

# **LIEBHERR HCB1591G Fully Integrated Bottom Freezer Refrigerator Instruction Manual**

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# LIEBHERR

**Installation Instructions** For Fully Integrated No Frost **Combined Refrigerator-Freezers** 



HCB 1590G / HCB 1591G 7083 462-00 V: 01 2025

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#### **Important**

#### **IMPORTANT**

All types and models are subject to continuous improvement. The manufacturer reserves the right to make modifications to the shape, equipment, and technology.

#### Please Read and Follow these Instructions

These instructions contain Danger, Warning, and Caution notes.

This information is important for safe and efficient installation and operation.

Always read and comply with all Danger, Warning, and Caution notes!



# ⚠ DANGER!

Danger indicates a hazard which will cause serious injury or death if precautions are not followed.



Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Caution indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

#### **IMPORTANT**

This indicates information that is especially relevant to a problem-free installation and operation.

#### Note to the Installer

It is very important to follow the instructions in the manual to ensure proper installation and operation of the unit. Before installing the unit, be sure to thoroughly read and understand all of the information in this manual.



### ⚠ WARNING!

#### Electrocution hazard.

Do not connect to the electrical outlet before the installation is completed.

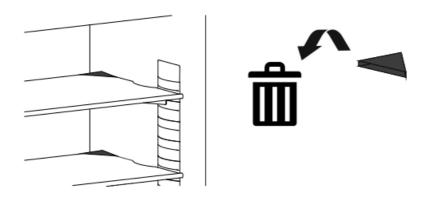
#### Safety

#### **Important Safety Information**

- WARNING: Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.
- WARNING: Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- WARNING: Do not damage the refrigerant circuit.

- WARNING: The power cord must not be damaged while installing the appliance.
- WARNING: Multi-sockets or distributor strips and other electronic devices (such as halogen transformers) must not be positioned and operated at the rear of appliances.
- WARNING: Danger of injury through electric shock! There are live parts under the cover. Only have the interior LED light replaced or repaired by customer service staff or trained personnel.
- WARNING: Risk of injury from the LED lamp. The light intensity of the LED light complies with risk group RG 2. If the cover is defective, do not look directly at the light through optical lenses from close distance. This may damage your eyes.
- WARNING: This appliance must be secured as described in the Use and Care Manual (Installation Instructions) to rule out any potential risks due to its instability.
- WARNING: Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer.
- Any repairs and work on the appliance should only be performed by the customer service department.
   Unauthorized work may be dangerous to the user. The power source cable should only be changed or replaced by the customer service department. Component parts and power cords shall be replaced with like components performed by factory authorized service personnel only.
- Do not stand on the toe kick, drawers or doors or use them to support anything else.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge unless they have been given initial supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.
- To prevent injury and damage to property, the appliance should only be installed by 4 people.
- Check the appliance for signs of damage after unpacking. Contact the supplier if it is damaged. Do not connect the appliance to the mains power supply.
- Avoid prolonged skin contact with cold sur- faces (e.g., chilled/frozen products). If necessary, take safety action (e.g., gloves).
- Do not consume food which has been stored for too long; it could cause food poisoning.
- Any repairs and work on the appliance should only be performed by the customer service department or other trained personnel. The same applies to changing the power cord.
- Only perform repair and other work on the appliance when the plug has visibly been disconnected.
- Only install, connect, and dispose of the appliance as described in this Use and Care Manual.
- In the event of a fault, pull out the plug or switch off the fuse.
- When disconnecting the appliance from the power source, pull it out by the plug, never pull on the cable.
- If you have a lockable appliance, do not keep the key near the appliance or within reach of children.
- The appliance is designed for use in enclosed rooms. Do not operate the appliance outdoors or in areas where there is moisture or splashing water.
- Do not use the interior LED light to light the room. The interior LED light is only designed to illuminate the interior of the appliance.
- Do not allow naked flames or ignition sources to enter the appliance.
- Alcoholic drinks or other vessels containing alcohol should be sealed tightly for storage.

#### Remove all transport packaging



#### **R600a Refrigerant**



The refrigerant R600a contained within the appliance is environmentally friendly, but flammable. Leaking refrigerant can ignite.

#### **Disposal of Old Appliance**



#### Risk of child entrapment.

Child entrapment and suffocation are not problems of the past. Junked or abandoned refrigerators are still dangerouseven if they will sit for "just a few days."

If you are getting rid of your old refrigerator, please follow these instructions to help prevent accidents.

#### Before you discard old appliances:

- · Take off the doors.
- Leave the shelves in place so that children may not easily climb inside.
- Cut off the power cord from the discarded appliance. Discard separately from the appliance.
- Be sure to follow your local requirements for disposal of appliances.

Contact the trash collection agency in your area for additional information.

