

# **MOBILE CHEST FREEZER MERCHANDISERS** INSTALLATION, MAINTENANCE & OPERATING MANUAL



# Models: BDC6HC-2 / BDC8HC-3 / BDC10HC-4 / BDC13HC-5 / BDC15HC-6 / BDC18HC-7 / BDC21HC-8

Thank you for choosing our equipment for your operational requirements.

Follow these instructions carefully. If properly used and maintained, you can expect to enjoy years of reliable, efficient and top quality use.

Note: Product line is subject to ongoing, continuous upgrades and improvements. The specifications defining each model are subject to change without notice.

Keep this manual for training and as a reference guide when service or maintenance is required.

Keep a copy of your Bill of Sale. This will establish your appliance's warranty period and the date this coverage started.

BERG | 877.368.2797

# **TABLE OF CONTENTS**

TECHNICAL SERVICE CONTACT INFORMATION	COVER
SAFETY PRECAUTIONS PROPER DISPOSAL OF THE FREEZER REPLACEMENT PARTS	2
HOW TO CONNECT ELECTRICITY TRANSPORTATION AND INSTALLATION	3-4
TEMPERATURE DISPLAY & CONTROL PANEL	4
DEFROST FUNCTION NORMAL OCCURENCES FOOD STORAGE TECHNICAL DATA	5
EXTERNAL AND INTERNAL DIMESIONS	6
PARTS DIAGRAMS	7-8
TROUBLESHOOTING GENERAL MAINTENANCE & CLEANING CLEANING THE CONDENSER	9-10

# **SAFETY PRECAUTIONS**

When using electrical appliances, basic safety precautions should be followed, including the following:

- Equipment must be properly installed and located in accordance with the installation Instructions.
- Do not allow children to climb, stand, crawl inside or hang on to the equipment.
- Do not touch the cold surfaces in the freezer compartment when hands are damp or wet. Skin may stick to these extremely cold surfaces.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance. Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.
- Keep fingers out of the "pinch point" areas; clearances between the doors and between the doors and cabinet are necessarily small; be careful closing doors when children are in the area.
- Unplug the equipment before cleaning and making repairs.

#### NOTE: We strongly recommend that any servicing be performed by a qualified technician.



- The manufacturer has a policy of continuous improvement on our products and reserve the right to change materials and specifications without notice. To confirm the specific parameters, please refer to the name plate ratings.
- The freezer requires periodic maintenance and cleaning. Failure to provide this care voids the appliances warranty.
- Do not expect optimal performance if the ambient temperature exceeds 84°F (29°C) &/or the relative humidity is higher than 60%.



# 🗳 FLAMMABLE RISK OF R290 & R600 REFRIGERANTS

- Risk Of Fire Or Explosion. To Be Repaired Only By Trained Service Personnel.
- Do Not Puncture Refrigerant Tubing.
- Consult Repair Manual/Owner's Guide Before Attempting To Service This Product. All Safety Precautions Must be Followed.
- Dispose Of Property In Accordance With Federal Or Local Regulations.

## PROPER DISPOSAL OF THE FREEZER

If you are getting rid of your old freezer / refrigerator, please follow these instructions, at minimum:

#### BEFORE YOU THROW AWAY YOUR OLD REFRIGERATOR OR FREEZER:

- Take off the doors.
- Leave the shelves in place so that children may not easily climb inside.

#### APPLIANCE DISPOSAL

When recycling appliance please make sure that the refrigerants are handled according to local and national codes, requirements and regulations.

#### REFRIGERANT DISPOSAL

Make sure the refrigerant is removed for proper disposal by a qualified service technician. If you intentionally release any refrigerants you can be subject to fines and imprisonment under provisions of the environmental regulations.

## **REPLACEMENT PARTS**

- Component parts shall be replaced with like components. Always use the manufacturer authorized / provided parts for the best results.
- Servicing shall be done by authorized service personnel, to minimize the risk of further damage due to incorrect parts or improper service.
- If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its approved / authorized service agent.

