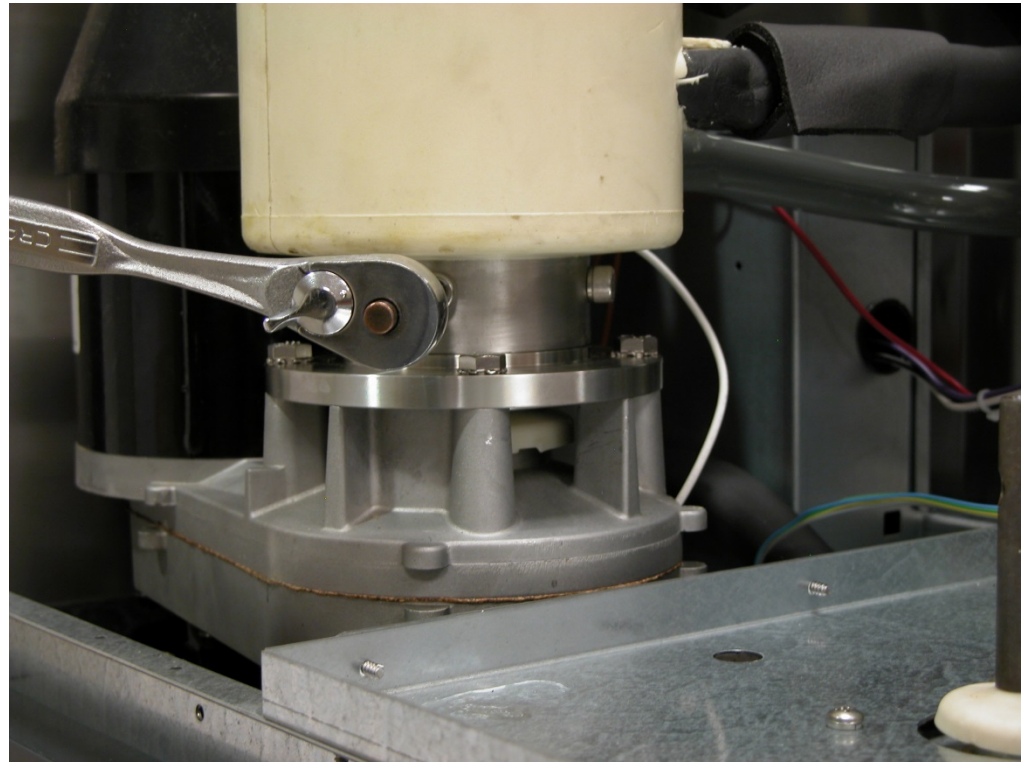
Take it Apart

- Water Seal
 - Remove bin
 - Remove insulation wrap



Take it Apart – Water Seal

- Remove bolts
 - Evaporator to Adapter



Take it Apart – Water Seal

- Lift Evaporator



Water Seal

- Two part seal
 - Stationary part in evaporator
 - Rotating part on auger
- Pull stationary half out of evaporator
- Remove rotating half from auger



Water Seal

- Assembly

- Wet stationary half
- Insert $1 \frac{1}{4}$ to $1 \frac{3}{8}$ into bottom of evaporator tube
 - Adapter will push seal to correct height
 - About an inch and a half



