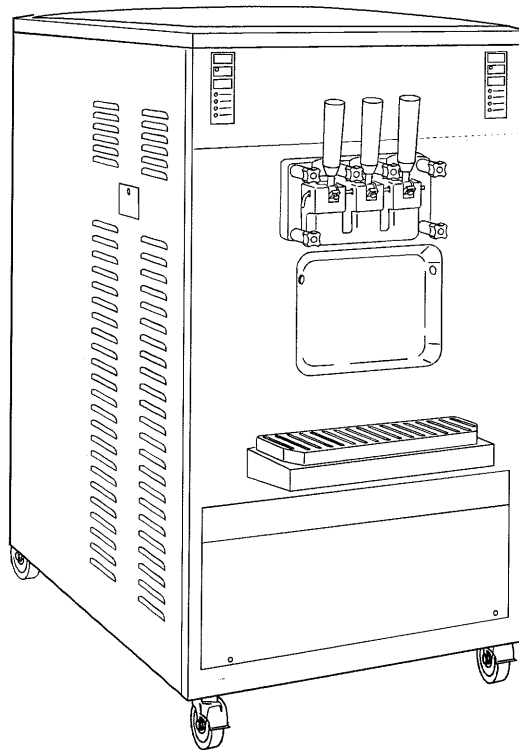
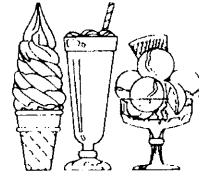


COLDELITE



UF 820 E TRONIC
Soft Serve Freezer
DOUBLE FLAVOR COUNTER MODEL

OPERATION & SERVICE MANUAL

COLDELITE CORPORATION OF AMERICA
3760 INDUSTRIAL DR. * WINSTON-SALEM, N.C.27105 * TEL.(910) 661-9893 * FAX (910) 661-9895

FOREWORD

Thank you for selecting COLDELITE to meet today's fast growing demands. Your COLDELITE freezer has been manufactured at one of the most modern manufacturing plants, utilizing the most advanced equipment and technology available in the industry.

We at COLDELITE, take great pride and care in the manufacture of each and every freezer, using only the finest components available, to provide you with years of trouble-free operation.

Over twenty-five years of experience in the manufacturing of dispensing equipment have guided us in the preparation of this Operation and Service Manual.

PLEASE READ IT CAREFULLY.

Keep it for future reference and most of all, follow the instructions from the very time your machine is put into service.

On the following pages, you will find important information and procedures which describe the proper installation, sanitizing, operation, and maintenance of your COLDELITE machine.

We feel certain that your full compliance with these instructions will assure you of excellent performance, trouble-free operation and profitable business for years to come.

All technical data, pictures and drawings contained in this manual are not binding on the manufacturer, nor can the manufacturer be held liable for any modification of the machine in part or completely.

CODE:

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IMPORTANT!

Failure to closely follow operational and maintenance procedures may result in damage to the unit and/or void your warranty. Coldelite Corporation will not be responsible for any machine not properly maintained.

In the event this unit should malfunction, please contact your Coldelite Distributor or an authorized service agency.

PART I INSTALLATION

Before starting this procedure, make sure the shipping case does not show any evidence of having been dropped, tampered with or abused in such a way as to indicate that its contents may have been damaged in transit.

IMPORTANT:

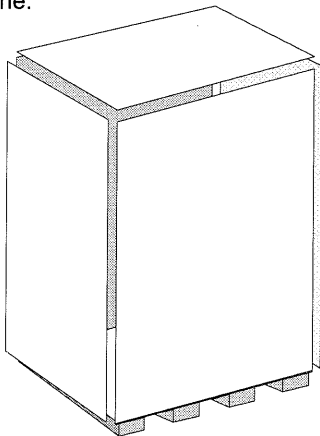
Should the outside of the shipping case give any indication of possible hidden damage, state this on the bill of lading before signing. Contact the carrier immediately and request an inspection of damage.

If this procedure is not adhere to, you will forfeit your right to file damage claim and be responsible for subsequent repair costs.

A) UNCRATING

Proceed, as follows:

- 1) The case is secured to the skid with metal strapping. When you cut this strapping, do it with caution, as it may spring out. Remove case by lifting it straight up and away from the machine.

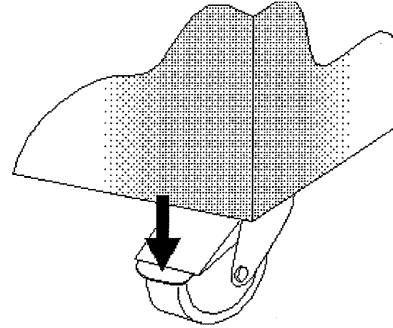


- 2) The machine is also secured to the skid with metal strapping. Exercise caution and cut this strapping to free the machine from the skid.
- 3) Remove the single screw at the bottom of each side panel. Remove the panels by sliding upward slightly, then pull outward at the bottom and allow the panel to slide down. The protective plastic coating which is laminated to the panels can now be removed by simply peeling off.

B) POSITIONING THE MACHINE

- 1) The freezer is equipped with four pivoting wheels to allow easy location. When the freezer is placed in the desired location, it must stand level. Check for level condition by placing level on the top of the freezer at each corner. Lock wheels to prevent freezer sudden movements.

NOTE: Accurate leveling is necessary for correct drainage of freezer barrel and to insure correct over-run.



C) MACHINE EQUIPPED WITH AIR COOLED CONDENSER

- 1) The freezer is now ready to be positioned. Machines with aircooled condenser must be installed no closer than 2 FT to any wall in order to allow free air circulation around the condenser (Ref. Fig. 1).

NOTE: An insufficient air circulation affects operation and output capacity of the machine.

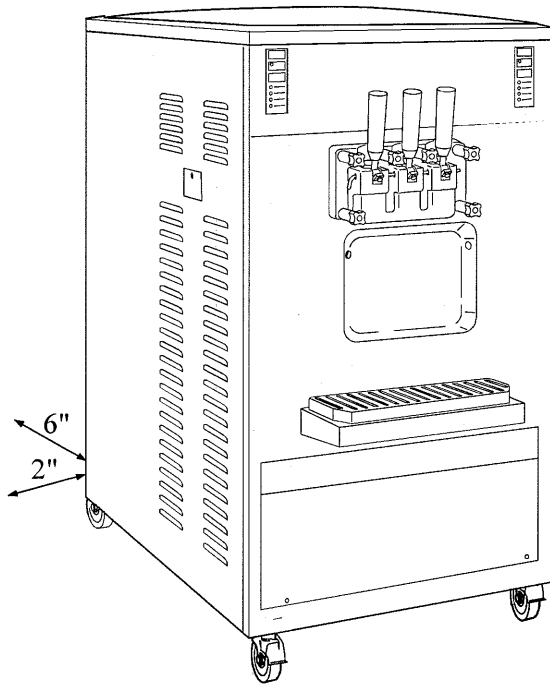


Fig.1

NOTE: If these clearances are not maintained, the production capacity will be reduced, cycling will increase and the potential will exist that the machine will stop completely.

- 2) It is necessary to clean the condenser each month to eliminate dust, paper, etc. which may obstruct it, damaging the proper functioning of the machine.
- 3) The machine should also be within six feet of the power supply (a plug and receptacle or unfused disconnected).
- 4) Position the machine for easy accessibility for cleaning, servicing and maintenance.
- 5) Position the machine away from direct sunlight. For every 2°F over 68°F, the machine's performance will decrease by approximately 1%.

D) MACHINE EQUIPPED WITH WATER COOLED CONDENSER

- 1) If the unit is water cooled, it should be located close to the water supply and a drain within six feet.
- 2) Connect fitting marked "WATER IN" to the cold water supply. Connect the fitting marked "WATER OUT" to a drain (see Fig.2).

NOTE: All plumbing must meet local and state codes.

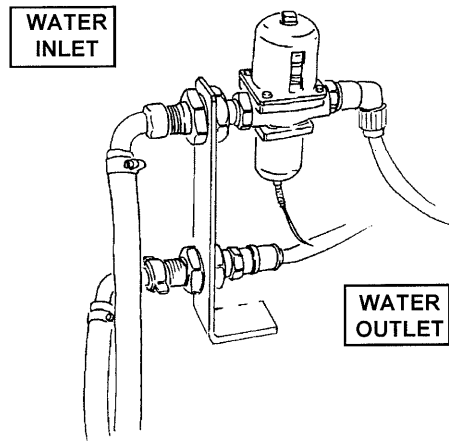


Fig. 2

WATER VALVE ADJUSTMENT

The water valve is preset at the factory, but if an adjustment should be required, proceed as follows: To maintain a head pressure of 225-235 psi while the compressor is running, attach a refrigeration high pressure gauge to the compressor's high side discharge port, and open the water valve clockwise to increase the pressure or counter clockwise to decrease the pressure (Fig.3).

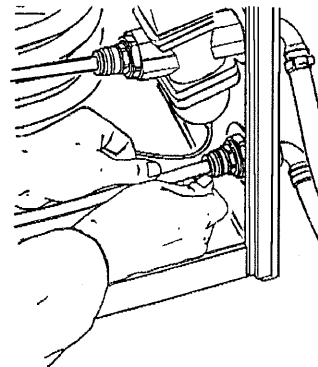


Fig. 3



Never expose water cooled machines to temperature at or below 32° F. without having drained the water from the condenser. If drainage is not done properly, serious damage can occur.

E) ELECTRICAL REQUIREMENTS

All wiring installed to operate this freezer must be in accordance with the National Electrical Code and/or local electrical codes, rules and regulations.

The machine must be properly grounded.

It is recommended the power supply be installed by a licensed electrician.

Voltage:	208/230 Volt
Total Running Amperage FLA:	38 A
Fuse Size:	32 A
Wire Size (50 Ft. Max.):	AWG 12x2

Power Supply must be adequate to meet requirements at all times. Voltage fluctuations, with the machine in operation, should not exceed $\pm 5\%$ of the normal or rated voltage.

Adequate Wiring must be provided with respect to wire size or gauge. Unless otherwise required by the local Electrical Code, the same size wire gauge at the machine junction box should be used for direct power line.

A separate circuit breaker with adequate fuse protection should be employed.

An unfused disconnected switch or a properly sized plug and receptacle within 6 feet of the freezer, is recommended.

Coldelite freezers are equipped with protection for the beater motor.

Should the line voltage drop, or in the unlikely event a short circuit occurs, the overload protector will automatically disconnect the starter and the machine will stop immediately so that no permanent damage can be caused to the motor.

CONTROL PANELS

NOTICE: As the machine is equipped with two control panels, check which panel signalled the alarm.

To restart the freezer, depress the STOP/RESET button located on the front switch pad.

The heater protection must cool down for several minutes before the RESET will operate. See Fig. 4.

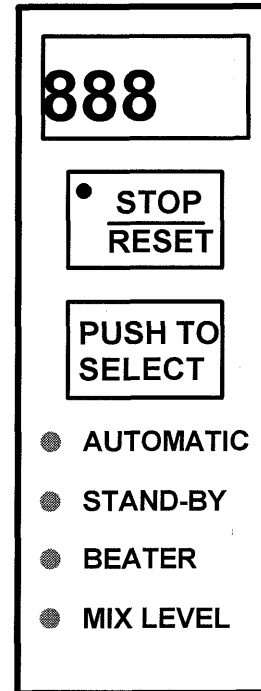


Fig. 4

ELECTRICAL CONNECTIONS

Having removed the front side panel, the machine's wiring connection box can be found on the bottom of the frame and is labelled "Connect Power Line Here".

