

LB 302 • LB 502 • LB1002
LB 302 G • LB 502 G • LB 1002 G

OPERATION

MANUAL

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FORWARD

Thank you for selecting CARPIGIANI as your choice in equipment. CARPIGIANI machines are able to meet today's fast growing demands. Your CARPIGIANI freezer has been manufactured at one of the most modern manufacturing plants and utilizes the most advanced equipment and technology available in the industry.

We at CARPIGIANI, 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 has guided us in the preparation of this Operation Manual. PLEASE READ IT CAREFULLY. Keep it handy for future reference and follow the instructions from the very first time your machine is put into service.

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

USING THIS MANUAL

As you go through this manual, you will occasionally see special notes accompanied by this symbol:



Pay special attention to these notes - they contain special hints and precautions that are necessary for the proper operation of your CARPIGIANI machine.

IMPORTANT!



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

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

PART 1 INSTALLATION

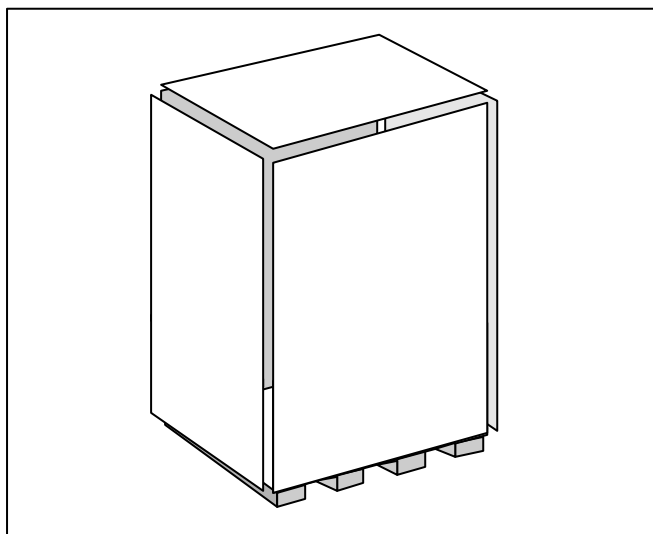
Before starting this procedure, carefully inspect the shipping case to ensure the unit has not been dropped, tampered with, or abused in such a way as to indicate the unit may have been damaged in transit.



If you notice any damage to the outside of the shipping case that may indicate possible hidden damage, make a notation of the damage on the bill of lading before signing. Contact the carrier immediately and request an inspection of damage. If this procedure is not adhered to you may forfeit your right to file a damage claim and be responsible for subsequent repair costs.

UNCRATING

- The case is secured to the skid with strapping. Use caution when cutting the strapping as it may spring out injuring you or damaging the machine.



Uncrating

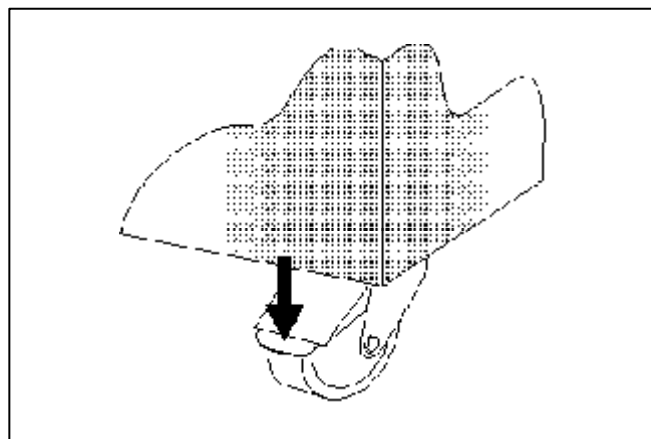
- Remove the case by lifting it straight up and away from the machine.
- The machine is also secured to the skid with strapping. Use caution when cutting the strapping as it may spring out injuring you or damaging the machine.
- Free the machine from the skid.
- Remove the single screw at the bottom of each side panel.
- Remove the panels by sliding downward slightly, then pull outward at the bottom and allow the panel to slide down.
- You may remove the protective plastic coating that has been laminated to the panels by peeling it off.

POSITIONING THE MACHINE

- The freezer is equipped with 2 pivoting front wheels to allow easy location. Move the machine to the desired location.
- The machine must stand level. Check the level condition by placing a level on the top of the freezer at each corner.
- Lock the front wheels to prevent the freezer from moving.



Accurate leveling is necessary to allow for correct drainage of the freezer barrel and to ensure correct overrun.



Positioning the machine with pivoting front wheels

MACHINE EQUIPPED WITH AIR COOLED CONDENSER

- Machines with air-cooled condenser must be installed at least 2 feet (24 inches) away from any wall or object to allow the free circulation of air around the condenser (ref. Fig. 1).



Insufficient air circulation effects the operation and output capacity of the machine. If these clearances are not maintained, the production capacity will be reduced, cycling will increase, and the machine may stop completely.

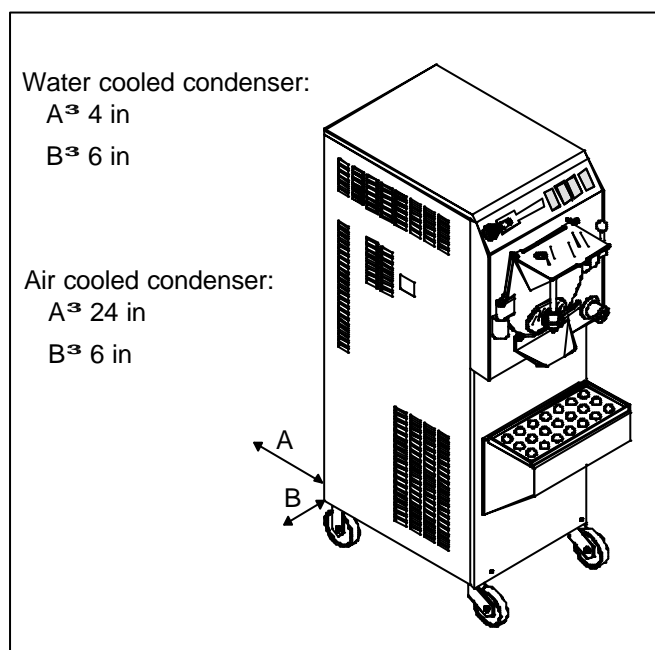


Figure 1

- It is necessary to clean the condenser each month to eliminate dust, paper, etc., which may obstruct it. Failure to do so may result in potential damage to the machine and improper functioning.
- The machine should be within six feet of the power supply (a plug and receptacle or unfused disconnected).
- Position the machine to allow easy access for cleaning, servicing and maintenance.
- Position the machine away from direct sunlight. For every 2EF over 68EF, the machine's performance will decrease by approximately 1%.
- Once the machine is set in position, it should be leveled as accurately as possible.

MACHINE EQUIPPED WITH WATER-COOLED CONDENSER

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



All plumbing must meet local or state codes.

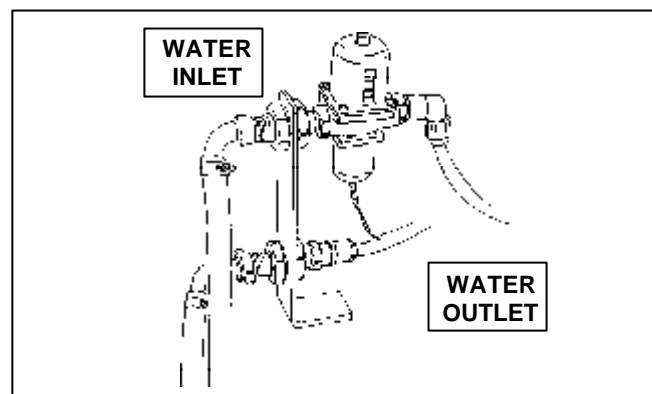


Figure 2

WATER VALVE ADJUSTMENT

The water valve is preset at the factory.

Proceed as follows if an adjustment is required:

- To maintain a head pressure of 235-255 psi while the compressor is running, attach a refrigeration high pressure gauge to the compressor's high side discharge port.
- Open the water valve clockwise to increase the pressure or counter clockwise to decrease the pressure (ref. Fig. 3).

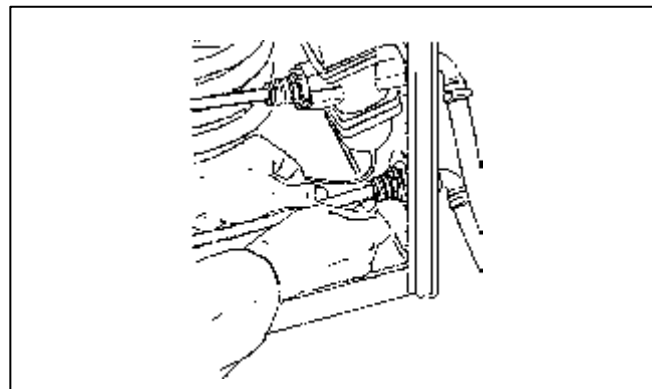


Figure 3



Never expose water-cooled machines to temperatures at or below 32°F. without first draining the water from the condenser. Serious damage to the machine can occur if it is not properly drained.

ELECTRICAL REQUIREMENTS

- The wiring used 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.** We recommend that a licensed electrician install the power supply.

POWER SUPPLY

The power supply must be adequate enough to meet requirements at all times. Voltage fluctuations with the machine in operation should not exceed plus or minus 5% of the normal or rated voltage.

WIRING

- Adequate wiring must be provided with respect to wire size or gauge. Unless otherwise required by the local Electrical Codes, the same gauge wire at the machine junction box should be used for the 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.

CARPIGIANI 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.

The compressor is also internally protected. If the Klixon protector trips due to an overload, the protector must first cool down for several minutes before the compressor can be restarted.

