

BEST BUILT BATCH FREEZERS SINCE 1905

CB-200 BATCH FREEZER

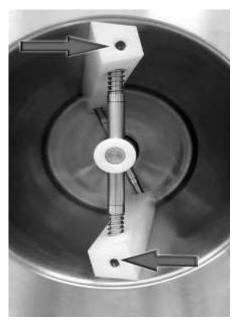
INSTALLATION – OPERATION CLEANING – MAINTENANCE



Congratulations and thank you for

purchasing your new model CB-200 batch freezer. With the CB-200, you will be able to produce some of the finest premium ice cream, fresh fruit sorbets, gelato, Italian Ice, dairy-free ice cream, and cream ice (sherbet). Your new batch freezer has been built for speed, versatility, and longevity, as well as safety. It has been meticulously crafted and tested to give you many years of satisfied service. Please be sure to go over the entire instruction manual prior to using your new batch freezer.

TWO VERY IMPORTANT THINGS TO KNOW ABOUT YOUR NEW CB-200 BATCH FREEZER



1. Scraper blades: If your scraper blades (the two long white pieces of Delrin plastic inside your cylinder) are not installed properly, your batch freezer will start making noise in a few minutes and either freeze up or take three times as long to make a batch. The curved tip of the blade goes towards the back of the cylinder and the other tip of the blade which is cut off on a 90-degree angle goes to the front of the batch freezers towards the door. If this is wrong the batch freezer will not operate properly. You

need to be aware of this each and every time you assemble the batch freezer. We have added a dimple on the front of each blade so that you can more easily identify the blades are installed correctly.

2. Minimum and maximum: You cannot run less than 1-1/2 quarts of liquid into the batch freezer. Any less, would cause the batch freezer to freeze up and product will stick to the walls of the cylinder and blades. The maximum input into the batch freezer is 2 quarts. **Any more, and you wouldn't have** enough room for expansion and your product will take three times as long to freeze, or not at all.



CB-200 115V MODELS: Be sure that the batch freezer is the ONLY appliance running on the circuit you use, otherwise, overload WILL occur!

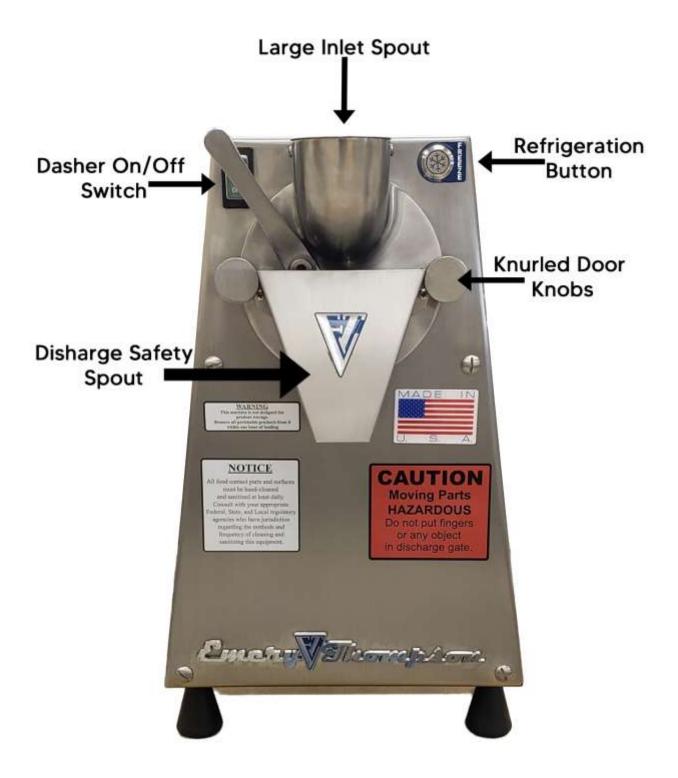
CB-200 220V MODELS: Comes with a 72-inch-long flexible power cord that has an L14 - 20 locking male plug installed on it. It MUST ONLY be connected to a matching receptacle which has been wired to a dedicated and fused 20-amp circuit.