The power line is first passed through the access hole located at the bottom deck directly below the wiring connection box.

The power line may then be connected to the machine's power lines and wiring connection box.

Upon completion, the power line should be fastened to the wiring connection box with appropriate electrical hardware.

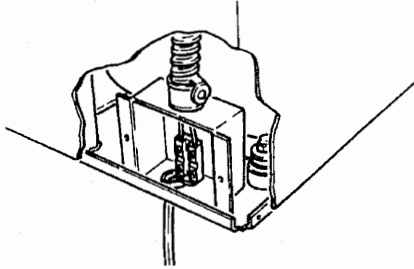


Fig.5

In all installations, the machine must be properly grounded. Since all high voltage components (controls are 24 volts) are connected by means of flexible conduit, or cord, adequate ground continuity is assured by running and fastening a ground line to the machine junction box ground lug (Fig. 5).

BEATER ROTATION

After electrical connections are completed, check the rotation of the beater.

It should be **counter clockwise** when facing the front of the machine.

F) COMPLETING THE INSTALLATION

On the following pages, you will find important information and procedures which describe the proper installation, sanitizing, operation and maintenance of your COLDELITE machine. We feel certain that your full compliance with these instructions will assure you of excellent performance, trouble-free operation and a profitable business for years to come.

NOTICE: Failure to closely follow set-up and maintenance procedures can void your warranty. Coldelite Corporation will not be responsible for any machine not properly maintained.

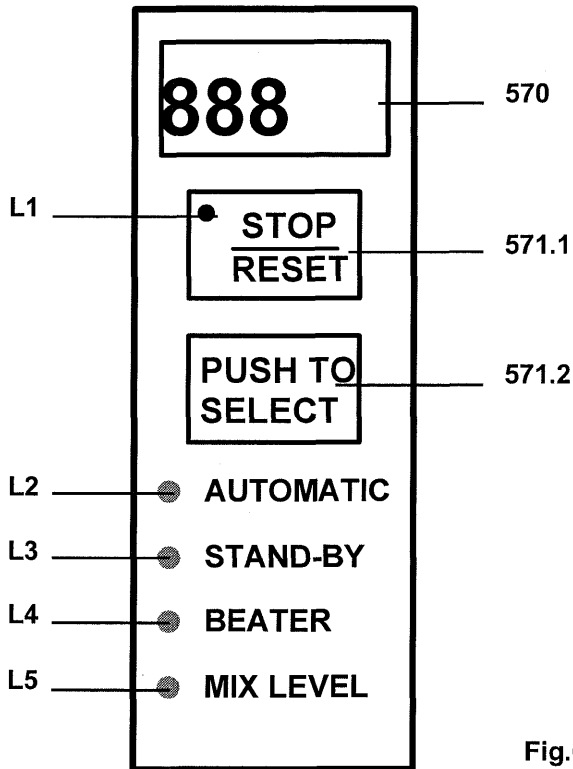
In the event this unit should malfunction, please contact your Coldelite Distributor or an authorized service agency.

WARNING: EXTREME CARE MUST BE TAKEN WHEN REMOVING SIDE, REAR OR CONTROL BOX PANELS.

ALWAYS TURN THE MACHINE TO THE OFF POSITION. ALSO TURN OFF THE DISCONNECT SWITCH ON ELECTRICAL SUPPLY LINE BEFORE EXPOSING ANY ELECTRICAL CONNECTIONS AND/OR MOVING PARTS, SUCH AS BELTS, PULLEYS, FAN BLADES AND BEATER.

PART II EXPLANATION OF CONTROLS

A) ELECTRONIC CONTROL PANELS



THE MACHINE IS EQUIPPED WITH TWO ELECTRONIC, INDEPENDENT CONTROL PANELS HAVING THE SAME FUNCTIONS. EACH PANEL CONTROLS ONE SIDE OF THE MACHINE.

Leds L1+L4 Lighted function indicators

These indicators illuminate to show that the function corresponding to the signal next to the indicator itself is on.

Leds L5 Low level indicator

This led illuminates to show the hopper is empty and you must refill it with mix.

Monitor pos. 570



This numerical monitor displays the consistency of the product when the machine is operating in AUTOMATIC.

STOP/RESET button pos. 571.1



With the Stop/Reset function on, pilot light pos. L1 lit, the machine is ready to receive the command for any of the main functions.

SELECT button pos. 571.2



Fig.6

By pushing this button you can select the functions:

- Automatic
- Stand-by
- Beater

Indicators illuminate to show that the function corresponding to the signal next to the indicator itself is on.

L2 ——— | ● AUTOMATIC |

Automatic function

When this function is on, pilot light pos. L2 lit, the mix is cooled down until it reaches the proper consistency (pre-set HOT setting).

During this function, the Monitor displays a number indicating the consistency of the product in the cylinder until it reaches the set value, then it indicates the temperature of the mix in the hopper tank.

L3 ——— | ● STAND-BY |

Stand-by function

This position is used during prolonged idle periods. The temperature of the product in both the mix hoppers and freezer cylinder is held at a safe temperature and controlled automatically by the temperature probes. Product should never be served when in this position, as the "storage" temperature is higher than normal serving temperatures.

When this function is on, pilot light pos. L3 lit. When pushing this button, the beater motor and the cooling motor are ON until the product temperature reaches the programmed temperature.

If the machine runs in stand-by mode for a prolonged period, the product temperature is kept constant automatically.

In such condition, the cooling motor is ON whereas the beater motor is OFF.

L4 ——— | ● BEATER |

Beater function

With this function on, pilot light pos. L4 on, only the beater turns.

This function is timed and ends automatically when the set time is over (about 15 minutes).

L5 ——— | ● AUTOMATIC |

Hopper Mix level indicator

This pilot light pos. L5 indicates that the level of the mix in the hopper has reached the minimum allowed, and that more mix must be added.

A buzzer will be on when light is on.

When illuminated, dispensing of product should be stopped and the tank refilled with mix.

Each tank has a total capacity of 32 qts each when full.

The MIX LEVEL SENSOR is located in the hopper of each mix tank (see Fig.7).

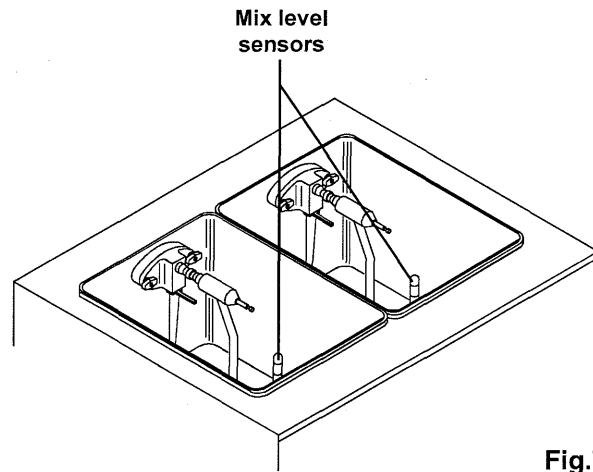


Fig.7

B) THE DISPENSE HANDLES

The Dispense Handles control the flow, or extraction rate of finished, soft serve product.

The left handle serves a flavour of product, the right one serves a different flavour whereas the middle one dispenses a mix of the two.

Pulling one of the handle in a downward direction will open the corresponding dispense orifice.

When the unit is in the "AUTOMATIC" mode, this will allow finished product to be extracted and served.

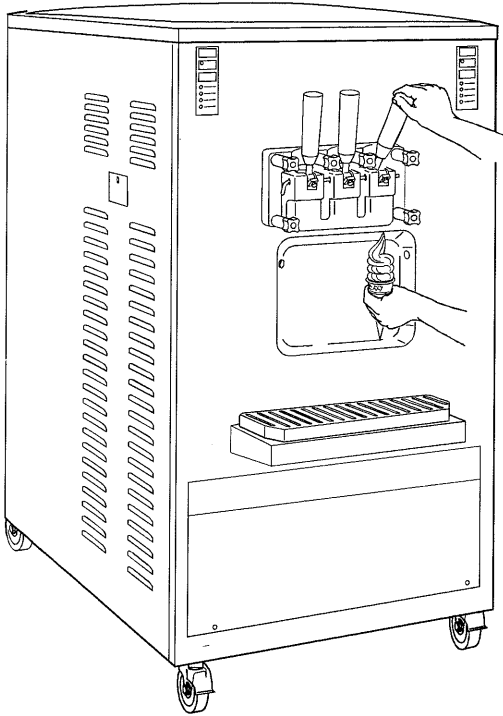


Fig.8

C) PROXIMITY SWITCHES

In AUTOMATIC function, the proximity switches pos. 152 start the beater motors when the hand, handling cup or cone, is in the range of the sensitivity preset by Coldelite.

Note: Keep the sensors always clear and clean.

ADJUSTING PROXIMITY SWITCHES

The proximity switches pos. 920 (Fig.9) have been preset at the factory and their range is 9-14 inches approx.

If modification is required, contact authorized service agency as this operation must be carried out by specialized technicians.

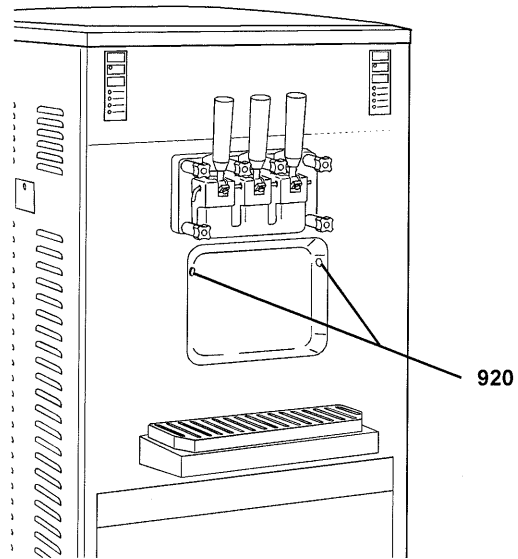


Fig.9

D) SAFETY SWITCH

Machine is equipped with a magnet molded into the spigot head. If the spigot head is removed the magnet deactivates a safety switch behind the front panel. The machine will not operate with the spigot head removed. Alarm AL9 will appear on the display.

E) ELECTRIC CONTROL PANEL

The Electric Control Panel located behind the bottom front panel of the unit, contains the controlling circuit to the components of the machine. This panel is to be accessed only by trained, experienced technicians.

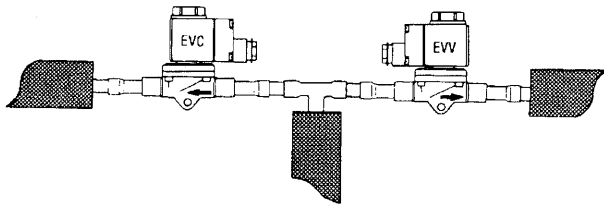


Warning

Disconnect freezer from the source of electrical supply before attempting to service.

F) OTHER CONTROLS

- 1) Refrigeration SOLENOID VALVES are located behind the left side panel. These valves are normally closed and when energized by the electronic board, direct refrigerant flow to either the freezing cylinder or mix tank. The mix tank solenoid is identified as "EVV" and the cylinder solenoid as "EVC".



- 2) The HIGH PRESSURE SWITCH.
In the event of high pressure situation, it will shut down the compressor.
Reset is automatic when the high pressure subsides.
Common causes for cut-out or shut down are restricted air flow on air cooled models, unusually high ambient (room) temperatures, and restricted or excessively hot water flow on water cooled models.