ELECTRICAL CONNECTIONS

- After you remove the panel on the left side of the machine, the wiring connection box can be found on the bottom of the frame and is labeled "Connect Power Line Here" (ref. Fig. 4).
- Feed the power line through the access hole located at the bottom deck directly below the wiring connection box.
- Connect the power line to the machine's power lines and wiring connection box.
- After connecting, the power line should be fastened to the wiring connection box with appropriate electrical hardware.
- In all installations, the machine must be properly grounded. Because all high voltage components (the controls are 24 volts) are connected with flexible conduit or cord, adequate ground continuity is assured by running and fastening a ground line to the machine junction box ground lug (ref. Fig. 4).

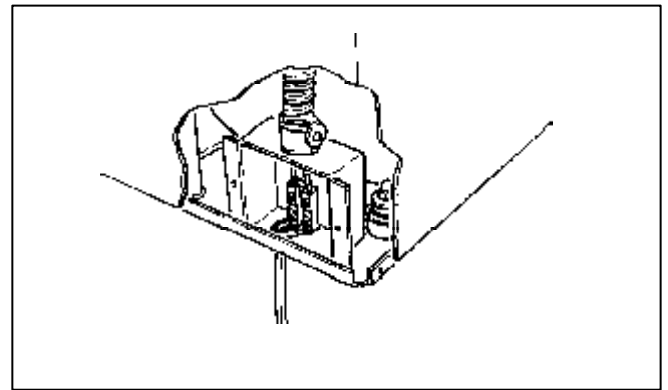


Figure 4

BEATER ROTATION

After the electrical connections have been completed check the rotation of the beater which should be counter-clockwise when facing the front of the machine.

COMPLETING THE INSTALLATION

The following pages contain important information and procedures that describe the proper sanitizing, operation, and maintenance of your CARPIGIANI machine. We feel certain that your full compliance with these instructions will ensure the excellent performance and trouble-free operation of the machine and a profitable business for years to come.



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

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



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 THE ELECTRICAL SUPPLY LINE BEFORE EXPOSING ANY ELECTRICAL CONNECTIONS AND/OR MOVING PARTS, SUCH AS BELTS, PULLEYS, FAN BLADES AND BEATER.

MACHINE SAFETY SYSTEM - THERMAL RELAY

The Thermal Relay monitors amperage draw of the beater motor. When maximum values are reached, the machine will stop and the monitor will blink "RT" which is the code that indicates the THERMAL CUT-OUT has been tripped. Upon automatic resetting of the thermal relay, the display will stop blinking. Before restarting operation, it is important to investigate the reason the Thermal Cut-out tripped. To restart the machine, press the desired button.

PRESSURE SWITCH

The Pressure Switch protects the cooling system compressor. This switch will stop the compressor in the event of water flow interruption (water-cooled system) or air flow obstruction (air-cooled system); resetting is automatic.

If the compressor runs too long, or the machine continually stops and restarts it may indicate cooling is insufficient. Call your authorized service technician.

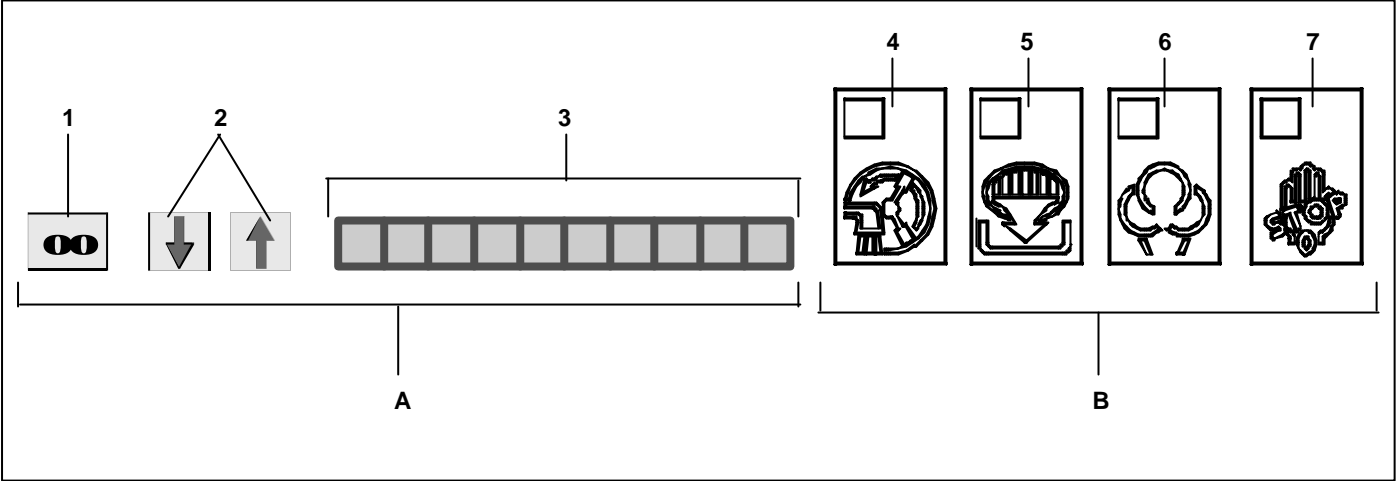
PROTECTION FOR THE OPERATOR

A microswitch has been placed on the door of the barrel with the beater assembly. The switch will immediately stop the machine when the door is opened. When the machine stops, the monitor will display "PT." The display will blink if the machine was running when it was stopped. The display will be steady (not blinking) if the machine was already stopped when the door was opened. After closing the door, the machine remains stopped and the display resets.



Make sure the machine is stopped before opening the front door.


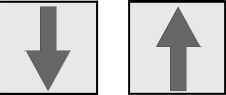

PART 2
EXPLANATION OF CONTROLS



Control Panel

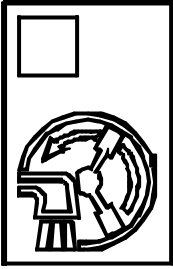
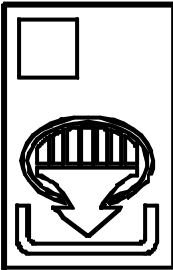
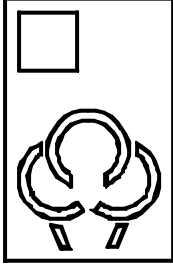
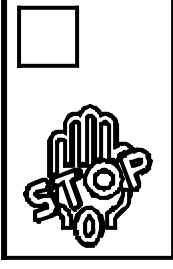
MONITORING CONSISTENCY

The ice cream consistency monitor (Hard-O-Tronic) consists of 3 parts:

	Ref.1 DISPLAY displaying set calibration values
	Ref.2 PUSH-BUTTONS for variation of calibration values
	Ref.3 LED BAR for checking all processing phases in a real time.

PUSHBUTTON PANEL

The machine has a diaphragm pushbutton panel on the front side. Each button has a symbol representing the corresponding function:

	<p>Ref. 4 Push-button CLEANOUT</p> <p>When pressed, it just controls beater rotation, while the freezing system is cut out. Three minutes after inserting this function, the machine automatically sets to "STOP" in order to avoid an excessive wear of beater and barrel.</p>
	<p>Ref. 5 Push-button DISPENSE</p> <p>When pressed, it controls beater rotation at high speed for an easy dispense of the product .</p> <p>Attention! Three minutes after selecting and inserting this function, the machine automatically sets to STOP in order to avoid an excessive wear of beater and barrel.</p>
	<p>Ref. 6 Push-button ICE CREAM PRODUCTION</p> <p>When pressed, it automatically controls beater and compressor running. Ice cream consistency is controlled by CARPIGANI exclusive electronic system called HARD-O-TRONIC, through which the best ice cream processing value can be reached.</p>
	<p>Ref.7 Push-button STOP</p> <p>When pressing it, machine stops.</p> <p>Attention! If the machine is left in STOP more than 30 minutes and no other push-button is pushed, the electronic card automatically switches off in order to reduce energy consumption. Press STOP in order to turn on the machine.</p>

ICE CREAM DISPENSING HANDLE

LOCKING

- To lock the ice cream door, turn the handle to the right until it stops (ref Fig. 5).

OPENING

- Turn the handle 90° to the left (ref Fig. 6).
- Lift the handle and the ice cream door then lock the ice cream door in the top position by turning the handle right until it stops (ref Fig. 7).