FOR THE 220V VERSION, STATE LAW REQUIRES THAT THE ELECTRIC POWER TO THIS BATCH FREEZER BE LICENSED INSTALLED ΒY А ELECTRICIAN - ONLY

FAILURE TO ADHERE TO THIS WILL VOID YOUR WARRANTY

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OVERVIEW



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

Your CB-200 will arrive to you on a small pallet with a heavyweight cardboard box covering it. The batch freezer and pallet combined weigh approx. 175 pounds; the batch freezer by itself weighs 118 pounds. Please use a helper to unpackage and move the batch freezer safely.

Begin by cutting all the way around the cardboard box at 2" above the pallet surface. Use a short box cutter and go around the box several times to cut all the way through the cardboard. Once cut through, lift the box straight up and off the pallet/batch freezer.

Carefully remove the shrink-wrap off the exterior of the batch freezer.

The batch freezer is bolted through its feet from the underside of the pallet. Use a 1/2" wrench to remove all four bolts, and the batch freezer will be free of the pallet. With the assistance of a helper, lift the batch freezer and move to your work area.

Section 2: WORK AREA REQUIREMENTS

Your CB-200 will have some vibration when running, so it is necessary to position it on a solid work surface that can easily support this weight, and resist wobbling. For reference, the batch freezer height should be set up so that the top of the spout is at chest height of the operator.

Clearance around the batch freezer is critical for airflow and performance. Also, please be sure to remove all plastic protective film from the sheet metal surfaces. The distance away from walls, other equipment, etc. should be 18" in the rear, 18" on each side, 18" on top, and its' front open to the room. It also should remain on the four feet it was shipped on, not only for airflow but also for cleaning beneath it.

The surrounding area should be kept free of clutter, the floors dry, and with at least some air circulation.

First, be sure to read and understand this CB-200 manual, and familiarize yourself and other operators with the batch freezer features, its operation, cleaning, and maintenance. Your batch freezer is equipped with two important safeguards that should never be removed or altered. DO NOT remove the following items:

- <u>Door discharge guard</u> restricts fingers and utensils from coming in contact with moving blades/dasher and funnels product into smaller containers neatly.
- Inlet spout lid restricts fingers from coming in contact with moving blades/dasher

The sides and rear section of the batch freezer have ventilation openings in them. All but the rear panel are louvered to deflect food and splashing liquids away from the inside. Never spray water directly at/into these openings. Make sure your hands are dry when plugging in or unplugging your batch freezer.

The door and the dasher are heavy parts and are slippery when wet. Use extreme care when handling them. Keep the floor and work area neat and dry to avoid slippage. Do not use the top of the batch freezer as a storage spot.

In addition to the above:

- <u>DO NOT</u> operate your batch freezer unless it is connected to a grounded power supply and was properly installed by a licensed electrician.
- <u>DO NOT</u> put fingers, hands, or any utensils in either the inlet spout or discharge spout.
- <u>DO NOT</u> operate the batch freezer unless it is properly assembled, and all guards are in place.
- <u>DO NOT</u> force any of the (washable) parts together or into/on the batch freezer. All parts should fit together easily.
- <u>DO NOT</u> operate the batch freezer with the freezing cylinder empty.
- <u>DO NOT</u> turn on the **batch freezer's** refrigeration switch with only water in the freezing cylinder.
- <u>DO NOT</u> let your product over-freeze during production.

Section 4: OPERATION

Your new CB-200 batch freezer is very easy to operate, having only two controls on it. The dasher assembly is controlled by an illuminated rocker switch at the upper lefthand corner. When the switch is "rocked" upward, it illuminates signifying that the dasher is spinning.

The second control is the refrigeration ON/OFF push button. Turning the button on will start the refrigeration process. Products freeze at different times, so it is best to log actual freezing times for repeatability. Eight to ten minutes is a good starting point. NEVER LEAVE THE BATCH FREEZER UNATTENDED WHILE IN OPERATION. If the BATCH FREEZER is allowed to run too long or left unattended it will eventually freeze your product solid and turn itself off. The batch freezer will then be unusable until either your product thaws, or the product is manually removed from the cylinder. The normal sequence of operation, assuming the batch freezer is cleaned and sanitized, would be as follows:

- flip the inlet spout guard open.