PART III INITIAL CLEANING PROCEDURE



Warning

During all following operations unplug the machine so as to cut it out.

This is a new machine and it must be completely disassembled, washed, and sanitized before starting. Proceed, as follows:

- Remove the mix tank cover and items packed in the tank (spare parts, sanitizer, lubricant).

The spare parts or start-up kit will include:

- 1) a spatula
- 2) spare o-rings and rubber seals
- 3) an o-ring extractor
- 4) a tube of sanitary lubricant
- 5) three various sized cleaning brushes
- 6) several packets of sanitizer and the OPERATIONAL MANUAL.

HELPFUL SUGGESTION:

Before proceeding with the disassembly of the freezer, we recommend a plastic dish pan be used in which to place the parts.

This will minimize the possibility of misplacing or damaging the various component parts.

A) CLEANING PROCEDURE

- 1) Proceed with the disassembly process by extracting connection pipe from the pump (Fig.10). Slightly turn pressure pipe and extract it from its seat.

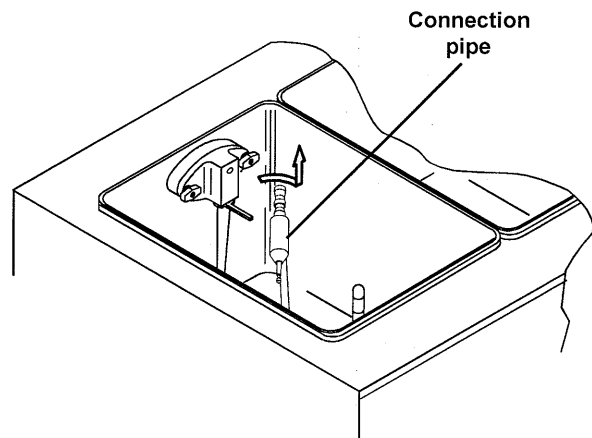


Fig.10

- 2) Turn the pump slightly and extract it from its seat (Fig.11).
- 3) Clean carefully the mix level sensor (Fig.11).

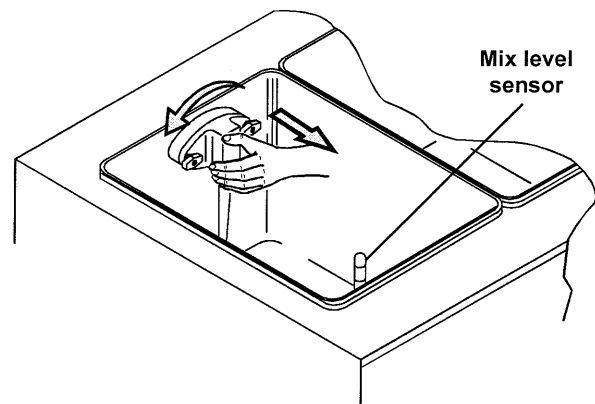


Fig.11

- 4) Remove all pump components as shown in the picture below.

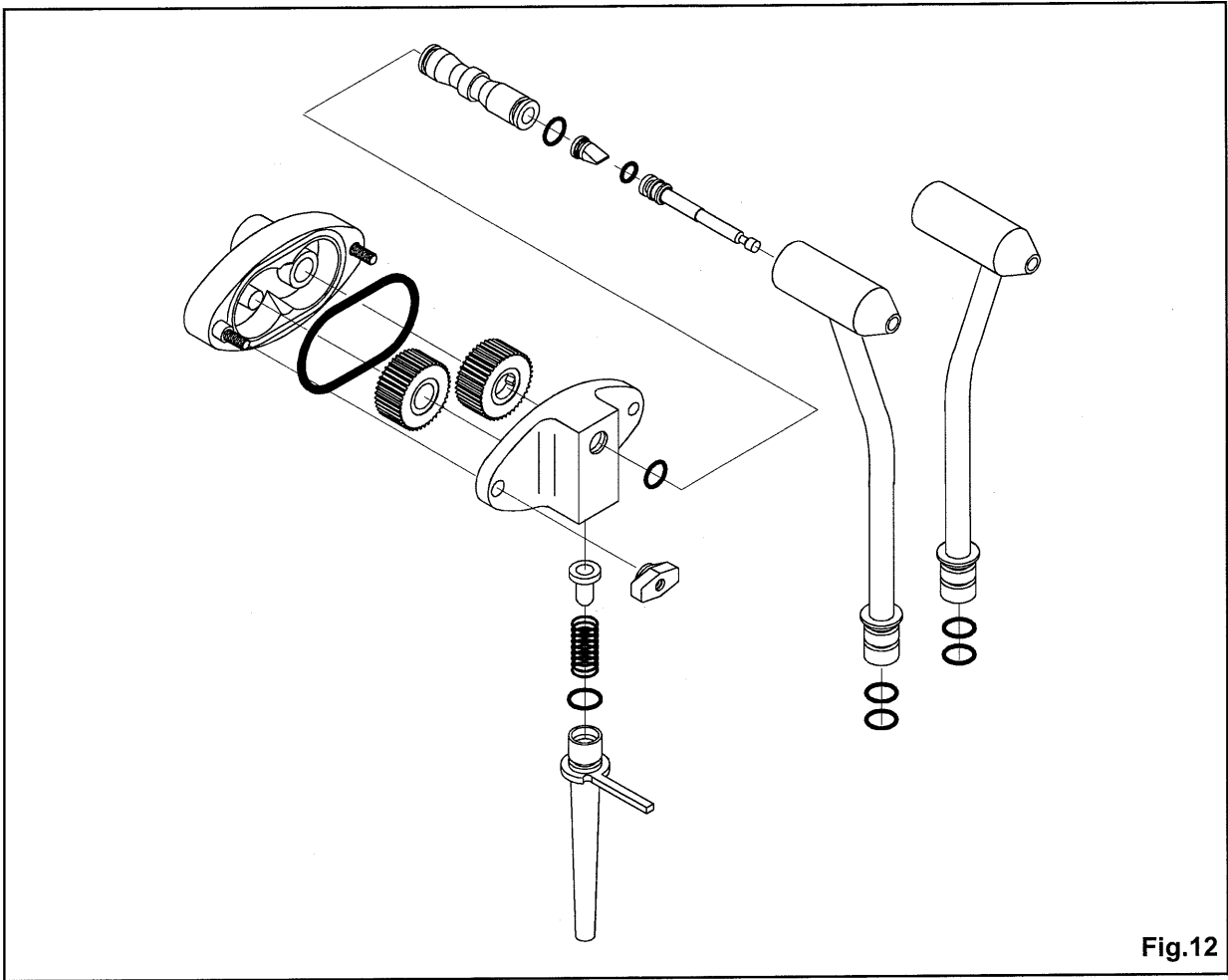


Fig.12

B) DESMOUNTING DISPENSING HEADS

- 1) Loosen and remove the six (6) dispensing head retaining knobs.
The knobs are removed by turning in a counter-clockwise direction.

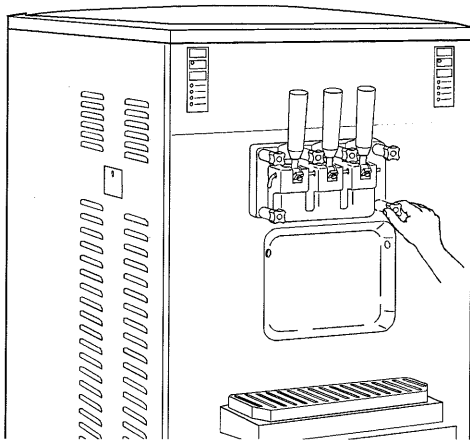


Fig.13

- 2) Remove the dispensing head by pulling it straight towards you and away from the machine.

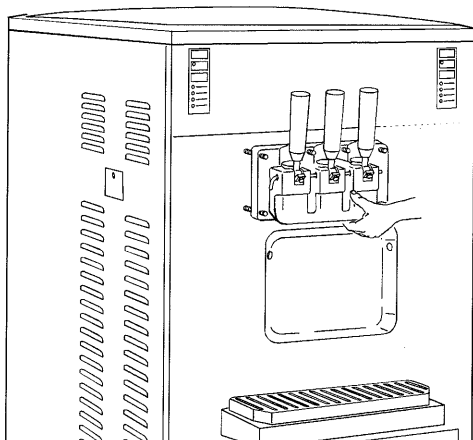


Fig.14

- 3) Disassemble the dispensing head by first opening all the dispense handles.

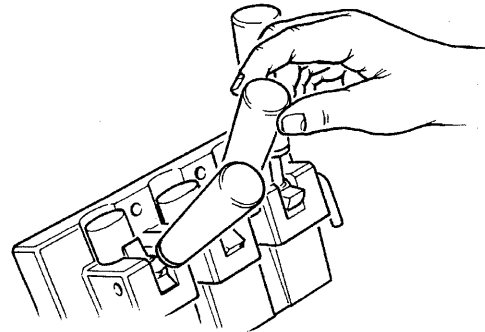


Fig.15

- 4) Pull the handle retaining rod out far enough to allow the first handle to disengage.

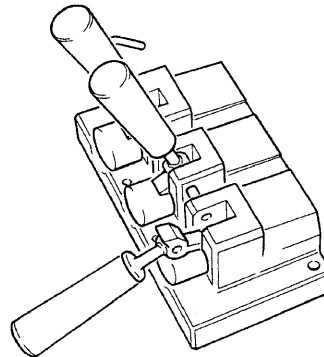


Fig.16

- 5) Return the retaining rod to its original position. Using the rod as a fulcrum, lever the dispense piston out of the dispense head with the handle. Repeat this process for each piston.

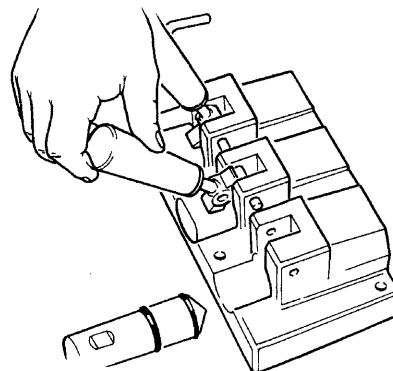


Fig.17

- 6) Using the O-RING EXTRACTOR, remove the piston o-rings.
Each piston o-ring groove is notched for easy insertion of the o-ring extractor.

Now the dispensing heads is completely dismantled (see Fig. 19A)

Dispensing heads parts:

- A) two (2), 4" diameter O-ring
- B) the dispensing head body
- C) the center piston O-ring
- D) four (4), 1 $\frac{3}{8}$ " diameter end piston O-rings
- E) center piston
- F) two (2) end pistons
- G) handle retaining rod
- H) three (3) dispense handles
- I) one (1) handle retaining rod O-ring

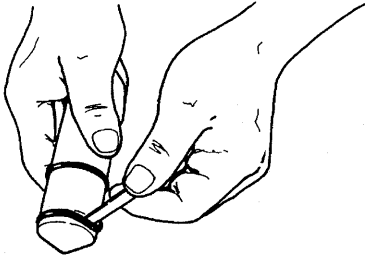


Fig.18

- 7) Turn the dispensing head over and remove the two large o-rings from the back of the head.

