

Congratulations on the purchase of professional equipment from **ALD Kitchen!**  
**ALD Kitchen's** first priority is to guarantee the quality of the equipment and its safe use.

Using the equipment as intended, with proper care and maintenance, ensures years of reliable operation of this equipment. For the best results in the use of the product, it is important that you carefully read and follow the instructions in this manual. It is equally important to keep this manual for future reference.

### **ATTENTION!**

Please read this user manual before using the equipment.

Failure to observe safety precautions and operating instructions may result in personal injury or damage to the equipment!

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## 1 Characteristics and contents of package

The fryer of AR-399 model belongs to medium capacity and is quite universal, so it covers a wide range of frying.

Parameter name	110V	220V
Model:	AP-399	AP-399
Shipping Weight:	20 kg (44 pounds)	20 kg (44 pounds)
Size:	272 x 478 x 341 mm (10,70" x 18,81" x 13,42")	272 x 478 x 341 mm (10,70" x 18,81" x 13,42")
Material:	Full stainless steel	Full stainless steel
Temperature	60-200 °C	60-200 °C
Supply Voltage	110 B AC	220 B AC
Power	1500W	1500W
Temperature Control Mode	Manual	Manual
Number of Baskets	1	1
Capacity:	3 Gal (11,5 L)	3 Gal (11,5 L)

The designation of the fryer when ordering is as follows:

### **AP-399-ST-U**

where:

#### **ST – the type of power plug:**

- B** – the fork is made according to the standard of the USA, Canada;
- E** – the design of the plug is according to the standard of European countries;
- G** – the design of the fork is according to the British standard;
- I** – the design of the fork is according to the standard of Australia, Argentina;
- 0** – without the plug.

#### **U – supply voltage:**

- 220** – 220 V AC;
- 110** – 110 V AC.

*The delivery set of AR-399 commercial fryer includes:*

- AR-399 unit (including electric heater assembly with heating element and housing cover) ;
- drain valve for used oil drainage;
- heater element cover;
- frying basket with a removable handle;
- Power cable (plug type depending on the ordering code);
- user manual.

## 2 Transportation, storage and unpacking

During loading / unloading and transportation, packed equipment must not be exposed to sudden shocks and the influence of precipitation. The method of placement on the vehicle must exclude product movement.

Transportation of equipment in the packaging of the manufacturer shall be carried out by all types of transport in covered vehicles. Transportation by air shall be performed only in heated sealed compartments.

The room for storage of the equipment must be ventilated, ambient air temperature must be from minus 40 °C to plus 70 °C, and relative humidity from 30 to 80% (without condensation). These requirements are recommended.

The room air must be free of dust and the presence of corrosive vapors and gases (in particular: gases containing sulfur compounds or ammonia).

During storage or operation, do not place heavy objects on the package or subject it to any mechanical impact, as the equipment may become deformed and damaged.

When unpacking, you should:

- remove all packaging materials and tape, as well as protective plastic and cardboard, from the product.
- clean off any glue remains from the plastic or tape.
- set the fryer to the desired position and height (*see section 5*).

### ATTENTION!

The original box and packaging should be kept for use in case the equipment is sent to the manufacturer for repair or service.

## 3 Functions and applications

This equipment is intended for deep-frying foods in the conditions of public catering establishments: restaurants, cafés, canteens, etc. It is not intended for use at home, in industry or in scientific laboratories.

Before using the fryer, its elements must be cleaned and thoroughly dried (*see section 11*).

Failure to do so before using the appliance may lead to contamination of the foodstuffs.

## 4 Warning symbols

Special symbols are used throughout this manual to draw attention to warnings and notes about potential hazards.

The following symbols are used for warnings related to personal safety:



- general hazard designation of an abnormal or emergency situation with health consequences for personnel;



- hot surface, risk of burns;



- risk of electric shock;



- danger of fire.

The symbols are used for warnings that refer to possible damage to the equipment:



- a general indication of the hazards of possible damage to the equipment;



- danger of fire, which will result in damage to the equipment.

