Installation, Service and User

# INSTRUCTIONS FOR THE ZERO MODEL: GF250D

SINGLE LID CHEST FREEZER

2-WAY: L.P. Gas & 230V Electric ZERO APPLIANCES (PTY) LTD

Cat. I<sub>3+</sub> (28-30/37) & I<sub>3B/P</sub> (30)



WARNING: THIS APPLIANCE MUST BE EARTHED
ENSURE THAT THE GAS SUPPLY HOSE IS NOT IN CONTACT WITH OR NEAR THE BURNER AREA



# **TECHNICAL DATA**

# Zero Appliances Model GF250D Double LID Freezer

# Category:

I<sub>3+ (28-30/37)</sub> For use on Butane at 2.8-3.0 kPa

and Propane at 3.7 kPa.

I<sub>3 B/P (30)</sub> For use on Butane and Propane

mixtures (LPG) at 3.0 kPa

Declared rate: Injector size 0.42mm diameter, marked '13' or 0

Gas consumption: 34.2 g/h

**Electrical Supply:** 230V (Mains Electricity) 0.360kW

This appliance is a single lid single bin freezer and has a hanging storage basket.

# WARNING: THIS APPLIANCE MUST BE EARTHED ENSURE THAT THE GAS SUPPLY HOSE IS NOT IN CONTACT WITH OR NEAR THE BURNER AREA

Manufactured in South Africa by:

Zero Appliances (Pty) Ltd. P.O. Box 426 Edenvale 1610 Gauteng Province



### **INSTALLATION INSTRUCTIONS:**

#### IMPORTANT INFORMATION FOR THE USER

Only a registered LP Gas installer may install a gas installation. All registered installers are issued with a card carrying their registration number. Ask to be shown the card before allowing the installation work to commence and make a note of the Installer QCC number. Upon completion of the installation, the installer is required to explain the operational details of the installation together with the safety instructions. You will be asked to sign acceptance of the installation and be provided with a completion certificate. You should only sign for acceptance of the installation when the installation is completed to your satisfaction.

**Note**: Your invoice is required in the event that you wish to make a guarantee claim.

# WARNING: ENSURE THAT THE GAS SUPPLY HOSE IS NOT IN CONTACT WITH OR NEAR THE BURNER BOX.

#### IMPORTANT INFORMATION FOR THE INSTALLER.

Only an LP gas installer registered with the Liquefied Petroleum Gas Association of South Africa may install a gas installation. The installation must be installed in accordance with the requirements of SANS 10087-1 and any fire department regulations and/or local bylaws applicable to the area. If in doubt, check with the relevant authorities before undertaking the installation. Upon completion of the installation, you are required to fully explain and demonstrate to the user the operational details and safety practices applicable to the installation and the appliance.





#### 1. ENSURE THAT THE APPLIANCE IS STANDING LEVEL!

If positioning on uneven or soft ground, place two flat pieces of wood or suitably hard material (approximately 600mm long and 100mm wide by 20mm thick) under the two feet of the appliance, from front to back, before attempting to level the appliance.

- 2. Place the appliance in a cool, well-ventilated area out of direct sunlight and strong gusts of wind, allow enough space (at least 100mm) around sides and back of appliance and 600mm above the appliance.
- Remove all loose items from the appliance

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**IMPORTANT:** There must be adequate space to reach the controls situated at the back of the appliance.

**NOTE:** Any gas supply cylinder should have at least 250mm clearance if placed behind the appliance.

#### **GAS CONNECTION:**

The appliance inlet is to the 8mm plain straight tube, allowing connection by means of a gas-tight compression fitting to comply with both EC and local regulations. The freezer is suitable for connection to butane/propane mixtures (LPG) at 2.8-3.0 kPa and to propane at 3.7 kPa. Means must be provided to turn off the gas supply. If the supply is common to other appliances a separate tap must be fitted for the freezer line.

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## **GAS-PRESSURE REGULATOR**

This appliance requires an operating pressure of 2.8 kPa at the appliance. A suitable LPG regulator that complies with the requirements of SANS 1237 must be installed.

#### **OPERATING INSTRUCTIONS FOR FREEZER**

It is important to read through these instructions carefully before beginning to use this appliance.

Retain these instructions for future reference.

#### LP. GAS OPERATION:

After initial installation, after changing gas cylinder, after servicing, etc., the gas pipes may contain some air, which should be allowed to escape by briefly pressing on the safety valve knob (A) See page 4. This will ensure that the flame lights quickly. Do not press knob A for more than 5 seconds – see Users note.

