



Undercounter Refrigerator / Freezer

Stacking Instructions



HELMER SCIENTIFIC
14400 Bergen Boulevard
Noblesville, IN 46060 USA



PH +1.317.773.9073
FAX +1.317.773.9082
USA and Canada 800.743.5637



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Document History

Revision	Date	CO	Supersession	Revision Description
A	27 DEC 2005	5360	n/a	Initial release.
B	27 FEB 2013	8299	B supersedes A	<ul style="list-style-type: none">▶ Added note regarding stacking of 104 and 105 units.▶ Changed instruction format for improved readability and ease of locating information within the instruction.

* Date submitted for Change Order review. Actual release date may vary.

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Section I: General Information

1 About this Instruction

1.1 Intended Audience

This instruction is intended for use by end users of the stacked refrigerator and/or freezer and authorized service technicians.

1.2 Model References

Generic references are used throughout this instruction to group models that contain similar features. For example, “105 models” refers to all models of that size (iPF105, HPF105, iLF105, HLF105). This instruction covers all undercounter freezers, which may be identified singly, by their size, or by their respective “Series.”

1.3 Copyright and Trademark

Helmer® is registered trademark of Helmer, Inc. in the United States of America. Copyright © 2013 Helmer, Inc. All other trademarks and registered trademarks are the property of their respective owners. Helmer, Inc., doing business as (DBA) Helmer Scientific and Helmer.

2 Safety

Includes general safety information for remote alarm monitoring system operation.

2.1 Labels



Caution: Risk of damage to equipment or danger to operator

2.2 Avoiding Injury

- ▶ Review safety instructions before installing, using, or maintaining the equipment.
- ▶ Do not open multiple, loaded drawers or baskets at the same time.
- ▶ Before moving unit, ensure casters are free of debris.
- ▶ Never physically restrict any moving component.
- ▶ Avoid removing electrical service panels and access panels unless so instructed.
- ▶ Use supplied power cords only.



CAUTION

Decontaminate parts prior to sending for service or repair. Contact Helmer or your distributor for decontamination instructions and a Return Authorization Number.

3 General Recommendations



CAUTION

- ▶ For a stacked configuration, both units must have leveling feet installed.
- ▶ The back brace bars and front stabilizing brackets must be used.
- ▶ Do not open multiple, loaded drawers or baskets at the same time.
- ▶ Do not stack more than 2 units.

3.1 Intended Use

Helmer refrigerator/freezer stacking kits are intended for secure installation of 104 and 105 model refrigerators and freezers, used for the storage of blood products and other medical and scientific products.

Section II: Installation

4 Stacking Kit Installation

4.1 Required Parts

- ▶ Stacking kit (P/N 400821-1/2)

Kit Includes the Following:

- ▶ (8) leveling feet
- ▶ (2) brace bars
- ▶ (4) socket head cap screws
- ▶ (2) 90° front brackets
- ▶ (4) screws
- ▶ (4) flat washers
- ▶ (4) split washers

4.2 Required Tools

- ▶ #2 Phillips screwdriver (short)
- ▶ Bubble level
- ▶ 5/16" Allen wrench

4.3 Location Requirements

- ▶ Has grounded outlets meeting national electric code (NEC) and local electrical requirements.
- ▶ Is clear of direct sunlight, high temperature sources, and heating and air conditioning vents.
- ▶ Minimum 8" (203 mm) above top unit, and minimum 3" (76 mm) behind stacked units.
- ▶ Meets limits specified for ambient temperature and relative humidity.

4.4 Set Up

NOTE Before installing stacking kit, move stored items to an alternate refrigerator or freezer to protect from extended exposure to adverse temperature.

- 1 Move inventory from both units to a functioning unit(s).
- 2 Disconnect AC power:
 - a Switch AC ON/OFF switch OFF (if equipped).
 - b Switch battery ON/OFF switch OFF (if equipped) or remove backup battery (or batteries).
 - c Disconnect AC power cord from each unit.
- 3 Remove any peripheral monitoring or alarm equipment:
 - a Disconnect AC power.
 - b Disconnect wires or probes from unit.
 - c Set peripheral equipment and probes/wires aside.
- 4 Close and lock the units' doors. Set the keys aside.
- 5 Drain the condensate evaporator tray on each unit.
- 6 Position both units in the general vicinity of the final location.

NOTE Allow enough space around each unit to provide clear access to the front and rear of each unit.

4.5 Level the Bottom Unit

- 1 Adjust the leveling feet on the bottom unit to level the unit.
- 2 A bubble level may be used to ensure the unit is level.

NOTE Additional leveling may be required once the stacked units are placed in the final location.