A designation is used to notify users of installation, operation and maintenance:



- important non-hazardous information.

## ATTENTION!

It must be remembered that this and the warning symbols are no substitute for the need for warning, proper training and supervision of personnel. Nor should the possibility of using this equipment strictly for its intended purpose be neglected.

## 5 Installation instructions

To ensure safe installation and operation of the equipment, it is recommended that you carefully read the following instructions.

1. The fryer installation location should not be under flammable materials. Minimum clearance from flammable structure should be at least 6" (15 cm) from the sides and back of the fryer. The space around the fryer must not contain flammable materials.

2. The fryer should be installed at least 16" (40.6 cm) away from the surface flame from adjacent cooking equipment.

3. Equipment should only be installed by qualified professionals in accordance with state and local codes.

4. The fryer should be installed under a vent in accordance with the latest edition of the Standard for Ventilation and Fire Protection in Commercial Cooking Operations.

5. A fire extinguisher should be used to extinguish ignited oil. The fire extinguisher must be placed two feet (61 cm) away from the roasting reservoir to prevent oil splashing.

6. A clear space in front of the fryer should be provided for unobstructed access during use.

7. When installing the fryer on the countertop, place it so that the front legs are at least four inches (10.2) cm away from the edge of the countertop. This will reduce the chance of the fryer accidentally crashing off the countertop.

8. The unit and power cord should be kept away from open flames, electric burners, or excessive heat.

9. Only grounded electrical outlets should be used to connect the fryer to an electrical outlet. The type of outlet must match the type of plug on the power cord and the voltage rating.

The fryer comes with, among other things, a three-wire power connection cable. The first wire is the operating phase, the second is the neutral conductor, and the third is the protective ground. As a rule, the insulation of this conductor is painted yellow-green. It is this yellow-green conductor that connects to the grounding pins in the outlet.

If the outlet to which the fryer is to be powered is not grounded, you will need to contact an electrician.



Never cut or remove the third yellow-green conductor from the power cord. Also, do not use adapters of any kind for the power plug.

10. The use of a power cord extender to connect this equipment is not recommended.

11. Do not spray cleaning agents or liquids on the fryer controls.

12. Cook food only in the oil pour tray.

13. It is recommended to use the fryer with appropriate grease collection equipment (grease traps) placed nearby.



In the case of equipment malfunction, you must first disconnect the fryer from the power supply and then contact a qualified technician to begin service.



## 6 Compliance with safety precautions and precautions

The operator of this unit is required to have the proper level of training. Failure to properly train personnel to operate the fryer can result in serious injury. The owner of the equipment is responsible for the proper and safe use of the equipment. The owner of the fryer must also ensure that unauthorized persons, visitors to the establishment, customers or other unauthorized persons cannot have contact with the equipment.

If there are uncertainties about the specific task or method of operation of this equipment, you should consult with the Technical Support Department.



**Do not touch hot liquids or heated surfaces while the fryer is heating or operating. Contact with hot liquids or food on human skin causes severe burns. Therefore, you should allow some time for the hot liquid to cool before handling it. Do not drop or spill water on the hot oil pan, this will cause hot oil to spray or splash from the reservoir.**



**Overheated oil or oil vapors can ignite, causing a fire. The temperature, quality and level of the oil in the tank must be carefully monitored. An oil vapor extraction system is recommended and maintained, and is also used to reduce the accumulation of oil and grease on the surface of walls and ceilings.**

