

11/2010

# **Mod: E17/F74T-N**

**Production code: 373075**

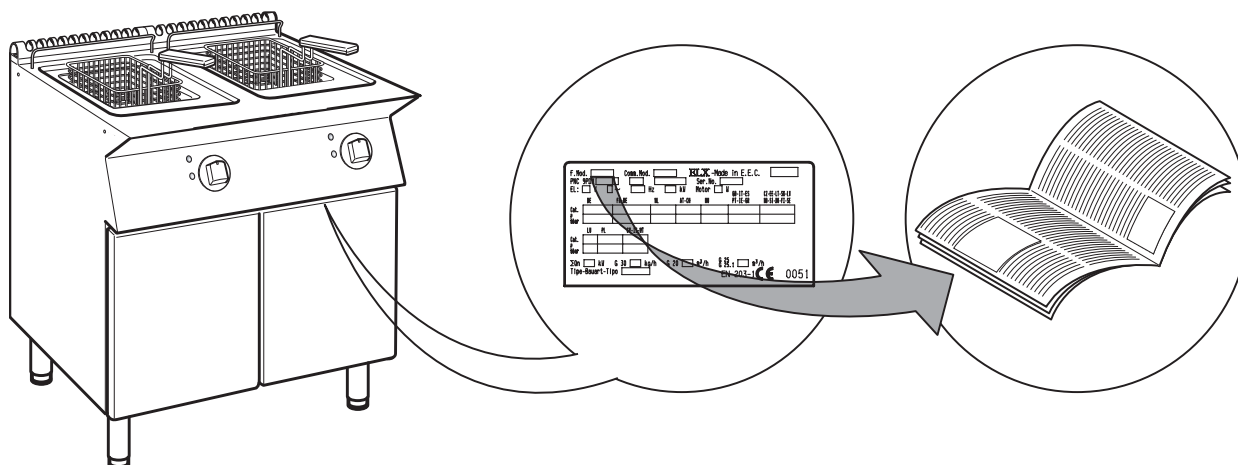


**Diamond**  
catering equipment

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## II. DATAPLATE and TECHNICAL DATA



### IMPORTANT

This manual contains information relevant to various appliances. See the appliance dataplate located under the control panel in order to identify the appliance (see fig. above).

TABLE A - Gas/electric appliance technical data

| MODELS               |                 | +7FRGD1B00<br>400 mm | +7FRGH2B00<br>800 mm | +7FRGD1BF0<br>400 mm | +7FRGH2BF0<br>800 mm | +7FRGD1GF0<br>400 mm | +7FRGH2GF0<br>800 mm | +7FRGD1LFE<br>800mm |  |  |  |
|----------------------|-----------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|--|--|--|
| TECHNICAL DATA       |                 |                      |                      |                      |                      |                      |                      |                     |  |  |  |
| Tank capacity        | L               | 7                    | 7+7                  | 7                    | 7+7                  | 15                   | 15+15                | 34                  |  |  |  |
| Tank max. food load  | POTATOES FRESH  | 1                    | 1+1                  | 1                    | 1+1                  | 2                    | 2+2                  | 4                   |  |  |  |
|                      | POTATOES FROZEN | 1                    | 1+1                  | 1                    | 1+1                  | 1,5                  | 1,5+1,5              | 3,4                 |  |  |  |
| ISO 7/1 connection   | Ø               | 1/2"                 | 1/2"                 | 1/2"                 | 1/2"                 | 1/2"                 | 1/2"                 | 1/2"                |  |  |  |
| Nominal heat output  | kW              | 7                    | 14                   | 7                    | 14                   | 14                   | 28                   | 27,5                |  |  |  |
| Type of construction |                 | A1                   | A1                   | A1                   | A1                   | A1                   | A1                   | A1                  |  |  |  |

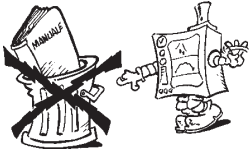
| MODELS               |                 | +7FRED1200<br>400 mm | +7FRB2200<br>800 mm | +7FRED12F0<br>400 mm | +7FRB22F0<br>800 mm | +7FRED2A0N<br>400 mm | +7FRED120N<br>400 mm | +7FRB22FN<br>800 mm | +7FRED1EDN<br>400 mm | +7FRB220N<br>800 mm | +7FRB22FN<br>800 mm |
|----------------------|-----------------|----------------------|---------------------|----------------------|---------------------|----------------------|----------------------|---------------------|----------------------|---------------------|---------------------|
| TECHNICAL DATA       |                 |                      |                     |                      |                     |                      |                      |                     |                      |                     |                     |
| Tank capacity        | L               | 7                    | 7+7                 | 7                    | 7+7                 | 5+5                  | 7                    | 7+7                 | 12                   | 12+12               | 14+14               |
| Tank max. food load  | Kg              | 1,5                  | 1,5+1,5             | 1,5                  | 1,5+1,5             | 0,9+0,9              | 1,5                  | 1,5+1,5             | 2+2                  | 2                   | 2+2                 |
| Phases               | No.             | 3N                   | 3N                  | 3N                   | 3N                  | 3N                   | 3N                   | 3N                  | 3N                   | 3N                  | 3N                  |
| Frequency            | Hz              | 50/60                | 50/60               | 50/60                | 50/60               | 50/60                | 50/60                | 50/60               | 50/60                | 50/60               | 50/60               |
| Power supply voltage | V               | 380-400              | 380-400             | 380-400              | 380-400             | 230                  | 230                  | 230                 | 230                  | 230                 | 230                 |
| Max. power           | kW              | 4,9-5,4              | 9,8-10,8            | 4,9-5,4              | 9,8-10,8            | 8-9                  | 4,9-5,4              | 9,8-10,8            | 7,9-8,7              | 15,7-17,4           | 15,7-17,4           |
| Power cable section  | mm <sup>2</sup> | 1,5                  | 2,5                 | 1,5                  | 2,5                 | 2,5                  | 1,5                  | 2,5                 | 2,5                  | 2,5                 | 2,5                 |