- pour in the mix/ingredients.
- close the inlet spout guard.
- turn on the DASHER rocker switch (upper left).
- push the REFRIGERATION button to turn on.

- after 8-10 minutes check the consistency of your product by slightly opening the gate to allow a small amount of product to come out then quickly close the gate. This **process is what you call a "cut-off check". If the product** puddles into your container, and has a runny consistency **that trails down the discharge chute, then it isn't ready to** extract. If the product has a clean cut at the gate and piles into your container, then you are ready to extact your product.

- when the desired stiffness is achieved, MAKE SURE you immediately turn off the refrigeration, but leave your dasher running.

- open the discharge gate and allow the product to come out as fast as it will flow and fill your container(s).

See the next section for cleaning and sanitizing.

Section 5: CLEANING, ASSEMBLY 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.

(See diagram 5-A) These parts have to be cleaned and sanitized at the end of each day after production or sit for longer than one hour without use. All the parts to be cleaned are dishwasher top rack safe or can be manually cleaned with warm water and dish washing detergent, along with an abrasive hand pad. The inside surface of the freezing cylinder will have to be manually washed with detergent and thoroughly rinsed by hand. Be careful as when the dasher is removed, there is an opening in the back of the cylinder that leads to the inside of the batch freezers. DO NOT SPRAY WATER OR ANY CHEMICALS INTO THE CYLINDER WITH THE DASHER REMOVED.

(See diagram 5-A) Once the parts have been washed, and then dried, there are two areas that require a coating of food-grade grease on them prior to assembly. The two o-rings on the dashershaft and the door outer surface where the gate slides against. Smear a thin film of food grease on the door surface where the round discharge gate slides against it during opening and closing of the handle. The round gate has an o-ring under it, and if the o-ring gets dry, it will tend to leak and roll out of its groove.

Install the front dasher bushing (diagram 3-B) in the pocket on the backside center of the door, and put the door in place on the two mounting studs. The nose of the dasher shaft should go into the round bushing in the door. Now install and evenly tighten each of the two knurled knobs. The batch freezer is now ready for sanitizing.

Sanitization is the important step of using a chemical to kill any remaining bacteria just prior to introducing food products to the batch freezer. Emery Thompson uses and recommends the sanitizer "Stera-Sheen Green Label". Mix a 2-quart batch of sanitizer (following the manufacturer's instructions) and pour the mixture into the CB-200. 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, discharge 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.

RUNNING THE FREEZE TEST: We recommend that the first thing you do is run a freeze test to make sure that your new batch freezer is operating properly. When we test batch freezers in our facility, we use sugar water because we run a lot of tests and it would not be practical to use dairy mix. We know that if the batch freezer performs in a certain way with sugar water, it will perform in a similar manner with dairy mix. The only difference is that the amount of time it will take to make a batch of sugar water is longer than a batch of dairy mix.

To perform the freeze test, perform as follows:

CB-200 Batch Freezer:

- 2 quarts water
- 1 pound sugar

Dissolve sugar into the water, pour into the batch freezer, turn on your dasher, turn on the refrigeration, and freeze for approximately 10-12 minutes.

You are now ready to add your product to the batch freezer!

Section 6: CARE and MAINTENANCE

One of the best features of an Emery Thompson batch freezer is the small amount of maintenance and the ease of care required to keep it running and looking new. The materials we use for our parts are the best available for their intended purpose and are designed for maximum longevity.

The outer casing of your batch freezer is all heavy-gauge stainless steel and will only require a daily wipe down with a mild detergent and warm water. Using a stainless-steel cleaner/polish will also help keep it looking new.

There are two areas mentioned previously that require food grease to be applied daily: the area of the dasher shaft that goes into the rear bushing in the cylinder, and the door face where the gate slides against it. (See diagram 5-A) Keeping these two areas clean and lubricated will directly affect the life of the parts involved and must be addressed DAILY.