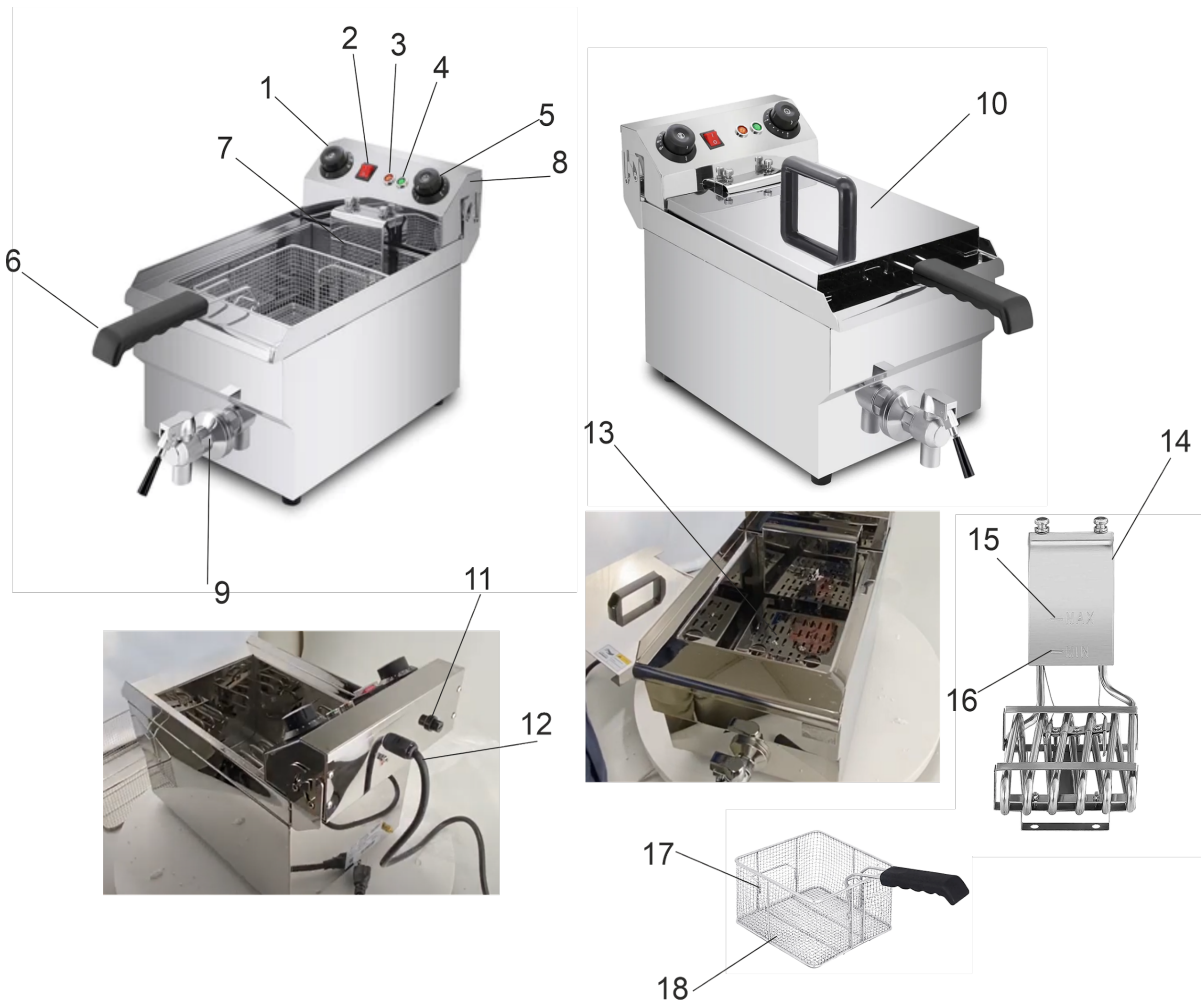
**The oil should be heated with care. If smoke appears when the oil is heated, the temperature should be reduced. Do not leave the fryer on unattended. If fire begins to appear, the fryer should be unplugged immediately and the oil pan covered with a lid and allowed to cool.**

**Keep an eye on the oil level in the reservoir and operate the fryer when the oil level is not below the lower level mark. The oil in the fryer's reservoir becomes contaminated during operation, so you should change the oil in the reservoir on a regular basis. In addition, contaminated oil has a lower flash point and the risk of fire increases significantly.**

1. The fryer must only be installed horizontally.
2. It is forbidden to overload the frying basket. The best way to fill the basket with food is to fill it half-full.
3. Before cleaning or servicing the equipment, disconnect it from the power supply and allow it to cool.
4. Do not operate the equipment in public areas and/or around children.
5. The oil in the fryer tank may be hot, even if the Power indicator or Temperature Ready indicator is not lit.
6. Do not operate the fryer if it is damaged or has a malfunction.
7. Do not use the fryer with a damaged power cord.
8. Do not operate the Safety Reset Switch (see "Power Reset Switch" section) unless the oil temperature in the reservoir has reached 430°F(221°C).
9. Do not clean the equipment with a steel brush or sieve.
10. Dispose of used tank oil in an environmentally responsible manner.