| MODELS               |                 | +7FRED1GF0<br>400 mm | +7FRB2GF0<br>800 mm | +7FRED2A00<br>400 mm | +7FRED1E00<br>400 mm | +7FRB2200<br>800 mm | +7FRED1FF0<br>400 mm | +7FRB2FF0<br>800 mm | +7FRED1GFP<br>400 mm | +7FRMD1FF5<br>400 mm | +7FRMD1FF6<br>800 mm | +7FRMH2FF5<br>400 mm |
|----------------------|-----------------|----------------------|---------------------|----------------------|----------------------|---------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| TECHNICAL DATA       |                 |                      |                     |                      |                      |                     |                      |                     |                      |                      |                      |                      |
| Tank capacity        | L               | 15                   | 15+15               | 5+5                  | 12                   | 12+12               | 14                   | 14+14               | 15                   | 14                   | 14+14                | 14                   |
| Tank max. food load  | Kg              | 2                    | 2+2                 | 0,9+0,9              | 2+2                  | 2                   | 2+2                  | 2+2                 | 2                    | 2+2                  | 2+2                  | 2+2                  |
| Phases               | No.             | 3N                   | 3N                  | 3N                   | 3N                   | 3N                  | 3N                   | 3N                  | 3N                   | 3N                   | 3N                   | 3N                   |
| Frequency            | Hz              | 50/60                | 50/60               | 50/60                | 50/60                | 50/60               | 50/60                | 50/60               | 50/60                | 50/60                | 50/60                | 50/60                |
| Power supply voltage | V               | 380-400              | 380-400             | 380-400              | 380-400              | 380-400             | 380-400              | 380-400             | 380-400              | 400                  | 440                  | 400                  |
| Max. power           | kW              | 9-10                 | 18-20               | 8-9                  | 7,9-8,7              | 15,7-17,4           | 7,9-8,7              | 15,7-17,4           | 9-10                 | 7,9-8,7              | 15,7-17,4            | 7,9-8,7              |
| Power cable section  | mm <sup>2</sup> | 2,5                  | 4                   | 2,5                  | 2,5                  | 2,5                 | 1,5                  | 2,5                 | 2,5                  | 1,5                  | 2,5                  | 1,5                  |

### III. GENERAL INSTRUCTIONS



- Carefully read the instruction handbook before using the appliance.



- After installation keep the instruction handbook for future consultation.



- **FIRE HAZARD** - Keep the area around the appliance clear and free from combustible materials. Do not keep flammable materials in the vicinity of the appliance.



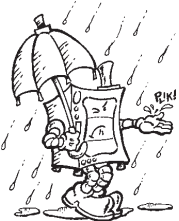
- Install the appliance in a well-ventilated place to avoid the creation of dangerous mixtures of unburnt gases in the room.
- Air recirculation must take in account the air necessary for combustion, 2 m<sup>3</sup>/h/kW gas power, and also the “well-being” of those working in the kitchen.

Inadequate ventilation causes asphyxia. Do not obstruct the ventilation system of the place where the appliance is installed. Do not obstruct the vents or ducts of this or other appliances.




- Place emergency telephone numbers in a visible position.

- Installation, maintenance and conversion to another type of gas must only be carried out by qualified personnel authorised by the manufacturer. For assistance, contact an authorised technical centre. Demand original spare parts.
- This equipment is designed for cooking food. It is intended for industrial use. Any other use is to be considered **improper**.
- This appliance is not intended for use by people (including children) with limited physical, sensory or mental abilities or without experience and knowledge of it, unless they are supervised or instructed in its use by a person responsible for their safety.
- The appliance must be used by **trained personnel**. Do not leave the appliance unattended when operating.
  - Turn the appliance off in case of fault or poor operation.



- Do not use products (even if diluted) containing chlorine (sodium hypochlorite, hydrochloric or muriatic acid, etc.) to clean the appliance or the floor under it. Do not use metal tools to clean steel parts (wire brushes or Scotch Brite type scouring pads).
- Do not allow oil or grease to come into contact with plastic parts.
- Do not allow dirt, fat, food or other residuals to form deposits on the appliance.

- Do not clean the appliance with direct jets of water.

- The symbol  given on the product indicates that it should **not** be considered domestic waste, but must be correctly disposed of in order to prevent any negative consequences for the environment and the health of persons. For further information regarding the recycling of this product, contact the product agent or local dealer, the after-sales service or the local body responsible for waste disposal.

#### • **Warnings:**

- Do not store or use gasoline or other flammable vapours, liquids or items in the vicinity of this or any other appliance.
- Do not spray aerosols in the vicinity of this appliance while it is in operation.
- Never check for leaks with an open flame
- The appliance is not suitable for a marine environment.

**Failure to observe the above can compromise the safety of the appliance. Failure to observe the above invalidates the warranty.**

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## IV. THE ENVIRONMENT

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### 1. PACKING



Packing materials are environment friendly and can be stored without risk, or burned in a special waste incineration plant.

Recyclable plastic components are marked with:



**Polyethylene:** outer wrapping, instruction booklet bag, gas nozzle bag.



**Polypropylene:** roof packing panels, straps.



**Polystyrene foam:** corner protectors.

### 2. USE

Our appliances offer high performance and efficiency. To reduce consumption of electricity, water or gas, do not use the appliance empty or in conditions that compromise optimal efficiency (e.g. with doors or lids open, etc.); the appliance is used in a well-ventilated place to avoid the creation of dangerous mixtures of unburnt gases in the room. Whenever possible, pre-heat only before use.

### 3. CLEANING

In order to reduce the emission of pollutants into the environment, clean the appliance (externally and when necessary internally) with products that are more than 90% biodegradable (for further information, see chap. V "CLEANING").

### 4. DISPOSAL



Do not disperse in the environment. Our appliances are manufactured using more than 90% (in weight) recyclable metals (stainless steel, iron, aluminium, galvanised sheet, copper, etc.).

Make the appliance unusable by removing the power cable and any compartment or cavity closing mechanisms (when present) in order to avoid the risk of someone becoming closed inside.

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## V. INSTALLATION

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- Carefully read the installation and maintenance procedures given in this instruction manual before installing the appliance.



- Installation, maintenance and conversion to another type of gas must only be carried out by qualified personnel authorised by the manufacturer.
- Failure to observe the correct appliance installation, conversion and modification procedures can cause damage to the appliance, danger to persons and invalidates the Manufacturer's warranty.

### 1. REFERENCE STANDARDS

- Install the appliance in accordance with the safety regulations and local laws of the country where used.
- AUSTRALIA:** this appliance shall be installed only by authorised persons and in accordance with the manufacturer's installation instructions, local gas fitting regulations, municipal building codes, electrical wiring regulations, local water supply regulations, AS5601-gas installation, health authorities and any other statutory regulations.

