



BEST BUILT BATCH FREEZERS SINCE 1905

# CB-100 BATCH FREEZER

INSTALLATION - OPERATION  
CLEANING - MAINTENANCE



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## Section 1: UNPACKAGING

Upon delivery, fully inspect the pallet and packaging following the steps that were emailed to you prior to the shipment of your batch freezer.

The batch freezer and skid weigh about 100 pounds total. Two people, one on each side, should easily be able to carry it.

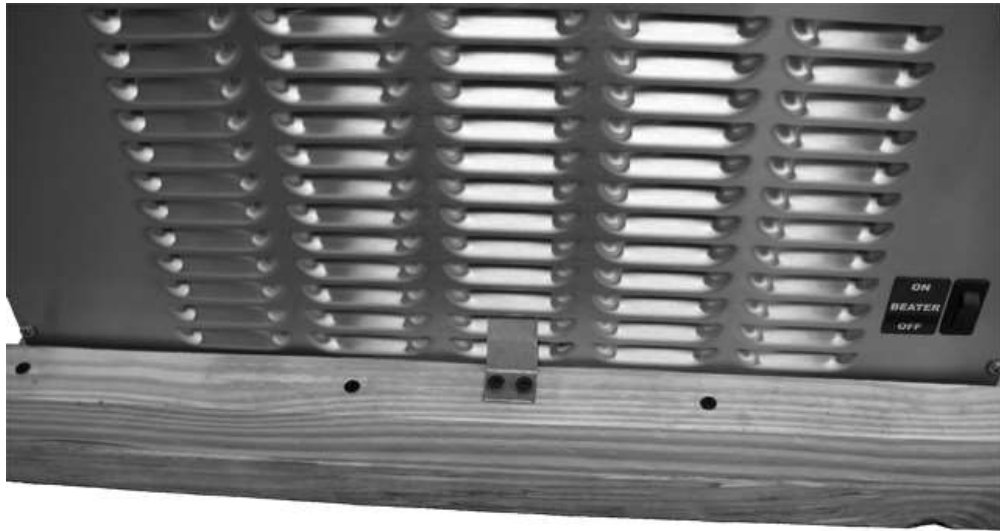
If you haven't already, remove the box from the skid by cutting through it as close as possible to the skid, then lift it off. Look for a small box inside which contains 4 black plastic feet, and an Allen wrench to change out blades in the future.

The batch freezer is held in place by two runners along its sides, which have a clip at their middles that hooks into the middle bottom louver on each side of the batch freezer. The clips are screwed down to the runner, and these screws must be removed to free the batch freezer from the skid. (See Figures 1-1, 1-2, 1-3)

Once the batch freezer is free, place it up onto the intended work surface. To install the feet, refer to Figures 1-4 & 1-5. The feet simply plug into the 4 holes that are molded into the batch freezer's base.

Remove the wire ties holding the power cord in place and unravel it. The batch freezer is now ready for use.