## 7 Control elements, components and their features

The main controls and components of the fryer are marked in the figure with the corresponding numbers.



where:

1. - oil temperature controller (thermostat). The numbers on the scale correspond to the selected oil temperature to be maintained. If the switch is set to "0", the heating element will be switched off.
2. - fryer power switch.
3. - indicator of the heating element operation signal. When the temperature reaches the set point value, the indicator will stop lighting.
4. - fryer power indicator light. Lighted when fryer is plugged in and the switch (Ref. 2) is in On position.
5. - program time setter. With its help, you can set the operation time of the heating element according to the recipe for a particular dish.
6. - removable handle of the frying basket
7. - frying basket support panel.
8. - removable control panel along with the heating element. The control panel together with the heating element can be removed when cleaning or service is required.
9. - drain valve for used oil. A strainer is located in front of the drain hole inside the oil pan.
10. - housing cover



- 11. - safety shutoff reset switch. If the oil reaches a temperature above 430°F (221°C), the safety shutoff function will activate, cutting off power to the fryer. Press the reset switch button to reset this condition.
- 12. - power connection cable
- 13. - removable cover of the heating element.
- 14. - heating element (disconnected from the control panel).
- 15. - marking MAX - maximum permissible level of oil in the sump.



**Do not fill the oil above this level. This may cause oil to overflow over the pan after the filled frying basket is submerged.**

- 16. - MIN mark - minimum permissible oil level in the sump.



**Do not fill oil below this level. If the oil level is low, it may overheat and ignite.**

- 17. - hooks of the frying basket. Used to hook onto the support panel (Ref. 7)
- 18. - basket for frying foods.

## 8 Appropriate use

A list of steps, following which will ensure correct operation of the equipment, as well as good results of food preparation.

*Step 1:* Plug the fryer's power cord into the outlet. Remember that the power cord must be unplugged before moving the equipment, checking or servicing.

*Step 2:* Remove the frying basket (Ref. 18) by releasing it from the hook on the support panel (Ref. 7)

*Step 3:* Fill or add oil/solid fat to the pan. Always maintain the oil level between the MAX (Ref. 15) and MIN (Ref. 16) marks on the heater element holder.

*Step 4:* Use the oil temperature setter (Ref. 1) to set the temperature to the desired level.



For recommendations on how to set the oil temperature for different products, see [the article](#).

The red indicator light (Ref. 3) will light up to indicate that the heating element is working.

If you use solid cooking fat instead of oil, firstly you need to melt it. To do this, place the fat around the heating element and set the temperature knob (Ref. 1) from 200 °F (93 °C) to 250 °F (121 °C). The fat will slowly melt and the level of melted fat should be in the MAX and MIN range. After the fat is melted and the level is within the MAX and MIN marks, you can set the desired temperature of the fat on the knob.

*Step 5:* Allow the oil to warm up to the temperature set on the knob (Ref. 1). When the temperature reaches the set temperature, the heating element switches off and the red light turns off (Ref. 3).

*Step 6:* Before grilling, dry the food or remove any ice crystals from it.

*Step 7:* Load the food into the roasting basket. Never load more than half the volume of the basket.

*Step 8:* Gently lower basket into heated vegetable oil.

Set the setter (Ref. 5) to the cooking time according to the manufacturer's or recipe's recommendations.



Recommendations for setting the roasting time for various products can be found in [the article](#) on the manufacturer's website.