### 2. UNPACKING

#### IMPORTANT!

#### Immediately check for any damage caused during transport.

- The forwarder is responsible for the goods during transport and delivery.
- Inspect the packing before and after unloading.
- Make a complaint to the forwarder in case of visible or hidden damage, reporting any damage or shortages on the dispatch note on delivery.
- The driver must sign the dispatch note: The forwarder can reject the claim if the dispatch note is not signed (the forwarder can provide the necessary form).
- Unpack, taking care not to damage the equipment. Wear protective gloves.
- Carefully remove the protective film from metal surfaces and clean any traces of glue with a suitable solvent.
- For hidden damage or shortages becoming apparent only after unpacking, request the forwarder for inspection of the goods within and not later than 15 days of delivery.
- Keep all the documentation contained in the packing.



### 3. POSITIONING

- Handle the equipment with care in order to avoid damage or danger to persons. Use a pallet for handling and positioning.
- The installation diagram given in this instruction manual gives the appliance dimensions and the position of connections (gas, electricity, water). Check that they are available and ready for making all the necessary connections.
- The appliance can be installed separately or combined with other appliances of the same range.
- The appliances are not designed for built-in installation. Leave at least 10 cm between the appliance and side or rear walls.
- Suitably insulate surfaces that are at distances less than those recommended.
- Maintain an adequate distance between the appliance and any combustible walls. Do not store or use flammable materials and liquids near the appliance.
- Leave an adequate space between the appliance and any side walls in order to enable subsequent servicing or maintenance operations.
- Check and if necessary level the appliance after positioning. Incorrect levelling can cause appliance malfunctioning.

### 3.1. COMBINING APPLIANCES

- (Fig.1A) Remove the control panels of the appliances by undoing the 4 fixing screws.
- (Fig.1B) Remove the fixing screw nearest the control panel, from each side to be joined.
- (Fig.1D) Bring the appliances together and level them by turning the feet until the tops match.
- (Fig.1C) Turn one of the two plates inside the appliances 180°.
- (Fig.1E) From inside the control panel of the same appliance, join them at the front side, screwing one TE M5x40 screw (supplied) on the opposite insert.

### 3.2. FLOOR FIXING

To avoid accidental tipping of built-in half-module appliances installed separately, fix them to the floor carefully following the instructions enclosed with the corresponding accessory (F206136).

### 3.3. INSTALLATION ON BRIDGE, CANTILEVER FRAME OR CEMENT PLINTH

Carefully follow the instructions enclosed with the corresponding accessory. Follow the instructions supplied with the optional product chosen.

### 3.4. SEALING GAPS BETWEEN APPLIANCES

Follow the instructions supplied with the optional sealing paste pack.

## 4. FUME EXHAUST

For **Australia**, ventilation must be in accordance with Australian building codes and kitchen exhaust hoods must comply with AS/NZS1668.1 and AS 1668.2

### 4.1. TYPE “A1” APPLIANCES

Position type “A1” appliances under an extraction hood to ensure removal of fumes and steam produced by cooking.

### 4.2. TYPE “B” APPLIANCES

(in conformity with the definition given in the Installation Technical Regulations DIN-DVGW G634: 1998)

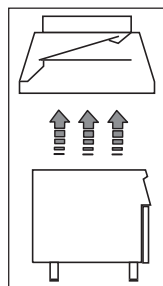
Whenever the appliance dataplate specifies only type Axx, such appliances are not designed for being directly connected to a flue or fume exhaust pipe run to the outside. However, the same appliance can be installed under an extractor hood or similar forced extraction system for fumes.

#### 4.2.1. CONNECTION FLUE

- Remove the grille from the fume exhaust.
- Install the connection flue, following the instructions supplied with the accessory (optional).

#### 4.2.2. INSTALLATION UNDER AN EXTRACTOR HOOD

- Place the appliance under the extractor hood (fig. opposite).
- Raise the fume exhaust pipe without altering the section.
- Do not install dampers.
- The correct height of the exhaust pipe and the relative distance from the extraction hood must comply with current standards.
- The end of the exhaust pipe must be at least 1.8m from the support surface of the appliance.



**Note!** The system must ensure that: a) the fume exhaust is not obstructed; b) the length of the exhaust pipe does not exceed 3 m. Use the adapter for connecting fume ducts of different diameters.

- **SUB CLAUSES 4.1/4.2 are not relevant for Australian standard**

## 5. CONNECTIONS



- Any installation work or maintenance to the supply system (gas, electricity, water) must only be carried out by the utility company or an authorised installation technician.

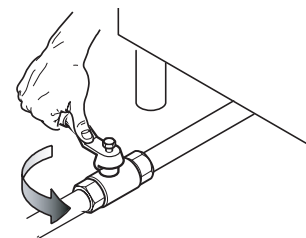
- See the appliance dataplate for the product code.
- See the installation diagram for the type and position of appliance connections.

### 5.1. GAS APPLIANCES

**IMPORTANT!** Ensure that the available gas supply matches the data label; to convert the gas type, follow the instructions in par. 5.1.8. in this chapter.

#### 5.1.1. BEFORE CONNECTING

- Make sure the appliance is arranged for the type of gas to be used. Otherwise, carefully follow the instructions given in the chapter: “Gas appliance conversion / adjustment”.
- Fit a rapid gas shut-off cock/valve ahead of each appliance. Install the cock/valve in an easily accessed place.



- Clean the pipes to remove any dust, dirt or foreign matter which could block the supply.
- The gas supply line must ensure the gas flow necessary for full operation of all the appliances connected to the system. A supply line with insufficient flow will affect correct operation of the appliances connected to it.
- **Important!** Incorrect levelling of the appliance can affect combustion and cause malfunctioning.

#### 5.1.2. CONNECTION

- See the installation diagram for the position of the gas connection on the bottom of the appliance.
- Remove the plastic protection cover (if present) from the appliance gas union before connecting.
- After installation, use soapy water to check connections for leaks.
- The Gas Connection is male ½” BSP

#### 5.1.3. SUPPLY PRESSURE CHECK

Make sure the appliance is suitable for the type of gas available, according to that given on the dataplate (otherwise, follow the instructions given in par. “Conversion to another type of gas”). The supply pressure must be measured with the appliance operating, using a manometer (min. 0.1 mbar).

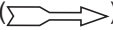
- Remove the control panel.
- Remove retaining screw “A” from the pressure point and connect the manometer “O” (fig. 2A-2B).
- Compare the value read on the manometer with that given in table B (see handbook Appendix)
- If the manometer gives a pressure outside the range of values in table B, do not start the appliance, and consult the gas company.