Your batch freezer should be operated in the cleanest environment possible, but the potential exists for an eventual accumulation of dust/lint/debris on the surface of the condensing fins. This is the area just behind the expanded metal grate on the rear surface of the batch freezer. It can be cleaned using a strong (shop-type) vacuum cleaner with a soft brush attached. The following parts are wearable and should be inspected at least weekly: (DIAGRAMS 3-A and 3-B)

- Part # SEAL003 o-ring, dashershaft
- Part # SPRG005 springs, scraper blade (X4)
- Part # BRNG002 bearing, dasher front
- Part # BLAD010 blade, scraper (X2)
- Part # SEAL013 o-ring, gate sealing
- Part # FAST135 washer, teflon, handle pivot
- Part # SEAL012 o-ring, door sealing
- Part # SPRG006 spring, gate pressure

If your batch freezer has been stored in an unheated area and is brought into a warm area for use, allow it to sit for at least 12 hours in the warmer temperature; condensation could build up on cold surfaces.

Never transport, store, or use your batch freezer in any position other than upright on its feet; Oil in the refrigeration system could travel into areas of the batch freezer piping where it could remain trapped.

Your batch freezer has been tested and is rated for use in ambient air temperatures as high as 104 degrees Fahrenheit, and as low as 50 degrees Fahrenheit. Operation in temperatures at the high end of capacity may slightly increase freezing time and vice versa at the cold end.

	0 to 15	15 to 30	30 to 45	More Than 45
	HPW*	HPW*	HPW*	HPW*
Lubricate the Dasher/Center Shaft O-rings (1 & 2) Lubricate the Discharge Gate	Every time you run the batch freezer or after 8 hours of continuous operation Daily	Every time you run the batch freezer or after 8 hours of continuous operation Daily	Every time you run the batch freezer or after 8 hours of continuous operation Daily	Every time you run the batch freezer or after 8 hours of continuous operation Daily
O-ring ^(1 & 2)				
Lubricate the Door O-ring	Never	Never	Never	Never
Replace the Dasher/Center Shaft O-rings (1 & 2)	Once each year	Every 9 months	Every 6 months	Every 3 months
Replace the Discharge Gate O-ring ^(1 & 2)	Only if it leaks			
Replace the Door O-ring (1)	Only if it leaks			
Replace the Door Gasket (2)	Only if it leaks			
Replace the Blade Springs (1 & 2)	Every 2 years	Every 18 months	Once each year	Every 6 months
Replace the Door Gate Spring(s) (1 & 2)	Only if it leaks			
Sharpen the Scraper Blades (1 & 2)	Every 5 to 7 years	Every 4 to 6 Years	Every 3 to 5 years	Every 2 to 4 years
Replace the Scraper Blades (1 & 2)	After sharpening 1 to 3 times			
Inspect/Clean the Drip Tray (2)	Once each Year	Every 9 months	Every 6 months	Every 3 months
Drain the Water (3)	Every year prior to possible freeze			
Clean the Cooling Coils ⁽⁴⁾	Once each year	Every 9 months	Every 6 months	Every 3 months

CB-200 and CB-350 batch freezer only
12, 24- and 44-quart batch freezer only

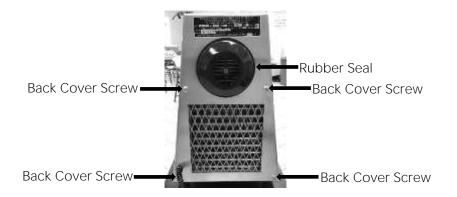
(3) Water cooled batch freezer only(4) Air cooled batch freezer only

*HPW = HOURS PER WEEK Removing the Cover



IIIII CAUTION IIIII WITH THE MAIN POWER ON, THERE IS A RISK OF ELECTROCUTION WHILE THE SIDE COVERS ARE REMOVED. PROCEED WITH CAUTION.

- 1 Disconnect the main power to the batch freezer.
- 2 Remove the rubber seal from around the back of the motor fan cover.



3 – *Loosen (but do not remove)* each of the 4 slotted head back cover screws **until there is 3/8**" **between the** batch freezer and the head of the screw.