#### **Disposal of Packaging Material**



Keep packaging materials away from children. Polythene sheets and bags can cause suffocation! If possible, please recycle packaging material at a recycling facility.

#### **Electrical Safety**

Connect this appliance to a 15 amp or 20 amp, 110120 VAC circuit which is grounded and protected by a circuit breaker or fuse.

We recommend using a dedicated circuit for this appliance to prevent circuit overload and the chance of interruption to the appliance.

This appliance is equipped with a three-prong (grounding) polarized plug for your protection against possible shock hazards.

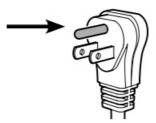
Where a two-prong wall receptacle is encountered, contact a qualified electrician and have it replaced with a properly grounded three-prong receptacle in accordance with all local codes and ordinances.



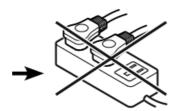
#### Electrocution hazard.

Electrical grounding required.

• Do not remove the round grounding prong from the plug.



- Do not use extension cords or ungrounded (two prong) adapters.
- Do not use a power cord that is frayed or damaged.
- Do not use a power strip.



Failure to follow these instructions may result in fire, electric shock or death.

### **Blocking for Safety**



To avoid a hazard due to instability of the appliance, it must be fixed in accordance with the instructions.

#### planning information

#### Unit Dimensions - Figure 1, Figure 2

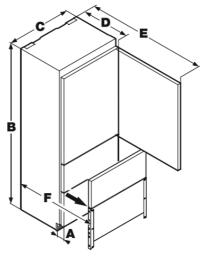


Figure 1

A = 3" (76 mm)

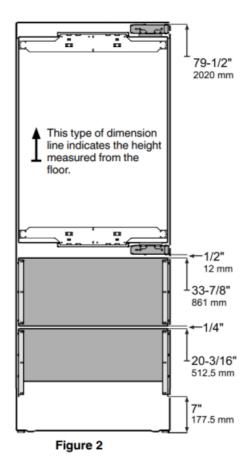
B = 79-11/16" (2024 mm)

C = 29-13/16" (757 mm)

D = 24" (610 mm)

E = 55 5/8" (1412 mm)

F = 37-1/8" (952 mm)



# Door Swing Clearance – Figure 3

Please allow for door swing clearance at locations next to a wall.

The illustrated measurement is without mounted front panels.

Be sure to add your panel thickness and handle depth to this measurement in order to avoid interferences.

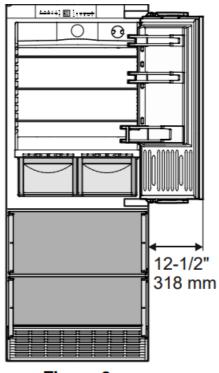


Figure 3

#### Unit Venting - Figure 4

HCB appliances do not require any ventilation openings in the cabinet.

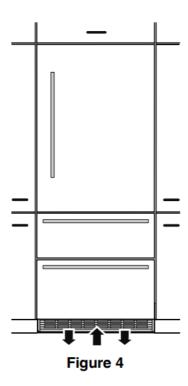
The required air flow is directed through the toe kick area.

Only use the ventilation grille provided with the appliance. This grille is required for proper operation of the

appliance.

This opening must not be covered with a cabinet base.

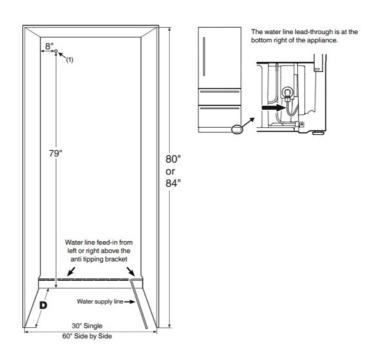
Failure to use the supplied grille can result in product failure and will void the warranty.



**Cabinet Opening Dimensions – Figure 5** 

Cabinet Height	Inset cabinet Depth D	Frameless/faceframe cabinet Depth D
80"	25" + panel thickness	25"
84"	25" + panel thickness	25"

For appliance with panel to be flush, adjacent cabinetry depth must equal appliance depth (24") plus panel thickness.



#### **IMPORTANT**

Do not install the shut-off valve behind the appliance.

(1)

This is where the power cord extends from the back of the appliance.

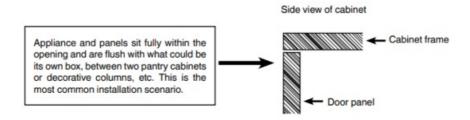
Free length of the power cord = 86 5/8" (2200 mm)

Be sure to take these specifications into consideration when choosing the location of the electrical outlet.

#### **IMPORTANT**

The electrical outlet must not be situated behind the appliance and must be easily accessible.