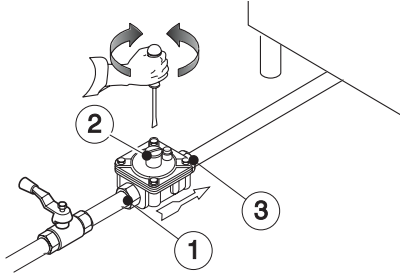
### 5.1.4 GAS PRESSURE REGULATOR

If the gas pressure is higher than that specified or is difficult to regulate (not stable), install a gas pressure regulator (accessory code 927225) in an easily accessed position ahead of the appliance.

The pressure regulator should preferably be fitted horizontally, to ensure the right outlet pressure:

- “1” connection side gas from mains.
- “2” pressure regulator;
- “3” connection side gas towards the appliance;

The arrow on the regulator () shows the gas flow direction.



**NOTE!** These models are designed and certified for use with natural or propane gas. For natural gas, the pressure regulator on the header is set to 8" w.c. (20mbar).

**AUSTRALIA:** the gas pressure regulator supplied with the appliance must be fitted to the appliance inlet. Adjust the test point pressure with one burner operating at maximum setting as follow:

- 0.74 KPa for Natural gas
- 1.50 KPa for Propane gas

### 5.1.5 GAS VALVE OUTLET PRESSURE ADJUSTMENT

- Remove the retaining screw from pressure point “B” and connect the manometer tube.
- Feed the appliance with the correct nominal gas pressure as specified in the corresponding paragraph 5.1.3.
- Start the fryer as indicated in the chapter “User Instructions”.
- Turn gas valve “D” outlet pressure adjustment screw clockwise to increase the pressure and anticlockwise to decrease it, adjusting the pressure as specified in the nozzle table (table B).

### 5.1.6. CHECKING THE PRIMARY AIR SUPPLY

When the primary air supply is correctly adjusted, the flame does not “float” with burner cold and there is no flareback with burner hot.

- Undo screw “A” and position aerator “E” at distance “H” given on the Table B, retighten screw “A” and seal with paint (fig. 3A).

### 5.1.7. CHECKING THE PRIMARY AIR (tube version - fig. 3C)

To adjust, proceed as follows:

- Loosen fixing screw “C” and adjust bushing “D” at distance “H” indicated in table “B” (fig. 3C).
- Tighten down fixing screw “C”.

### 5.1.8. CONVERSION TO ANOTHER TYPE OF GAS

Table B “technical data/gas nozzles” gives the type of nozzles to be used when replacing those installed by the manufacturer (the number is stamped on the nozzle body). At the end of the procedure, carry out the following check-list:

| Check  | Ok |
|--|----|
| • burner nozzle/s replacement  |    |
| • correct adjustment of primary air supply to burner/s                     |    |
| • pilot nozzle/s replacement   |    |
| • minimum flame screw/s replacement  |    |
| • correct adjustment pilot/s if necessary                                  |    |
| • correct adjustment of supply pressure (see technical data/nozzles table) |    |
| • apply sticker (supplied) with data of new gas type used                  |    |

### 5.1.8.1 REPLACING THE MAIN BURNER INJECTOR (fig.3A)

- Loosen screw “A” and unscrew nozzle “C”.
- Remove the nozzle and aerator (Fig.3A).
- Replace nozzle “C” with one suitable for the type of gas, according to that given in table B.
- The nozzle diameter is given in hundredths of mm on the nozzle body.
- Insert nozzle “C” in aerator “E”, then fit the two assembled components in their position and screw the nozzle down.

### 5.1.8.2. REPLACEMENT OF THE MAIN BURNER INJECTOR (Tube version - fig. 3C)

- Unscrew nozzle “A” and replace it with one suitable for the required type of gas, according to that given in table “B”, fig. 3C.
- Injector diameter is shown in hundredths of a millimeter on the body.
- Tighten injector “A” fully down.

### 5.1.8.3. REPLACING THE PILOT BURNER NOZZLE (for all versions - fig. 3B)

- Undo screw coupling “H” and replace nozzle “G” with one suitable for the type of gas.
- The nozzle identification number is given on nozzle body.
- Refit coupling “H” and respective sealing washer.

## 5.2. ELECTRIC APPLIANCES

### 5.2.1. ELECTRICAL CONNECTION (Fig. 4A -Table A).

**IMPORTANT!** Before connecting, make sure the mains voltage and frequency match that given on the dataplate.

- To access the terminal board, remove the appliance control panel by removing the fixing screws (fig. 4A 1-2).
- Connect the power cable to the terminal board as shown in the wiring diagram attached to the appliance.
- Secure the power cable with the cable gland.

**IMPORTANT!** The manufacturer declines any liability if the safety regulations are not respected.

### 5.2.2. POWER CABLE

Unless otherwise specified, our appliances are not equipped with a power cable. The installer must use a flexible cable having characteristics at least equivalent to H05RN-F rubber-insulated type cables. Protect the cable section outside the appliance with a metal or rigid plastic pipe.

### 5.2.3. CIRCUIT BREAKER

Install a circuit breaker ahead of the appliance. Contact opening distance and maximum leakage current must comply with current regulations.

## 5.3. EQUIPOTENTIAL NODE AND EARTH CONNECTION

Connect the appliance to an earth; it must be included in an equipotential node by means of the screw located at the front right under the frame. The screw is marked with the symbol



Appliance max. leakage current is 1 mA/kW.

## 6. SAFETY THERMOSTAT

Some of our appliance models use a safety thermostat that cuts in automatically when temperatures exceed a set value, shutting off the gas supply (gas appliances) or the electricity (electric appliances).

### 6.1. RESET

- Wait until the appliance has cooled down: a suitable temperature for resetting is approx. 90°C.
- Press the red button on the safety thermostat body.

**IMPORTANT!** If resetting requires the removal of a protective part (e.g. control panel) this must be done by a specialised technician. Tampering with the safety thermostat invalidates the warranty.

## 7. FUSE REPLACEMENT

The electrical system protection fuse is located inside the panel. To replace the fuse, unscrew the fuse holder cap and remove it.

## 8. BEFORE LEAVING

Check all connection for gas leaks with soap and water. Do not use a naked flame for detecting leaks. Ignite all burners both individually and combined to ensure correct operation of gas valves, burners and ignition. Turn gas taps to low flame for each burner, individually and separately, when satisfied with the appliance, please, instruct the user on the correct method of operation. In case the appliance fails to operate correctly after all checks have been carried out, refer to the authorised service provider in your area.