Water Seal

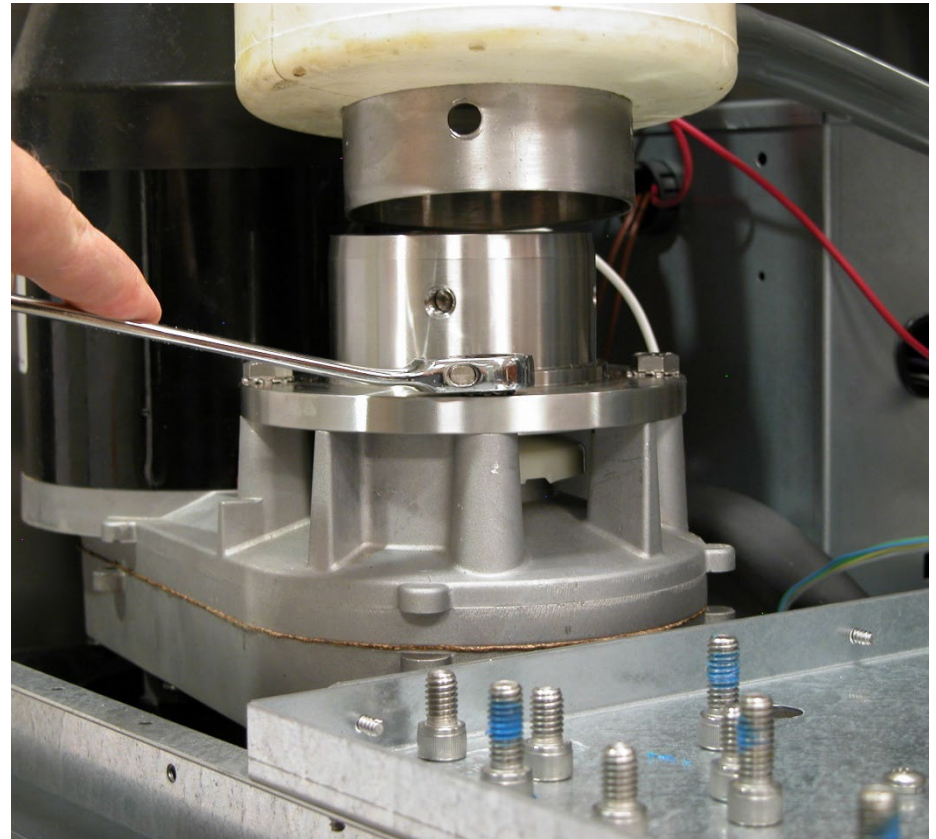
• Assembly

- Clean auger shoulder
- Add small bead of food grade RTV sealant to shoulder
- Push rotating half of seal onto auger
 - Do NOT touch sealing surface
 - Push on outside of ring
 - OK to wet inside of rubber ring to aid in sliding onto auger



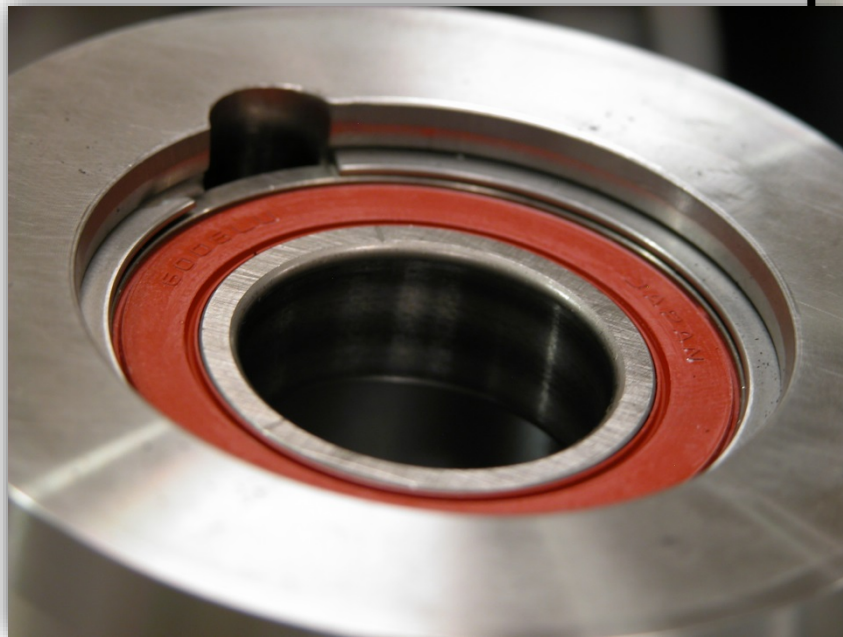
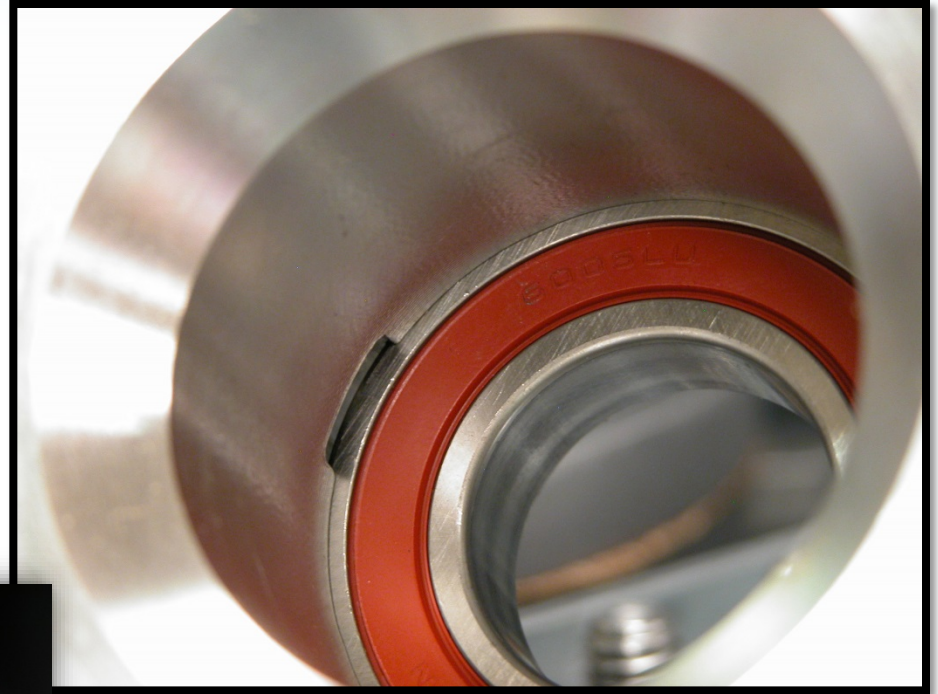
Take it Apart