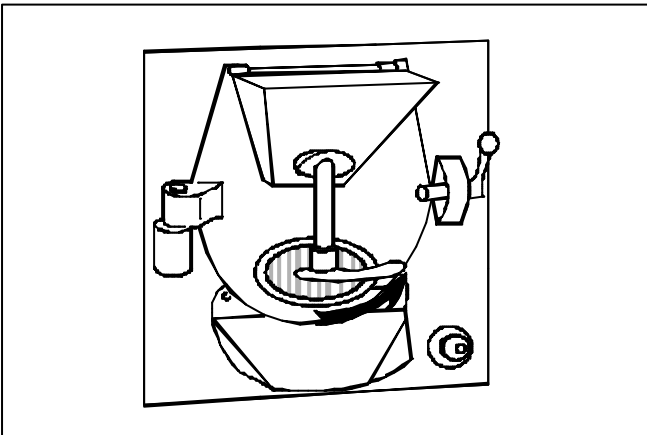


Figure 5

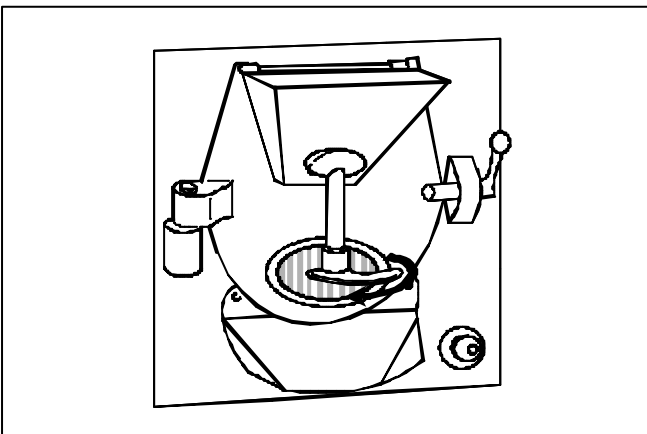


Figure 6

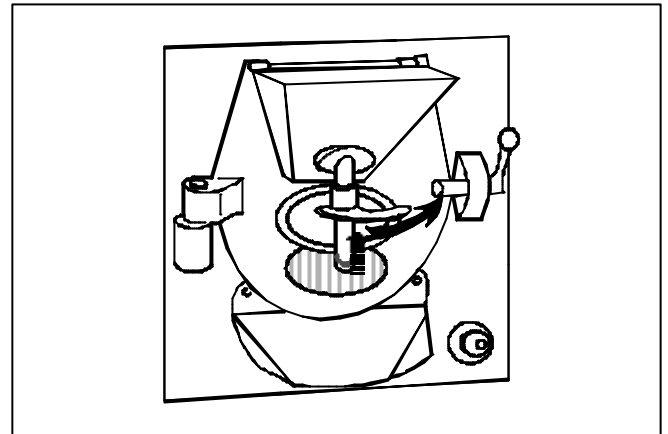


Figure 7

CLOSING

- Reverse the procedures described above.

PART 3 INITIAL CLEANING PROCEDURE

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

PRELIMINARY CLEAN-OUT

- With the machine off and the beater front door closed, use the hose and shutoff valve on the front of the machine to put water into the barrel.
- With machine on, press the "Clean Out" button and allow the beater to run for the proper length of time.
- The machine will run for about 3 minutes and then will automatically stop. The timer helps prevent unnecessary wear on the sliding shoes and barrel.
- Drain all water from barrel and open the door.

BEATER DISASSEMBLY (MODELS LB 302 - LB 502 - LB 1002)

- Remove the beater.



Perform this operation with extreme care. The beater may be damaged if it falls to the ground or is impacted against another object.

- Remove the rear plug seal then remove the beater lip seal from its seat on the beater shaft (ref Fig. 10).

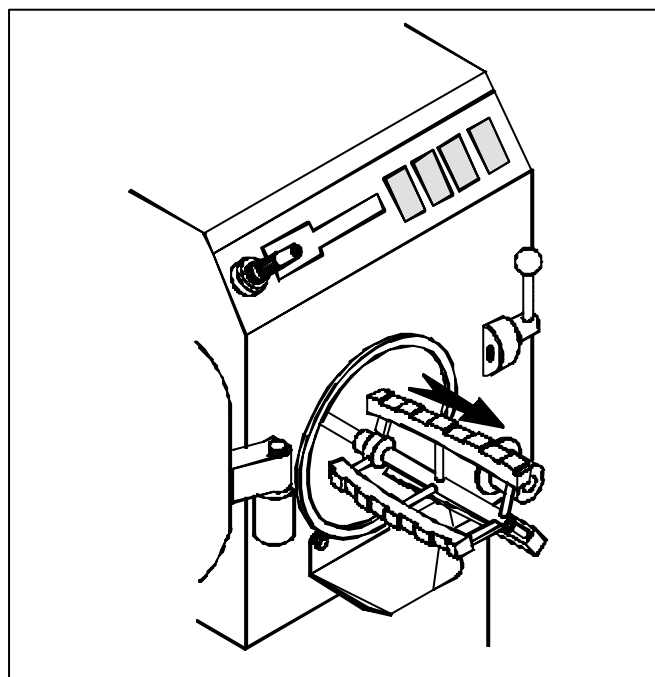
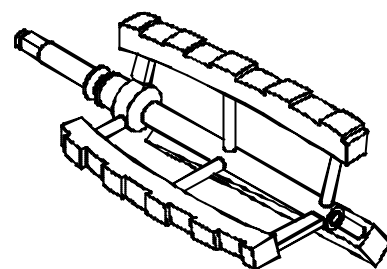
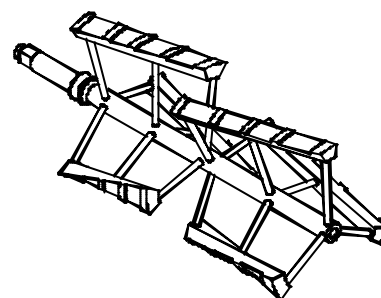


Figure 8

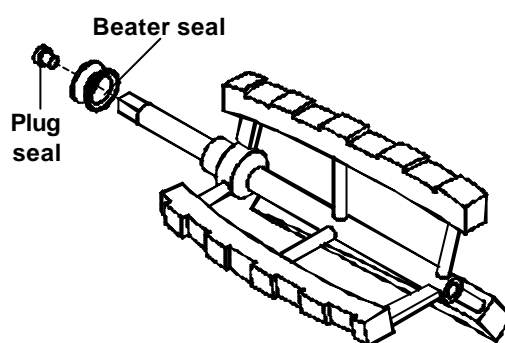


Beater mounted on models: LB 302 - LB 502

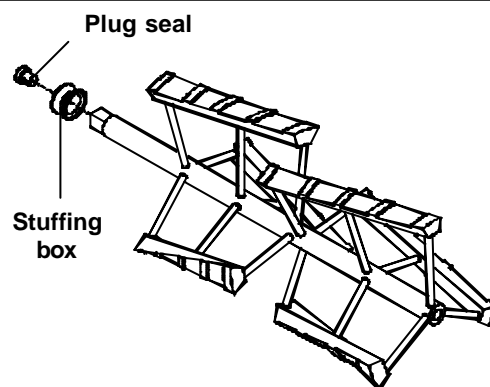


Beater mounted on models: LB 1002

Figure 9



Beater mounted on models: LB 302 - LB 502



Beater mounted on models: LB 1002

Figure 10

BEATER DISASSEMBLY (MODELS LB 302 G - LB 502 G - LB 1002 G)

- Remove beater with care, paying attention not to damage the sliding shoes.



Perform this operation with extreme care.

The beater may be damaged if it falls to the ground or is impacted against another object.

- Disassemble sliding shoes, completely (ref. Fig. 12).
- Remove the beater lip seal from its seat on the beater shaft (ref. Fig. 12).
- The sliding shoes mounted on the beater are "self-adjusting". An accurate cleaning ensures the system will perform in full working order.

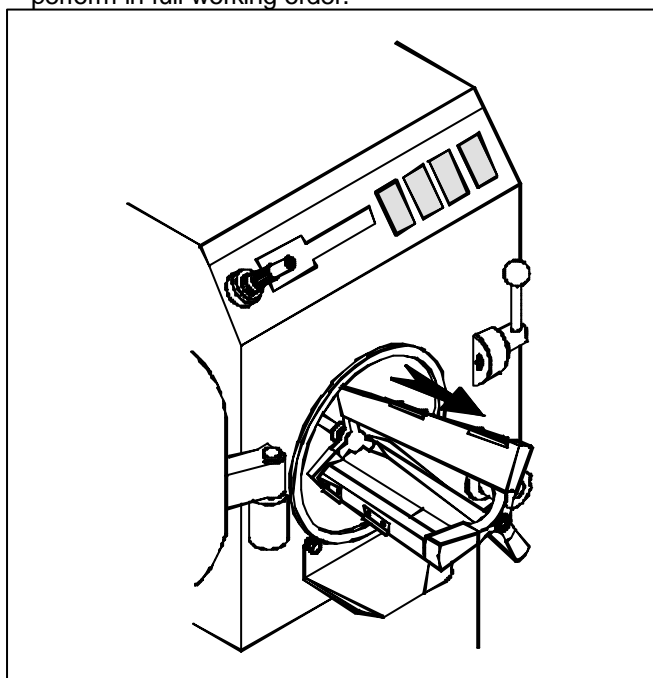
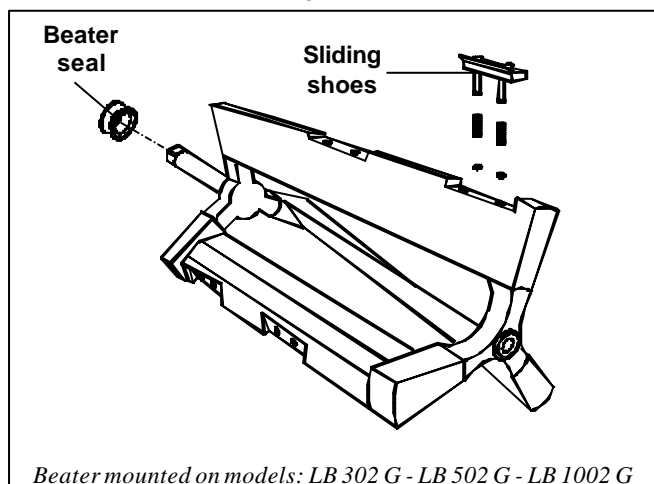


Figure 11



Beater mounted on models: LB 302 G - LB 502 G - LB 1002 G

Figure 12

FRONT DOOR DISASSEMBLY

- Lift the door locking lever and shift it to the right (ref. Fig. 13).
- Open the door by rotating it on its hinge (ref. Fig. 13).