Figure 1-1



**Hold-Down Clips  
1 Per Side**

Figure 1-2



**Hold-Down Clip**

Figure 1-3



Figure 1-4

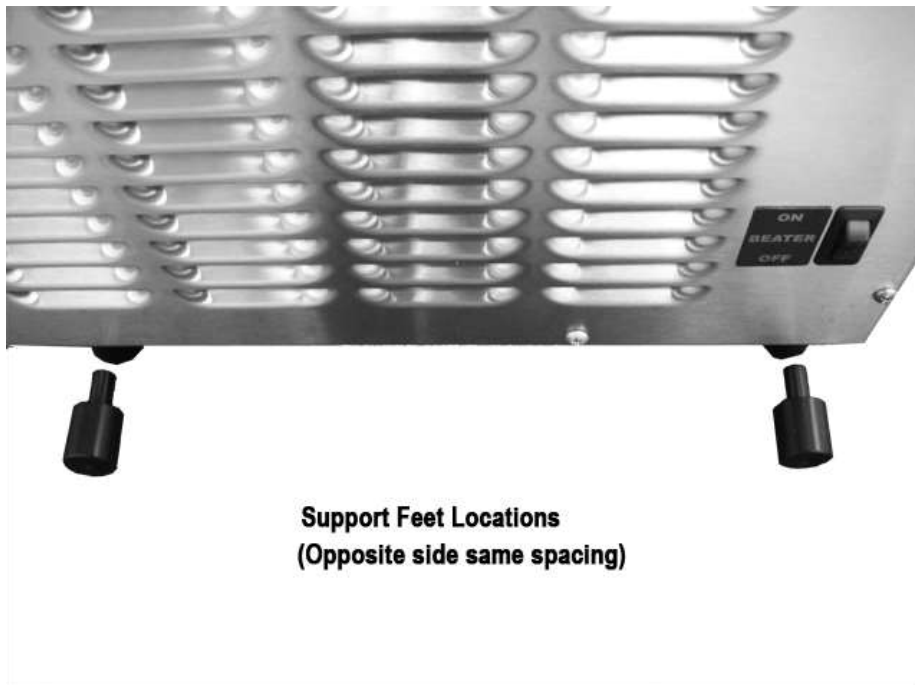
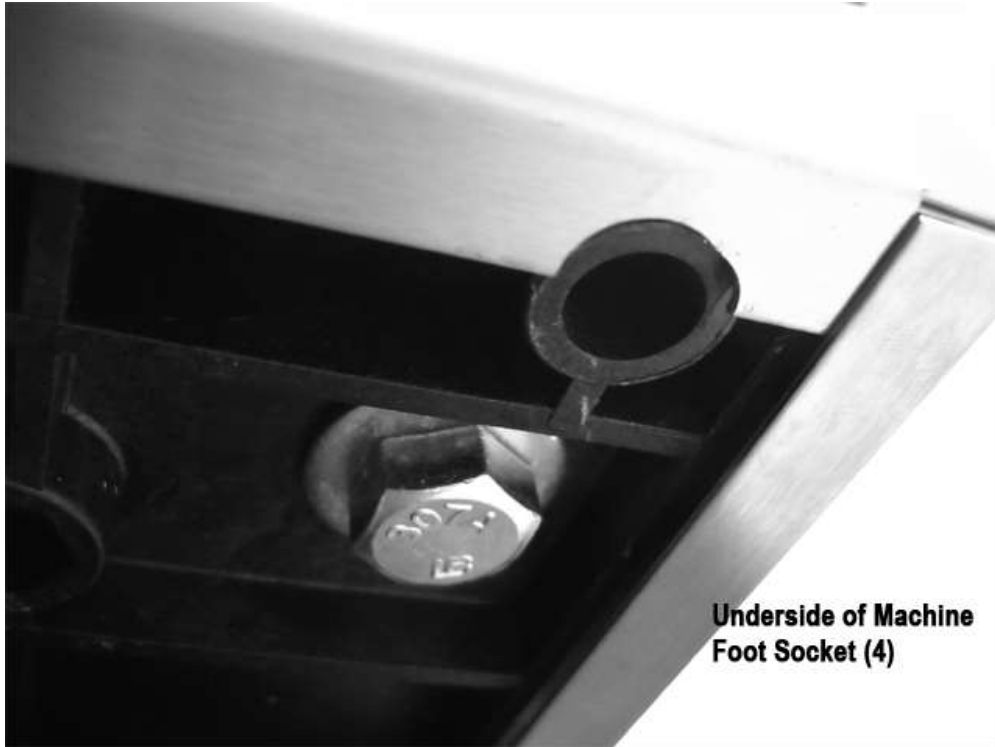


Figure 1-5



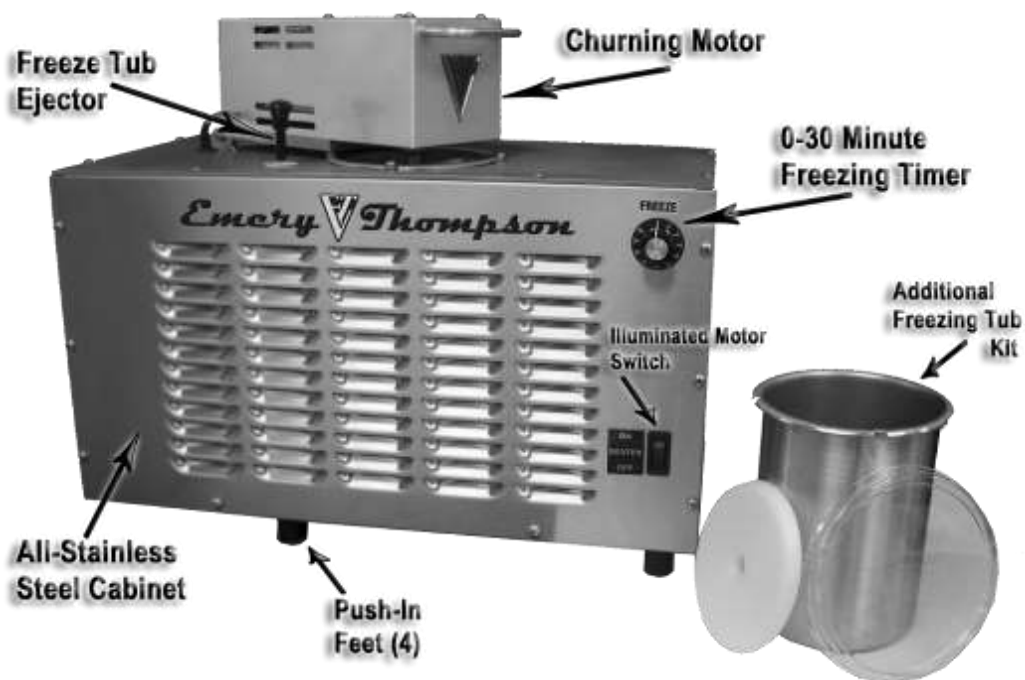
**Underside of Machine  
Foot Socket (4)**

