



High Production Icer HI18 & HI24

Operator's Manual and Technical Supplement

Belshaw Bros., Inc.
814 44th Street NW, Suite 103
Auburn, WA 98001 USA
Tel: (206) 322-5474
Fax: (206) 322-5425
Toll Free (US): 1-800-578-2547
E-mail: service@belshaw.com
www.belshaw.com



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Preface

The HI-18, HI-24 Econo Icer is designed for icing donuts and a variety of baking products quickly and easily.

It is meant to be used on a flat, stationary surface, with the operator standing on handled side. The operator must work safely at all times and read this manual and follow its instructions and warnings.

The HI-18, HI-24 Econo Icer uses electrical elements to heat frosting in its kettle. The machine is available with the following electrical configurations:

- 220 volts, 1 phase, 50 hertz
- 240 volts, 1 phase, 50 hertz

The HI-18, HI-24 Econo Icer produces less than 70 dB(A) of equivalent continuous A-weighted sound pressure at work stations. This has been determined during a run of the machine with shortening in the kettle, using a Bruel & Kjaer sound level meter, type 2236.

To use the HI-18, HI-24 Econo Icer safely, heed the following warnings:

- Disconnect from power source, before cleaning or repairing.
- Never touch the icing pan once the machine is on. The pan gets very hot, which may cause serious burns.
- Do not overfill the icing pan with icing. If shortening overflows the icing pan, it could cause serious burns or could cause someone to slip on the floor and be seriously injured.
- Hot icing can cause serious burns. Make sure that the system and the icing are

cool before attempting any adjustment, repair, disassembly, or cleaning.

- To avoid electrocution or other injury, unplug the machine before attempting any adjustment, repair, disassembly, or cleaning.
- To avoid damaging the machine, never use force to assemble, disassemble, operate, clean, or maintain it.
- Be careful never to get icing, water, or other materials on the floor. If anything does get spilled on the floor, mop it up immediately. Materials on the floor can cause people to slip or fall, resulting in serious injury or loss of life.
- To prevent unintentional startup and possible fire, unplug the machine if there is a local power outage. When the power is restored, it is safe to plug the machine in again.
- To avoid electrocution, make sure that all electrical cords are not frayed or cracked and that they do not pass through any water or icing.
- Make sure that all electrical cords are routed so that no one will trip over them.

1

Operation

Operation

1. Fill icing pan with icing approximately 1/2” from the top of the pan.



2. Turn on heater.
3. Allow Icing to heat for 60 minutes to reach desired icing temperature. “On” indicator light will start cycling on and off.

NOTE: Periodic stirring of the icing is necessary to ensure constant even heating of the icing.



4. Rotate wire / frame over icing.



5. Slide the rack of donuts into the rack holder.



6. Rotate the wire / frame over the rack of donuts to be iced.



8. Return the empty donut rack to the original position.



7. Firmly grip the two (2) handles and rotate the wire / frame and rack of donuts to be iced.



9. Push down on the icing lift handle to raise the icing pan until it reaches desired height.



10. Lower the icing pan.



11. Rotate the empty donut rack over the iced donuts.



13. Rotate the wire / frame over the icing, remove iced donuts and repeat steps 1-13.



12. Firmly grip the two (2) handles and rotate the wire / frame and donut rack to the original position.

Cleaning

2

For your safety, observe the following warnings throughout the entire cleaning process.

WARNING

Thoroughly clean and dry the floor if icing, water, or other materials are spilled. Materials spilled on the floor can cause serious injury or loss of life.

WARNING

To avoid the possibility of shock, unplug the unit before cleaning.

Once a day, clean as explained below.

1. Remove any debris from the work area before disassembling the HI Econo Icer.
2. Unplug and remove heating panel assembly from unit.
3. Remove icing pan.

IMPORTANT

To avoid damage to the wire / frame use caution when removing and transporting the wire / frame.

4. Clean the HI Econo Icer with warm water and mild cleaner.
5. Lift the tray holder over to the right side rest position, wash with warm soapy water, rinse and wipe dry.

WARNING

To avoid being burned, wait for icing pan to cool before removing.

6. Remove retainer knob (HI24-0041 See parts list) that holds the wire / frame in place and lift out the wire / frame. Place wire / frame in automatic dishwasher, use caution so that the wires do not get damaged.
7. Return the tray holder to the left side rest position.

3

Maintenance

Lubrication

WARNING

To avoid serious burns or other injury, always disconnect the machine from the power source before lubricating.