# VI. INSTRUCTIONS FOR THE USER

## 1. FRYER USE

### General precautions

- Before use, carefully clean any industrial greases from the tank and baskets, proceeding as follows:
  - fill the tank with water and normal detergent and bring to boil for a few minutes.
  - drain through the special cock after lifting the relative safety protection, and carefully rinse the tank with clean water.
- The appliance is intended for industrial use by trained personnel.
- Do not use the appliance empty or in conditions that compromise its optimum efficiency. Also, if possible, pre-heat the appliance immediately before use.
- This appliance must only be used for its expressly designed purpose; i.e. for frying foods in oil or solid fat. Any other use is to be considered improper.
- Before introducing oil in the tank, make sure it does not contain water.
- Pour the oil in the tank up to the max. level indicated by the special reference notch obtained on the rear wall of the tank.
- When using solid fat, melt it separately then pour it in the tank. Do not leave fat in the tank at the end of cooking.
- Restore the oil bath whenever it falls below the min. level, marked by the special reference notch. **(danger of fire)**;
- Particularly voluminous and non-drained foods can cause splattering of hot oil.
- Place the basket with food to be cooked, slowly in the boiling oil, making sure that the froth formed does not spill over the edge of the tank. If this occurs, stop dipping the basket for a few seconds.

### Important

- During operation, watch over the equipment and make sure not to touch the surfaces near the tank as they are very hot.
- The frying oil must be changed regularly, because when used several times it becomes dirty and has a lower flashpoint and an increased tendency to suddenly boil.

### FRYER TEMPERATURE SETTING

| TYPE OF FRIED FOOD:  | SET THE TEMPERATURE TO: |
|--|-------------------------|
| Foods that do not disperse pollutant substances in the oil | 180/185°C               |
| Foods dipped in bread crumbs                               | 175/180°C               |
| Foods dipped in flour                                      | 170°C                   |

**NB!** For cooking food dipped in flour, set the temperature to 170°C. A temperature higher will not give better cooking results, but will cause faster deterioration of the oil (the residual flour in the oil tends to burn).

**INSTRUCTIONS** During cooking, manually remove any cooking residuals in the oil. The prolonged presence of these residuals alters the taste and odour of the oil, reducing its useful life.

For a quick and good measurement of the degree of oil deterioration, use litmus paper (strips) available on the market.

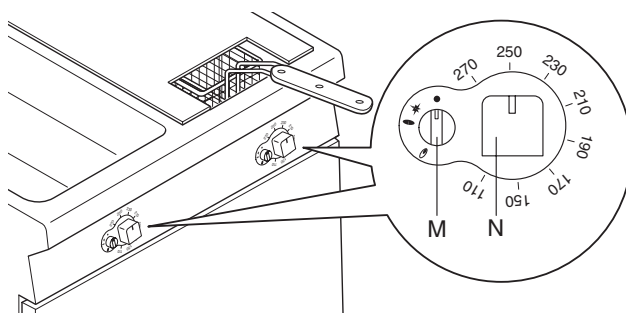
### 1.1. GAS MODELS

#### Switching on (15L & 30L)

The thermostatic valve control knobs have the following positions:

#### Knob M:

- “Off” position
- ★ “Pilot ignition” position
- 🔥 “Pilot on” position
- “On” position



- Turn knob “M” anticlockwise from position ● to position ★.
- Press down knob “M” and turn it to position 🔥 to light the pilot. If the pilot does not light, repeat the operation until it does. Then, hold knob “M” down for about 20 seconds, release it and check that the pilot flame remains lit; otherwise, repeat the entire operation. In case of emergency the pilot can also be lit manually by opening the door and bringing a flame to it, keeping knob “A” pressed in the “pilot ignition” position for the time necessary.
- **Important! If the pilot burner accidentally goes out, the valve has a safety device that prevents immediate re-lighting. Wait 60 seconds for the release of knob “M”.**
- To light the main burner, turn knob “M” anticlockwise from position 🔥 to position ●.

**WARNING: THE KNOB “M” MUST REMAIN IN 🔥 POSITION WHEN OPERATING THE FRYER. DO NOT OPERATE THE FRYER WITH KNOB “M” IN ANY OTHER POSITION.**

- To adjust the temperature turn knob “N” to the desired value.

#### Switching off

- Turn knob “M” clockwise from position 🔥 to position ★.
- Press the knob down and turn it to position ★; then release it and turn it to the position ●.

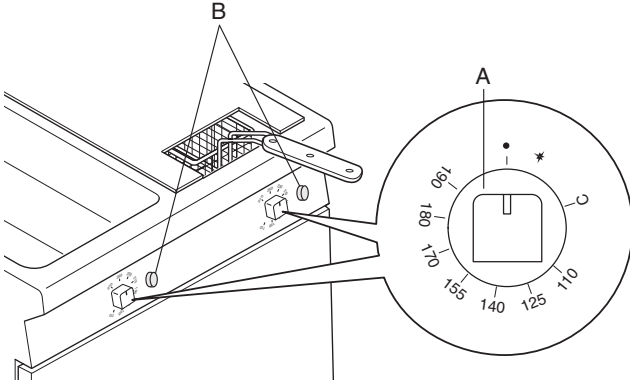
**Note:** if removing knob “N” for cleaning, always turn knob fully clockwise to the lowest setting and replace the knob so that the mark on the knob aligns with the lowest temperature marking. Failure to replace the knob correctly will result in inaccurate fryer temperature.

### Switch-on (7 L)

Control knob "A" has the following positions:

#### Knob A:

- "Off" position
- ★ "Pilot ignition" position
- Temperature values



- Press and turn knob "A" to "pilot on", at the same time press piezoelectric igniter button "B" repeatedly.
- On releasing knob "A", the flame must remain alight, otherwise repeat the operation. In case of emergency, the pilot can also be lit manually by bringing a flame to it through hole "C" and keeping knob "A" pressed in the "pilot ignition" position for the time necessary.
- Turn knob "A" to the required temperature. The burners light up and heating starts.
- When the oil in the tank reaches the set temperature, the main burners go off and light up again when the temperature falls below the same value.
- Place the basket with food to be cooked, slowly in the boiling oil, making sure that the froth formed does not spill over the edge of the tank. If this occurs, stop dipping the basket for a few seconds.