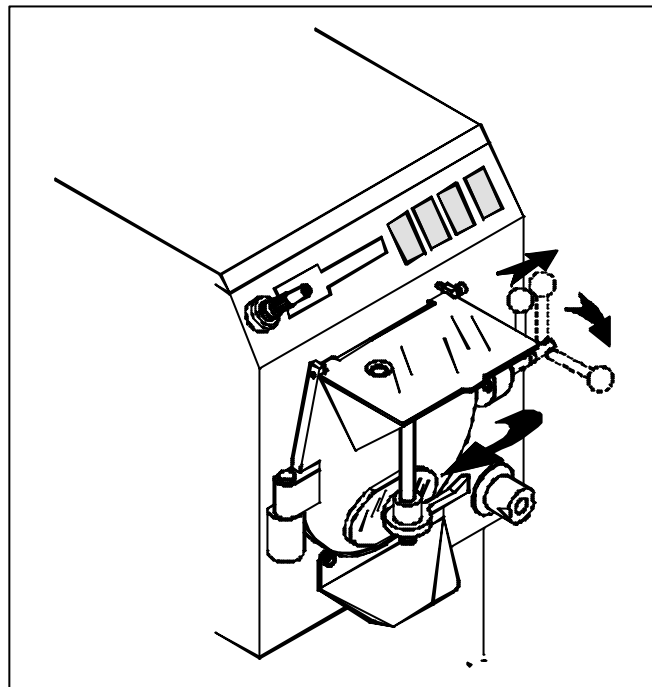


Figure 13

- Lift the door and remove it (ref. Fig. 14).
- To perform cleaning operations, remove all movable parts and seal with barrel.

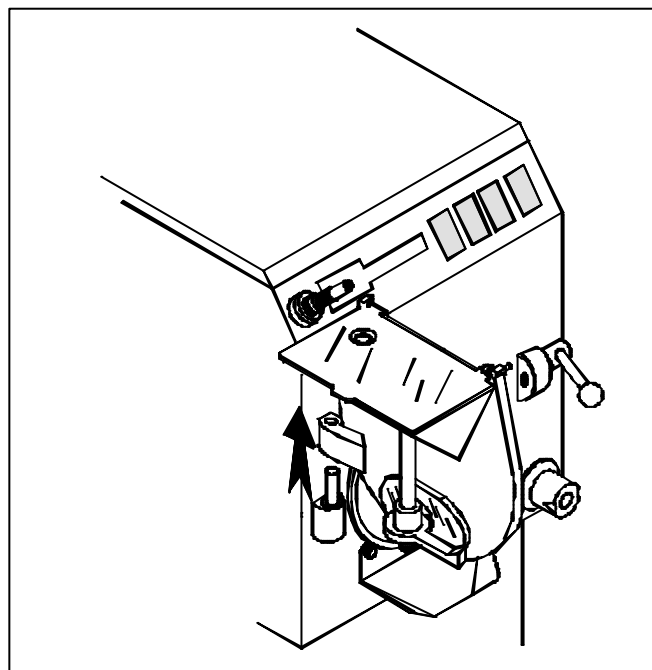


Figure 14

ICE CREAM GATE DISASSEMBLY

- Lift the ice cream gate and remove OR (Ref. 1 - Fig. 15) from sliding rod of ice cream gate and withdraw it which will also release the lever.
- To perform cleaning, also remove the ice cream gate OR (Ref. 2 - Fig. 15).

FILL CHUTE COVER DISASSEMBLY

- Remove the horizontal hinge pin (Ref. 3 - Fig. 15) then remove the cover.
- The cover is provided with a small bulkhead (Ref.4 - Fig.15), which prevents ice cream from going up into the fill chute which must be disassembled to be cleaned.

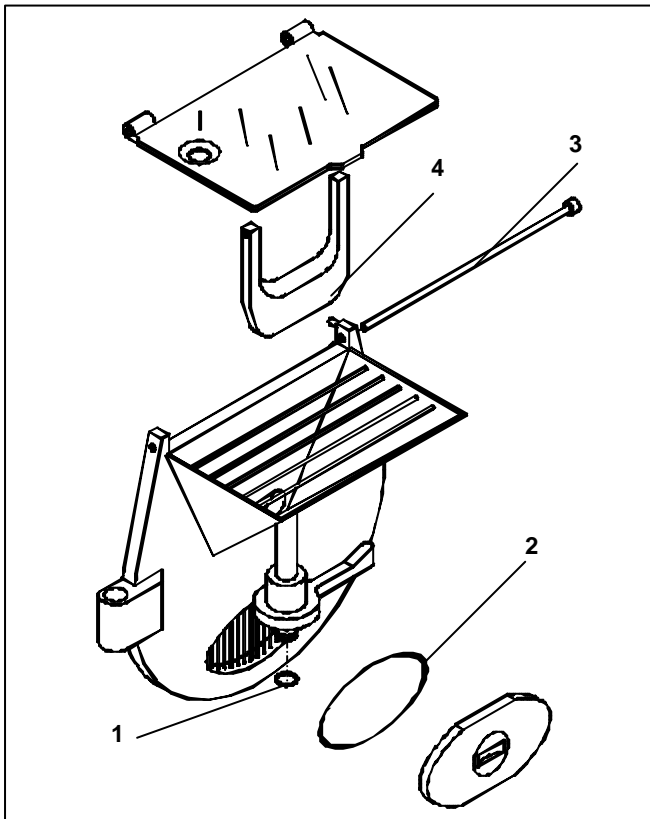


Figure 15

CLEANING OPERATIONS

- Wash all parts in lukewarm water (80-90 F) using a mild non-foaming detergent. Scrub each of the parts with the cleaning brushes provided in the Start-Up Kit.



Do not use hot water on plastic parts as damage to the parts can result.

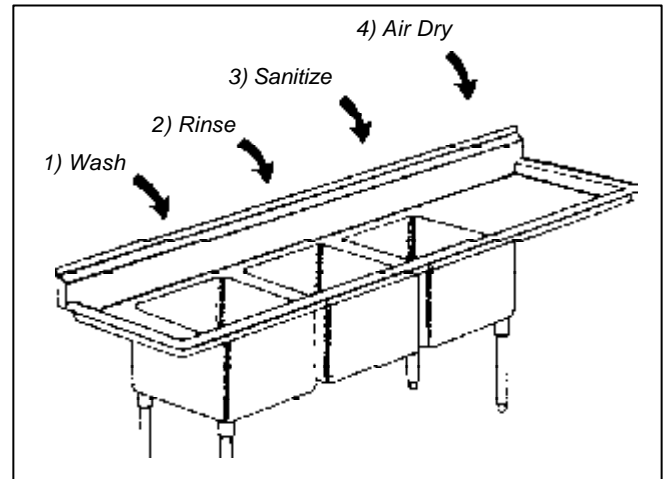


Figure 16

Using your three-tank sink, wash, rinse and sanitize all of the disassembled machine parts. Mix the sanitizing solution to a 200ppm concentration with warm water. Allow the parts to soak in the sanitizing solution for 3-5 minutes before removing. Allow the parts to air-dry on the clean, sanitized counter at the end of the sink.

Do not towel or sponge dry these parts.

PART 4 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 them in the sanitizing solution.

FRONT DOOR RE-ASSEMBLY

- Lubricate all rubber parts with the lubricant included in the Start-Up Kit.
- Reassemble the components in reverse order to the disassembly procedure previously stated. That is:
FILL CHUTE COVER
ICE CREAM DOOR
- Insert the assembled front door on the hinge (ref. Fig. 17).

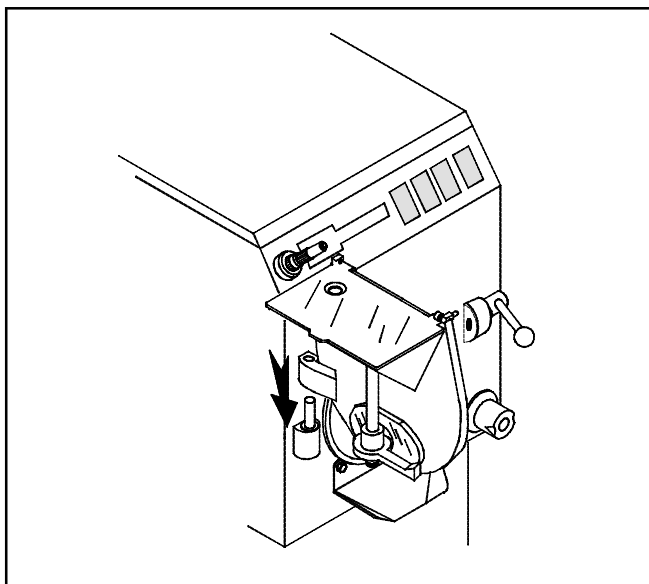


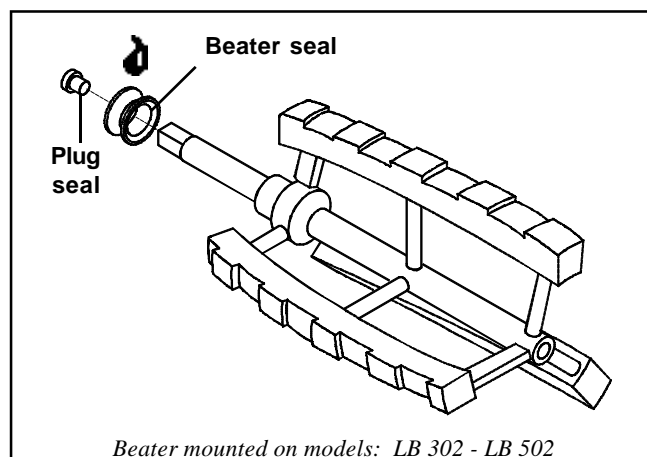
Figure 17

BEATER RE-ASSEMBLY (MODELS - LB 302 - LB 502 - LB 1002)

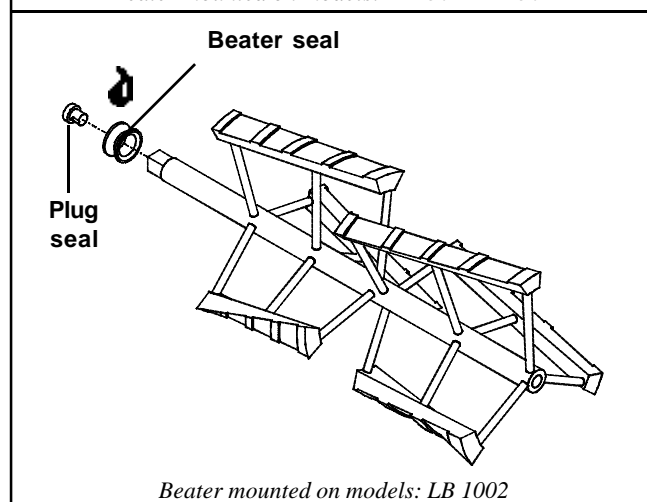
- Insert the rear plug seal (ref. Fig. 18).
- Lubricate the beater seal with a series of 3 pea size drop on each side of the rubber beater seal, with the lubricant included in the Start-Up Kit, then mount it (ref. Fig. 18).
- Position the beater into the freezing barrel; hold it with both hands.
- Push the beater toward the bottom of the barrel.