4 - Remove each of the 4 side cover screws (2 on each side).



5 - Slide the back cover back as far as possible without removing the back cover screws.

6 – Slide the side cover back until it is clear of the front cover and the back cover.

7 - Lift the side cover off.

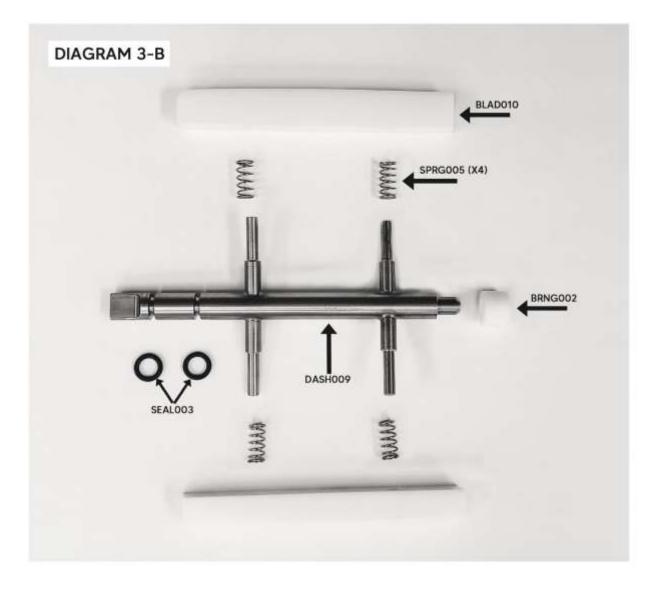
8 – Connect the main power to the batch freezer and perform any maintenance or repairs necessary.

9 - Disconnect the main power to the batch freezer.

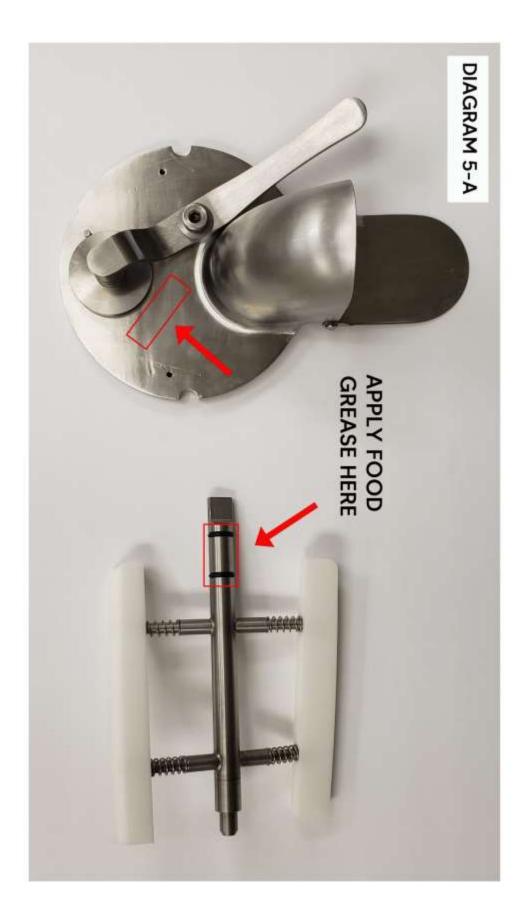
10 - Replace the side cover and back cover.



Section 7: PARTS DIAGRAMS



SEAL003	O-RING, DASHER SHAFT	
DASH009	DASHER, SS	
BRNG002	BEARING, DASHER FRONT	
SPRG005	SPRING, SCRAPER BLADE (X4)	
BLAD010	BLADE, SCRAPER (X2)	



Section 8: 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.

<u>Lemon Italian Ice</u>

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

Mix the sugar with the water until the sugar is dissolved. Slowly pour this into your CB-200 batch freezer. Add the lemon juice and lemon zest; start the dasher.

Then turn on the refrigeration and freeze for 8-10 minutes, depending on the desired consistency **performing the "cut**-off **check."**

<u>Coffee Ice Cream</u>

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

Mix all ingredients together, then pour into the batch freezer and start dasher. Turn on refrigeration and freeze for 10-12 minutes.