## Section 2: OVERVIEW

Your new model CB-100 countertop batch freezer is a self-contained air-cooled unit that is designed to sit on any countertop and be easily moved for cleaning. It runs on standard residential/commercial 115V service and comes equipped with a plug for such. The batch freezer pulls in room air from the left end and distributes it out on the other 3 sides. One unique feature of the batch freezer is that it freezes product in what can be your serving or hardening container. Each additional container purchased comes with a bearing disc and a clear lid.

This batch freezer will produce premium ice cream, Italian ices, sorbets, and cream ice (sherbet) in 20 minutes or less per tub. Various inclusions can be added prior to churning, and/or after production in the same container it was just made in.

To make it even easier to use, the CB-100 has an ejection mechanism that pushes your freezing tub up and out of the freezing chamber, and the batch freezer has very few parts to be cleaned and sanitized.



### Section 3: OPERATION

The normal sequence of operating the CB-100 is as follows:

1. Insert a clean, sanitized (See Section 4) freezing tub into the freezing cylinder, making sure the rim of the tub engages all 4 of the round drive lugs and that the rim sits flush with the top surface (See Figure 3-1).
2. Insert the bearing disc, with radiused edge down, into the freezing tub. The disc should sit flat and rounded edge of disc must match rounded profile of tub bottom. (see Figure 3-1R).
3. Insert the dasher shaft with blade into the tub with the hexagonal drive end facing upward. Be sure the round end of the shaft goes into the round hole in the bearing disc, and push it all the way down until the bottom edge of the blade touches the surface of the disc. (See Figure 3-2).
4. Pour the mix you intend to freeze into the tub. NOTE: do not add more than your flavorings and ONE quart of mix to the freeze tub. You do not want overflow out of the top of the freeze tub.
5. Lay the splash plate on top of the dasher. It will fit just inside of the freeze tub. (See Figure 3-3).
6. Tilt the churning motor down gently until the driveshaft touches the top of the dasher. Let the weight of the churning motor rest atop the dasher. (See figures 3-4 and 3-5). When you are ready to begin the cycle, simply turn on the motor switch, and it will engage with the dasher and drop down approximately another 1/4" and stop on its rubber bumper.



7. Once the dasher is spinning, turn the freezing timer to 20 minutes. The refrigeration will start, and continue until the timer either times-out, or you manually twist it to the "0" position. (See figure 3-6).
8. When the desired consistency is reached, turn the refrigeration timer to the zero (0) position and the compressor will stop. Now turn the rocker switch off, and the churning motor stops. Raise the motor into its upright position. Push down firmly on the ejection knob, making the freezing tub rise up enough to grasp the rim and remove it from the batch freezer. Remove the splash disc and dasher from the freeze tub and put a cover on the tub, then transfer to your hardening cabinet.