*Step 9:* Once the food preparation time has ended, remove the basket and hook it onto the basket support plate (Ref. **7**) using the hooks (Ref. **17**). This will allow the excess oil to drain back into the tray. Prepare the food according to the manufacturer's instructions or the recipe.

## 9 Oil selection tips

The selection of oil to be poured into the pan of the deep fryer, as well as its timely replacement, are very important aspects of deep-frying. A list of tips that should not be neglected is given below.

1. Use only the oil that is recommended for frying foods.



For more information on oil selection, see [the article](#) on the equipment manufacturer's website.

2. The temperature of the oil when cooking foods should be maintained according to the recommendations of the food manufacturer or the recipe.
3. If the oil becomes noticeably darker due to the combustion of food particles under prolonged exposure to heat, the oil must be changed.
4. The oil should also be changed if it produces a noticeable unpleasant odor or odor from food cooked in it.



For more information on oil changes, see [the article](#) on the equipment manufacturer's website.

5. To reuse the oil, filter it through several layers of gauze. In this way, excess product particles can be filtered out. This procedure should only be done when the oil has cooled down significantly!
6. If you leave the oil in the pan overnight, cover the fryer with the lid (Ref. 10).

## 10 Safety shutdown function

The fryer's safety shutdown function will activate when the oil temperature exceeds the critical 221 °C (430 °F). To reset this function and restart the fryer, use the special switch located in the back of the unit (Ref. 11) next to the AC power cord outlet.

There are a number of reasons why the safety shutoff feature may malfunction. Therefore, before you manually reset the function, you should check these possible reasons:

- very dirty oil in the sump;
- the oil level in the sump is below the MIN mark;
- the heating element is not fixed in the correct position.

If none of these causes is confirmed, you can reset the safe shutdown function. To do so, you should:

1. Wait until oil has cooled to 149 °C (300 °F);
2. Unscrew the switch cover, unscrewing counterclockwise;

Use a pen or similar narrow tool to push the reset button. The button must remain in the pressed position.

4. Replace the switch cover and fasten it, screwing it in a clockwise direction.



If you are unable to reset the safety shutdown function or if the function is constantly activated for unclear reasons, please contact the technical support of the manufacturer.

## 11 Device cleaning

To maintain the clean appearance of the fryer and to prolong its service life, the unit should be cleaned DAILY. To perform this procedure correctly and safely, the following instructions are recommended:

- 1) unplug the fryer from the power supply, pull out the power cord from the socket;
- 2) always allow the fryer and the oil in it to cool down before cleaning;



Do not touch hot liquids or surfaces while the unit is heating or operating.

Hot liquids and foods can cause skin burns.

Never spill or drop water into the hot oil of the fryer, as this may cause splashing and spraying of hot oil from the oil pan.



Do not immerse the power cord, plug, removable control panel with heater (Ref. 8) in water or any other liquid of any kind.

Do not allow water or cleaning agents to enter the interior of the device. If liquid gets on the electronic components of the fryer, there is a risk of a short circuit or electric shock.

It is not recommended to use the device if its power cable is damaged or has been modified.

- 3) remove the removable control panel with the heating element (Ref. 8);
- 4) open the drain valve for the processed oil (item 9), placing a container for the oil underneath. Wait until all the treated oil has flowed out, take out the strainer in front of the drain hole and rinse it thoroughly.
- 5) use a slotted spoon or spatula to remove any large food particles from the pan of the fryer;



Do not clean the unit with a steel dishwashing sponge.

- 6) strain the drained used oil into an empty bucket through a 2 or 3 layered gauze. The bucket should be large enough to hold all the oil;
- 7) strain oil through gauze into the bucket;
- 8) rinse the unit and oil pan thoroughly using a damp cloth or sponge soaked in soapy water or dishwashing detergent.
- 9) make sure that the control panel with the heating element and the power cable do not come into contact with water
- 10)rinse the unit and the oil pan thoroughly.
- 11)dry the fryer thoroughly after cleaning.