Verry Berry Wine Sorbet

- ¾ quarts water
- ¾ quarts red, sweet wine
- 1 pound sugar
- 8 oz frozen mixed berries, thawed and pureed.

Mix the sugar with the water and wine until the sugar is dissolved. Slowly pour this and the remaining ingredients into the batch freezer; start dasher, then turn on the refrigeration. Freeze for approximately 12-13 minutes.

Creamsicle Boozy Cream Ice (Sherbet)

- ¾ quarts dairy mix
- ¾ quarts orange juice
- 1 pounds sugar
- ½ cup whip cream vodka

Mix the sugar with the dairy mix and orange juice until the sugar is dissolved. Slowly pour this and the remaining ingredients into the batch freezer; start the dasher, then turn on the refrigeration. Freeze for approximately

For more recipes, you can visit our website at: www.emerythompson.com <u>OR</u> <u>Visit us on our YouTube channel:</u> <u>EmeryThompsonMachine</u>

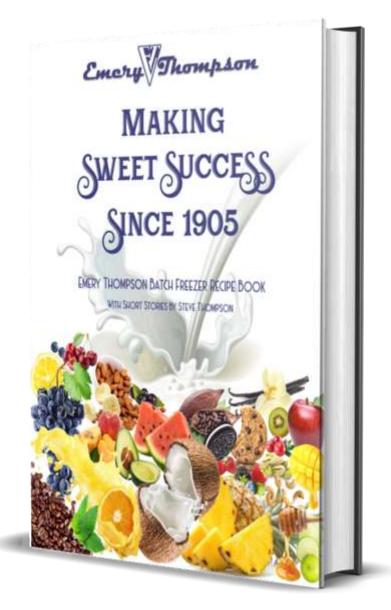
You can also purchase our Recipe book which contains Over 100 recipes

On how to make:

- HOMEMADE ICE CREAM
- DAIRY FREE ICE CREAM
- GELATO
- ITALIAN ICE
- SORBET
- CREAM ICE (SHERBET)

With short stories and vintage ads of the history of Emery Thompson since 1905

8-1/2 X 11" HARDCOVER BOK, 172 PAGES



Section 9: 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.

WHAT IS NOT COVERED BY THIS WARRANTY Emery Thompson Machine **& Supply CO's** sole obligation under this warranty is limited to either repair or replacement of parts, subject to the additional limitations below. This warranty neither assumes nor authorizes any person to assume obligations other than those expressly covered by this warranty. NO CONSEQUENTIAL DAMAGES. EMERY THOMPSON MACHINE & SUPPLY CO IS NOT RESPONSIBLE FOR ECONOMIC LOSS; PROFIT LOSS; OR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES ARISING FROM FOOD OR PRODUCT SPOILAGE REGARDLESS OF WHETHER OR NOT THEY RESULT FROM REFRIGERATION FAILURE. WARRANTY IS NOT TRANSFERABLE; this warranty is not assignable and applies only in favor of the original purchaser/user to whom delivered. ANY SUCH ASSIGNMENT OR

TRANSFER SHALL VOID THE WARRANTIES HEREIN AND SHALL VOID ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR LABOR COVERAGE FOR COMPONENT FAILURE OR OTHER THE WARRANTY AS PROVIDED IN OUR INSTRUCTION MANUAL WITH THE UNIT AND AT www.emerythompson.com. EMERY THOMPSON MACHINE & SUPPLY CO will not be held responsible for the following external factors: ALTERATION, NEGLECT, ABUSE, MISUSE, ACCIDENT, DAMAGE DURING TRANSIT OR INSTALLATION, FIRE, FLOOD, ACTS OF GOD, OR IMPROPER ELECTRICAL CONNECTIONS. EMERY THOMPSON MACHINE & SUPPLY CO IS NOT RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF FAILED OR DAMAGED COMPONENTS RESULTING FROM ELECTRICAL POWER FAILURE, THE USE OF EXTENSION CORDS, LOW VOLTAGE, OR VOLTAGE DROPS TO THE UNIT. THERE ARE NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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