Figure 3-1

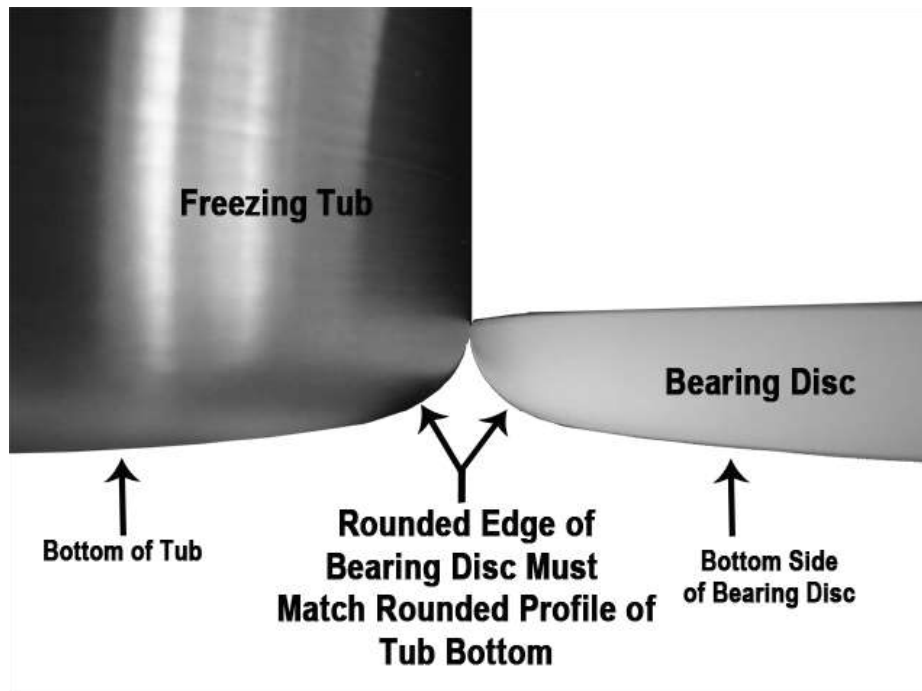


Figure 3-1R

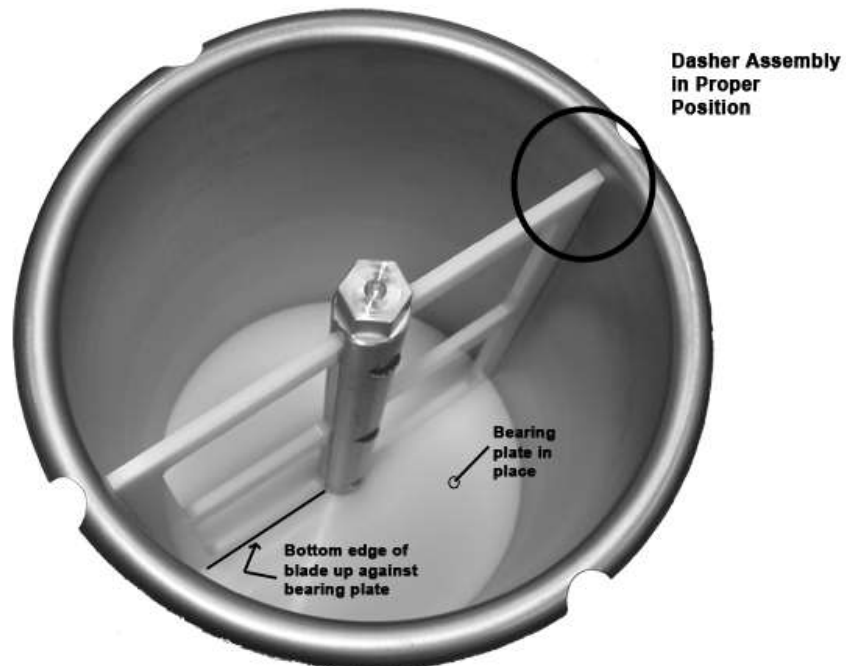


Figure 3-2



Figure 3-3



Figure 3-4

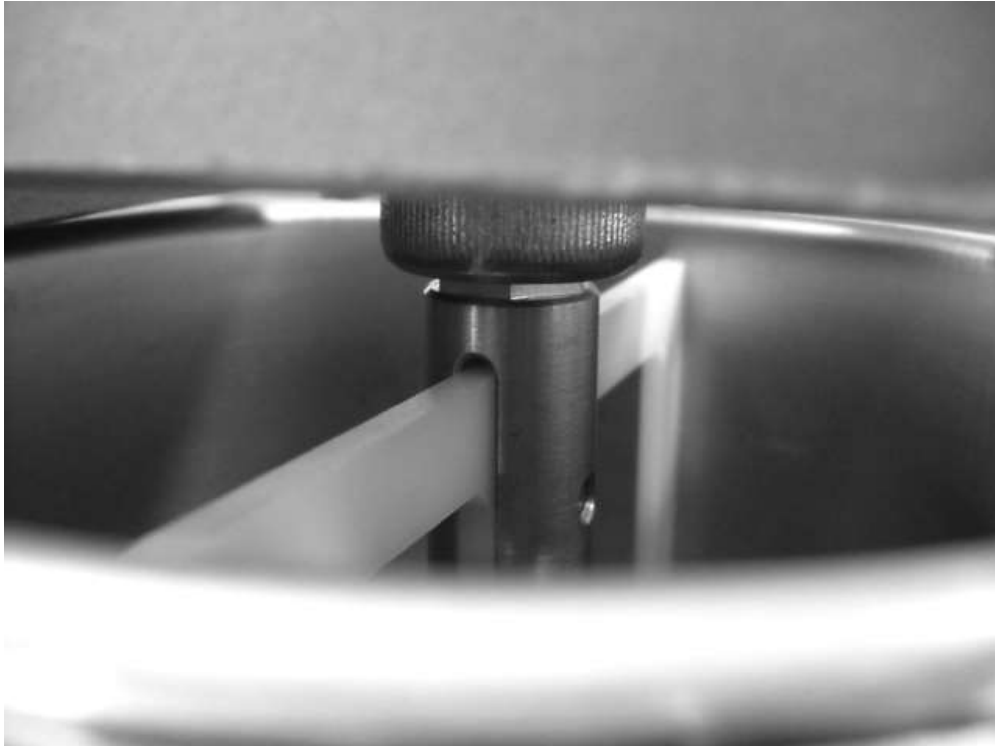


Figure 3-5



## Section 4: CLEANING AND SANITIZING

Note: Your local or state health inspector will always have jurisdiction over the methods and chemicals that are used for sanitation on your batch freezer. Our instructions are based on industry standards and should be discussed with your inspector. Emery Thompson uses and recommends the sanitizer "Stera-Sheen Green Label". Mix a 1-1/2 quart batch of sanitizer (following the manufacturer's instructions) and pour the mixture into the CB-100. Turn on the dasher and agitate this mixture for as long as your local health department recommends. (NOTE: DO NOT run the refrigeration at this time!) When complete, pour out the sanitizing water, and from this point forward, do not put fingers or dirty utensils on any surface that could introduce bacteria into your batch freezer. The sanitizer (once diluted) is food-safe and does not need to be rinsed from the batch freezer with water if directions are followed.

On the model CB-100, there are only four food-contact parts that must be thoroughly cleaned and sanitized: the freezing tub, the bearing disc, the splash plate, and the dasher/blade assembly. After the last batch of the day, these parts should be either hand-cleaned with detergent and warm water or run through a dishwasher. The sanitizing is done just prior to use, so the parts should be washed, dried, and stored in a clean place until ready to use the batch freezer.

When assembling the four parts mentioned above for use, have a gallon bucket of sanitizing solution ready, as well as a roll of paper towels, and a clean work surface. Put the bearing disc into the freezing tub, then the dasher/blade assembly into the tub. Submerge the entire assembly into the bucket of sanitizer for at least one minute. Then, pull the tub out, and pour the sanitizer out of it.

IMPORTANT: the next step is crucial! Just before you put the tub into the batch freezer YOU MUST DRY THE OUTSIDE of the tub! Failure to do this important step will cause the freezing tub to lock into the freezing cylinder! Once the outside of the tub is completely dry, it can be inserted into the freezing cylinder, and locked onto the four drive pins. At this point, you are ready to add mix/ingredients and begin.

Keep in mind: the cleaner you work, the easier cleanup will be. Rather than a sponge or rag, use disposable paper towels. Damp or wet sponges and rags harbor bacteria! Wipe up spills and throw away wrappers, paper towels, or anything that may accumulate.