In order to prevent damage to the beater and/or freezing barrel, do not strike the beater against the barrel rim.



Beater mounted on models: LB 302 - LB 502



Beater mounted on models: LB 1002

Figure 18

- Push beater deeply and, at the same time, turn it in order to lock the end of beater shaft into its seat.

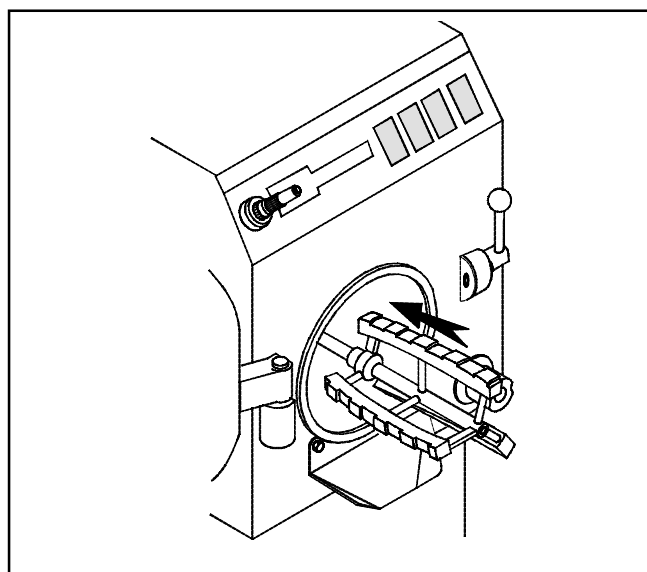


Figure 19

BEATER RE-ASSEMBLY (LB 302 G - LB 502 G - LB1002 G)

- Completely assemble the sliding shoes (ref. Fig. 20).
- Lubricate the beater lip seal with the lubricant included in the Start-Up Kit and mount it (ref Fig. 20).
- Position the beater into the freezing barrel. To do that, hold it with both hands and press the sliding shoes so that it is easier to insert.
- Push the beater toward the bottom of the barrel.



In order not to damage the sliding shoes and/or the freezing barrel, do not strike the beater against the barrel rim.

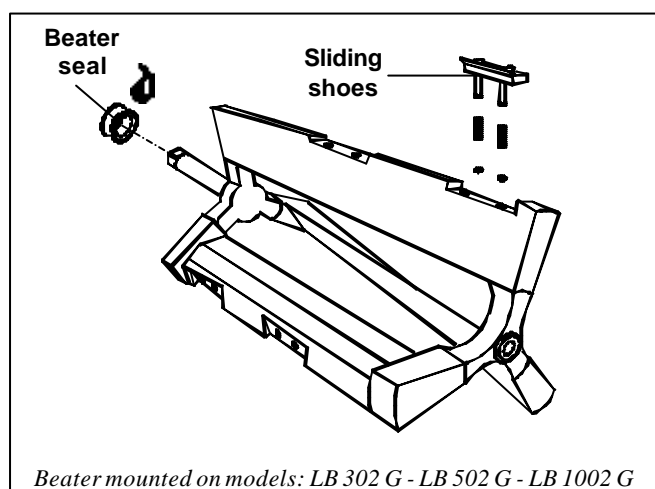


Figure 20

- Push the beater deeply and, at the same time, turn it in order to lock the end of beater shaft into its seat.

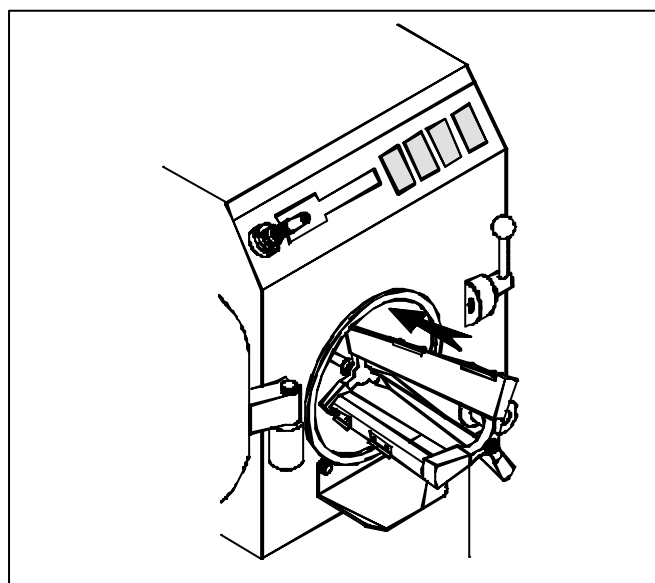


Figure 21

PART 5

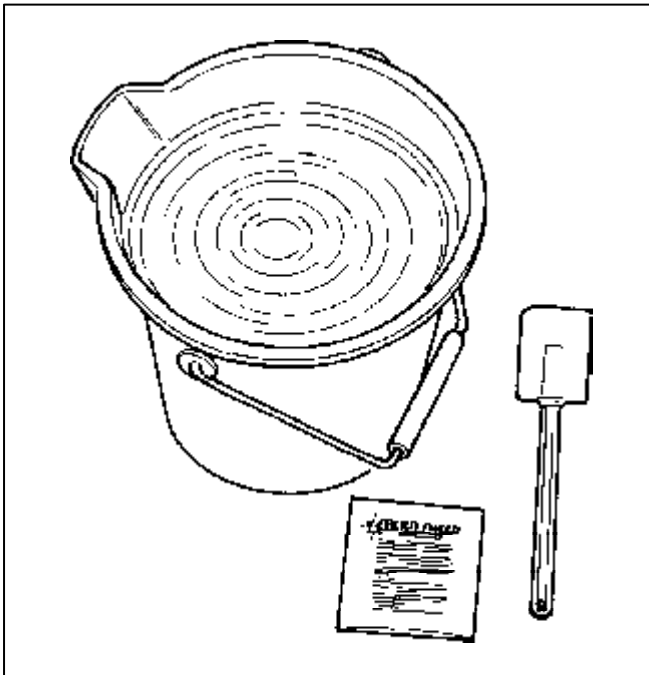
SANITIZING THE FREEZER

Before filling the machine with your liquid product, it must be sanitized. The cleaning and sanitizing frequency cycles must comply with all health codes in your area. Contact your Board of Health for additional information.

Proper sanitizing of the machine is important. Sanitizing retards the growth of bacteria and ensures excellent test results when your machine is inspected by your local health department and/or agriculture department.

To begin, you will need:

- A clean bucket.
- Sanitizer (sample packets were included in your Start-Up Kit).
- A spatula (also included in the Start-Up Kit).
- A brush with plastic bristles.



Sanitizing Kit

SANITIZING PROCEDURES

- Mix the sanitizer (Stera Sheen green label or equivalent) into the clean pail with at least two gallons of warm water. Mix the sanitizer and water to make a 200-PPM concentration of sanitizer solution. Using the spatula, stir the solution until the sanitizer is completely dissolved.



Do not exceed the formula recommended by the sanitizer manufacturer – higher concentrations will not increase the effectiveness. Do not use straight chlorine bleach since it does not clean properly and will damage plastic components. Do not leave the sanitizing solution in the freezer longer than one hour as it can corrode some parts.

- Pour the mix into the mixing tanks.
- With the machine off and the beater assembly door closed, pour a non-corrosive sanitizing solution into the freezing barrel.
- Push the “Cleanout” button.
- Run the machine for the correct time recommended for this procedure – about 20-30 seconds.



Running the machine in the “Cleanout” mode for excessive periods of time with the barrel empty or with water and cleansing solutions will wear out the beater shoes very quickly. Run the machine **ONLY** for the time necessary to complete these operations. To avoid unnecessary wear of the sliding shoes and barrel, the machine will automatically stop after three minutes of uninterrupted running.

- Drain all sanitizer solution.



Do not touch the sterilized parts with hands, napkins, or anything else.

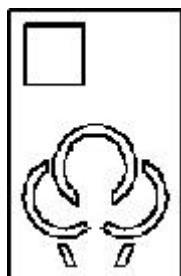


The machine is now sanitized and ready to be filled with mix. Do not wipe out any residual sanitizing solution from the tank as this will contaminate the machine with bacteria.

PART 6 STARTING THE FREEZER

ICE CREAM PRODUCTION (PROCESSING)

- Wash, sterilize, and thoroughly rinse the machine before use.
- Pour the desired quantity of mix into the barrel through the front lid fill chute. Follow the minimum and maximum quantities shown in the table.
- Before filling the machine with mix, ensure the front door and ice cream gate are properly closed.
- Push the "Production" button. The machine will start the processing cycle by beating and cooling the mix.
- The LED lights on the Hard-O-Tronic display will light in



Production Button

sequence, indicating the status of processing. When the LED panel blinks and you hear an audible alarm, the processing cycle and the ice cream is ready to be dispensed. The beater will continue to run, but the compressor has stopped.