# WARNING HOW TO CONNECT ELECTRICITY

DO NOT, UNDER ANY CIRCUMSTANCES, CUT OR REMOVE THE GROUND PRONG FROM THE POWER CORD. FOR PERSONAL SAFETY, THIS APPLIANCE MUST BE PROPERLY GROUNDED.

- The power cord from this appliance is equipped with a grounding plug which minimizes the possibility of electric shock hazard.
- Have the wall outlet and circuit checked by a qualified electrician to make sure the outlet is properly grounded.
- It is your personal responsibility and obligation to have your outlet replaced with the properly grounded wall outlet.
- The refrigerator should always be plugged into its own individual dedicated electrical circuit, which has a voltage rating that matches the rating plate. This provides the best performance and also prevents overloading building wiring circuits which could cause a fire hazard from overheated wires or tripping a circuit breaker / blowing a protective fuse.
- Never unplug the equipment by pulling on the power cord. Always grip plug firmly and pull straight out from the outlet.
- Repair or replace immediately all power cords that have become frayed or otherwise damaged.
- Do not use a cord that shows cracks or abrasion damage along its length or at either end.
- When removing the equipment away from the wall, be careful not to roll over or damage the power cord. If power cord is damaged it should be replaced with original equipment manufacturer parts. To avoid hazard this should be done by a qualified service technician.
- Do not plug the power cord into an extension cord. This can create a fire hazard or short circuit.

# **WARNING**

Compressor warranties are void if compressor burns out due to low voltage.

Power supply cord ground should not be removed!

Do not use electrical appliances inside the compartments of this equipment.

# TRANSPORTATION AND INSTALLATION



1. When you transport the freezer, the angle between the compartment body and the ground should be no more than 45°, and you should never place the freezer up-side down. Do not use any of the external part as loading points, for example, the condenser on 2. the back, the door or the hinge.

When the freezer is installed or used, all the package (including board and foam 3. plastic) should be properly disposed of. Please recycle, when possible. 4.

Keep the freezer stable and level to avoid vibration and noise.

- 5. The freezer should be installed in a place with good ventilation, a space of at least 4" (10cm) should be allowed between the surrounding walls and the cabinet wall for proper air circulation.
- 6. It should be placed far from any heat source and not under direct sunshine to avoid less efficient performance due to the high ambient temperature.
- 7. Install the freezer in a dry place to prevent the compartment body from rusting, which may (1) affect the electric insulation (2) create a food safety contamination risk and (3) reduce the appliance's expected useful life.

#### **CAUTIONS:**

- 1. The freezer must be properly grounded to avoid a shock hazard.
- 2. In case of any damage to the electric wires and/or plug, please contact an authorized electrician to repair the connection.
- 3. If the voltage is unstable, please provide a suitable automatic voltage regulator and/or surge protection.
- Allow the freezer to reach its operating temperature before it is loaded with product. 4.
- 5. You should adjust the temperature control according to the required temperature and quantity/tiers of the stored

food (ice cream tubs, etc.) and the environmental temperature/required conditions for the stored product to maintain its quality.

- 6. Before putting product into the freezer please adjust the temperature control to its lowest set point and let it run until the temperature of inner cabinet decreases to 0°F (-18°C.) Once the unit reaches 0°F (-18°C), set the unit to your desired set point and load product. NOTE: For high elevation installations, it may be necessary to "warm-up" the cabinet to higher set points.
- 7. Unplug the appliance by pulling the cord cap (plug) NOT the electrical cord.
- 8. Never put hot food in the freezer. Only place product in the freezer after it is has reached its ideal storage temperature. Some foods will need to be placed in a refrigerator or another freezer to cool down past room temperature prior to placing in the freezer.
- 9. Do not overfill the unit. Keep the top item at least 4" (10cm) below the brim on the cover. There should be reasonable space between the food items for better temperature regulation.
- 10. If a power outage occurs, you should wait at least 5 minutes before the freezer is turned on again to avoid damage to the compressor.
- 11. Never store any flammable, explosive and corrosive liquid or gas in the freezer. Keep it away from this appliance.
- 12. Beer, beverage, fresh flowers, medicine and injections cannot be put into the freezer for storage or cooling. Handling them in the freezer voids the warranty
- 13. If the stored items are not place in properly sealed, protective packaging, then ice crystals may form or the product quality can be affected.