# BURN-BACK (FIRE IN BURNER TUBE OR CHAMBER) (REFER PAGE 4 – TO START GAS OPERATION)

In the event of a burn-back, where the flame burns back to the jet, immediately turn off the gas supply at the control valve on the gas bottle or gas supply. After ensuring the flame is extinguished, re-open and re-light the appliance in the normal manner. Should the appliance again burn back, close the control valve and call a service technician. Do not use the appliance again until the service technician has declared that it is safe to do so.

#### WARNING

This appliance consumes air (oxygen). Provide ample ventilation especially when sleeping. To avoid endangering your life do not use this freezer in unventilated structures. Provide additional ventilation for any additional fuel burning appliances and additional occupants. Always ensure nothing is covering or blocking the flue (chimney).

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#### **FOR YOUR SAFETY**

# If you smell gas:

- 1. Turn off gas supply at bottle.
- 2. Extinguish all naked flames
- 3. Do not operate any electrical appliances.
- 4. Ventilate the area.
- 5. Do not smoke while checking for leaks.
- 6. Do not check for leaks with an open flame.
- 7 If the odour persists, contact your dealer or gas supplier immediately.

Do not store or use gasoline or other flammable vapour and liquid in the vicinity of this or any other appliance.

# **USER OPERATING INSTRUCTIONS**

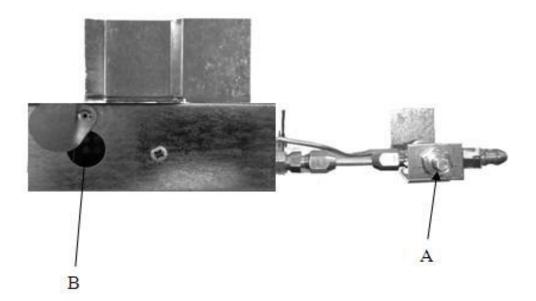
# **TO START ELECTRIC OPERATION**

- 1. Make sure that the gas supply to the appliance is turned off.
- Plug in the electrical plug.

Note: Appliance cannot be run off two heat sources at the same time.

# **TO START GAS OPERATION**

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1. Make sure that the electrical supply to the appliance is turned off.

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- 2. Open the shut-off valve for the gas bottle or gas installation
- 3. Open flap B.
- 4. Keep the flame failure device knob (A) pressed in for approximately 5 seconds to allow gas to flow to the burner.
- 5. Strike a match and insert into flap hole (B). While the flame is burning press and hold the flame failure device for a further 10 seconds. The burner will now burn with a blue flame.
- 6. If the flame goes out, repeat steps 4, 5 and 6 until the flame stays alight.
- 7. The appliance should be left running for a minimum of 12 hours before being loaded with products.
- 8. To terminate the gas operation turn off the shut-off valve on the gas bottle or gas installation.

**USERS NOTE:** The gas safety valve knob (A) should never be depressed for periods longer than 5 seconds with the burner unlit as this can cause a potentially dangerous build-up of unburnt gas. If the burner does not ignite, allow sufficient time for any unburnt gas to disperse, and then repeat the ignition steps.

# **TROUBLESHOOTING**

#### **IF THE APPLIANCE FAILS TO WORK:**

#### Check the following points before calling for service:

- 1. That the instructions for starting the appliance have been followed.
- 2. The appliance is level.
- 3. If it is possible to start the appliance on an alternative energy sources.
- 4. If the appliance fails to work on gas, check:
  - a) That the gas bottle is not empty.
  - b) That the regulator is not faulty.
  - c) If another appliance is connected to the same supply, check if it works properly.
- 5. If the appliance fails to work on 230V (Mains Electricity), check:
  - a) That the 230V supply is connected to the unit.
  - b) That there are no loose connections.
  - c) That the heating element has not burnt out.
  - d) Check if electric supply is on by feeling if hot air comes out of the top of the flue (chimney .This will take about 1 hour after switching on).