After production is complete, any spilled product on the outer casing or top of the batch freezer should be wiped up thoroughly and then wiped down with some of the sanitizer that was made earlier. Look into the freezing cylinder. If there is anything in it, including water/condensate, it too should be wiped out thoroughly.

You simply cannot be too thorough when it comes to food and cleanliness!

## Section 5: CARE and MAINTENANCE

Your model CB-100 requires very little in the way of care and maintenance. There are some functions of the batch freezer that bear paying attention to.

1) Airflow - your batch freezer uses airflow from its surroundings to extract heat from each batch of product you make. So it goes to reason that good airflow is imperative to the efficient operation of the unit. After about 100 batches (depending on the environment the batch freezer is used in) take a good look at the left side of the batch freezer, where air is drawn in. Look past the square perforations in the stainless-steel cabinet and check the surface of the condensing coil assembly. It should be clean and free of dust, lint, etc. that may in time accumulate on its surface. A strong vacuum cleaner with a soft brush can be used to loosen and pull out any accumulations.

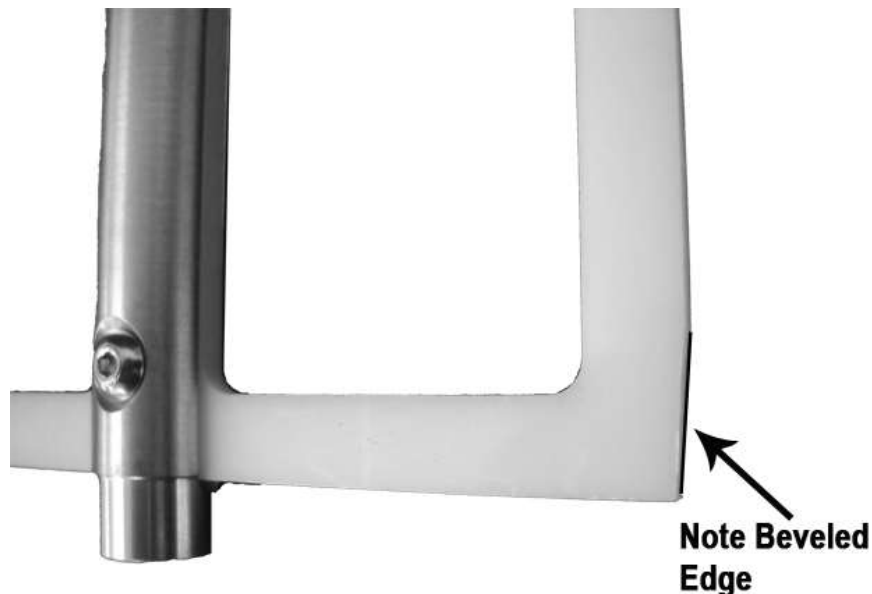
2) Blade condition - the scraping blade is made of food-grade high density polyethylene. Eventually, the surface that touches the freezing tub will wear down. When you notice a change in the amount of product being left on the inside surfaces of the freezing tub, it will be time to change the blade. You should be able to see the gray/silver of the tub after each swipe around of the blade. There will always be a film of product on the surface of the tub, but if you can longer see through it to notice the color of the stainless steel beneath it, then change the blade. A hex key is included with the batch freezer that fits the 3 screws that secure the new blade into the dasher shaft. Simply remove the screws and push the old blade out sideways. When sliding the new blade in place, note that there is a top and bottom. The bottom of the blade has a very slight taper near where it rides along the bearing disc (see photo 5-1) Be sure to insert it the correct way into the dasher shaft. Line up the holes in the blade with the holes in the dashershaft and replace and tighten the 3 securing screws. Start the screws threading into each hole before tightening any of them all the way. Do not over-tighten.