- Remove adapter
- 4 bolts
 - ½ inch gear wrench



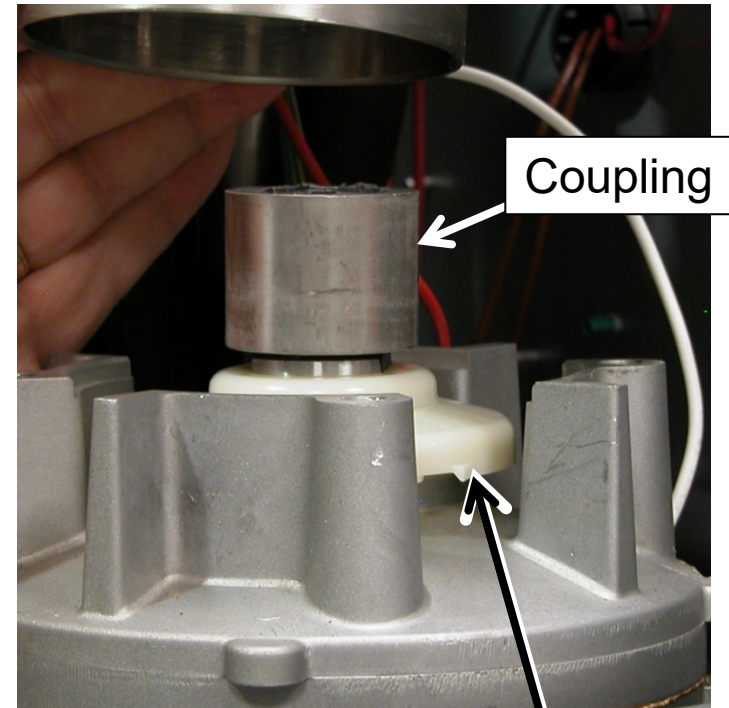
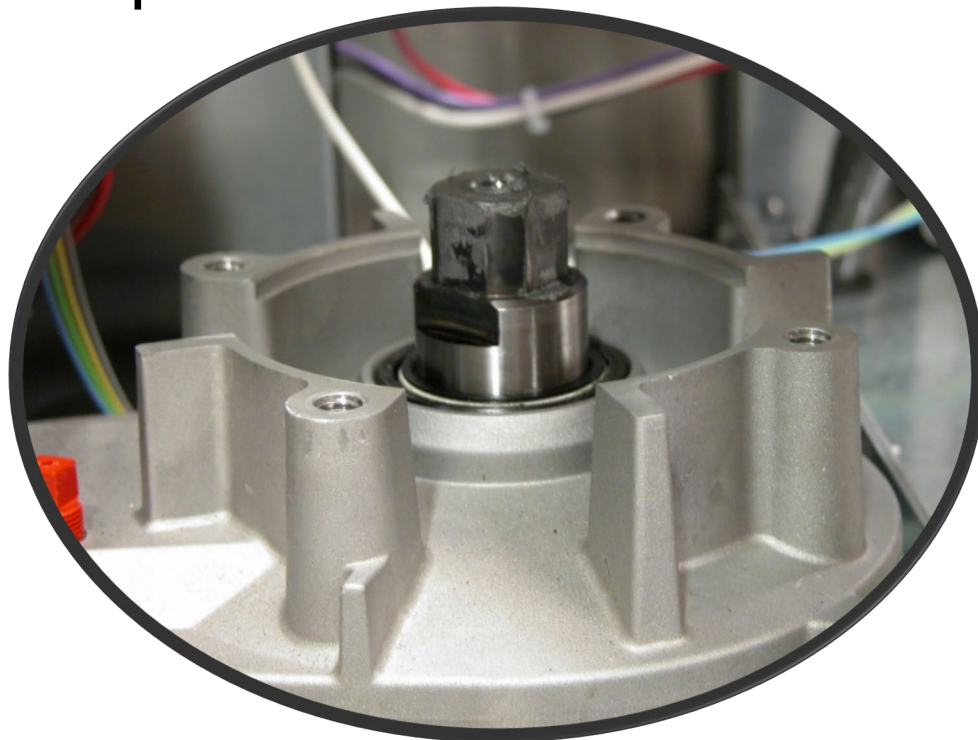
Bottom Bearing