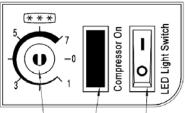
**NOTE:** Before loading product we recommend you run the unit empty for two to three days. This allows you to be sure electrical wiring and installation are correct and no shipping damage has occurred.

#### LOSS OF FOOD PRODUCT IS NOT COVERED BY THE WARRANTY

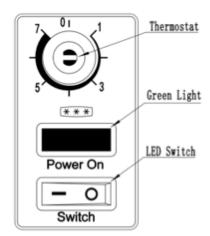
#### TEMPERATURE DISPLAY:

The thermometer shows the warmest frozen food temperature. It is adjusted and designed so that only temperature below  $32^{\circ}F(0^{\circ}C)$  is accurately displayed.

## THE FUNCTION OF THE CONTROL PANEL:



Thermostat Red Light LED Switch



The numbers on the temperature control 1-7 reflect the relative temperature setting from high to low.

The specific temperature is not shown or indicated by this knob.

<u>Turn the knob clockwise</u>: the cabinet temperature will go DOWN. <u>Turn the knob counter-clockwise</u>, the cabinet temperature will go UP.

BDC6HC-2 (Top Image) - When the red light is ON, the compressor is working.

ALL OTHER MODELS (Bottom Image) - The green light is a power indicator. When the green light is ON, the power is connected.

After the temperature setting is adjusted and the appliance is turned on, it will take time, possibly several hours for the unit to reach the new temperature setting.

## **DEFROST / IF ICE BUILDS UP ON INTERIOR**

# WALLS:

- 1. Defrost the unit when the frost thickness on the wall of the cabinet reaches 1/4" (6mm) to optimize the freezing capacity.
- 2. Turn the temperature control to the lowest point for 5-6 hours before defrosting.
- 3. Cut off the power and take out the food.
- 4. Use of warm water or a plastic scraper may accelerate the defrosting time of the cabinet wall.
- 5. After defrosting, clean the wall with dry cloth. Turn the power on. Allow time for the cabinet to reach its set-point temperature. And then load the cabinet with food.

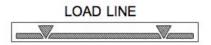
## **NORMAL OCCURENCES:**

- 1. There may be a sound of flowing water when the refrigerant is running.
- 2. When the ambient humidity is too high, there will be condensation on the surface of the freezer and the lid.
- 3. When the machine is running, the condenser and compressor will be hot.

**NOTE:** Do not expect optimal performance if the ambient temperature exceeds 84°F (29°C) or the local environment exceeds 60% relative humidity.

#### **FOOD STORAGE:**

The appliance is suitable for storing ice cream and similar ready-frozen foods. Product must not be filled higher than the stacking mark on the inside of the freezer. (4" from the sliding lid)