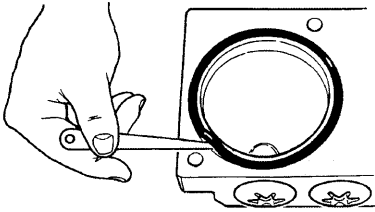


Fig.19

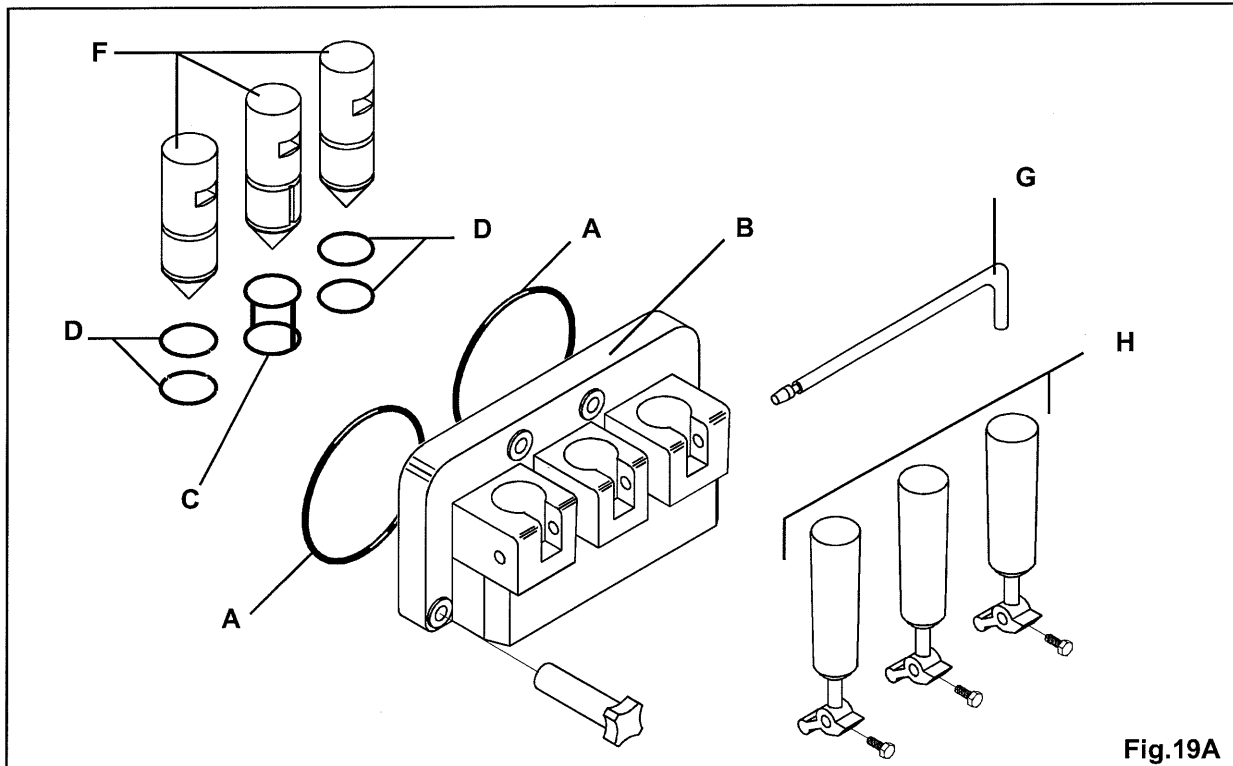


Fig.19A

C) DESMOUNTING BEATER AUGER

- 1) Remove the beater/augers from the freezer cylinders.
- 2) Pull the beaters STRAIGHT out towards you. Should they become jammed, DO NOT FORCE. Tap the front of the beater back into the cylinder with the palm of your hand.

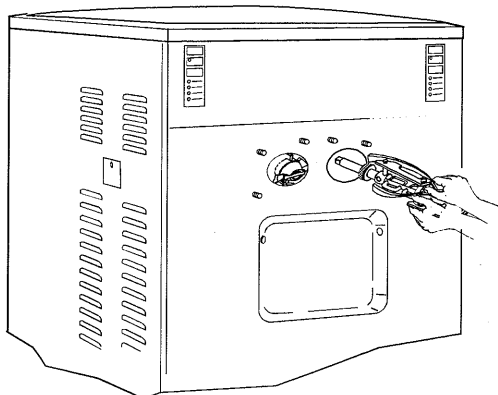


Fig.20

- 3) Disassemble the beater/augers by first removing the beater stuffing box (lip) seal, simply slide it off the shaft.

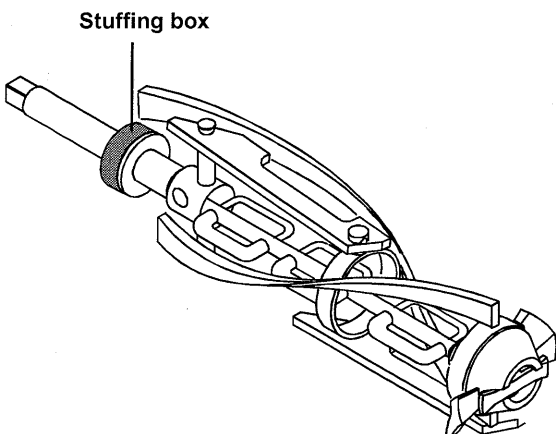


Fig.21

- 4) Continue disassembly by removing the beater IDLER. Pull forward until the grooved portion of the shaft lines up with the opening at the front of the beater/auger.

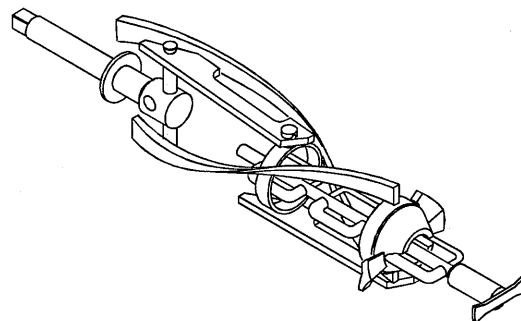


Fig.22

- 5) Finally, remove the beater/auger END PUSHER by pulling straight and away from the beater. Dismount the scraper by pulling it away from its housings.

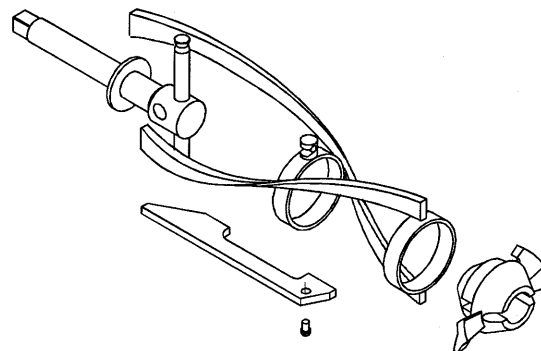


Fig.23

The machine is now completely disassembled.
The parts should now be washed, rinsed and sanitized.

D) CLEANING OPERATIONS

- 1) Wash all the parts in luke warm water (80-85° F) using a mild detergent and the cleaning brushes provided in the START-UP KIT.

DO NOT USE HOT WATER ON ANY OF THE PLASTIC PARTS AS DAMAGE TO THE PARTS CAN RESULT.

- 2) Rinse the parts in luke warm water (80-85° F).
- 3) Place the parts in luke warm, sanitized water for 2 to 5 minutes.
Use the sanitizer provided in the START-UP KIT following the manufacturers directions.
- 4) Place the parts on a clean, sanitized counter area and allow to air dry or disassemble wet.

DO NOT TOWEL DRY OR RINSE SANITIZED PARTS.

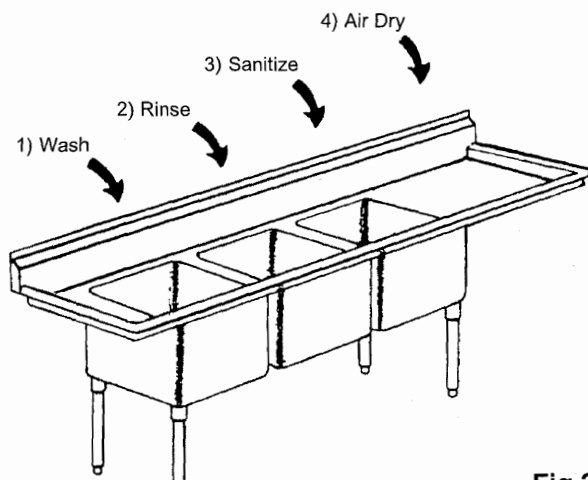


Fig.24

PART IV ASSEMBLING THE FREEZER

Once the parts have been washed, rinsed and sanitized, the freezer is ready to be re-assembled.
Prior to beginning the re-assembly procedure, sanitize your hands by submerging in the sanitizing solution.
Begin to re-assemble as follows:

A) ASSEMBLING THE BEATER

- 1) First, re-assemble the beater/auger assembly.
Begin by gathering the five parts needed to complete each assembly:

- A) Plastic end pusher
- B) Beater
- C) Idler
- D) Beater stuffing box
- E) Blade
- F) Rubber spacer

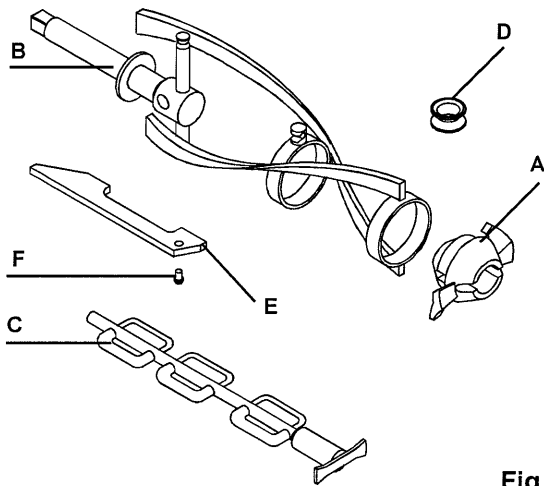


Fig.25

- 2) Mount the rubber seal onto the scraper by keeping the head opposite to the groove.

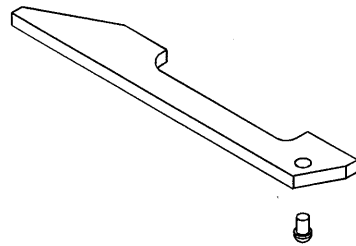


Fig.26

- 3) Insert the scraper into the beater pins.
- 4) Fasten the end pusher.
When installed correctly, the scraper should move freely up and down, but should not come out away from its seat.

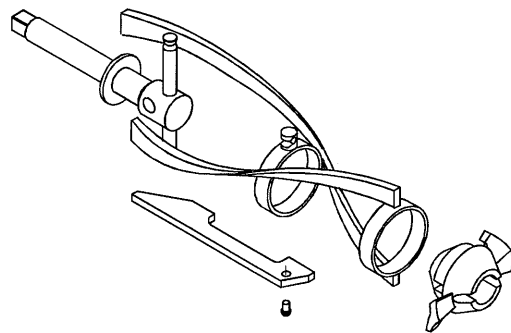


Fig.27

- 5) Mount the idler back.

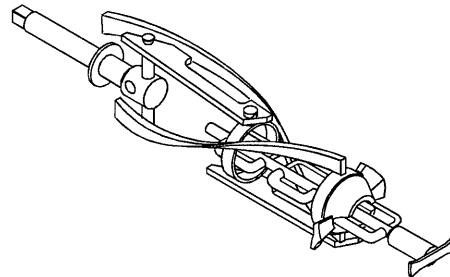


Fig.28

- 6) When installed correctly, the idler (when turned) should rotate freely.
If the idler does not rotate, it is incorrectly installed and must not be installed into the machine.
Repeat the above instructions.
- 7) Next, lubricate and install the beater stuffing box by first lubricating the beater shaft with the lubricant included in the START-UP KIT.
Place three, 1/4" beads in equal distances around the shaft as shown below.