3) Bearing discs - the small centering hole in the bearing disc may show signs of wear (oblonging) after many hundreds of batches. To check this, insert the round end of the dasher shaft into the bearing disc's hole. There should be some clearance, but equal all around the hole. If questionable, replace the disc.

4) Power cord - be sure to keep the power cord routed in a safe path to your outlet. If for some reason the cord becomes damaged or frayed, or the plug does, have an electrician replace the entire cord. You can purchase this part from Emery Thompson.

5) General cleanliness - aside from the normal day-to-day cleanup of the batch freezer, and to keep the batch freezer looking it's best, a stainless-steel cleaner/polish can be used on all stainless surfaces to bring back its luster. Do not use abrasive cleaners, or cleaners with high bleach content.

Photo 5-1





Section 6: PARTS DIAGRAMS

**MECH077 (x4)**



**MECH084**

**Parts Box**  
**4 Feet**  
**1 Blade Wrench**

Figure 6-1



**STML095**

Figure 6-2

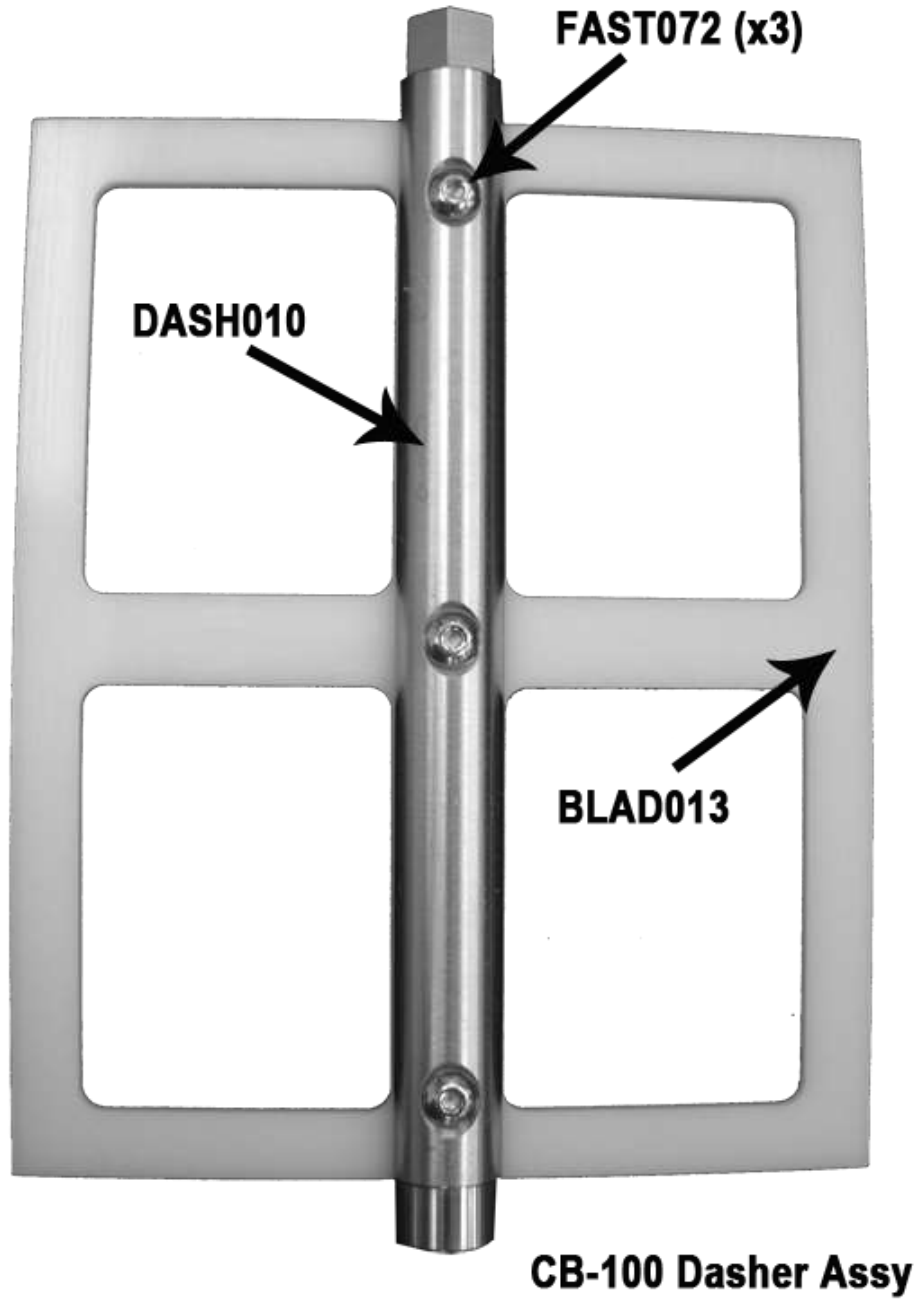
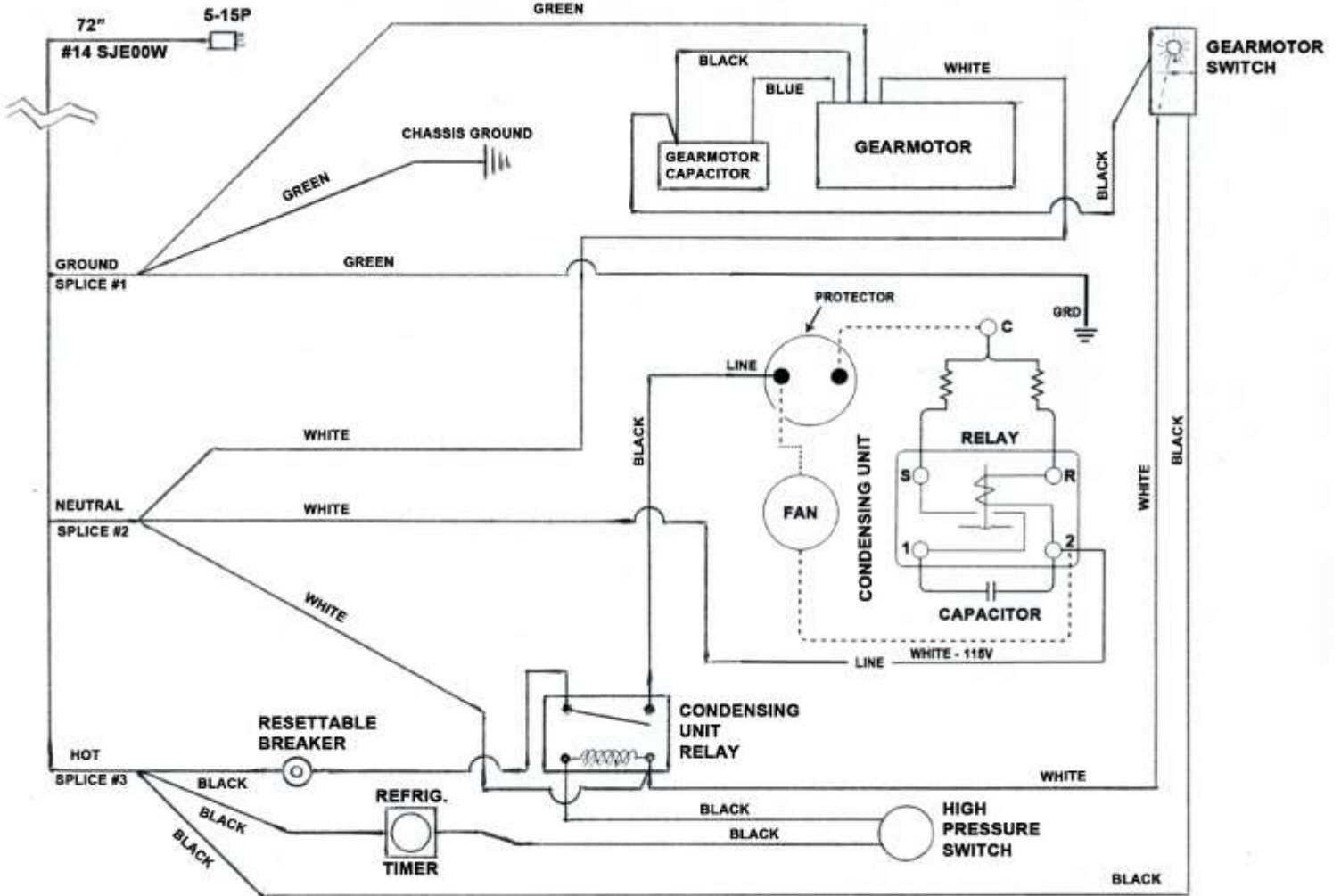


Figure 6-3  
Additional Freezing Tub Kit



Figure 6-4



Model CB100 Electrical Schematic

## RECIPES

The following recipes are very basic, and require few ingredients, but are a good starting point to familiarize yourself with freezing times and consistencies, as well as begin to form a production routine. NEVER put undissolved sugar into your batch freezer for any recipe. Dissolve it first, then pour it into the batch freezer.