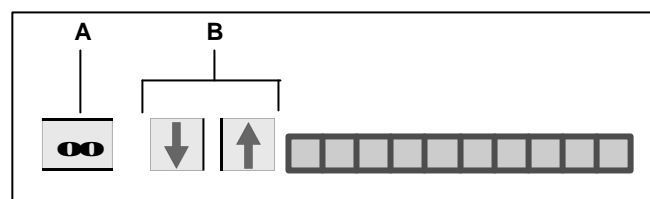


LED's

If ice cream is not dispensed soon after processing is completed, beating of the ice cream will continue while the Hard-O-Tronic system continuously monitors the consistency. If the consistency decreases, the Hard-O-Tronic system will restart the compressor and processing to restore the ice cream to its optimal thickness and consistency.



ICE CREAM CONSISTENCY



Hard-O-Tronic

CARPIGIANI sets the optimal ice cream consistency value according to the mix being used. Hard-O-Tronic constantly maintains ice cream in optimal condition. However, the operator can also set "personalized" custom processing cycles with the LB series.

High butter fat ice cream may require a higher consistency, while ice cream with low fat content (such as shebert) requires a lower consistency setting.

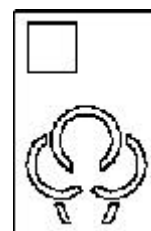
CHANGING ICE CREAM CONSISTENCY

- To vary ice cream consistency, press the button (ref. B) on the display panel while the machine is processing ice cream.
- To achieve a harder ice cream, increase the setting value displayed on the monitor (ref. A) by pushing the up arrow.
- To achieve a softer ice cream, decrease the setting value displayed on the monitor by pressing the down arrow.

EXAMPLE:

To vary the consistency value from 10 to 7:

- Press the button for ice cream processing.



Ice Cream Processing

- Repeatedly press the down arrow button until the value 7 is displayed. The new consistency value is immediately stored.

- At the end of the processing cycle, the ice cream consistency value will be 7 instead of 10.

A typical value is 10. The new value will remain stored until it is changed again.

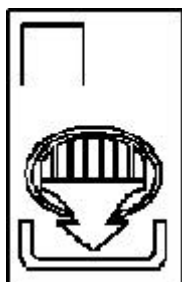


Hourly output may vary depending upon: room and cooling water temperature, type and quality of mix used, and the consistency value that is set in the machine.

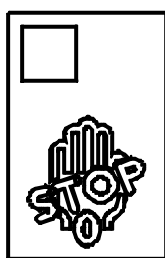
DISPENSING ICE CREAM

When the production cycle is over (indicated by blinking LEDs and an audible alarm), ice cream may be dispensed from the barrel as follows:

- Place a container on the shelf under the ice cream door.
- Turn the ice cream gate handle.
- Lift the handle together with the ice cream gate.
- Push the "Distribution" button.



Distribution



Stop

- Press "Stop" when all product is removed.



To avoid unnecessary wear of the beater shoes and barrel, the machine returns to the stop mode after 3 minutes of non-use.

ICE CREAM DISPENSING HANDLE

LOCKING

- Lock the ice cream gate turning the handle to the right until it stops.

OPENING

- Turn the handle 90° to the left (ref. Fig. 22).
- Lift the handle and the ice cream gate (ref. Fig. 23).
- Lock the ice cream gate on top by turning the handle to the right until it stops (ref. Fig. 24).

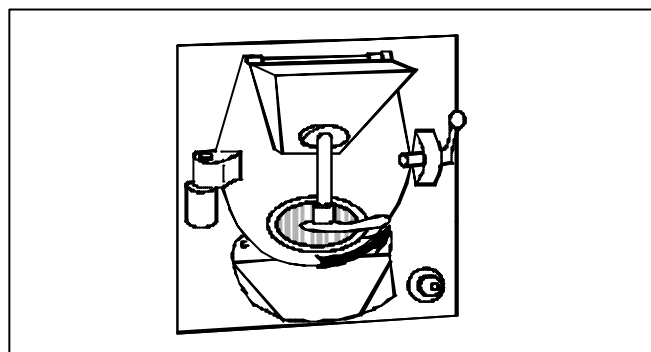


Figure 22

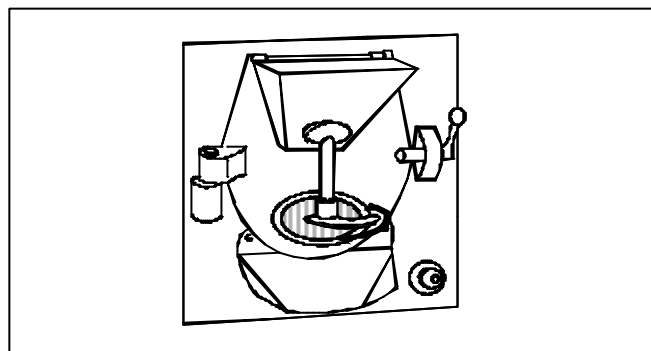


Figure 23

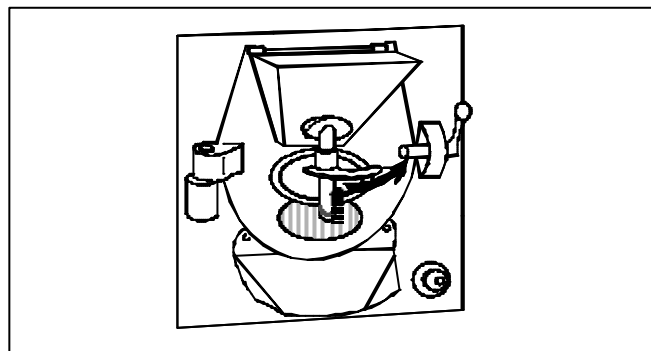


Figure 24

CLOSING

- Repeat the procedures (above) in reverse order.

AFTERCOOLING

This function (which is an exclusive feature of all LB models) is very useful in models with larger output capacity (2 containers per cycle or more).

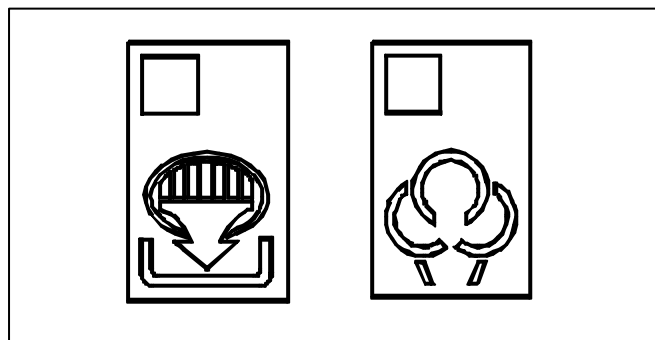
If ice cream in each container needs further preparation, such as garnish and variegation before storage, ice cream that remains inside the machine at high speed dispense may lose its original thickness.

At any moment during extraction, and when the operator chooses, you may press the Production button to cool the ice cream again.

The result is a steady consistency of ice cream, from the beginning to the end of extraction.



After-cooling begins each time the Production button is pressed and runs for a duration of 20 seconds.



Distribution - Production

PART 7 CLEANING PROCEDURE

Cleaning and sanitizing schedules for your freezer are determined by your local Health Department and / or Department of Agriculture and must be followed accordingly. Check with your local organization prior to determining your cleaning schedule.

After determining your schedule, remove any ice cream remaining in the barrel. Proceed as follows:

PRELIMINARY CLEAN-OUT

- With the machine off and the beater front door closed, use the hose and shutoff valve on the front of the machine to put water in the barrel.
- Turn the machine on then press the Cleanout button and let the beater run for the specified time. The machine will run for about three minutes then automatically stop. This helps prevent unnecessary wear on the sliding shoes and barrel.
- Drain all water from the barrel then open the door to remove the beater.

BEATER DISASSEMBLY (MODELS LB 302 - LB 502 - LB 1002)

- Remove the beater.



Perform this operation with extreme care. The beater may be damaged if it falls to the ground or is impacted against another object.

- Remove the rear plug seal then remove the beater lip seal from its seat on the beater shaft (ref Fig. 27).