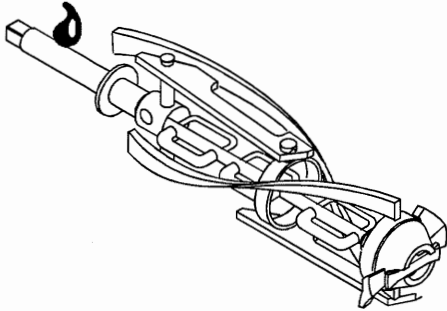


Fig.29

- 8) Slide the rubber, beater lip seal onto the shaft.

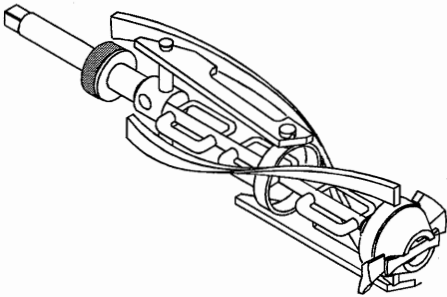


Fig.30

- 9) Lubricate the end of the beater lip seal which is not lubricated by placing three, 1/4" beads in equal distances around the seal surface as shown below.

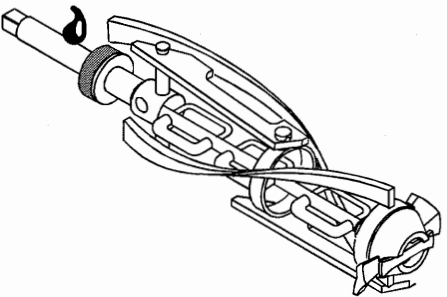


Fig.31

- 10) Repeat the above procedure for the second beater assembly.

- 11) Finally, insert the beater/auger into the freezer cylinder.
Holding the beater/auger horizontally, slide it straight into the cylinder until it can go no further.
Rotate the beater/auger until you feel the drive shaft engage and push the beater/auger further back to properly seat.

IMPORTANT:

Before installing the beater/auger, make certain the beater lip seal is in place and the idler is properly installed.

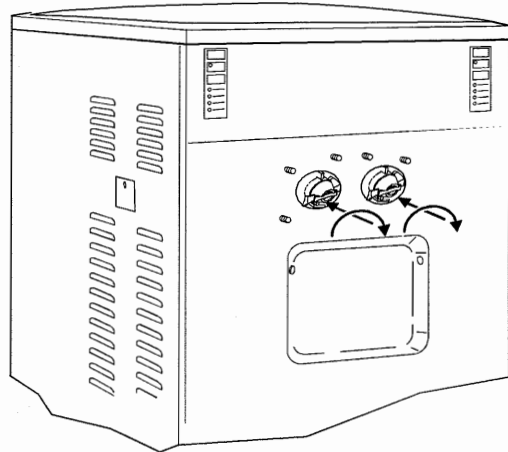


Fig.32

- 12) Insert the second beater/auger.
Once installed, make certain the flat portion of the idler is in a vertical position.
The idlers should spin freely.

B) Assembling the dispensing head

1) Begin by gathering the parts necessary to assemble the dispensing head.

These parts include:

- A) two (2), 4" diameter O-rings
- B) the dispensing head body
- C) the center piston O-ring
- D) four (4), 1³/₈" diameter end piston O-rings
- E) center piston
- F) two (2) end pistons
- G) handle retaining rod
- H) three (3) dispense handles
- I) one (1) handle retaining rod O-ring

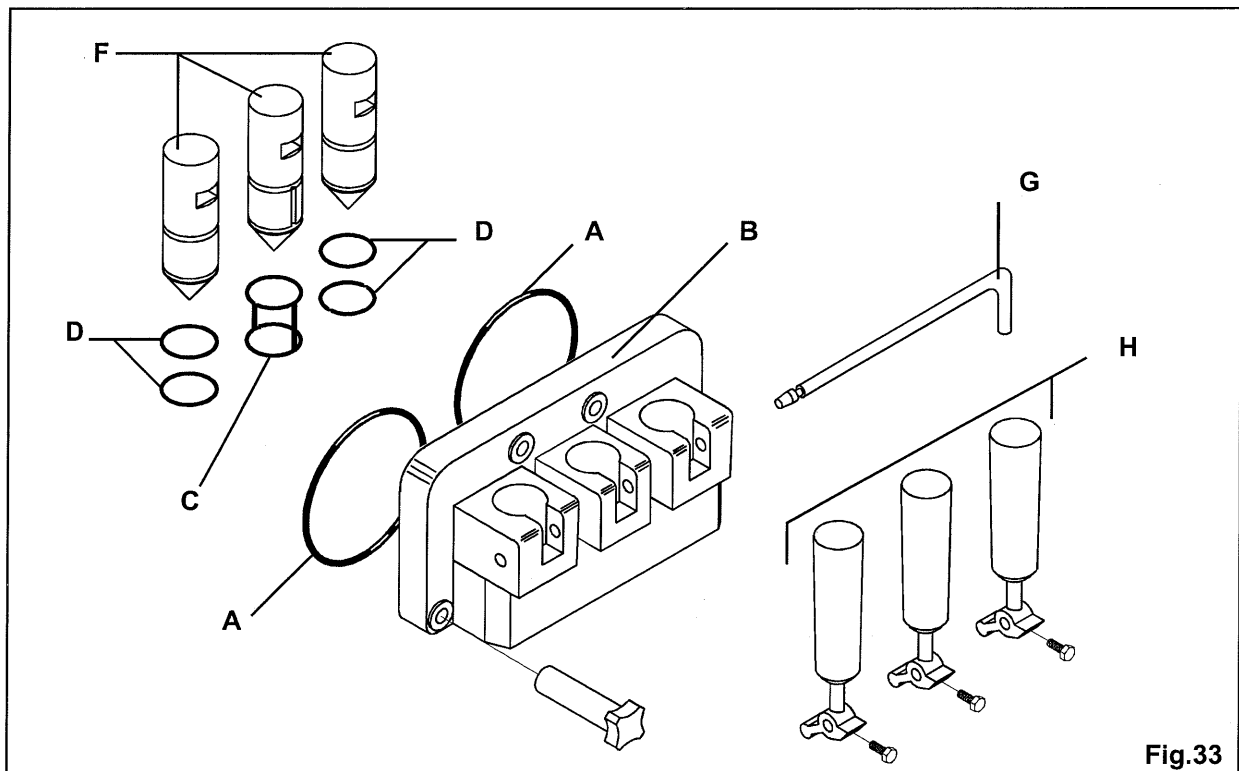


Fig.33

- 2) First, remount the end piston O-rings onto the end pistons.
Simply roll onto the piston until they drop into the O-ring notches.

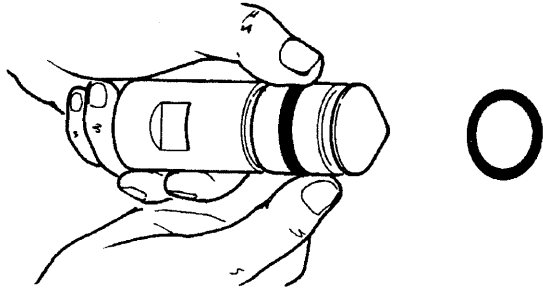


Fig.34

- 5) Spread the lubricant on the surface area between the two O-rings and the O-rings as well.
This will ensure free movement of the dispense handles once the head is completely assembled.

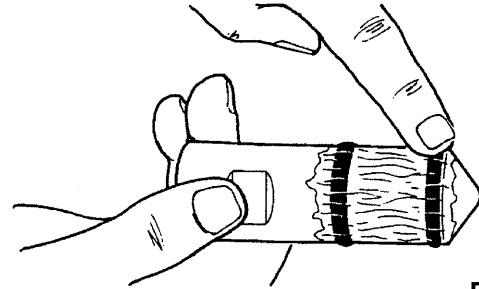


Fig.37

- 3) Remount the center piston O-ring onto the center piston.
This O-ring and piston are easily identified as they appear to be two O-rings grooves interconnected by two vertical posts.

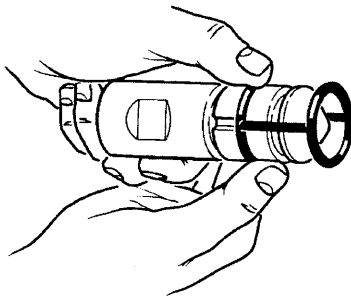


Fig.35

- 5) Insert the two end pistons into the two end chambers of the dispensing head body making certain to align the square notch of the piston with the rectangular notch at the front of the dispense head.
Repeat this process with center piston and center chamber.

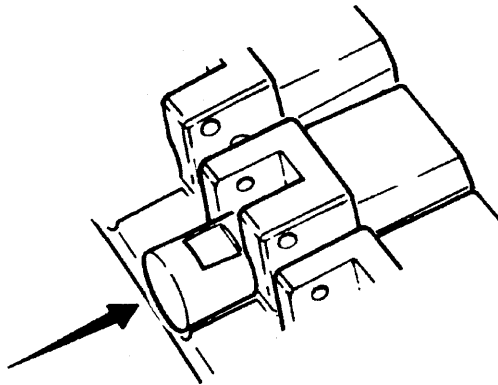


Fig.38

- 4) Once the O-rings have been mounted, liberally lubricate the area between the two O-rings.
Place a bead of lubricant around the entire piston as shown.

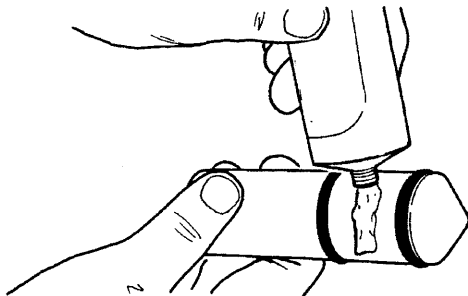


Fig.36

- 6) Turn the dispense head over and install the two 4" diameter O-rings into O-ring grooves located in the back of the head. Lightly lubricate the O-rings with the sanitary lubricant.

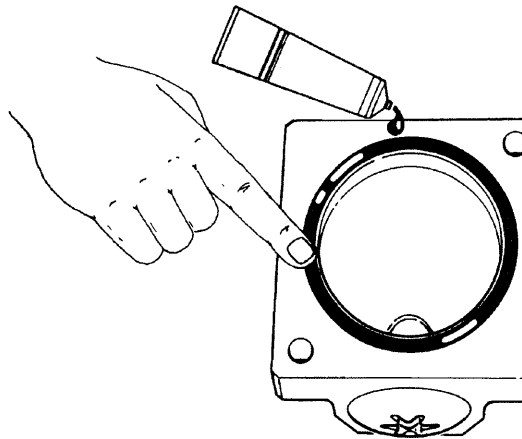


Fig.39

- 7) Affix the dispensing head to the machine and fasten it onto the six mounting studs.

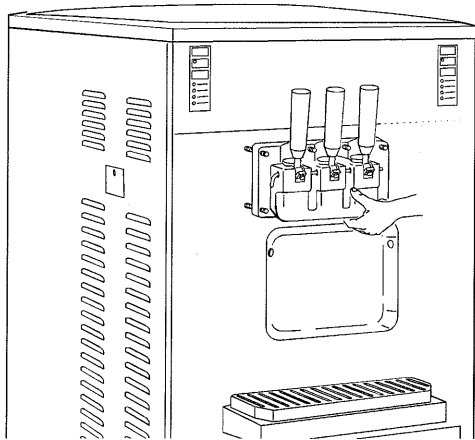


Fig.40

- 8) Fasten the dispense head to the machine using the six (6) stainless steel retaining knobs.