### Lemon Italian Ice

- 1-1/2 quarts water
- 1/2 pound of sugar
- Zest grated from 1 large lemon
- 5 ounces of fresh-squeezed lemon juice

Mix the sugar with the water until the sugar is dissolved. Slowly pour this into your freezing cylinder. Add the lemon juice and lemon zest; start the dasher. Then turn on the refrigeration and freeze for 15-16 minutes, depending on the desired consistency.

### Coffee Ice Cream

- 1-1/2 quarts ice cream mix
- 1/3 ounce of vanilla extract
- 1-1/4 oz instant coffee (measured by volume)

Mix all ingredients together, then pour into your freezing cylinder and start the dasher. Turn on refrigeration and freeze for 13-15 minutes.

Section 7: WARRANTY  
Emery Thompson Machine & Supply CO.  
12 Month Limited Warranty on New Batch Freezers

Notice:

The batch freezer warranty starts when you receive your batch freezer. Except as limited and conditioned hereafter, The Emery Thompson Machine & Supply CO (**hereinafter referred to as the "Company"**) warrants to the original purchaser and user only, the said batch freezer and all parts thereof to be free from defects in material and workmanship for a period of twelve (12) months from the *date of shipment from the Company's factory if it is proved to our satisfaction to be inoperative due to defects in material or factory workmanship.* Caution: This warranty is valid only if the required service is provided by an authorized agent of Emery Thompson Machine & Supply CO or person or persons directly authorized by Emery Thompson Machine & Supply CO to perform the necessary repairs. Emery Thompson Machine & Supply CO can be reached at 718-588-7300-factory, or fax at 352-345-8007.

Definitions. **The term "original purchaser" as used herein, shall be deemed to mean** that person, firm, or association, or corporation for whom the equipment referred to herein is originally sold to.

**The term "Company and or Factory" shall mean the plant of the company located at 15350 Flight Path Drive, Brooksville, FL 34604 U.S.A.**

Labor and Transportation Charges. Emery Thompson Machine & Supply CO assumes no liability under the warranty for any transportation charges or labor expenses incident to its work under this warranty, such transportation expenses and labor costs to be assumed and paid by the Purchaser.

Use and Care of Machine. Purchaser shall only use the batch freezer in accordance **with the operator's manual provided by the Company and no liability under this Warranty** or otherwise shall attach by reason of a defect caused by negligence, abnormal use, misuse or abuse of said batch freezer, or for any accident that may occur to said batch freezer or any part thereof after said batch freezer has left the factory of the Company, nor for any defect that may arise by placing any part in said batch freezer which has not been manufactured or approved by the Company. Misuse of the batch freezer **includes owner's failure to: (1) clean, lubricate and assemble per the Operator's Manual; (2) replace damaged or worn "wear items",** including but not limited to o-rings, gaskets, front bearing, rear bearing, scraper blades, drive shaft, water valve. (3) handle parts properly, resulting in breakage; or (4) use unauthorized service agencies.

Purchaser shall not remove, alter, or deface the serial number on said batch freezer and there shall be no liability of Emery Thompson Machine & Supply CO if any of same shall occur.

Repair or Replacement of Defective Parts. **The Company's obligation under this warranty is limited to the repair of defective parts at the Brooksville, Florida plant or replacement from the Company's own inventory. In the event the Company ships a replacement part prior to the return of the defective part, payment will be required for said part and credit issued or reimbursement made only if the defective part is returned within thirty (30) days from the replacement date.**

WARNING: The use of alternate refrigerants will void your warranty. Use **only the refrigerant specified on this unit's data plate (located on rear panel of the batch freezer).**

Emery Thompson Machine & Supply CO reserves the right to make design changes, or to make additions to, or improvements on its products without imposing any obligation on itself to make such changes on its products previously manufactured.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES UNDER THE LAW, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR **PURPOSE. THE ORIGINAL OWNER'S SOLE REMEDY WITH RESPECT TO ANY EMERY THOMPSON BATCH FREEZER SHALL BE REPAIR OR REPLACEMENT OF DEFECTIVE COMPONENTS UNDER THE TERMS OF THIS WARRANTY.**

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