#### Panel Dimensions - Inset Installation Style - Figure 6



#### You can order stainless steel panels for inset installation style.

Refrigerator door panel 80"- article number 9900 287-00 Refrigerator door panel 84"- article number 9900 285-00 Freezer drawer panels – article number 9900 283-00

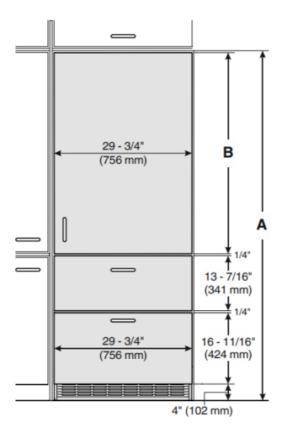


Figure 6

Cabinet opening A	Refrigerator door panel B
80" (2032 mm)	45-1/2" (1156 mm)
84" (2134 mm)	49-1/4" (1251 mm)

The panels should be at least 5/8 inch (16 mm) thick to allow the connecting rails to be fastened to them.

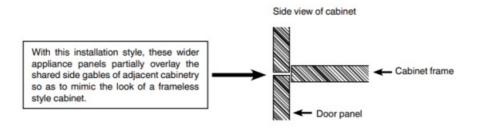
#### **IMPORTANT**

The maximum panel thickness is 3/4" (20 mm).

The door panel weight must not exceed 60 lb (27 kg).

Maximum weight of each freezer panel is 26.5 lb (12 kg).

#### Panel Dimensions - Frameless Installation Style - Figure 7



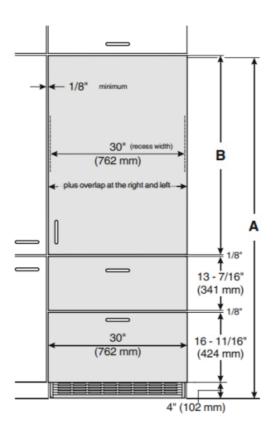


Figure 7

Cabinet opening C	Refrigerator door panel D
80" (2032 mm)	45-5/8" (1159 mm)
84" (2134 mm)	49-3/4" (1264 mm)

The panels should be at least 5/8 inch (16 mm) thick to allow the connecting rails to be fastened to them.

#### **IMPORTANT**

The maximum panel thickness is 3/4" (20 mm).

The door panel weight must not exceed 60 lb (27 kg).

Maximum weight of each freezer panel is 26.5 lb (12 kg).

#### **Blocking for Safety**

#### Mounting the Anti Tipping Device - Figures 8 - 11

### **⚠** WARNING!

- The anti tipping bracket must be mounted to prevent the appliance from tipping when the fully stocked door is opened.
- Be sure that there is no plumbing or electrical wiring located in this area which screws or drills could damage.

The anti tipping bracket is provided with the appliance.

- 1. Mark the center line of the appliance on the back wall. Align the anti tipping bracket center to this line.
- 2. Depending on the constitution of the floor and wall, use any possible mounting option as shown in Figures 8 11.

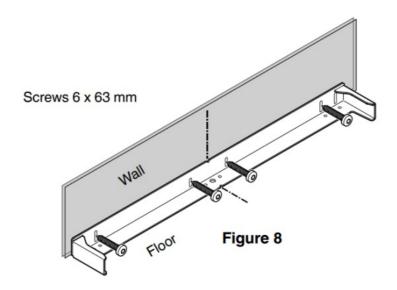
#### **IMPORTANT**

The anti tipping bracket must be fitted at the same height as the toe kick area. If you set the appliance to a higher level by laying spacers underneath, the anti tipping bracket must be fitted accordingly.

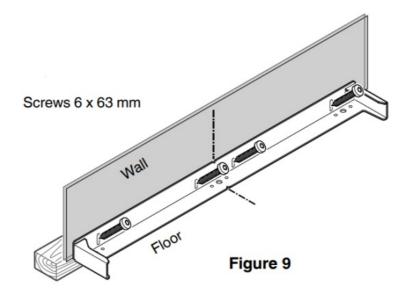
#### **Mounting Options**

Mounting the bracket with the wall stud.

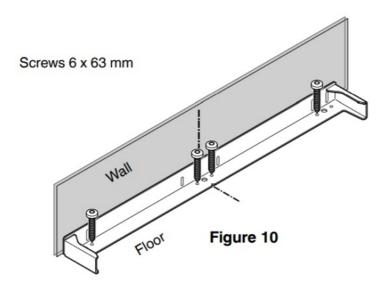
Mounting with wall plugs to concrete walls (Figure 8).



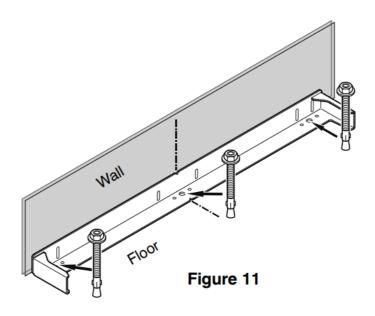
Mounting with the wall plate turning in the screws at an angle (Figure 9).