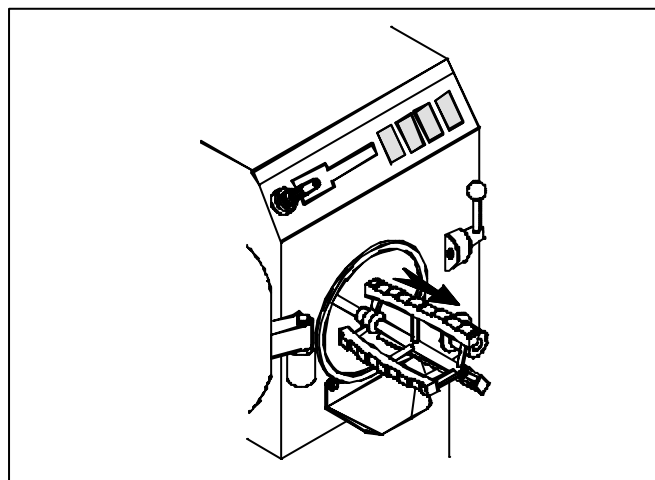


Figure 25

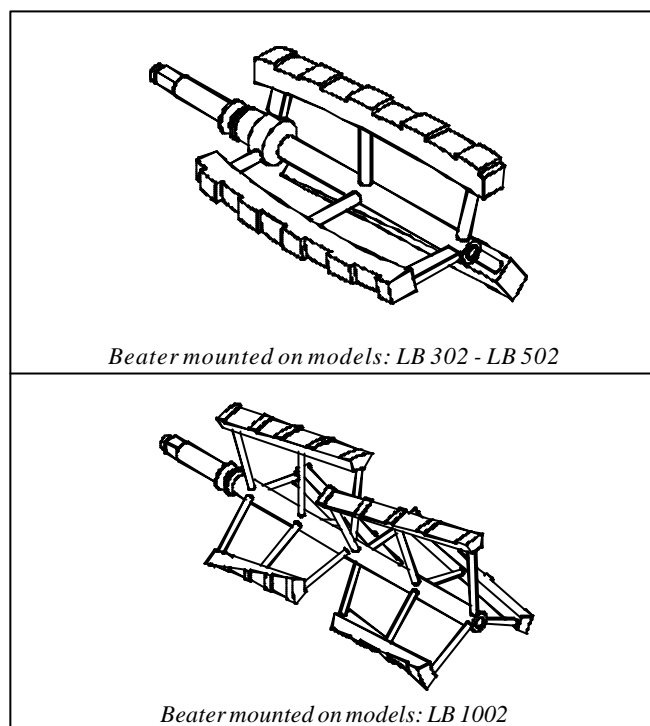


Figure 26

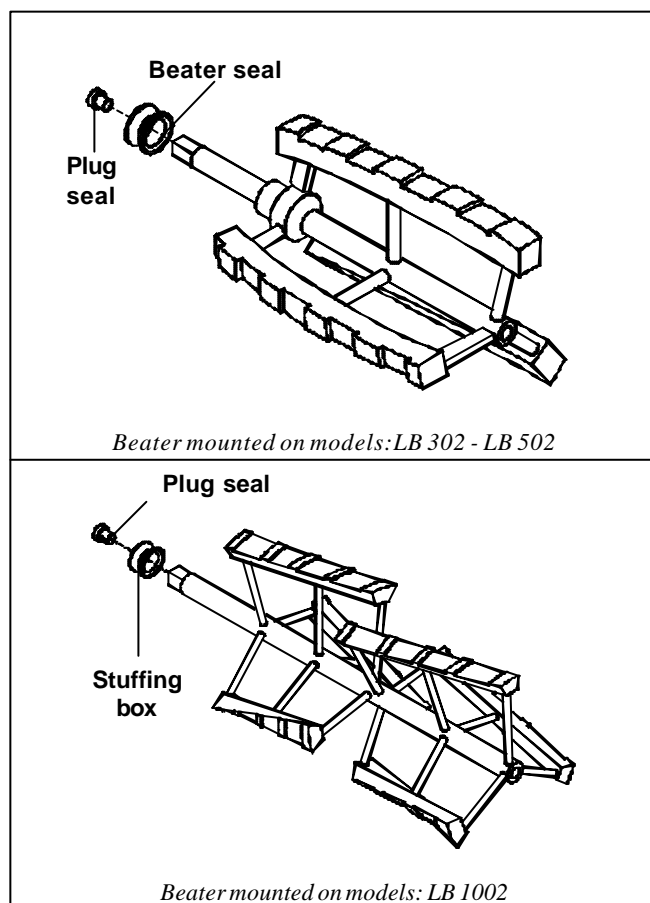


Figure 27

BEATER DISASSEMBLY (MODELS LB 302G - LB 502G - LB 1002G)

- Remove beater with care, paying attention not to damage the sliding shoes.



Perform this operation with extreme care.
The beater may be damaged if it falls to the ground or is impacted against another object.

- Disassemble sliding shoes, completely (ref. Fig. 29).
- Remove the beater lip seal from its seat on the beater shaft (ref. Fig. 29).
- The sliding shoes mounted on the beater are "self-adjusting". An accurate cleaning ensures the system will perform in full working order.

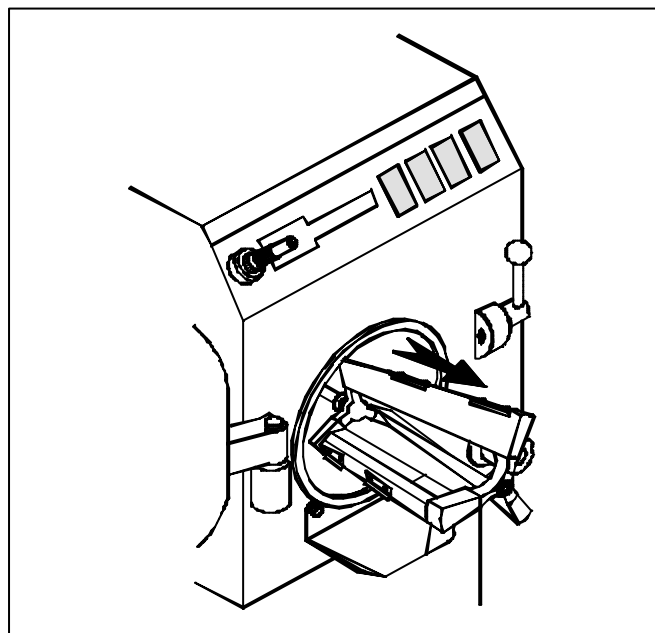
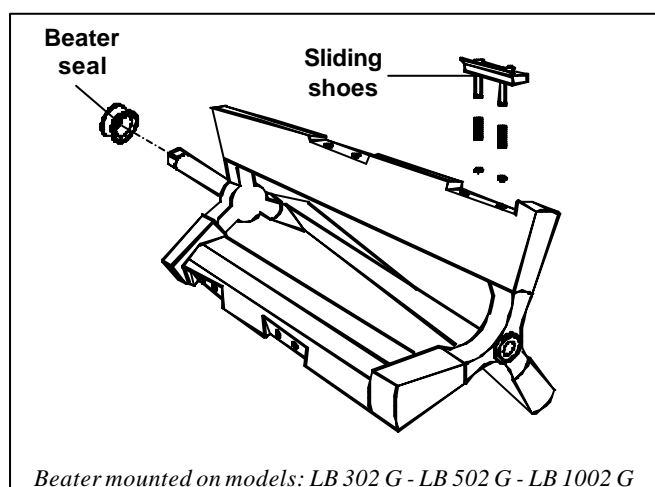


Figure 28



Beater mounted on models: LB 302 G - LB 502 G - LB 1002 G

Figure 29

FRONT DOOR DISASSEMBLY

- Lift the door locking lever and shift it to the right (ref. Fig. 30).
- Open the door by rotating it on its hinge (ref. Fig. 30).

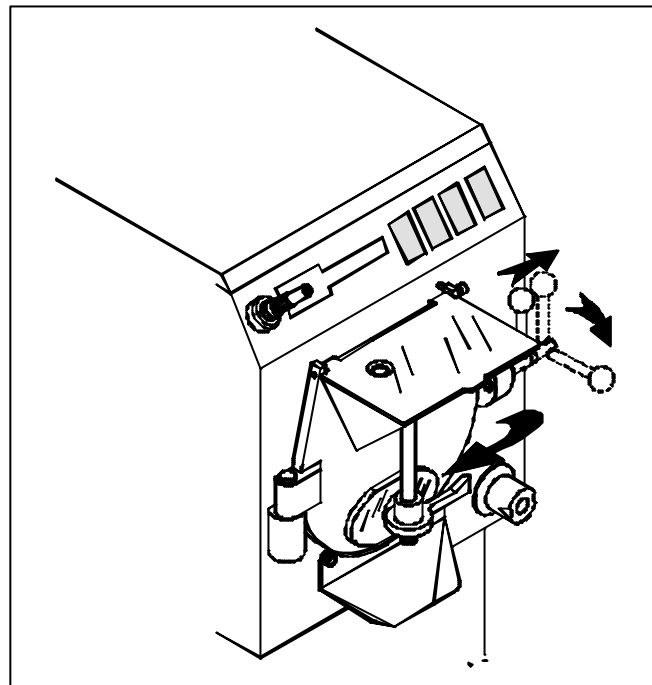


Figure 30

- Lift the door and remove it (ref. Fig. 31).
- To perform cleaning operations, remove all movable parts and seal with barrel.

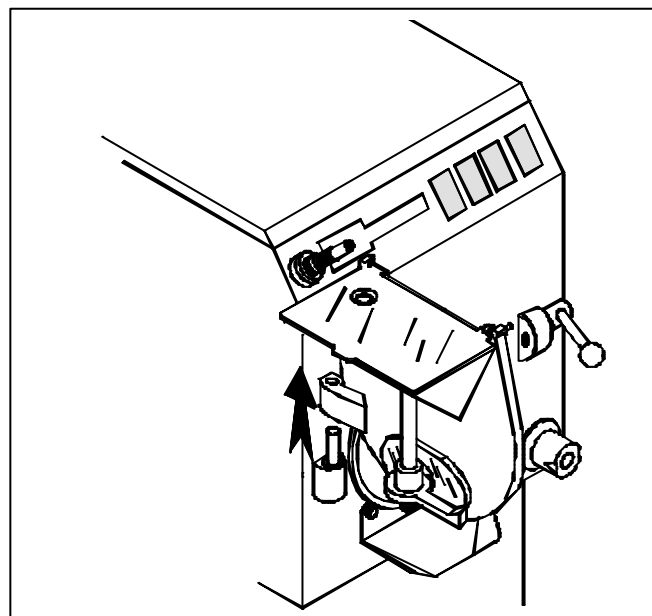


Figure 31

ICE CREAM GATE DISASSEMBLY

- Lift the ice cream gate and remove OR (Ref. 1 - Fig. 32) from sliding rod of ice cream gate and withdraw it which will also release the lever.
- To perform cleaning, also remove the ice cream gate OR (Ref. 2 - Fig. 32).