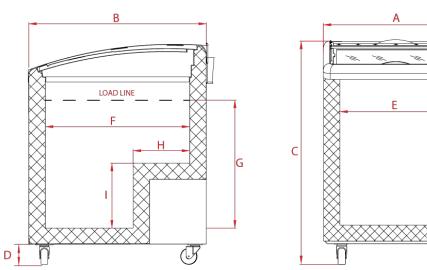


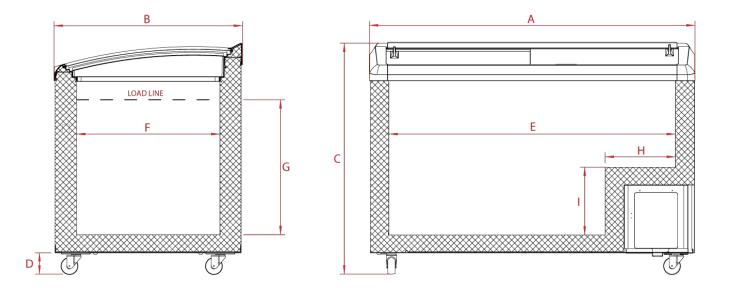
MODEL	ELECTRICAL POWER	NET VOLUME CuFt (L)	REFRIGERANT	NET WEIGHT Lbs (kg)	HORSEPOWER HP (W)	NEMA PLUG
BDC6HC-2	115V/60Hz	3.81 (108)	R600a	103.6 (47)	1/9 (89)	5-15P
BDC8HC-3	115V/60Hz	4.87 (138)	R290a	114.6 (52)	1/7 (118)	5-15P
BDC10HC-4	115V/60Hz	6.71 (190)	R290a	130.1 (59)	1/5 (150)	5-15P
BDC13HC-5	115V/60Hz	8.62 (244)	R290a	152.1 (69)	1/4 (186)	5-15P
BDC15HC-6	115V/60Hz	9.96 (282)	R290a	165.4 (75)	1/4 (186)	5-15P
BDC18HC-7	115V/60Hz	12.36 (350)	R290a	187.4 (85)	1/4+ (232)	5-15P
BDC21HC-8	115V/60Hz	14.30 (405)	R290a	231.5 (105)	1/2 (340)	5-15P

## **TECHNICAL DATA:**

## **EXTERIOR AND INTERIOR DIMENSIONS:**

BDC6HC-2 / BDC8HC-3 / BDC10HC-4 / BDC13HC-5 / BDC15HC-6 / BDC18HC-7 / BDC21HC-8

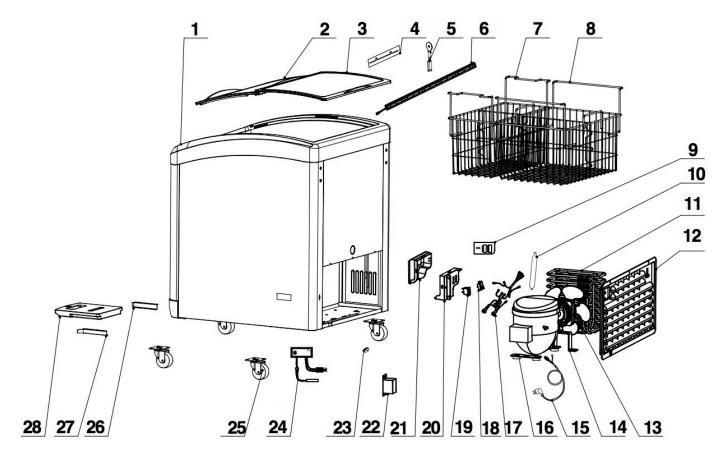




MODEL EXTERNAL I			DIMENSIONS INTERNAL DIMENSIO			SIONS			
MODEL	A	В	С	D	Ε	F	G	Н	Ι
BDC6HC-2	24.6 in	27.6 in	32.6 in	3 in	18.5 in	21.7 in	18.9 in	8.7 in	9.7 in
BDC0HC-2	625mm	700 mm	828 mm	76.2 mm	470 mm	550 mm	480mm	220 mm	245
BDC8HC-3	31.5 in	27.5 in	33.5 in	3 in	25.8 in	20.9 in	19.6 in	10.2 in	9.8 in
BDConc-5	800 mm	697 mm	850 mm	76.2 mm	656 mm	530 mm	498 mm	260 mm	250 mm
BDC10HC-4	39.4 in	27.5 in	33.5 in	3 in	33.7 in	20.9 in	19.6 in	10.2 in	9.8 in
BDC10HC-4	1000 mm	697 mm	850 mm	76.2 mm	856 mm	530 mm	498 mm	260 mm	250 mm
BDC13HC-5	47.4 in	27.5 in	33.5 in	3 in	41.7 in	20.9 in	19.6 in	10.2 in	9.8 in
BDC15HC-5	1204 mm	697 mm	850 mm	76.2 mm	1060 mm	530 mm	498 mm	260 mm	250 mm
BDC15HC-6	53.2 in	27.5 in	33.5 in	3 in	47.5	20.9 in	19.6 in	10.2 in	9.8 in
BDC15HC-0	1350 mm	697 mm	850 mm	76.2 mm	1206 mm	530 mm	498 mm	260 mm	250 mm
BDC18HC-7	63.4 in	27.5 in	33.5 in	3 in	57.7 in	20.9 in	19.6 in	10.2 in	9.8 in
BDC16HC-/	1610 mm	697 mm	850 mm	76.2 mm	1466 mm	530 mm	498 mm	260 mm	250 mm
BDC21HC-8	71.7	27.5 in	33.5 in	3 in	66 in	20.9 in	19.6 in	10.2 in	9.8 in
BDC21HC-8	1820 mm	697 mm	850 mm	76.2 mm	1676 mm	530 mm	498 mm	260 mm	250 mm