Mounting with wooden floors (Figure 10).



Mounting with concrete floors using the anchors provided (Figure 11).

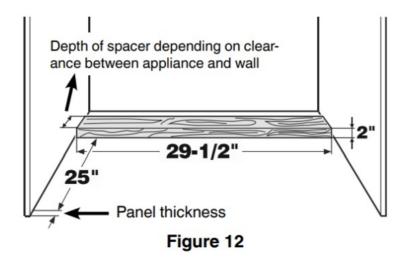


Mounting the Anti Tipping Device in Cabinets deeper than 24'' – Figures 12 - 13 A proper function of the anti tipping bracket is warrantedwithin a cabinet depth of between 24'' and 25''. If the cabinet is deeper than 25'', a wooden spacer must be mounted between appliance and wall.

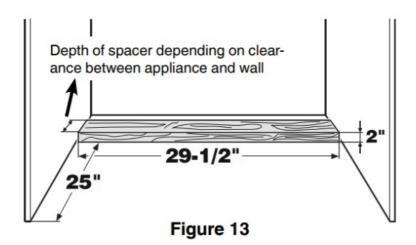
# **⚠** WARNING!

Be sure the wooden spacer is fastened securely to the floor.

Measuring for mounting the wooden spacer on inset kitchen cabinets – Figure 12



Measuring for mounting the wooden spacer on frameless kitchen cabinets – Figure 13



#### **IMPORTANT**

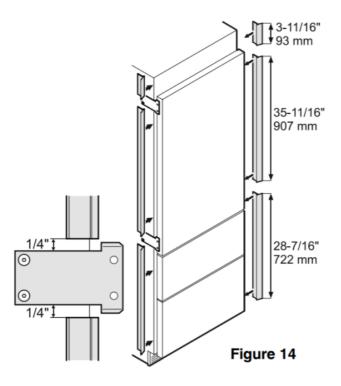
If the floor slopes down sideways, the anti tipping bracket must be fitted horizontally. Lay down spacers in the appropriate positions.

#### **Cover Strips – Figure 14**

Apply cover strips above, between and below the securing plates on the side walls of the appliance. Cut the cover strips to the length shown in Figure 14.

Fit the adhesive cover strips leaving a gap of 1/4" to each securing plate.

This ensures problem-free fitting of the covers.



#### **Icemaker**

#### **Safety Instructions and Warnings**

- Do not install the water connection while the combined refrigerator-freezer is connected to an electrical outlet.
- The connection to the water supply may only be made by a trained and licensed plumber.
- All equipment and devices used to supply the water to the appliance must comply with the current regulations for your geographical area.

## **⚠** WARNING!

Connect to potable water supply only.

#### **Water Connection Requirements**

• The water supply pressure requirements are different based on whether or not the supplied Liebherr water filter is installed.

With the filter installed, the pressure must be in the range of 40-90 psi (2.8-6.2 bar).

Without the filter installed, the acceptable pressure range is 22-87 psi (1.5-6 bar).

Failure to meet these requirements will likely result in ice maker malfunction and possibly cause a water leakage that can damage flooring and surrounding furniture.

• A shut-off valve, must be installed between the hose line and the main water supply so the water supply can be stopped if necessary.

#### **IMPORTANT**

Do not install the shut-off valve behind the appliance.

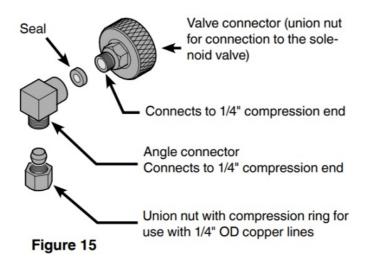
# Water Connection Adapter – Figure 15 IMPORTANT

Only use the supplied adapter for connection to the solenoid valve. The solenoid valve has a metric R3/4 male

connector. Any attempt to use other adapters for connection could damage the thread on the solenoid valve. The supplied adapter enables different connection options for different kinds of water lines. A water line is not supplied with the appliance.

#### **IMPORTANT**

Do not use any old or already premounted water supply lines.

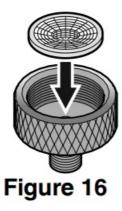


The connection to the valve connector can be done with or without the angle connector, as required. Braided style ice maker hoses can be connected directly to the threaded ends. For connection with 1/4" OD copper lines, use the union nut with compression ring.

#### **IMPORTANT**

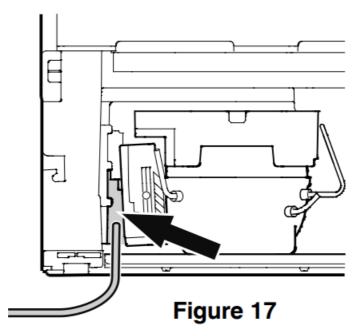
Make sure that the connection is fitted with a seal and is tight.