4.6 Configure the Top Unit

- 1 Ensure the leveling feet are installed.
- 2 With the top unit on the floor, and with assistance from a second person, tilt the unit backward and temporarily remove the front leveling feet.

NOTE

- ▶ Do not discard the front leveling feet.
- ▶ Do not remove the rear leveling feet.

- 3 Install the 90° brackets on the top unit:
 - a Insert the threaded end of the leveling foot through the hole in the 90° bracket.
 - b Thread the leveling foot / bracket assembly into the top unit where it had previously been installed, until the leveling foot bottoms out.
 - c Ensure the 90° bracket is oriented as shown in figure 1.
 - d Thread 2 screws through the bracket and into the corresponding threaded holes on the top unit.
 - e Tighten the 2 screws.
- 4 Repeat steps 1 through 3 for the second bracket.



Figure 1: 90° bracket.

4.7 Place the Top Unit



CAUTION

- ▶ This procedure requires team lifting.
 - ▶ The weight range for Helmer undercounter units is from 161 lbs (74 kg) to 221 lbs (101 kg).
 - ▶ When stacking a refrigerator and freezer (104 and/or 105 models), place the heavier unit on the bottom.
 - ▶ If either unit was ordered with casters, they must be removed and replaced with leveling feet.
-

NOTE

- ▶ Unit weight is shown on the product specification label and in the equipment operation manual.
- ▶ Do not slide the top unit on to the bottom unit; align the top unit above the bottom unit and lower the top unit into place.
- ▶ Do not place items on top of the top unit, other than a temperature chart recorder, i.Center monitoring system, or combined i.Center / temperature chart recorder.

- 1 With assistance from a second person, place the top unit on the bottom unit.
- 2 The 90° front brackets should straddle the lower unit cabinet as shown in figure 1.
- 3 Level the top unit as necessary, using the procedure outlined in chapter 4.5 (Level the Bottom Unit).

4.8
Install Rear Brace Bars

- 1 Place a split lock washer (first) and a flat washer (second) on each of the 4 socket head cap screws.
- 2 Hold 1 rear brace bar on the back of the stacked units, with the holes in the bar aligned with the corresponding threaded holes on the rear of both stacked units as shown in figure 2.

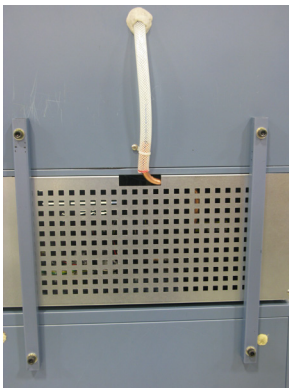


Figure 2: Rear brace bars.

- 3 Insert 2 socket head cap screws with washers through 2 holes in the brace bar and hand-thread into the corresponding holes in the cabinet. Do not tighten the socket head cap screws at this time.
- 4 Repeat the procedure for the second brace bar.
- 5 Check the front-to-back alignment of the top and bottom units and adjust as necessary. The back panels of each unit should be flush with each other.
- 6 Using an Allen wrench, tighten the 4 socket head cap screws.

4.9
Position the Stacked Units

- 1 With assistance from a second person, move the stacked units to their final location.


CAUTION

Do not push or pull the stacked units by the top unit.

- 2 Allow a minimum of 8" (203 mm) above top unit, and a minimum of 3" (76 mm) behind stacked units.
- 3 Using a bubble level, re-check both units to ensure they are level. If stacked units require further leveling, adjust the leveling feet on the bottom unit as outlined in chapter 4.5 (Level the Bottom Unit).
- 4 Unlock the doors.

- 4.10 Power Units On**
- 1** Connect AC power:
 - a** Connect AC power cord to units and outlets.
 - b** Switch AC ON/OFF switch ON (if equipped).
 - c** Switch battery ON/OFF switch ON (if equipped) or install backup battery (or batteries).
 - 2** Connect any peripheral monitoring or alarm equipment:
 - a** Place peripheral equipment.
 - b** Connect wires/probes to units.
 - c** Connect AC power.
 - 3** Allow temperature to stabilize at the setpoint.
 - a** Temporarily mute alarms by pressing the **Mute** button, or switching alarms OFF with alarm key switch (if equipped).
 - b** After units have reached operating temperature, switch alarms ON with alarm key switch (if equipped).
 - c** Move inventory back into stacked units after temperature has stabilized at the setpoint.

5 Optional Wall and Floor Attachment

- ▶ Contact Helmer Technical Service for additional hardware to attach stacked units to the wall and/or floor.
- ▶ Reference part number 400472-2 (anchor bracket kit for undercounter refrigerator/freezer when contacting Helmer Technical Service).

END OF INSTRUCTION

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