# PARTS DIAGRAM:

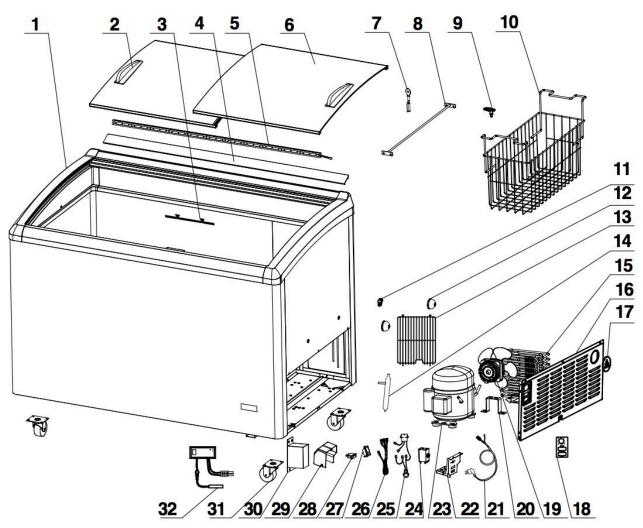
#### BDC6HC-2



Number	Description	Number	Description
1	Cabinet	15	Power Cable
2	Down Glass Door	16	Compressor
3	Up Glass Door	17	Control Bracket Connection Wire
4	Max Load Line	18	LED Switch
5	Lock	19	Red Light
6	LED Light	20	Control Bracket
7	Smaller Basket	21	Control Bracket Cover
8	Bigger Basket	22	Transformer
9	Control Panel	23	Double Orifice Press Block
10	Filter Dryer	24	Thermometer
11	External Condenser	25	Caster
12	Cover	26	Left Rail for Water Pan
13	Fan	27	Right Rail for Water Pan
14	Fan Bracket	28	Water Disposal Pan

#### PARTS DIAGRAM:

BDC8HC-3/BDC10HC-4/BDC13HC-5/BDC15HC-6/BDC18HC-7/BDC21HC-8



Number	Description	Number	Description
1	Cabinet	17	Cover Socket
2	Down Glass Door	18	Control Panel
3	Max Load Line	19	Fan
4	Pricing Display	20	Fan Bracket
5	LED Light	21	Power Cable
6	Up Glass Door	22	Control Bracket
7	Lock	23	Compressor
8	Support Rod (BDC21HC-8 only)	24	Thermostat
9	Plug	25	Control Bracket Connection
10	Basket	26	Compressor Connection
11	Double Orifice Press Block	27	Green Light
12	Bumper	28	LED Switch
13	Rear Cover	29	Control Bracket Cover
14	Filter Dryer	30	Transformer
15	External Condenser	31	Caster
16	Side Cover	32	Thermometer