It is important to rinse the oil pan very carefully because a small amount of soap or dishwashing detergent left in the pan can ruin the oil. Any water left in the pan will cause a strong boil and spray when the oil is hot

- 12)if a significant amount of carbon deposits have accumulated on the heating element (Ref. 14), they can be burned off by using a dry fryer tray and turning the unit on at 250°F (121.1°C) for several minutes.

The fryer should turn off automatically, which will also serve as a test of the shutdown function. (See "Resetting the safety shutoff function", Section 10).

After this, the oil temperature knob should be set back to the "OFF" position and the free soot should be shaken off and the pan thoroughly dried.

13)all surfaces of the unit should be cleaned of splashes of oil and other foreign matter by washing with hot water and soap.

14)to finish, rinse and wipe off excess water. And at the end - polish the surfaces with a dry soft cloth.

## 12 Errors in work and options for their solution

During the operation of the device, over time, the user may encounter problems with the operation of the fryer. The reasons for the problems may be different. A list of the most common problems, possible causes of their occurrence, as well as recommendations for their solution are given in the table.

Problem	Possible reason	Recommended solution
<b>Fryer doesn't work</b>	The device is not connected to the AC power supply	Check the power supply voltage in the outlet to which the fryer is plugged in; check that it is connected correctly
	Device power switch is not turned on	Make sure the unit's power cord is plugged into an outlet and the power switch is in the upper position (On). The fryer power indicator light should be green
	The power cord or plug is damaged	Contact the manufacturer's service department.
	The emergency shutdown function has been triggered	Probably one of the reasons given in section <b>10</b> of this manual. Follow the instructions in this section to reset the function. If the problem persists, contact the manufacturer's service department.
	Nothing from the above	Contact the manufacturer's service department.
<b>Oil is not heated,</b>	Thermostat or heating element is defective	Contact the manufacturer's service department.

<b>heating element operation indicator glows red</b>	The emergency shutdown function has been triggered	Probably one of the reasons given in section <b>10</b> of this manual. Follow the instructions in this section to reset the function. If the problem persists, contact the manufacturer's service department.
<b>Heating element indicator does not light up, but the fryer works fine</b>	Heating element operation indicator is defective	Contact the manufacturer's service department.
	The oil temperature has reached the set point value. It is recommended to use a fryer thermometer to check the desired temperature.	Use the fryer as normal
<b>Oil warms up to too much temperature</b>	Low oil level	Disconnect the unit, wait until the oil cools down, add oil to the oil pan so that the oil level exceeds the bottom mark
	Thermostat malfunction	Contact the manufacturer's service department.
<b>When frying food, the oil boils on top</b>	Too much oil in the sump	The oil level in the sump must be lowered
	Too many products in the basket	The number of products in the basket should be reduced
	Too much water in food	Dry the food or remove ice crystals from the food before grilling

### 13 Maintenance and repair

There are no user-serviceable parts in this unit.



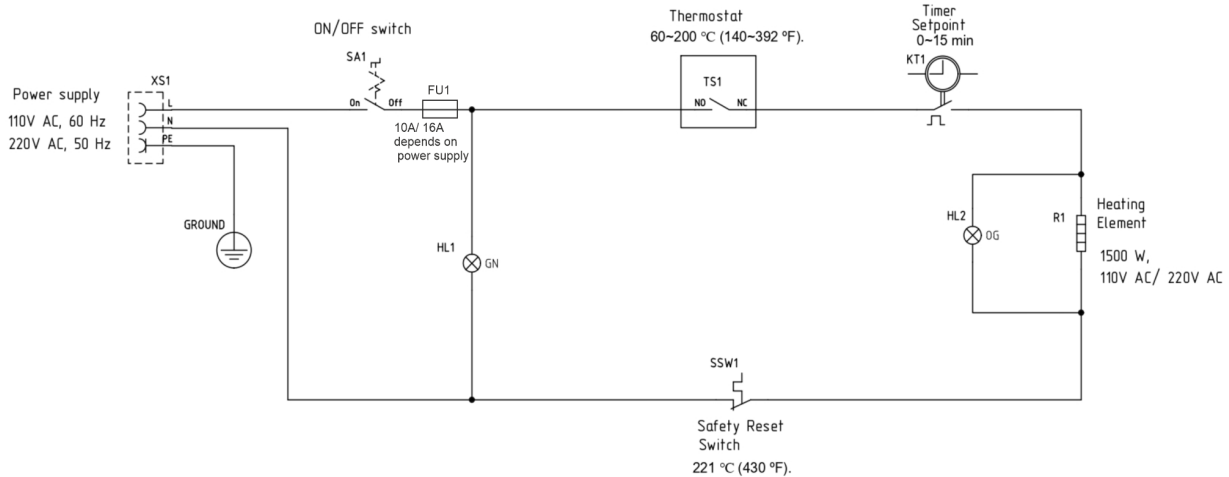
To avoid serious injury or damage, never attempt to repair the unit or replace a damaged power cord yourself.