#### Switching off

- To switch off the main burners, turn knob "A" to the "pilot ignition" position.
- To switch off the pilot flame, press and turn knob "A" to "off".

#### At end of service

- Turn knob "A" to "off".
- Close the gas shut-off cock.

### Lighting (40 L Tubes)

Control knob "A" has the following positions:

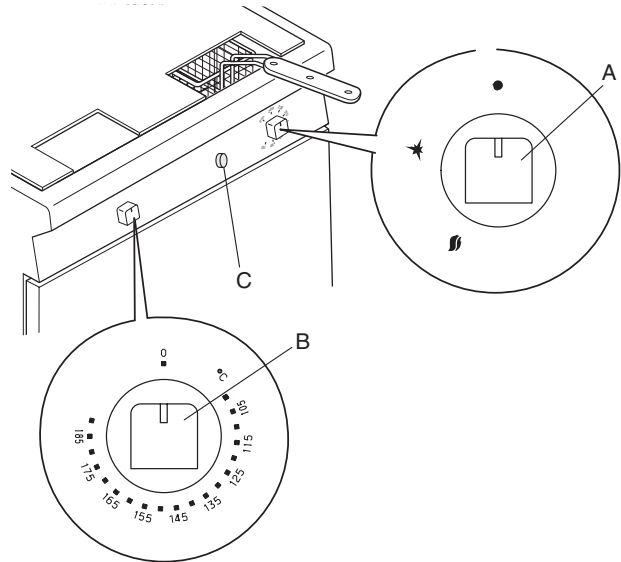
#### Knob A:

Control knob "A" has the following positions:

- OFF
- ★ pilot ignition
- max.

#### Knob B:

Control knob "B" indicates the temperature values



- Press and turn knob "A" to "pilot ignition", hold it down and press the piezoelectric igniter button "C" several times.
- On releasing knob "A", after about 20 seconds, the flame must remain alight, otherwise repeat the operation. In case of emergency the pilot can also be lit manually by opening the door and bringing a flame to it, keeping knob "A" pressed in the "pilot ignition" position for the time necessary.

**Important: When turning the knob to "Off" switching off the pilot burner, wait 60 seconds (knob release) before relighting it.**

- Turn knob "A" to "max".
- Turn knob "B" to the required temperature setting. The burners light up and heating starts.

**Note:** First lighting of the pilot when cold involves a delay of approx. 1 min. in main burner lighting due to inertia of thermopile heating by the pilot.

- When the oil in the tank reaches the preset temperature, the main burners go off and light up again when the temperature falls below the same value.
- Slowly place the basket with food to be cooked in the boiling oil, making sure that the froth formed does not spill over the edge of the tank. If this occurs, stop dipping the basket for a few seconds.

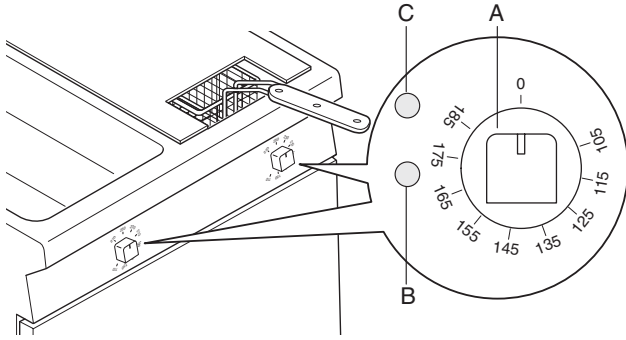
#### Switching off

- To switch off the main burners, turn knob "B" to the "0" position.
- To switch off the pilot flame, press and turn knob "A" to "Off".

#### At end of service

- Turn knob "A" to "Off".

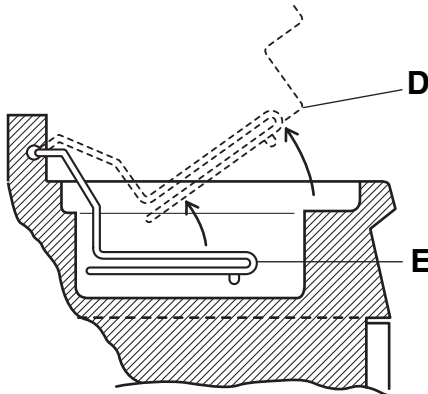
## 1.2. ELECTRIC MODELS



### Switching on

- Pour the oil in the tank up to the max. level indicated by the special reference notch obtained on the rear wall of the tank.
- Turn on the main switch located ahead of the appliance.
- Turn the knob of thermostat "A" to the value corresponding to the required cooking temperature.
- Lighting up of green indicator "B" signals that the power is on. Lighting up of yellow indicator "C" signals that the heating elements are on; it goes off when the set temperature is reached.

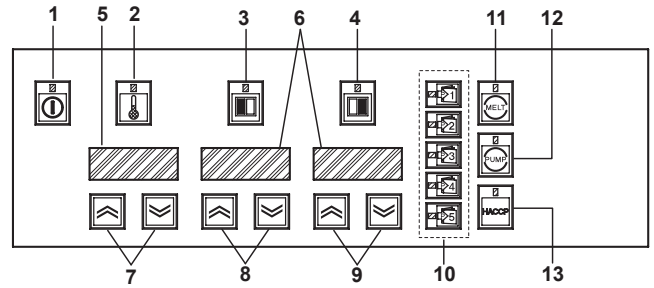
**NB!** When using a fryer with heating elements inside the tank, pay particular attention when handling them, using the special support bracket "D". For greater safety, a microswitch cuts off the power when the heating elements "E" are raised.



### Switching off

- Turn the knob of thermostat "A" anticlockwise to position "0".

## 1.3. ELECTRIC MODEL WITH ELECTRONIC CONTROL



- 1 - ON/OFF key
- 2 - temperature setting key
- 3 - left basket program start key
- 4 - right basket program start key
- 5 - temperature (work and set) display
- 6 - program (left and right) time display
- 7 - temperature setting (up / down)
- 8 - left basket program time setting (up / down)
- 9 - right basket program time setting (up / down)
- 10 - stored (or storable) program keys
- 11 - key for "melting" cycle (Off / On: the melting cycle begins at switch-on if the temperature recorded by the work thermostat is below 70°C)

**Switching on:** press button "1".

**Switching off:** press button "1".

## 1.4. TEMPERATURE SETTING

- Display "5" shows the set temperature for cooking. To display the actual temperature of the oil in the tank for a few seconds, briefly press key "2".
- Press keys "7" to increase/decrease the set value. The display has a sensitivity of  $\pm 1^\circ\text{C}$  (keeping key "7" pressed, the temperature setting changes faster). After setting, display "5" flashes for 3 seconds, then the temperature indicated will be stored.
- If the LED of key "2" is:
  - RED: the temperature of the oil has still not reached the set temperature.
  - GREEN: the oil has reached the set temperature. Cooking can begin.