ISSUE	REASON	SOLUTION		
Product thawing -/ not freezing -/	Temperature control is on the highest point	Adjust the temperature		
	Plug and outlet not connected well	Securely connect the plug to the outlet		
	Blown fuse or tripped breaker	Change the fuse / Reset the breaker		
	Temperature control is on the lowest point	Adjust temperature control		
	Too much product stored in the cabinet	Reduce the quantity		
Compressor Continues to Run	Thick frost	Defrost		
	Lid is open for extended periods of time.	Reduce the length of time		
	Lid is open too frequently.	or the frequency of the lid being open.		
	Too close to the wall	Reposition unit 4" from the wall		
	Close to a hot source or in the sun	Change the unit's location		
	Close to a not source of in the sun	or remove the heat source		
Loud Noise -	Ground is not flat so unit doesn't sit level and	Change the unit's location to a flat		
	is making a vibrating noise	surface		
	Refrigerant lines are connected	Compared the refrigement lines		
	or too close together	Separate the refrigerant lines		

## **TROUBLESHOOTING:**

**NOTE:** If the unit continues to have issues and you cannot solve the troubles according to the above-mentioned troubleshooting information or guidelines, please contact an authorized service agent. Do not handle it yourself unless you are a trained and licensed refrigeration technician.

# **GENERAL MAINTENANCE AND CLEANING:**

- 1. To save energy, keep the door closed as much as possible. Do not open the door frequently or leave it open for extended periods of time. This will conserve energy and preserve the quality of the food in the cabinet.
- 2. Never place heavy or hot items on the top of the freezer to avoid damage to the appliance.
- 3. Turn OFF the power before cleaning.
- 4. To clean the freezer, use a soft cloth with mild detergent and hot water.
- 5. Use warm water to clean the magnetic gasket in order to maintain its elasticity. Apply some talcum powder to it to prolong its service life. If the gasket is damaged, replace it immediately.
- 6. The freezer should not be left unused for a long time. To stop using the freezer and to store it, safely disconnect the main power first, then clean the inside and leave the door open for 2-3 days with an open box of baking soda in the cabinet. Make sure the inside of the cabinet is dry before storing.
- 7. To return the freezer to use, clean the inside cabinet with a sanitizing solution. Wipe thoroughly with a damp cloth. Allow the unit to air dry, leaving the door open for 2-3 days.

## **CLEANING THE CONDENSER (Related Warranty Information)**

- Condensers will accumulate dirt and require cleaning every 30 days.
- Dirty condensers result in compressor failure, product loss, and lost sales, which are not covered by warranty.
- If you keep the Condenser clean you will minimize your service expense and lower your electrical costs.
- The Condenser requires scheduled cleaning every thirty days or as needed.
- Air is pulled through the Condenser continuously, along with dust, lint, grease, etc.
- A dirty Condenser can result in voiding the unit's warranty coverage, as well as, compressor failure, product loss and loss of product sales.
- Proper cleaning involves removing dust from the Condenser. By using a soft brush, or vacuuming the Condenser with a shop vac, or using CO2, nitrogen, or pressurized air.
- If you cannot remove the dirt adequately, please call our technical service number and we will refer you to local companies.
- On most of the units the condenser is accessible in the rear of the unit. You may need to remove the cabinet grill to expose the refrigeration system and piping network.
- The Condenser looks like a group of vertical fins. You need to be able to see through the condenser for the unit to function at maximum capacity. Do not place filter material in front of condensing coil. This material blocks airflow to the coil similar to having a dirty coil.

#### THE CLEANING OF THE CONDENSER IS NOT COVERED BY THE WARRANTY!

#### HOW TO CLEAN THE CONDENSER:

- 1. Disconnect the electrical power to the unit.
- 2. Remove the louvered grill.
- 3. Vacuum or brush the dirt, lint, or debris from the finned condenser coil.
- 4. If you have a significant dirt build up you can blow out the condenser with compressed air. **NOTE:** TO AVOID EYE INJURY, EYE PROTECTION IS RECOMMENDED.
- 5. When finished be sure to replace the louvered grill. The grill protects the condenser.
- 6. Reconnect the electrical power to the unit.

If you have any questions, please call our Technical Service Department, 1-877-368-2797.

## NOTES:



877.368.2797