• Insert the water strainer supplied into the valve connector (Figure 16).



#### **Connection to the Water Supply**

- 1. Move the appliance towards the final position and leave enough space to work behind.
- 2. Insert the water supply line into its intended opening at the back of the appliance (F i gure 17). Back view of appliance bottom left

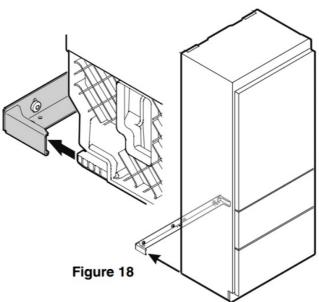


3. Move the power supply line to the area of the electrical outlet.

#### **WARNING!**

Do not connect to the electrical outlet before the installation is completed and the water line is connected to the solenoid valve.

4. Move the appliance slowly into the recess until the appliance back slides into the anti tipping bracket (Figure 18).



- 5. Remove the cover from the solenoid valve (Figure 19).
- 6. Connect the water line to the adapter in the respective configuration, depending on the type of water line used. Figure 19 shows the configuration with a copper line as an example.
- 7. Bleed the air from the water line by opening the water supply temporarily.

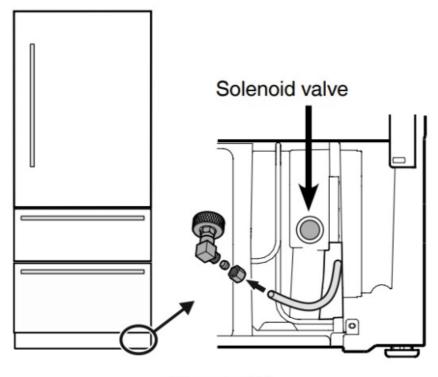


Figure 19

8. Screw the adapter onto the solenoid valve (Figure 20).

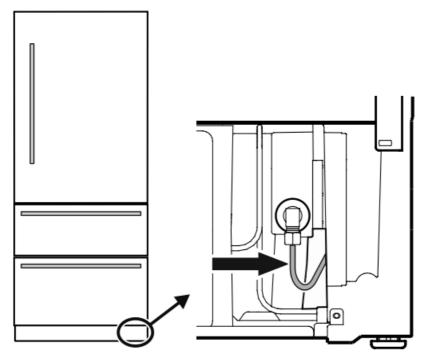


Figure 20

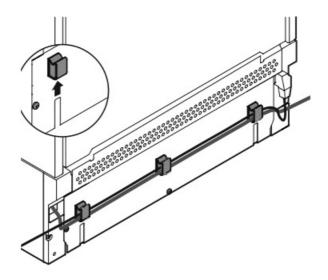
9. Open the shut-off valve for the water supply and check the entire water system for leaks.

#### **CAUTION!**

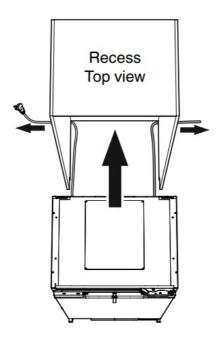
Power cord/Water line trapped between anti-tipping device andrear of the appliance. Power cord/Water line crushed. Install cable holders. Insert power cord/water line in cable holders.

#### **IMPORTANT**

These steps are only necessary if the electrical outlet or water line are on the opposite side.



Install the cable holders on the rear of the appliance. Insert power cord/water line in cable holders. Slide the appliance into the recess. To avoid damage, pull the power cord and water line backwards at the same time with slight tension.



#### **IMPORTANT**

After sliding the appliance into the recess, plug in the appliance and check its function. Then unplug it again.

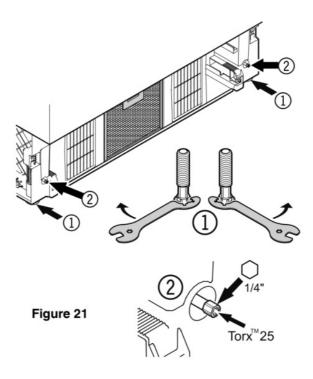
#### InStallation

#### Leveling the Appliance - Figure 21

- 1. Adjust the height of the appliance at the front by twisting the leveling feet (1) . Use the open-ended spanner provided.
  - Turn the spanner counterclockwise to raise the appliance front and clockwise to lower it. Position the spanner accordingly (Figure 21- (1)).
- 2. Adjust the height of the appliance at the rear by turning the adjusting bolts (2) . Use a 1/4" box spanner or the Torx 25 wrench provided.
- 3. Rotate leveling feet (1) until firmly in place against the floor.