1. Use several drops of Lubriplate FMO-900-AW gear oil on the lift handle axle, located under the heating panel assembly. **Lubricate every two weeks.**
2. Use Lubriplate FMO-900-AW gear oil to lubricate the tray holder and wire holder pivot pins. **Lubricate every week.**



Econo-Icer

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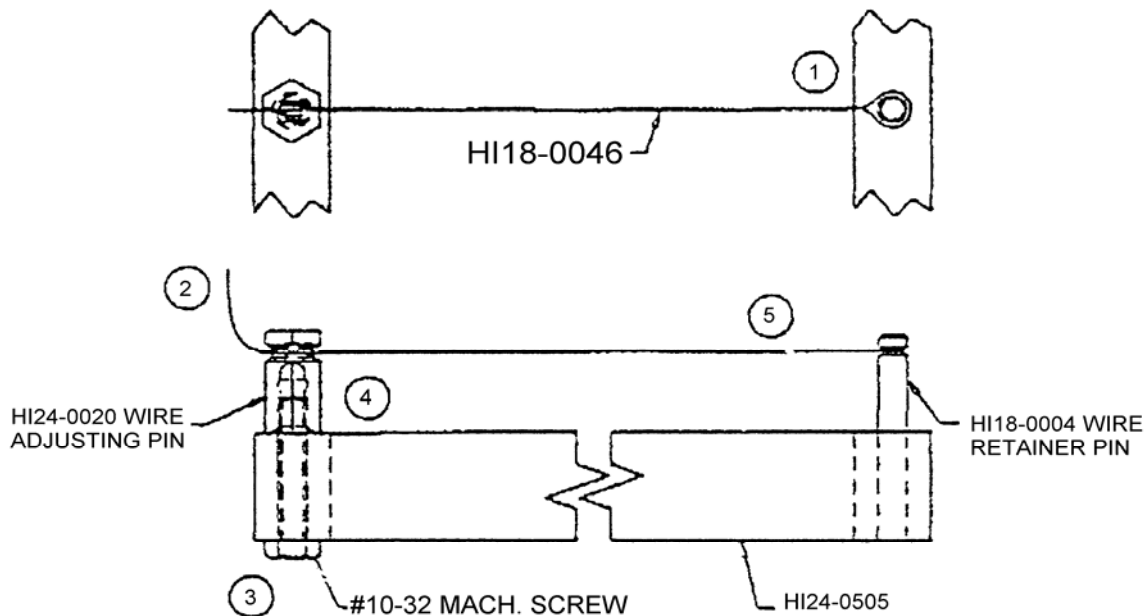
- Disconnect for power source, before cleaning or repairing.
- Never touch the icing pan once the machine is on. The pan gets very hot, which may cause serious burns.
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cool before attempting any adjustment, repair disassembly, or cleaning.

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1

Maintenance



Wire Tensioning and Replacement.

Tools Required:

- (2) 5/16" Open End Wrench
- (1) Wire Cutter

NOTE:

Do not use a box wrench to tighten. This will cause too much torque and frame may bend and bow

1. Place looped end of wire over the "Wire Retainer Pin" (HI18-0004) placing it in the groove.
2. Thread other end of wire through the hole in the "Wire Adjusting Pin" (HI24-0020) and bend the end pointing up as shown.
3. With the 5/16" open-end wrench, loosen the #10-32X1" machine screw.
4. With the 5/16" open-end wrench, turn the "Wiring Adjusting Pin" to tighten the wire. Be sure the wire winds in the groove of the pin. (This will also tighten the loop around the "Wire Retainer Pin").
5. Tighten the wire until taut, removing all slack. **DO NOT OVER TIGHTEN! OVER TIGHTENING WILL CAUSE THE FRAME TO BEND AND BOW.**
6. Tighten the #10-32 machine screw to hold pin in place.
7. Trim excess tail of the end of wire with wire cutters.

2

Troubleshooting

If you have a problem with your HI Econo Icer that you cannot solve, call your dealer or another qualified technician.

If your dealer cannot help you, please call Belshaw Bros. at (206) 322-5474. When you call, please specify the following:

- The model name of the machine.
- The serial number of the machine.
- The voltage, phase, and cycle of the machine.

CAUTION

If you perform repairs yourself or have them performed by anyone other than a service technician authorized by Belshaw Bros., you do so at your own risk.

WARNING

Disconnect the machine from the power source before disassembling, repairing, or wiring.

Possible Causes	What To Do
NO HEAT AND NO “ON” INDICATOR LIGHT.	
Unit not plugged in or wall electrical breaker is tripped.	Plug unit in and / or check electrical outlet.
NO HEAT WITH “ON” INDICATOR LIGHT ON.	
Loose wire.	Check wires.
Heating element failure	Check heating element for open circuit or short . Replace if defective.
Defective time delay relay.	Replace time delay relay.
Defective infinite switch.	Replace infinite switch.
UNEVEN ICING TEMPERATURE.	
Icing needs stirring.	Stir icing.
LOW HEAT AFTER TWO HOURS ON (HEAT LIGHT CYCLING ON AND OFF).	
Infinite switch setting is to low.	Readjust infinite switch setting through the hole at the end of the heating conveyor panel.
LOW HEAT AFTER ONE HOUR ON (HEAT LIGHT CYCLING ON AND OFF).	
Time delay relay is set to low.	Increase the time delay relay setting.
TO HIGH OF HEAT AFTER TWO HOURS ON .	
Infinite switch setting to high.	Readjust infinite switch setting at the end of the heating corner panel.
Defective infinite switch.	Replace switch if the heat on cycle light does not cycle after one hour.

Possible Causes	What To Do
TO HIGH HEAT AFTER ONE HOUR	
Time delay relay set is too high.	Readjust the time delay relay to a shorter on time setting.
WIRES ARE NOT EVENLY TAUT.	
Wires are not evenly adjusted.	Tighten loose wires.