FILL CHUTE COVER DISASSEMBLY

- Remove the horizontal hinge pin (Ref. 3 - Fig. 32) then remove the cover.
- The cover is provided with a small bulkhead (Ref.4 - Fig.32), which prevents ice cream from going up into the fill chute which must be disassembled to be cleaned.

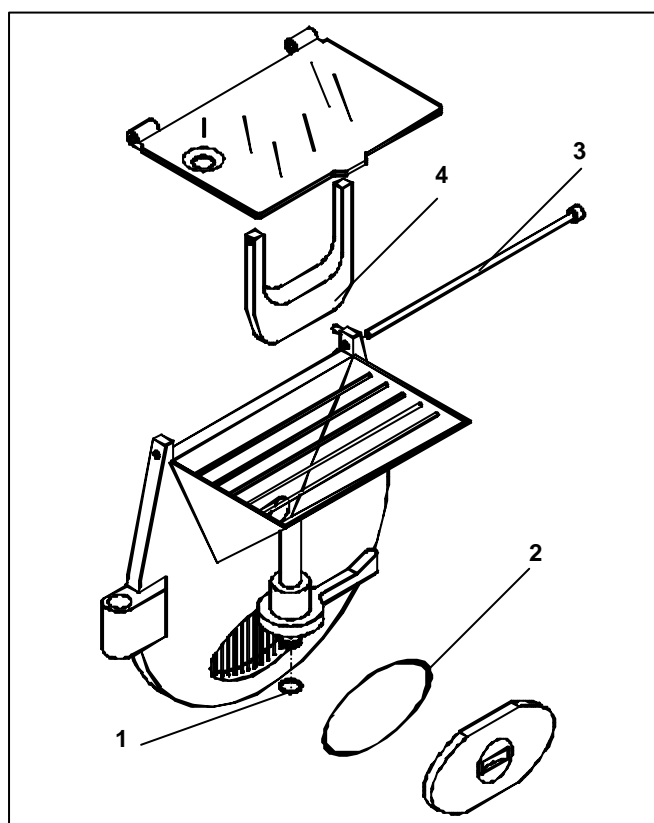


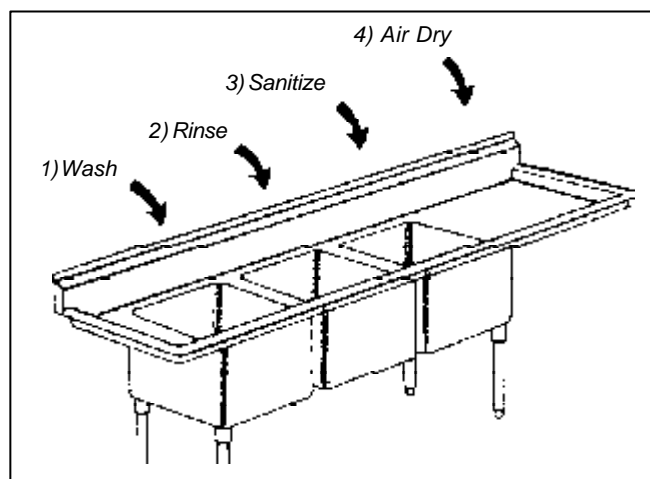
Figure 32

CLEANING OPERATIONS

- Wash all parts in lukewarm water (80-90 F) using a mild non-foaming detergent. Scrub each of the parts with the cleaning brushes provided in the Start-Up Kit.



Do not use hot water on plastic parts as damage to the parts can result.



Using your three-tank sink, wash, rinse and sanitize all of the disassembled machine parts. Mix the sanitizing solution to a 200ppm concentration with warm water. Allow the parts to soak in the sanitizing solution for 3-5 minutes before removing. Allow the parts to air-dry on the clean, sanitized counter at the end of the sink.



Do not towel or sponge dry these parts.

FRONT DOOR RE-ASSEMBLY

(see Part IV - Page 14)

BEATER RE-ASSEMBLY (LB302 - LB502-LB1002)

(see Part IV - Page 14)

BEATER RE-ASSEMBLY (LB302G - LB502G - LB1002G)

(see Part IV - Page 15)

SANITIZING THE FREEZER

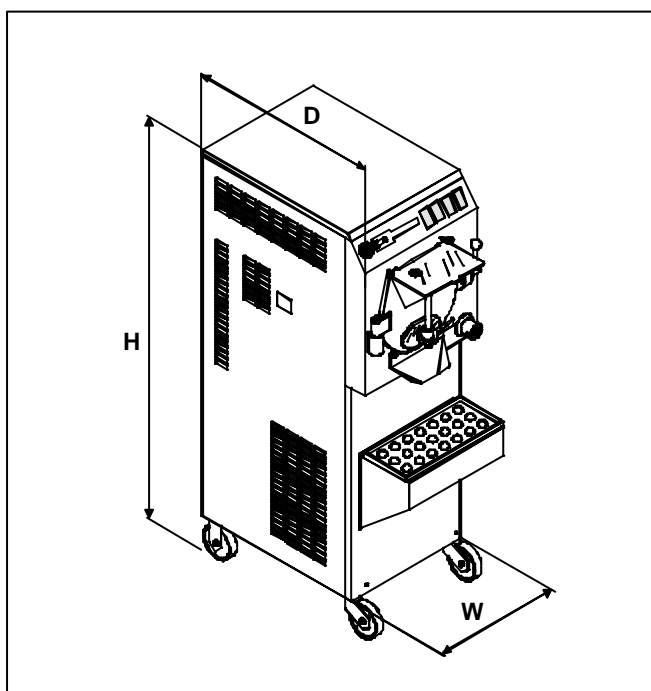
(see Part V - Page 16)

PART 8 TECHNICAL INFORMATION

Model	Weight lbs	Power input	Hourly production	Qt. of mix per batch	
				min.	max.
LB 302	484	3,7 kW	11 Gal. **	3 Qts.	8 Qts.
LB 502	650	6,5 kW	19 Gal. **	7 Qts.	14 Qts.
LB 1002	990	9,5 kW	40 Gal. **	12 Qts.	20 Qts.
LB 302 G	528	3,7 kW	16 Gal. *	3 Qts.	8 Qts.
LB 502 G	700	6,5 kW	17 Gal. *	7 Qts.	12 Qts.
LB 1002 G	1052	9,5 kW	35 Gal. *	12 Qts.	20 Qts.

* Output based on 4 batches per Hour at 40% overrun

** Output based on 4 batches per hour at 60% overrun



Measuring Dimensions

TECHNICAL INFORMATION

MODEL	H	D	W	MODEL	H	D	W
LB 302	55"	35"	20"	LB 302 G	55"	35"	20"
LB 502	55"	40"	24"	LB 502 G	55"	40"	24"
LB 1002	55"	47"	26"	LB 1002 G	55"	47"	26"

PART 9 MANTEINANCE



Any servicing operation requiring the opening of machine panels must be carried out with machine set to stop and disconnected from main switch!



Cleaning and lubricating moving parts is forbidden!



Repairs of electrical and freezing plants must be carried out by skilled engineers!

Operations necessary to proper machine running are such that most of servicing is completed during production cycle.

Servicing operations, such as cleaning of parts in contact with the product, replacing of beater seal, disassembling of beater assembly are to be carried out at the end of a working day, so as to speed up serving operations required.

Here below you can find a list of routine servicing operations:

- **Cleanout and replacement of beater seal**

Cleaning should be carried out at the end of a working day. Replacement of beater seal is necessary only after checking the stuffing box, or in the event that product drips inside the drip tray.

- **Cleanout of beater assembly**

At the end of a working day

- **Cleanout of sliding shoes**

At the end of a working day

- **Cleanout of panels**

To be carried out daily with neutral soap, seeing to it that cleansing solution never reaches beater assembly at its inside.

- **Cleanout and sterilization**

At the end of each working day, according to procedures described in section Part VII.



Never use abrasive sponges to clean machine and its parts, as it might scratch their surfaces.

Your CARPIGIANI 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:

- Remove O-rings only with the O-ring extractor supplied with the machine.
- Clean the machine according to the instructions.
- Lubricate all O-rings and seals, as instructed.
- 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.
- 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.
- When all the spare parts supplied with the machine are used, re-order immediately. Do not wait until the part is required again.
- NEVER use the AUTO position for washing, sanitizing and initially filling the freezing cylinder.



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.

- Always wash metal, plastic or rubber parts in lukewarm water. NEVER, NEVER USE HOT WATER!



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.

PART 10

TROUBLESHOOT GUIDE

IRREGULARITY	CAUSE	PROCEDURE
Machine does not start	Main switch is off	Switch it on
	Machine unplugged	Check and plug in
	Machine is not set at PRODUCTION	Check push button for PRODUCTION is lit
	Front lid is not closed well	Check front lid closure
Compressor starts and then stops after a few seconds without ice cream being thick	Watercooled machine: water does not circulate	Open water tap Check that hose is neither squashed nor doubled up
	Aircooled machine:	Check that rear of machine air does not circulate is at least 50 cm from wall. Clean obstruction from the condenser
After 15 minutes processing mix has not frozen and the machine returns to Stop	No gas	Check leakage and weld
	Pressure switch has broken down	Check connection and replace, if need be
Machine runs but no ice cream comes from ice cream door	No sugar in the mix	Allow to thaw, then modify or replace the mix
Machine works but ice cream is too soft	Too much sugar in the mix	Modify or replace the mix
Mix in drip drawer	Beater seal missing or ruined	Install if missing Replace if ruined
Ice cream comes out from behind front lid	Gasket missing or not properly installed	Check and fix or replace
Bacteria tests show too high bacteria charge	Too high bacteria charge in the mix	Improve preparation procedure by sterilizing all containers, spoons, etc., and have mix analyzed before pouring it into the machine
	Machine not clean enough	Empty and thoroughly wash the machine. Carry out sterilization.