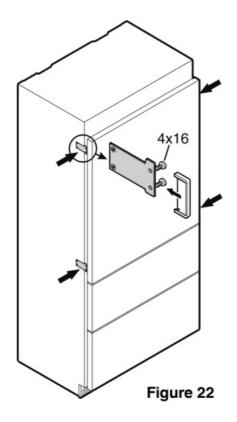
To prevent the appliance from tipping forward the leveling feet (1) (Figure 21) must have contact with the floor.



#### Fastening the Appliance in the Recess - Figure 22

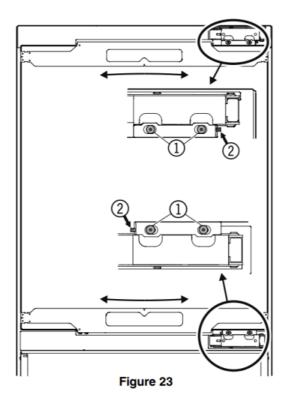
Fasten the appliance in the recess through the premounted securing plates at left and right on the appliance housing using screws 4 x 16 mm.

Then click thecovers supplied into place.



# Adjusting the Refrigerator Door – Figure 23 IMPORTANT

Under normal conditions, the factory adjustment of the refrigerator door should not be changed. Only if heavy loading of the refrigerator door is expected, may the adjustment be changed. Undo screws (1). Adjust the lateral tilt using the grub screw (2) (Allen key A/F 2.5).



#### Adjusting the Drawer Front – Figure 24

If required, the front of the freezer drawers can be adjusted.

Transfer the screws shown in the illustration (on the left and right sides of the freezer drawer) individually to the long slots below.

Tighten the screws in the front of the drawer once it is in the right position.

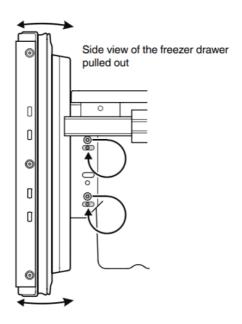
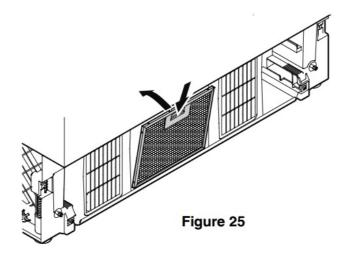


Figure 24

#### Mounting the Ventilation Grille

- 1. Pull out the bottom freezer drawer.
- 2. Remove the blue protection film from the dust filter provided and insert the filter into its opening in the toe kick area as shown in Figure 25. Engage the filter at the bottom, press down the button and click into place.



3. Remove the locking pins of both supports. The supports are provided with the appliance accessory pack (Figure 26).

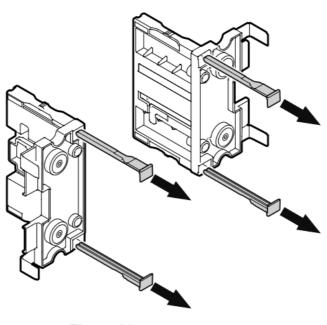
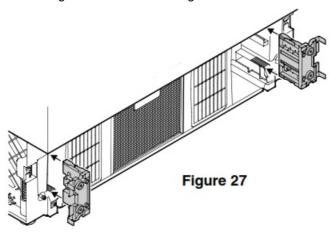


Figure 26

4. Insert the supports for the ventilation grille on the left and right sides in the motor compartment (Figure 27).



5. The front edge of the brackets is flush with the front of the ventilation grille. Adjust the supports accordingly (Figure 28).

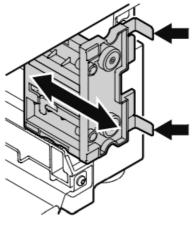
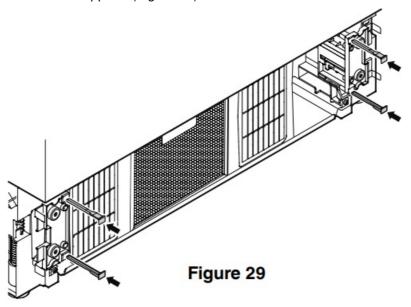


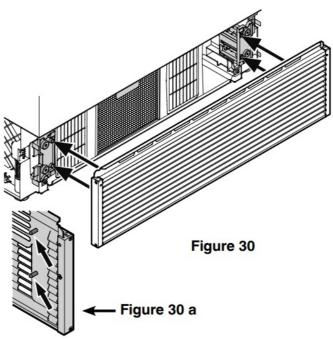
Figure 28

6. Insert the locking pins to block thesupports (Figure 29).



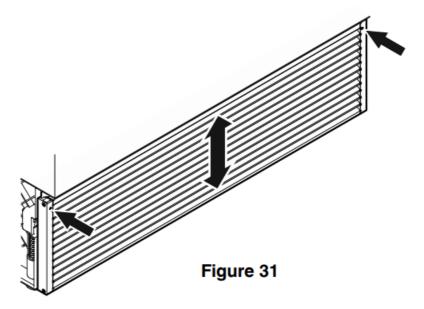
7. Install the ventilation grille (Figure 30).