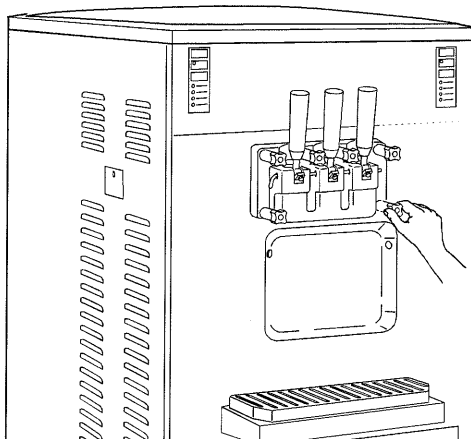


Fig.41

- 9) **HAND TIGHTEN** the knobs in a criss-cross manner as shown below.

C) MIX PUMP ASSEMBLING

- 1) Grease all gaskets before placing them to their positions.
- 2) Take pump body pos. 1 and grease gear seats.
- 3) Assemble gears pos. 4/4A and OR gaskets pos. 2 and also lubricate pump surface.
- 4) Assemble cover pos. 3, clamp the pumps with knobs pos. 5 and OR gasket pos. 6.
- 5) Place valve pos. 7 and spring pos. 8 in their seats.
- 6) OR gaskets pos. 9 must be assembled onto the regulator pos. 10 before placing the latter into pump cover.
- 7) Turn the regulator by 45° C at least, in order to secure it to the proper lock position.
- 8) Assemble OR gasket pos. 11 onto the connection pipe pos. 12.
- 9) Assemble OR gasket pos. 13 on pressure pipe pos. 14 or 15.
- 10) Last reassemble seal valve pos. 16 and pos. 17.

A wrong or not fully proper assembling of the individual components prevents the pump from sucking as sufficient quantity of mix from the tank, so damaging the beater.

The pump may not operate if spring and valve acting as safety devices against overpressures have been removed from the regulator.

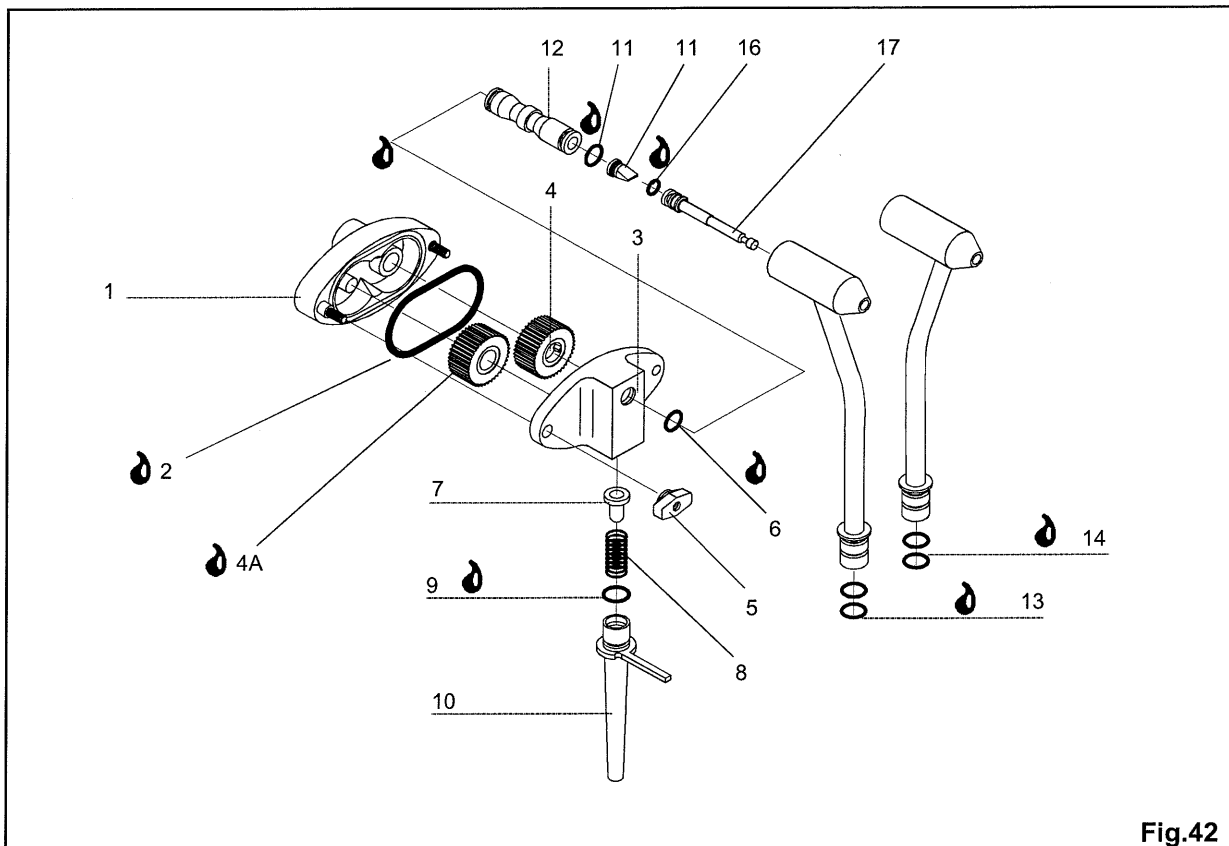


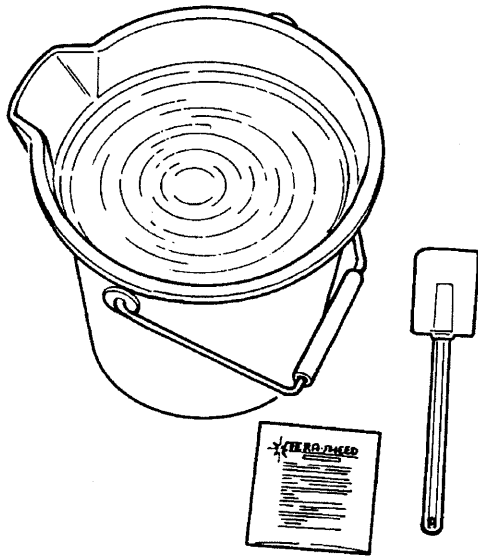
Fig.42

PART V SANITIZING THE FREEZER

Prior to install the machine with your soft serve product, the machine must be sanitized. The frequency of cleaning and sanitizing cycles must comply with local health regulations. If uncertain about local regulations, contact your local Board of Health.

Sanitizing the machine is most important. This procedure will retard the growth of bacteria and insure excellent test results on your product when examined by local Health and/or Agriculture Departments.


To begin, you will need a clean pail, sanitizer (sample packets included in the start-up kit), spatula (included in start-up kit), and brush (plastic bristle).



- 1) Mix the sanitizer (2 ounces of Steera Sheen green label or equivalent) into a clean pail containing two gallons of warm water. This solution will make a 200 P.P.M. (parts per million) concentration of chlorine sanitizing solution. Pour the solution into the mix tanks.

IMPORTANT:


Do not exceed the formula recommended by the sanitizer manufacturer as it will not add to its effectiveness.

- 2) Push selector button 571.2  to select the BEATER position.



- 3) Let the machine run for 30 seconds. This will allow the cylinder and the pump to be completely filled with the sanitizing solution.



- 4) Push selector button 571.1  to turn "OFF" the machine.

- 5) Using a sanitized soft bristle brush, brush the sides of the mix tank, and all other product contact areas. Allow the sanitizing solution to remain in contact with all product contact areas for three to five minutes.

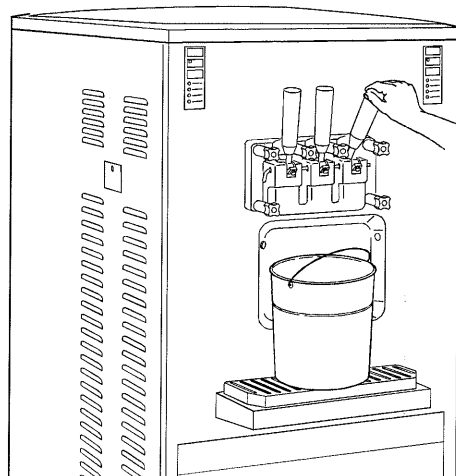


Fig.43

- 6) Place the clean, sanitized pail under the dispensing head and open the handles by pulling them in a downward direction.

- 7) Press the bleed plunger, and make pressure release. Extract connection pipe from the pump. Then, slightly turn pressure pipe and extract it from its seat in order to drain upper tank and cylinder.

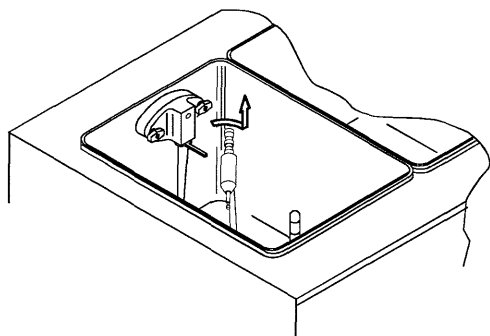


Fig.44

HELPFUL SUGGESTION:

When the sanitizer stops flowing, leave the handle open. Push selector button 571.2 to select the BEATER position. Let the machine run for three, four seconds to help remove the last of the sanitizer.

CAUTION:

We recommend the beater/augers be turned as little as possible during the washing and sanitizing operations. Excessive use will cause premature wear to the beater/augers and cylinders.

Clean and sterilize the machine as described in chapter 8 daily or every few days, taking into account the bacteriological quality of your mix and your local health regulations.

- 7) Allow the sanitizer to completely drain. Close the handles.

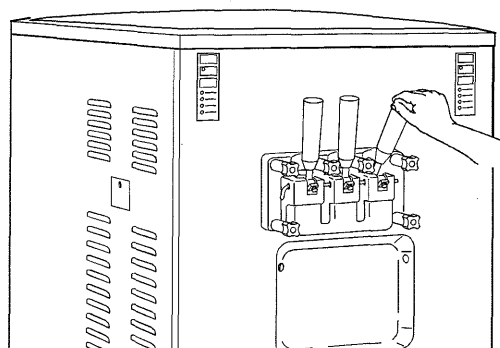


Fig.45

If the machine has stopped due to a power failure, it is essential that you check the mix temperature before dispensing ice cream.

If it has heated up to 43°F. the machine must be cleaned and sterilized, and filled with new mix at 39°F.

PART VI STARTING THE FREEZER

Only after the machine has been thoroughly cleaned and sanitized is the unit ready for production.

Start the machine as follows:

- 1) Insert the compression pipe into its housing on the bottom of the tank.
Install pump shaft and pump: do not install connecting tube.
Fill the tank with mix. Total capacity is 32 qts each.
Temperature of mix should be not more than 44°F.

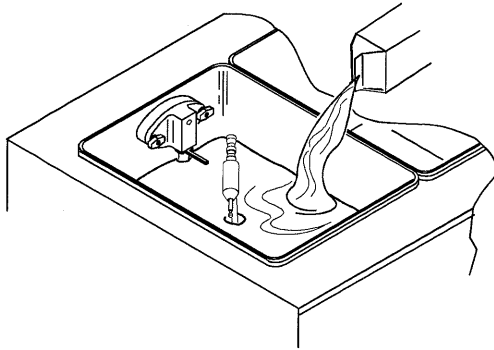



Fig.46

- 2) Push selector button 571.2  to select the "BEATER" position.