- Adapter contains bottom bearing
 - Remove clip
 - Push bearing out top



Gear Reducer

- 1/6 HP
- Coupling and Water Shed
- Square drive shaft



Water
Shed

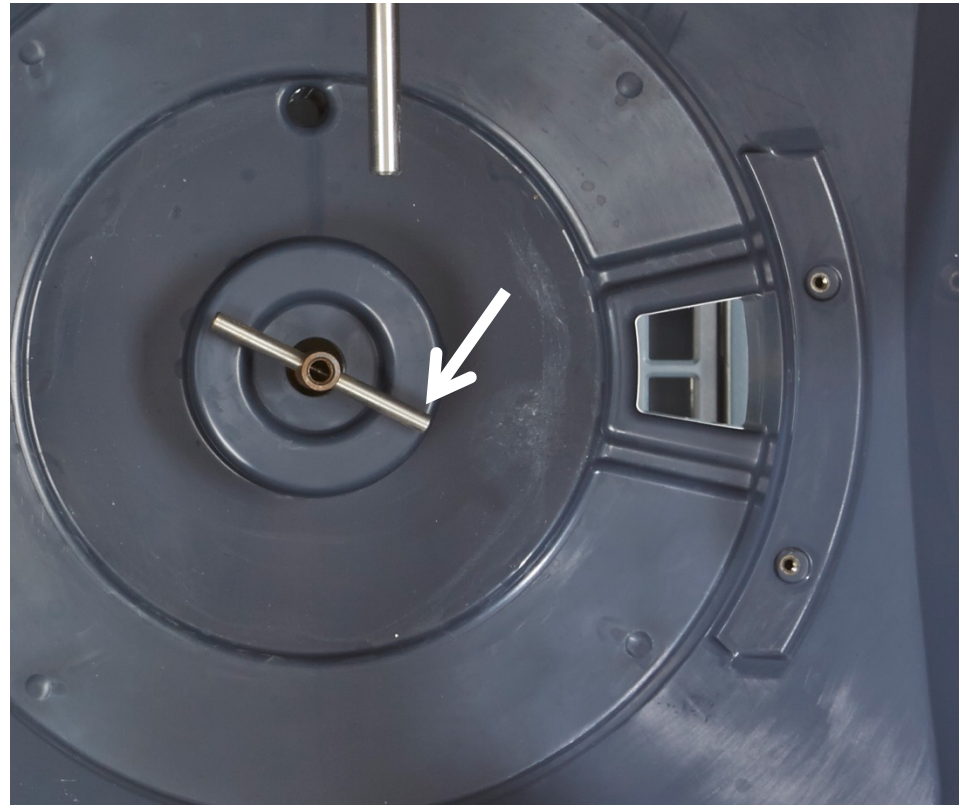
Diagnostics

- No Ice Dispensed, ice in bin
 - Hold opaque container in front of sensor
 - Ice Dispensed light on?
 - No, sensor unplugged or failed
 - Yes, check next item
 - Push Dispense Ice button
 - Ice dispensed?
 - No, test again and check dispense motor for voltage. If none, replace controller
 - If proper voltage, check if dispense rotor is turning