The grille has bolts on the inside (see detail in Figure 30 a). These bolts must be inserted into theholes of the supports



- 8. Adjust the height of the ventilation grille (Figure 31).
  - Loosen the grub screws at the front of the grille (Allen key A/F 2.5).

- Adjust the ventilation grille to the desired height.
- Tighten the grub screws.

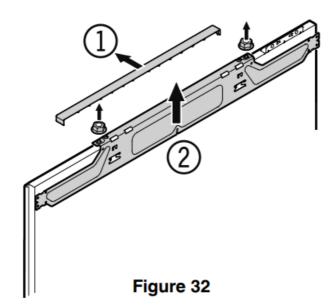


#### Before Mounting the Door Panels - Figures 32, 33

Remove cover (1) and unscrew the upper and lower attachment bracket (2) of the refrigerator door. These brackets will be mounted onto the refrigerator door panel.

#### **IMPORTANT**

The nuts are needed to fit the premounted panel onto the refrigerator door.

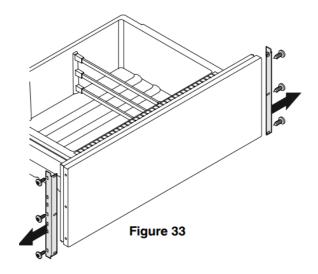


Unscrew the attachment brackets of both freezer drawers.

These brackets will be mounted onto the freezer drawer panels (Figure 33).

#### **IMPORTANT**

The screws are needed to fit the premounted panels onto the freezer drawers.



#### Mounting the Attachment Brackets onto the Door Panels – Figure 34

Mark a line with a distance of 41" and 4-1/4" from the bottom of the refrigerator door panel.

Align one of the dismounted brackets of the refrigerator door to the line on the refrigerator door panel as shown in Figure 34 a. Fasten the bracket with any hole wherever possible using a minimum of 6 screws 4 x 16 mm. Align the second bracket of the refrigerator door to the bottom line on the refrigerator door panel as shown in Figure 34 b. Fasten the bracket with any hole wherever possible using a minimum of 6 screws 4 x 16 mm. Fasten the brackets provided onto the freezer drawer panels using three screws (4 x 16 mm) for each bracket considering the measurement in Figure 34 c.

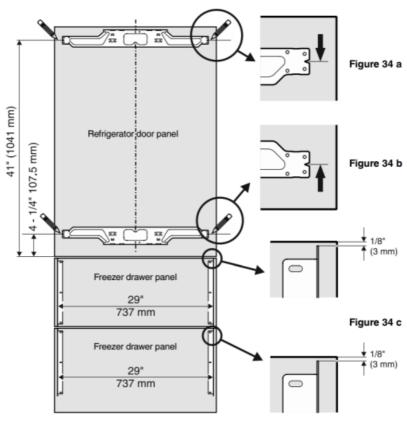
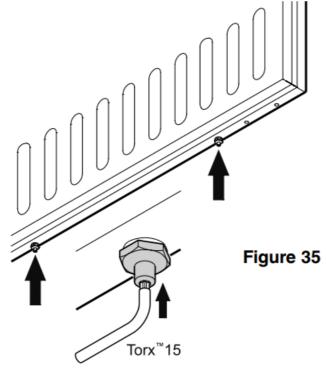


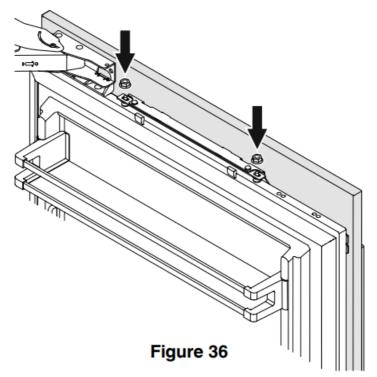
Figure 34

#### **Mounting the Refrigerator Door Panel**

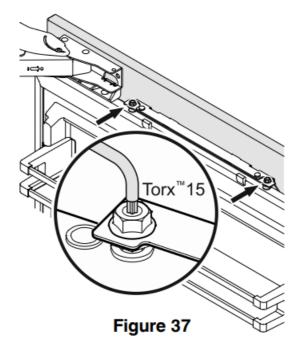
1. Turn in the adjusting bolts on the bottom of the refrigerator door as far as possible (Figure 35).



- 2. Open the refrigerator door and hang the panel on the top adjusting bolts (Figure 36).
- 3. Screw on the hex nuts to the adjusting bolts and finger tighten temporarily (Figure 36).