- 3) Check pump efficiency: the mix will flow out the cover outlet.

- 4) Push the button STOP/RESET .

- 5) Insert the connection pipe into the pump and leave in this position about 30".

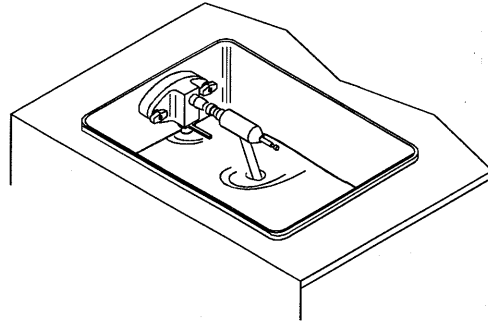



Fig.47

- 6) Push the button STOP/RESET .
- 7) Bleed the excess air pushing in the bleed plunger.

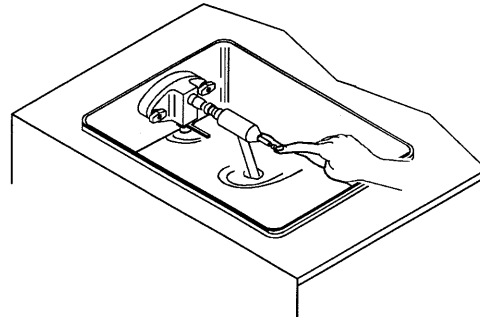



Fig.48

- 8) Adjust the sleeve position to obtain a flow of mix in the cylinder, according to the thickness of the mix.

- 9) Push selector button  pos. 571.2 to select the "AUTOMATIC" position.
The machine will automatically perform the setting as programmed by the manufacturer. When setting is over the display will show hopper temperature, for instance: 40° F., now you can dispense the soft serve product.

SUGGESTION:

When initially pouring mix into the tank, it is recommended the dispense handle be opened to allow any residual sanitizer to be "chased" out by the mix entering the cylinder. Place a cup under the dispense head to catch any residual sanitizer, 2-3 oz. is sufficient to purge the sanitizer out.

- 11) When this function is on, pilot light L2 lit, the product is cooled down until it reaches the proper consistency according to the HOM calibration.




During this function the monitor displays a number indicating the consistency of the product in the cylinder until it reaches the set value, then indicates the temperature of mix in the hopper. Initial freeze-down will take 7-10 minutes depending on the type of mix used.

Note: in spite of the fact that the machine is equipped with two hoppers and two corresponding cylinders, each hopper and cylinder can work independently.

HOM ADJUSTMENT (AUTOMATIC)

Push the button STOP/RESET  pos. 571.1

selector button  pos.571.2 simultaneously;
the display will show "St1" and then the programmed value of the HOM.
Normally the HOM is set to 100.
The regulation can vary from 50 to 120 by pushing on

selector button  pos.571.2 .

Once the HOM is set to the desired value, do not push the button again, the display will flash 3 times and then returns to the normal functioning mode.

PART VII OPERATING THE FREEZER

The machine will automatically shut-off when the product has been frozen to the pre-set "consistency".

After the 7-10 minute initial freeze-down period, you will hear the beater/auger drive motor shut down indicating the product is ready to be served.

The compressor will continue to run for a short period as the machine automatically directs refrigeration to the mix tanks immediately after the freeze-down cycle.

To serve, simply place a cup, container or cone under the dispensing spout and slowly pull the dispensing handle down.

As the product begins to flow, move the cup or cone in a circular fashion to create a tapering tower.

When the portion is the size you want, close the handle and pull the cup or cone straight down to add a peak.

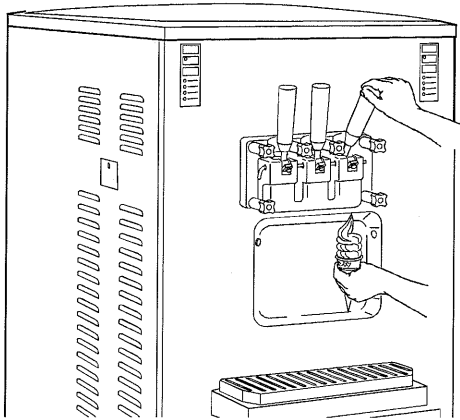


Fig.49

Typical portion sizes are: SMALL = 3 OUNCE SERVICING
 MEDIUM = 5 OUNCE SERVICING
 LARGE = 7 OUNCE SERVICING

Dispense the ice cream without exceeding the machine's production rhythm as indicated in the table on page 34.

If you do not exceed this pace and are careful to refill the machine with fresh mix, you can be sure you will never have to pause in selling ice cream, even during peak times.

A) STAND BY

During long pauses in ice servings, press button pos. 572.2 "PUSH TO SELECT" to select "STAND BY". You will save significantly on energy consumption, as the compressor runs only for the amount of time strictly necessary in order to keep the mix at the proper temperature.

When you want to begin serving, press button pos. 572.2 "PUSH TO SELECT" to select "AUTOMATIC" again. After only a few minutes the ice cream will be at the correct hardness for sale.

IMPORTANT:

Remember to lift the outer tube to the appropriate opening before switching to the AUTO mode.

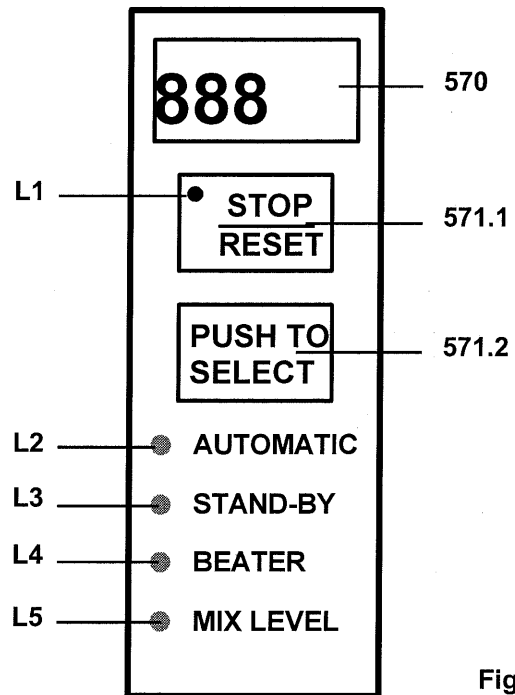


Fig.50

B) CONE COUNTER

The number of cones delivered is memorized in the program area. This number is the cumulative number of cones extracted since the machine has been delivered to the customer. This number can not be reset by the user. To read this number we must have the machine in STOP, push the "STOP" and "PUSH TO SELECT" simultaneously for 3 seconds.

Push "STOP" button 2 more times.

You get on the display "CtH" and the value of thousand of cones extracted.

By pushing one more on the "STOP" button the display shows "CtL" and the value of the number of cones extracted. By releasing all buttons, the display will flash 3 times and then return to the normal functioning mode.

Example: 20351 cones will be illustrated as:

CtH 020
 CtL 351

C) ADJUSTING THE PUMP FOR OVERRUN

Overrun can be adjusted within a value range of 40% to 100%, by turning suction pipe lever.

To **increase** overrun, turn the lever right (looking at machine front side).

To **decrease** overrun, turn the lever left (here, too, looking at machine front side).

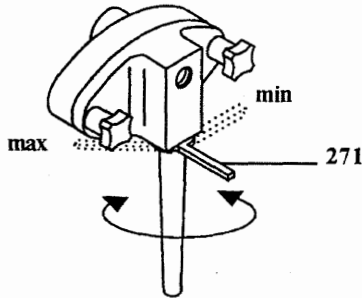


Fig.51

PART VIII ROUTINE, PERIODIC CLEANING PROCEDURES

Cleaning and sanitizing schedules are governed by your State or local regulatory agencies and must be followed accordingly. A well planned cleaning schedule will eliminate excessive waste of time and product within your organization.

On a designated day(s) of the week, allow the mix in the mix tank to run as low as feasible.

Note:

In order to make the reading of low level indicator easier, rinse it with vinegar or scales remover.

Proceed to clean the machine, as follows:



- 1) Press selector button **PUSH TO SELECT** pos.571.2 so as to enter CLEANING mode.
- 2) Locate a bucket under the spigot head. Pull down the handle and slowly empty the cylinder until pressure is completely released.
The product will be softened and will run out completely fluid.
- 3) Now press STOP and remove tank cover.
- 4) Bleed the excess air pushing in the bleed plunger.

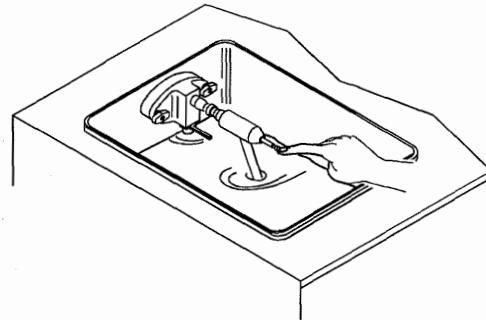


Fig.52

- 5) Extract the tube and place it into a container filled with warm water.

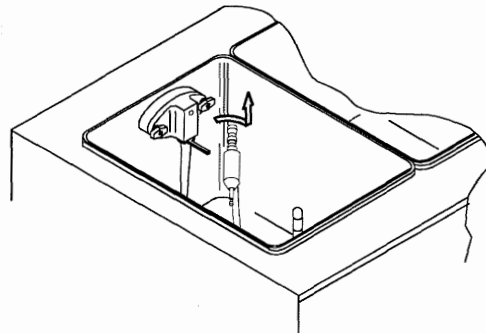


Fig.53

- 6) Remove pump and place it into a container pail and rinse all parts.

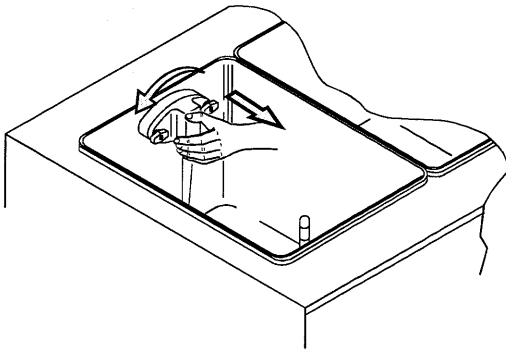


Fig.54

- 8) Cleaning may be performed also on one single hopper, however, during cleaning, do not remove the spigot head.

- 9) Refer to Part III, "Initial Cleaning Procedure" of this manual to continue the cleaning, disassembly, re-assembly, and start-up procedures.

- 7) Pull up the handle.
Pour luke warm in the tank and with a sponge clean additional residues.

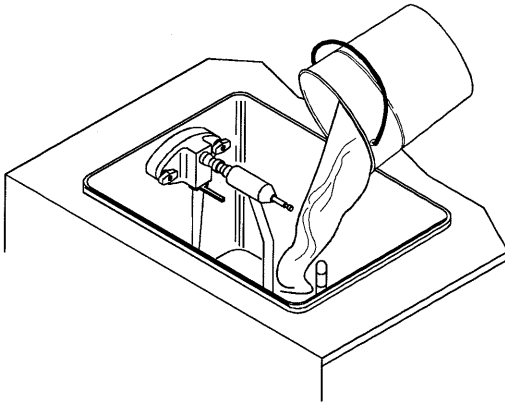


Fig.55

Enter CLEANING mode.
Pull down the handle and let water completely drain
until both tanks are empty.