#### **IF THE APPLIANCE IS NOT COLD ENOUGH IT MAY BE BECAUSE:**

1. The ventilation of the absorption unit is inadequate. Allow at least 100mm around Back, sides, and 600mm above.

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- 2. The evaporator is frosted up see Defrosting page 7.
- 3 The gas pressure is incorrect check the pressure regulator at the gas cylinder or at the jet (6) of the burner. (Page 9 Gas burner parts list).
- 4 If the jet (6) is blocked, remove the jet, clean with alcohol or other solvent and blow through with compressed air. Never use a piece of wire or a pin to clean the jet. (Page 9 Gas burner parts list).
- 5 Check that you have the correct regulator for the cylinder and gas type that you are using.
- 6 You have run out of gas.
- 7. The ambient temperature is too high.
- 8. Too many products are loaded into the freezer at one time air must be able to circulate freely.
- 9. The lid is not properly closed or the lid seal is defective.
- 10. The baffle has not been inserted into the chimney. (factory fitted)
- 11. The absorption unit is leaking. In the case of a visible leak, there will be traces of a yellow deposit at the point where the ammonia is escaping. If there is a leak on the evaporator inside the cabinet, a smell of ammonia may be noticeable inside the bin. If a leak is detected, under **NO** circumstances should you try to repair it, as the unit is pressurized with hydrogen and may explode if welding is attempted on the unit. Call a qualified service technician. Turn off the gas or electric supply, and then empty the appliance. If it is in a small room or in sleeping quarters and the smell of ammonia persists remove the appliance to a well ventilated area. Do not try to use it.
- 12 There may be a drop in supply voltage, electric function only.
- 13. If the flame is not burning after releasing the fail-safe valve knob according to the instructions, there may be two faults, these being:
  - a) The magnet in the flame failure device (2) is faulty.
  - b) The thermocouple feeler point (12) may not be in the flame properly.

To rectify this, loosen the thermocouple nuts (13) and adjust the thermocouple until the point is over the second row of the small holes in the burner and retighten the nuts on the thermocouple. Repeat the starting instructions and lighting procedure as laid out on page 4. (<u>USER OPERATING INSTRUCTIONS</u> –TO START GAS OPERATION)

14. If the appliance is still not working properly, call a qualified service technician to repair it.

#### **SOME USEFUL HINTS**

#### Make sure that:

- 1. Defrosting is carried out periodically.
- 2. The appliance is clean and dry with the lid open when it is not to be used for some time. If the appliance is fitted with a locking device remove key to prevent accidental locking.
- 3. Liquids or items with strong odours are well packaged.
- 4. The ventilation of the absorption unit is not obstructed.
- 5. You do not touch the absorption unit while it is in operation as parts of it will be extremely hot.
- 6. You check the condition of the gas supply tube regularly:
  - a) End fitting in good condition.
  - b) Overall appearance etc.
- 7. You have switched on the appliance for approximately 12 hours prior to loading it with products. Avoid packing products in too tightly air must be able to circulate freely
- 8. You never put bottles or cans of fizzy drinks in the freezer compartment as they may burst when freezing. Also, do not give children ice-lollies straight from the freezer compartment as they may cause frost burns.
- 9. Hot liquids and food are not introduced directly into the freezer, allow them to cool down first.
- 10. You are aware that the temperature inside the appliance can vary according to the ambient temperature, the location of the freezer, the frequency with which the lid is opened, and the volume and concentration of products stored in it.
- 11. You avoid packing products in too tightly air must be able to circulate freely.
- 12. For the safety of children keep the key out of children's reach at all times.
- 13. It is recommended that a suitably qualified person carry out a yearly service check.

#### **CLEANING YOUR FREEZER**

- Clean the bin of the appliance using ½ a litre of warm water and a tablespoon
   of bicarbonate of soda.
- Soak a soft cloth in the solution, wring it out, and use it to clean out the interior of the freezer compartment and its fittings.
- Do not use wax polish, scouring powder, strong scented products or household cleaners and detergent to clean the interior of the appliance as they may damage the surface and leave a strong odour.
- A The exterior of the appliance should be wiped clean periodically using a damp cloth and a small quantity of household detergent. The lid seal should only be cleaned with soap and water and then thoroughly dried. The absorption unit behind to the appliance should be cleaned with a brush from time to time, but make sure that the appliance is switched off and has cooled down when doing this.

#### **DEFROSTING**

#### **WARNING:**

- Mormally the temperature of items would rise during defrosting and so, they should be consumed within 24 hours or discarded.
- Do not try to accelerate defrosting by using any kind of heating appliance, as this might damage the internal surfaces of the freezer.
- Mo sharp object be used to scrape off the ice as this may damage the internal surfaces of the freezer.
- Frost will gradually accumulate on the freezer surface. It must not be allowed to grow thick as it acts as an insulator and adversely affects freezer performance.
- Check the formation of frost regularly and when it gets around 5mm thick, defrost the appliance.
- ⚠ To defrost the appliance, turn it off and remove all food items.
- Once defrosting is complete, clean the interior thoroughly.