Before sending the unit in for service and/or repair at the manufacturer's facility, you must first contact the Service and Customer Support department.

Refer to the "Manufacturer's Warranty" section for details. Section **15**.

## 14 Wiring diagram

The electric circuit of the fryer includes the thermostat TS1, the normally open contact of which closes the power circuit of the heating element R1. The timer KT1 sets the operating time of the heating element, in other words - the cooking program time for a certain product. Signal lamps HL1 and HL2 signal about the power on and operation of the heating element, respectively.



## 15 Manufacturer's warranties

The manufacturer of this commercial equipment warrants this equipment for a period of 24 months, provided it is installed in accordance with the rules of this manual and that it is used correctly.

The equipment warranty applies only to the first purchaser from an authorized dealer/distributor.

The warranty also covers spare parts for the device, provided that the purchaser has sent the product registration document to the manufacturer within 30 days from the date of purchase.

There are also certain circumstances in consequence of which the manufacturer's warranty does NOT cover the unit:

- natural disasters, fire, flood, burglary, accident;
- damage during loading/unloading and transportation;
- improper installation of the equipment or making unauthorized modifications to its operation;
- use of non-original spare parts or parts that have been previously used in other units;
- service has been performed by a non-certified and unauthorized technician;
- unapproved lubricants have been used;
- normal deterioration of parts including: legs, fuses, switches, lamps, etc;
- improper cleaning or use of improper cleaning agents on the equipment;
- improper use or misuse (e.g., damage to the fryer or any of its components).

- Return of the device to the manufacturer for warranty repair should be coordinated with the Service and Customer Support Department.

- It is strongly recommended to **keep the original packaging** of the device. This will avoid damage when transporting the unit to the manufacturer for warranty service and therefore retain the right to warranty.

- Return or replacement services will be prepaid by the manufacturer.



- There are certain cases, listed above, which will result in the unit not being covered by the warranty.



**The above warranty provisions are the complete and exclusive statement between the manufacturer and the purchaser.**

**The manufacturer does not permit uncertified and unauthorized persons to assume any other liability in connection with this equipment.**

## **16 In case of fire**

In the event of a fire, the directions must be followed:

1. The local fire department should be contacted!
2. It is necessary to disconnect the unit from the power supply!  
This will disconnect the power supply to the heating elements and allow the oil to cool, reducing the flash point and making it easier to stop the fire.
3. Immediately cover the oil pan with the enclosure cover and/or a heavy non-combustible blanket or canvas. This will stop the spread of oxygen to the fire.
4. Spray a fire extinguisher over the enclosure cover or a non-flammable blanket. This will isolate the additional oxygen, thereby suppressing the fire.



DO NOT remove the blanket or coverlet until the fire department arrives. The hot oil can ignite again if oxygen returns.

The fryer is a high-voltage appliance - make sure the power switch is in the "OFF" position before proceeding any further.



DO NOT attempt to fight grease fires by spraying the fire extinguisher directly on the flaming grease. The flaming grease may be sprayed on adjacent equipment, making it difficult to contain the fire.



We recommend using CO2 or halogen-filled fire extinguishers for flammable liquids and oils, and suitable for electrical equipment.

DO NOT use water or a water fire extinguisher when burning grease.