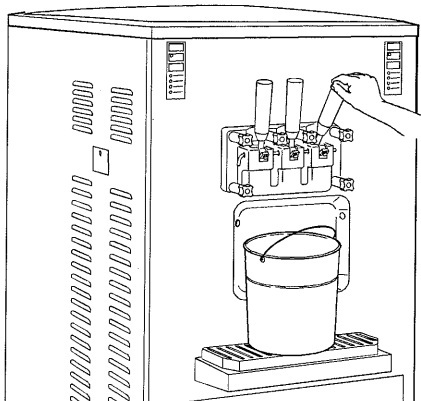


Fig.56

PART IX TECHNICAL INFORMATION

COMPRESSOR MOTOR

Compressor - Hermetic	
RLA - Amperage	78A
Suction Pressure	17 bar
Discharge Pressure -	(200/230)
Cooling System	Air
Use R 404 only	3,5 lbs
Refrigeration - Mix Tank Automatic Valve	
Suction Pressure	1 bar
Cylinder capacity	3,6 qts
Tank capacity	30,6 qts

BEATER MOTOR - 3-PHASE

H.O.M. cutout Amperage	(230 Volt) = 6.2 A
Overload cutout amperage	max 6,6 A
Voltage	208/230 Volts
Beater rotation:	counter clockwise - (machine front view)

OVERLOAD

T 25	6 - 8,5 A
Calibrated	6,6 A

The beater motor overload is controlled by the front switch pad.
The mode of the overload is in AUTOMATIC, if the overload trips off, wait a few minutes and reset the overload pushing the "STOP/RESET" button on the front switch pad.

PART X MAINTENANCE

Your COLDELITE machine has been designed, engineered and manufactured to achieve high performance and long durability.

The life expectancy of a machine, any machine, does not depend only on the quality of its components and design, but also on the beneficial effects of basic maintenance procedures.

It is important to you, therefore, to become familiar with a few of these basic procedures:

- 1) Remove O-rings only with the O-ring extractor supplied with the machine.
- 2) Clean the machine according to the instructions.
- 3) Lubricate all O-rings and seals, as instructed.
- 4) The wearing or the improper cleaning of the beater shaft seals, will result in leakage from the rear. Check the drip chute pans frequently and replace seals, when so necessary.
- 5) Replace any O-ring that has a nick in it. If not replaced, it will leak and interfere with the proper performance of the machine.
- 6) When all the spare parts supplied with the machine are used, re-order immediately. Do not wait until the part is required again.
- 7) NEVER use the AUTO position for washing, sanitizing and initially filling the freezing cylinder.
- 8) IMPORTANT - During the washing and sanitizing period, run the machine only for the time strictly necessary for this operation. Prolonged use of the beater in the Cleaning position may cause severe damage to the machine.
- 9) Always wash metal, plastic or rubber parts in lukewarm water. NEVER, NEVER USE HOT WATER!

IMPORTANT:

If your Model is an air cooled machine, its efficiency depends on the air cooled condenser. The fins of the condenser must be cleaned every two or three months to assure efficiency.



Warning

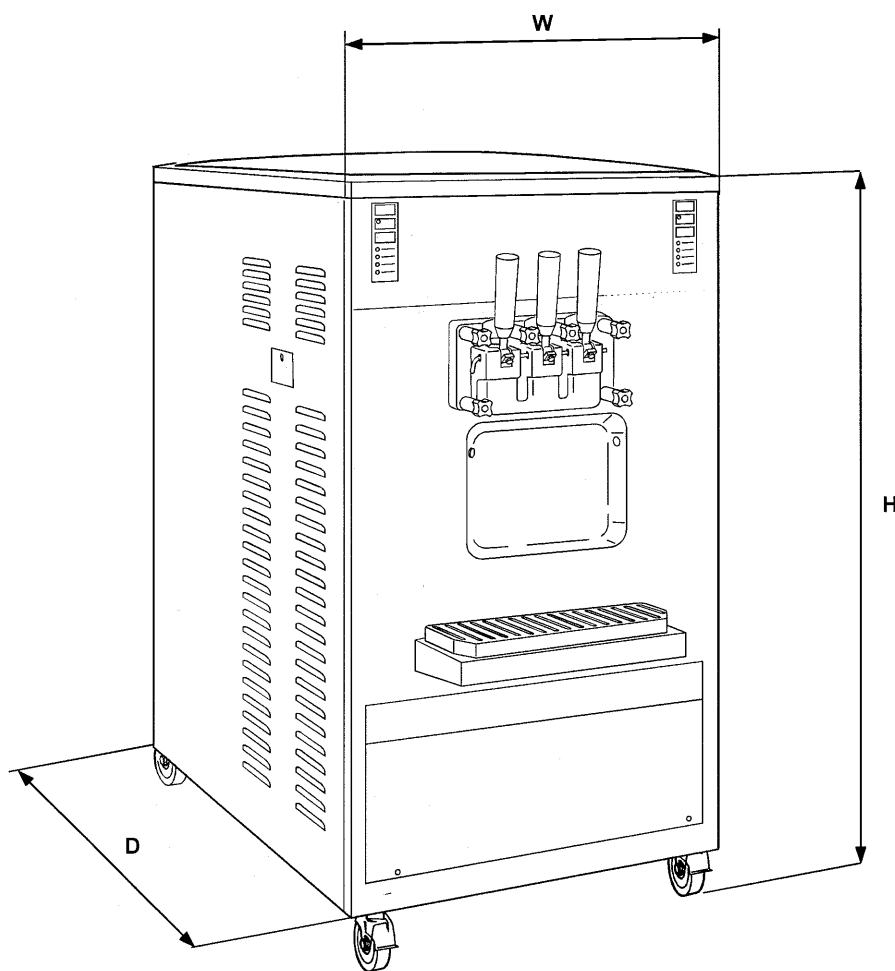
Extreme care must be taken when removing side, rear or control box panels.

Always turn the Selector Switch to the OFF position. Also, turn off the Disconnect Switch on the electrical supply line before exposing any electrical connections and/or moving parts, such as belts, pulleys, fan blades and beater.

A) TROUBLE SHOOTING GUIDE

Problem	Possible Cause	Suggested Remedy
1) Product too soft.	<ul style="list-style-type: none"> a) Drawing faster than machine can produce. b) H.O.M. control out of calibration or malfunctioning. c) Machine short of Freon gas. 	<ul style="list-style-type: none"> a) Slow down draw rate. b) Contact authorized service agency. c) Contact authorized service agency.
2) Nothing comes out of dispensing head.	<ul style="list-style-type: none"> a) No mix or low mix in mix tank. b) Feeding tube setting not sufficiently open. 	<ul style="list-style-type: none"> a) Add mix to mix tank. b) Adjust gravity feed tube sleeve to larger opening.
3) Machine will not freeze.	<ul style="list-style-type: none"> a) Restricted air flow. b) Compressor not working. c) Short of Freon gas. d) Malfunctioning torque control (H.O.M.). e) Malfunctioning starter. f) Insufficient power supply. 	<ul style="list-style-type: none"> a) Remove obstruction or restriction. b) Contact authorized service agency. c) Contact authorized service agency. d) Contact authorized service agency. e) Contact authorized service agency. f) Contact authorized service agency.
4) Machine runs continuously.	<ul style="list-style-type: none"> a) Short of Freon gas. b) Restricted or excessively warm air. 	<ul style="list-style-type: none"> a) Contact authorized service agency. b) Remove obstruction or restriction.
5) Beater motor humming.	<ul style="list-style-type: none"> a) No mix in cylinder. 	<ul style="list-style-type: none"> a) Refer to #2) above.
6) Machine will not start.	<ul style="list-style-type: none"> a) No power to machine. b) Malfunctioning control panel. c) Off on overload. d) Safety switch not energized. 	<ul style="list-style-type: none"> a) Check plug, disconnect switch or fuses. Push reset button. b) Contact authorized service agency. c) Push reset button after waiting for reset to cool. d) Control if spigot head is properly assembled.
7) Short cycle on machine.	<ul style="list-style-type: none"> a) Going off on high pressure. 	<ul style="list-style-type: none"> a) Clean condenser (air cooled models). b) Malfunctioning Klixon on compressor. c) Check water flow.
8) Mix drips from rear of head assembly.	<ul style="list-style-type: none"> a) O-ring missing or has a split. b) Head not tight. 	<ul style="list-style-type: none"> a) Install or replace O-ring. b) Tighten hand knobs.
9) Low overrun.	<ul style="list-style-type: none"> a) Defective O-ring. Check all O-rings. b) Too much liquid in cylinders. 	<ul style="list-style-type: none"> a) Replace any worn or damaged O-ring. b) Close liquid hole in feeding tube, draw several portions and reopen hole.

Machine model	Weight	Width	Depth	Height	Installed power	Tank capacity	Hourly output
UF 820 E TRONIC	lbs	inc	inc	inc	Kw	qts	lbs
					13,4	30,6+30,6	99



B) ALARMS

Control push-buttons are completely independent.
The alarm appearing on a display refers to that control push-button.

The machine is equipped with a self-checking device which signals faults in the machine.

The right figure point on the display is the "Check Led".

"Check Led" flashes in case of alarm and keeps on flashing to catch operator's attention.

After resetting the alarm, the led stops flashing.

Push STOP button to read the last alarm.

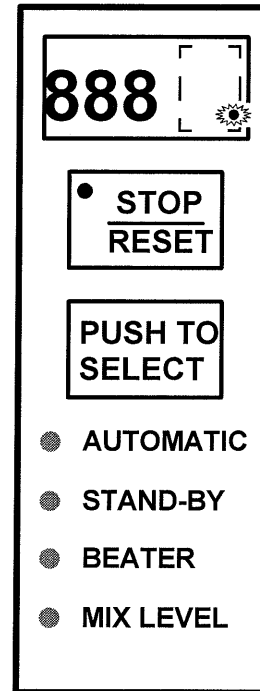
When "Check Led" is ON (or flashes), check the fault in the table and if necessary, call the technician.

In case the intervention of a technician is necessary, push STOP button only once so as to read the last alarm shown, and inform the technician. The machine can run in PRODUCTION mode even if an alarm is ON; however if the alarm is a dangerous one, the machine does not enter the PRODUCTION mode. In such condition, press STOP button and do not switch on the machine until its repair.

When more than one alarm is activated simultaneously, the alarm shown is the last one activated.

When more than one alarm are active, see the following order:

- | | | |
|---|-----|-----|
| 1 | IMS | AL9 |
| 2 | RTA | AL1 |
| 3 | TEV | AL5 |
| 4 | TEC | AL6 |
| 5 | TGV | AL7 |
| 6 | TE1 | AL3 |
| 7 | ICE | AL8 |
| 8 | TE2 | AL2 |



The table below shows the alarms available:

ALARMS	DESCRIPTION	CALL TECHNICIAN
AL1(RTA)	Overload beater motor tripped	YES
AL2(TE2)	Alarm for right cylinder cooler outlet sensor (bi-cylindrical only)	YES
AL3(TE1)	Probe TE1 out of order	YES
AL5(TEV)	Probe TEV (hopper) out of order	YES
AL6(TEC)	Probe TEC (cylinder) out of order	YES
AL7(TGV)	Probe TGV out of order	YES
AL8(ICE)	Cylinder ice sensor alarm = -27°C (+5°F) TE1 or TEC low temperature mix in the cylinder	YES
AL9(IMS) (flashing point)	Safety magnetic switch (spigot head opened)	NO