## 1.5. COOKING TIME SETTING

- Display "6" shows the set cooking time.
- Press keys No.8/9 to increase/decrease the set value: the display has a sensitivity of  $\pm 5\text{s}$  and allows a min. time of 00:30s. (keeping keys "8-9" pressed, the set time changes faster).
- After setting, display "6" flashes for a few seconds, then the value indicated will be stored.
- Press keys "3"/"4" to start lowering the left/right lifter. Display "6" corresponding to "6" will start the set time count-down. On reaching the value 00:00, the cycle ends with the lifter coming out of the oil bath and the display gives the value initially set.

## 1.6. PROGRAMMING

5 different cooking programs (keys "10") can be stored: the desired cooking temperature and, depending on the version, 1 or 2 cooking times can be stored in each program (in the "full optional" versions there are the times of the two baskets R.H./L.H.).

To store a program, enter the desired values and press one of the keys p1...p5 until an acoustic signal indicates storage. Carry out the same procedure to store other cooking programs.

**NOTE:** At the time of installation no programs are stored and each subsequent storage cancels the pre-existing program.

### 1.6.1. PROGRAMMING BLOCK

The keypad can be blocked, enabling use of only the previously stored programs.

To enable/disable this option:

- After switching on the appliance, press the key "7". FAST (Fast Food) will appear on the display;
- Press key "2": if Y (Yes) appears on the display keys "7", "8" and "9" are blocked; if n (no) appears keys "7", "8" and "9" are activated;
- Press keys "7" to change the parameter (Y/n). Press key "2" to store;
- To quit the Fast Food menu, press keys "3" and "4" together.

### 1.6.2 USING A SET PROGRAM

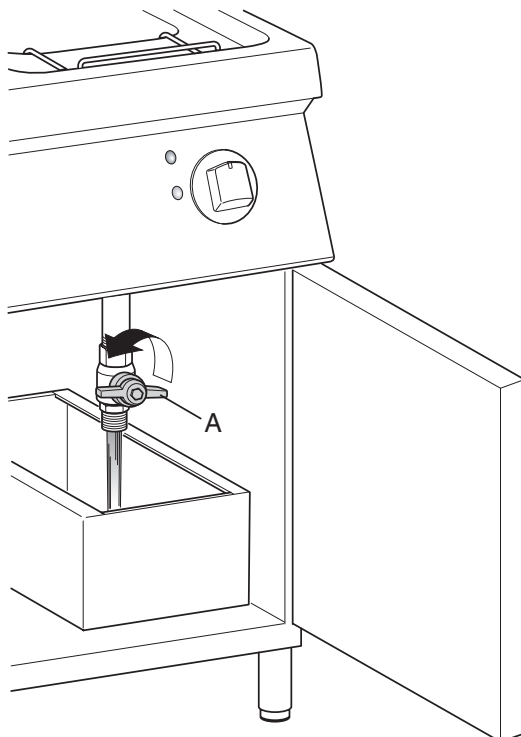
- Press one of the keys "10" for the program, displays "5" and "6" show the stored settings;
- Press key "3" or "4" to start cooking.

## 1.7. DRAINING OIL

- Emptying the tanks should be done at cold oil
- Switch the fryer off;
- pay **maximum attention to avoid coming into contact with the hot oil;**

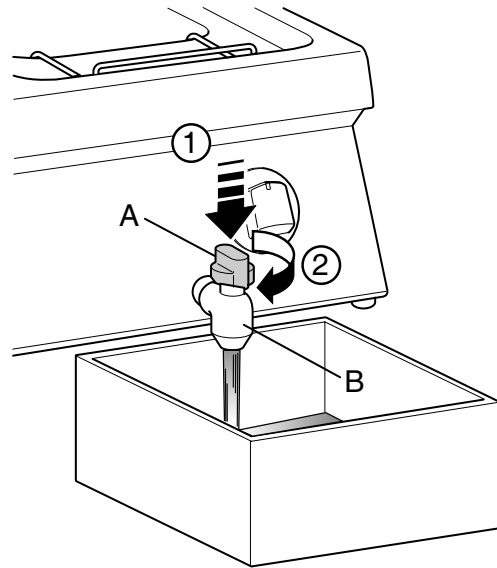
(for 7, 14 and 40 L Built-in versions)

- open the drain cock, **slowly** turning the knob (A) (fig.1) anticlockwise;



(for the 7 and 14 L Counter Top versions)

- position a bowl for collecting the oil at the drain valve (B) (fig.2); above the valve there is a small knob (A) which must be pressed (1) and slowly turned (2) clockwise to discharge the oil.



(for all versions)

- close the drain cock by turning the knob.

For better appliance performance, regularly change the oil. Overusing an oil reduces its flashpoint and increases its tendency to boil suddenly.

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## VII. CLEANING

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### **IMPORTANT!**

Before carrying out any cleaning operation, disconnect the appliance from the power supply.

### 1. EXTERNAL PARTS

SATIN-FINISH STEEL SURFACES (daily)

- In order to reduce the emission of pollutants into the environment, clean the appliance (externally and when necessary internally) with products that are more than 90 % **biodegradable**.
- For cleaning the stainless steel, never use detergent products containing abrasive substances, chips, scouring pads, brushes or scrapers in common steel.
- Clean all steel surfaces: dirt can be easily removed as soon as it forms.
- Remove grime, fat and other cooking residuals from steel surfaces when cool using soapy water, with or without detergent, and a cloth or sponge. Dry the surfaces thoroughly after cleaning.
- In case of encrusted grime, fat or food residuals, go over with a cloth or sponge, wiping with the grain of the satin finish and rinsing often; rubbing in a circular motion combined with the particles of dirt on the cloth/sponge could ruin the steel's satin finish.
- Metal objects can ruin or damage the steel: ruined surfaces become dirty more easily and are more subject to corrosion.
- Restore the satin finish if necessary.

SURFACES BLACKENED BY HEAT (when necessary)

Exposure to high temperatures can cause the formation of dark marks. These do not constitute damage and can be removed by following the instructions given in the previous paragraph.