- 4. Close the door and check the height of the panel.
- Align the panel in its vertical position if necessary.
   Loosen the hex nuts and turn the adusting bolts (Figure 37).



- 6. Align the panel horizontally (with the long holes in the attachment bracket) (Figure 38).
- 7. Tighten the hex nuts.

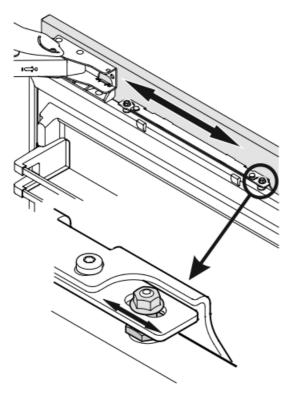


Figure 38

8. Turn the adjusting bolts (bottom refrigerator door) until they make contact with the attachment bracket (Figure 39).

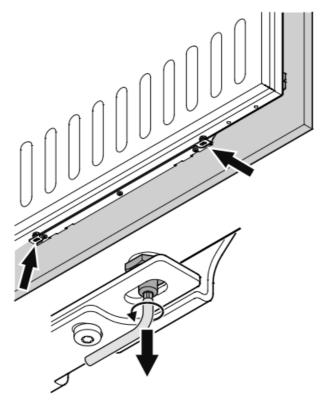
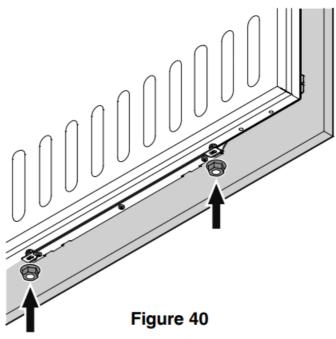


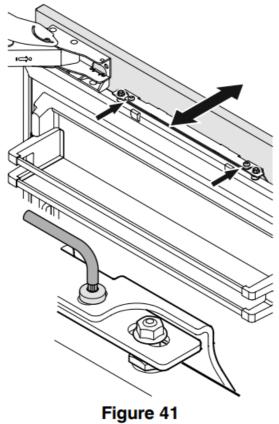
Figure 39

9. Screw on the hex nuts and tighten (Figure 40).



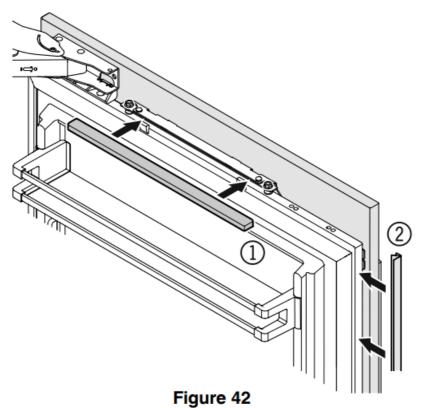
10. Loosen the three screws on the top of the attachment bracket, align the panel as shown in Figure 41 and tighten the screws.

This can also be done with the lower attachment bracket.



#### 11. Click cover (1) into place.

Insert the cover strip provided (2) between refrigerator door and panel (Figure 42).



#### **Mounting the Freezer Drawer Panels – Figure 43**

- 1. Pull out the upper freezer drawer and screw on the panel with three screws on the left and right sides using the screws as shown in Figure 43.
- 2. Close the drawer and check the position to the surrounding cabinet panels.

Align the panel in vertical direction by loosening the screws left and right. Finally tighten the screws.

#### **IMPORTANT**

Do not overtighten. Do not use a power driver.

- 3. Pull out the lower freezer drawer and fasten the lower panel in the same way.
- 4. Finally cover the gap between the drawer and the panel of both freezer drawers with the strips provided. Remove the foil from the adhesive surface of the strip and stick on the top of the appliance drawer making sure the flexible gasket is fully inserted in the gap.

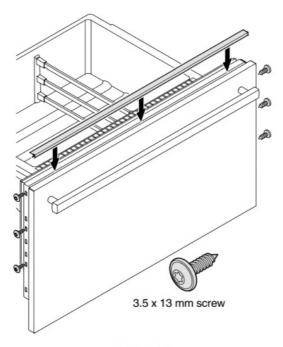


Figure 43

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#### **Documents / Resources**



<u>LIEBHERR HCB1591G Fully Integrated Bottom Freezer Refrigerator</u> [pdf] Instruction

HCB1591G, HCB-1591G, HCB 1590G, HCB1591G Fully Integrated Bottom Freezer Refrigerator, HCB1591G, Fully Integrated Bottom Freezer Refrigerator, Integrated Bottom Freezer Refrigerator, Bottom Freezer Refrigerator, Freezer Refrigerator, Refrigerator

#### References

• User Manual

#### Manuals+, Privacy Policy

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