Dispense Diagnostics

- Dispense rotor not turning, motor is operating
 - Broken gear motor
 - Broken drive pin
 - Broken agitator
- Dispense motor has full voltage, not operating
 - Replace motor



Dispense Diagnostics

- Agitator and Dispense Rotor turn, no ice dispensed
 - Blockage at outlet
 - User overfilling bags
 - Restricted drain, water in bottom of bin
 - Room air too hot, out of operational range

Auger Motor – No Restart

- Code 1, motor reversal
 - Unit shut down immediately – no auto restart
 - Replace motor
 - Check for frozen auger & seized bearings
- Code 2, motor stall
 - Unit shut down immediately – no auto restart
 - Check for frozen auger, motor failure
 - RPM sensor on motor picks up magnet's motion
 - Magnet cup must be tight and turning with the motor, if the unit cuts out on code 2 right after a reset, the cup may be loose.

No Water

- Triggers code 3
 - Empty reservoir
 - Plugged filters
 - Blocked float valve
 - Water too clean
 - RO water no cleaner than 10 microSiemens/cm



High Pressure Cut Out Open

- Code 4
 - Check for water interruption to water cooled model
 - Check for fan motor failure on air cooled model
 - HID312
 - Opens at 260 PSIG, auto reset at 190
 - HID525 or HID540
 - Opens at 450 PSIG, auto reset at 350

Recall Codes

- Push and HOLD the **vend disable button**
- Push and hold the **on/off button** for 3 seconds or until Status light is on.
 - Release both.
 - Pushing Clean will cycle thru the available codes, the total number of codes stored is 30.

Clear Codes

- Push and HOLD the **vend disable button**
- Push and hold the **clean button** for about 3 seconds.
 - The display code will blink 3 times.
- Release both.

Test Mode

- To start Test Mode:
 - Push and HOLD the ON/OFF button; at the same time, push and HOLD the CLEAN button.
 - When a “♂” appears in the code display, release the buttons, the test mode will begin.
- Controller will switch these on in this order
 - Compressor
 - Compressor and Auger Motor
 - Auger Motor only
 - Water Dispense
 - Ice Dispense

Potential Updates in the Future

- By USB stick
 - Properly formatted with **only** the update file on it
 - Insert stick
 - Start Test Mode (d)
 - L will display and the lights will scroll
 - After 90 seconds 0 is displayed and the update is complete.



Technical Service: 1-800-533-6006

www.scotsman-ice.com

The screenshot shows the Scotsman website's navigation menu with 'SERVICE-SUPPORT' selected. The main content area features a 'SERVICE & SUPPORT' banner with the text 'A global system, focused on your operation's success.' Below this is a 'SCOTSMAN SERVICE INFORMATION' section with the subtitle 'Your complete resource for all things Service, Parts, Manuals, Bulletins, ...'. Three service categories are highlighted: 'WARRANTY REGISTRATION AND VERIFICATION', 'LOCATE SERVICE DEALER', and 'TRAINING PROGRAMS'. A blue callout box provides contact information: 'TECHNICAL SERVICE: 1-800-533-6006', 'CUSTOMER SERVICE: 1-800-SCOTSMAN', and 'CUSTOMER SERVICE HOURS: 7AM-5PM CST'. A 'SERVICE NOTICE' link is also visible.



The screenshot shows the 'Service Information Menu' on the Scotsman website. It features a search bar at the top and a list of service-related links: 'PARTS BREAKDOWN', 'SERVICE MANUALS', 'USER MANUALS', 'CLEANING & MAINTENANCE', 'TECHNICAL & DIAGNOSTIC TOOLS', 'INSTRUCTIONS', 'BULLETINS', 'SPEC SHEETS', 'SAFETY DATA SHEETS', and 'MISCELLANEOUS'.

Are there any questions?