#### **IMPORTANT:**

Before using the freezer again, ensure that no foreign bodies are present in the flue chimney, or the burner (dust, insect, nests, waste paper etc.)

#### WARNING:

The needle valve screw used for admitting the ammonia / hydrogen filling charge to an absorption unit is fitted to the unit's reservoir. It is a strictly applied provision of the guarantee extended on the unit to the customer, that any interference with the filling valve screw will automatically void the guarantee. The absorption unit must not be opened, since it contains corroding chemicals under high pressure.

#### **SERVICE NOTES**

#### **ROUTINE MAINTENANCE**

It is recommended that a suitably qualified person service this appliance at least once a year.

- Inspect the gas hose for cracks and chafing marks. Test all connections with a suitable solution, **do not use an open flame**.
- Check there is no smell of ammonia or any signs of green/yellow crystal-like deposits on the cooling unit tubes. Smell or deposits indicate a leaking unit – see User instructions.
- Check the functioning of the flame failure control adjust if necessary.
- Check the functioning of the ignition device if fitted adjust if necessary.
- Check the control knobs turn freely.
- Examine the burner flame ensure burning with a sharp blue flame and no yellow tipping or sooting.
- Check the door/lid seals are in good condition.

#### IN THE EVENT OF FAILURE

### If the burner will not light:

- Check adequate gas supply through to burner.
- Depress flame failure device for 15sec and try lighting with a match.

  This must be done in a well ventilated area!

#### **QUALIFIED TECHNICIAN**

- Check jet is clean if not, clean with solvent and blow dry. Do not try to clean with pin or similar.
- If the burner will not stay alight, check position of the flame thermocouple head, and the functioning of the safety valve.

#### If not cold enough:

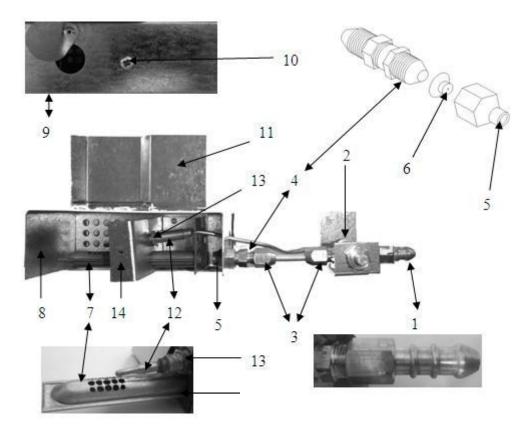
- Check through points listed under Troubleshooting.
- In the unlikely event of cooling unit failure, contact the national distributor without delay.

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# **IMPORTANT NOTE**

If there is a smell of ammonia, it is advised that the user turn off the appliance, clear out all the food and remove the appliance from dwelling areas.

# **GAS BURNER PARTS LIST**



- 1. SANS BRASS HOSE TAIL.
- 2. FLAME FAILURE DEVICE.
- 3. M10 NUTS.
- 4. M10 x 3/8 UNF JET HOLDER.
- 5. M10 x 1 JET NUT.
- 6. JET.
- 7. MIXING TUBE.
- 8. BURNER BOX.
- 9. BURNER COVER.
- 10. RETAINER SCREW.
- 11. HEAT SHIELD.
- 12. THERMOCOUPLE.
- 13. THERMOCOUPLE NUTS.
- 14. MIXING TUBE BRACKET.



# **WARNING:** ENSURE THAT THE GAS SUPPLY HOSE IS NOT IN CONTACT WITH OR NEAR THE BURNER BOX.

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Author: Rudi

Version: 2.2

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Revision Date: August 2020

# **Guarantee Registration**

For Guarantee registration please visit: <a href="https://zeroappliances.co.za/guarantee-form/">https://zeroappliances.co.za/guarantee-form/</a> Complete the online form and click submit.



Or scan the above QR code with your smart device which will take you to the form. Complete the online form and click submit.

# WARNING: THIS APPLIANCE MUST BE EARTHED. ENSURE THAT THE GAS SUPPLY HOSE IS NOT IN CONTACT WITH OR NEAR THE BURNER BOX.

Made in South Africa



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