### **Important:**

- Do not clean the appliance with jets of water.
- Do not use products containing chlorine (chlorine bleach, hydrochloric acid, etc.), even if diluted, to clean the steel.
- Do not use corrosive substances (e.g. muriatic acid) to clean the floor under the equipment.
- At the end of the product's working life, make sure it is not dispersed in the environment.
- Our appliances are manufactured using more than 90% metal materials (stainless steel, iron, aluminium, galvanised sheet, etc.) which can therefore be recycled by means of the conventional recovery structures, in conformity with the current regulations in the country of use.
- Make the appliance unusable by removing the power cable and any compartment or cavity closing mechanisms (when present) in order to avoid the risk of someone becoming closed inside.

### **Advice**

It is advisable to have the appliance periodically fully checked (at least once a year). For this purpose, stipulate a maintenance contract.

## 2. OTHER SURFACES

HEATED TANKS/CONTAINERS (daily)

Clean the appliance tanks or containers using boiled water, adding soda (degreasing) if necessary. Use the accessories (optional or supplied) specified in the list to eliminate encrustations or food deposits.

TANKS AND COLLECTION DRAWERS (even several times a day)

Remove any grease, oil, food residuals, etc., from trays, drawers and containers in general used for collection. Always clean these containers at the end of the day. While using the appliance, empty them when they are nearly full.

**IMPORTANT!** With electric appliances, make sure no water comes into contact with electrical components; water penetration can cause short circuiting and dissipation, tripping the appliance's protection devices.

### 3. FILTERS

Use of filters for oil increases the life of the oil, and in case of reuse guarantees better cooking of food.

For cleaning, remove the filter from its seat. If the filter is dirty with grease, wash it with degreasing soap, then rinse and dry; at the end of the operation, refit the filter in its seat. Replace the filter if deteriorated.

### 4. IDLE PERIODS

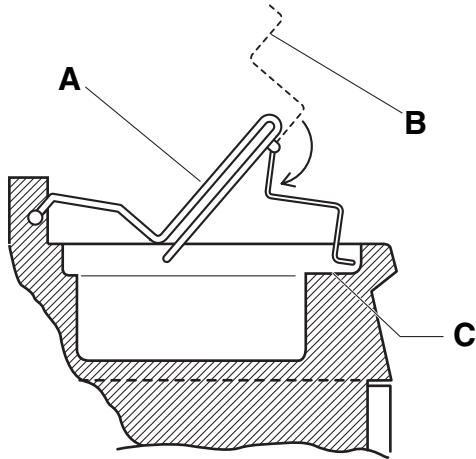
If the equipment is not going to be used for some time, take the following precautions:

- Close cocks or main switches ahead of the appliance.
- Go over all stainless-steel surfaces vigorously with a cloth moistened with paraffin oil in order to spread a protective film.
- Periodically air the room.
- Have the appliance checked before using it again.
- To prevent too rapid evaporation of accumulated moisture with consequent breakage of elements, switch electric appliances on at minimum heat for at least 45 minutes before reuse.

## 5. CLEANING FRYERS WITH INTERNAL HEATING ELEMENTS

Clean the tank, operating as follows:

- wait until the appliance has cooled;
- drain the oil from the tank by means of the special cock.
- lift the heating element unit "A" (see figure) by means of support bracket "B".
- tilt the support bracket and place it in the tank expansion zone "C". In this position the power to the heating element unit is cut off by a microswitch.
- Carefully clean the tank and heating elements, taking particular care with the latter so as not to damage the appliance.



## 6. INTERNAL PARTS (every 6 months)

**IMPORTANT! Operations to be carried out only by specialised technicians.**

- Check the condition of internal components.
- Remove any deposits of dirt inside the appliance.
- Check and clean the discharge system.

**NB!** In particular ambient conditions (e.g. intensive use of the appliance, salty environment, etc.) the above cleaning should be more frequent.

## VIII. MAINTENANCE

### 1. MAINTENANCE

All the components requiring maintenance are accessible from the front of the appliance, after removing the control panel and front panel. Disconnect the power supply before opening the appliance

#### 1.1 BRIEF TROUBLESHOOTING GUIDE (gas version)

Even with normal appliance use, malfunctions can occasionally occur.

- *The pilot burner does not light.*

**Possible causes:**

- The igniter is not properly fixed or connected.
- The piezoelectric ignition or igniter cable are damaged.
- Insufficient pressure in gas pipes.
- Nozzle blocked.
- Faulty gas valve.

- *The pilot burner goes out when the igniter knob is released.*

**Possible causes:**

- The thermocouple is not properly connected or the safety thermostat wires are disconnected.
- The pilot burner is not heating the thermocouple sufficiently.
- Safety thermostat tripped or faulty.

- *The pilot burner is still lit but the main burner does not light.*

**Possible causes:**

- Insufficient pressure in gas pipes.
- Blocked nozzle.
- Faulty gas valve.
- The thermopile is not being sufficiently heated.
- Faulty operating thermostat.

- *The temperature cannot be adjusted.*

**Possible causes:**

- Damaged thermostat bulb.
- Faulty thermostat.

#### ABNORMAL OPERATION

Any of the following are considered to be abnormal operation and may require servicing:

- incomplete ignition of the burner;
- yellow tipping of the burner flame;
- burner failing to remain alight;
- gas valves are difficult to turn;
- burner extinguished by operation of the fryer door.

In case the appliance fails to operate correctly, contact the authorised service provider in your area.

## **1.2. INSTRUCTIONS FOR REPLACING COMPONENTS** (to be carried out only by a specialised installer)

### *- Gas valve*

- Remove the control panel, undoing the fixing screws.
- Unscrew the pilot burner pipe and thermocouple.
- Undo the screws fixing the flange to the valve.
- Remove the gas valve supply pipe clamping.

### *- Thermocouple, thermopile, safety thermostat, ignition device*

- Remove the control panel and replace the elements.
- To replace the thermostat, remove the gasket between the tank and bulb clamping (replacement from door compartment and control panel).

### *- Main burner, pilot burner, pilot nozzle and main nozzle.*

- From the door compartment.

### *- Main air adjustment*

- From the door compartment.

## **1.3 MAINTENENCE SCHEDULE**

- It is recommended the appliance is inspected and serviced by an authorized person at least every 12 months. For this purpose it is recommended to draw up a maintenance contract.

### **AUSTRALIA**

#### **For service and spare parts, please contact:**

Electrolux - Tom Staddart Pty Ltd

Zanussi - JL Lennard Pty Ltd