

Gas Fryer

This manual contains important information regarding your unit. Please read this manual thoroughly prior to equipment set-up, operation and maintenance. Failure to comply with regular maintenance guidelines outlined in this manual may void the warranty. MUST READ!!!

WARNINGS

- Do not touch any hot surfaces
- Do not immerse unit, cord or plug in liquid at any time
- Do not operate unattended
- Do not use this unit for anything other than intended use
- Do not use outdoors
- Always use on a firm, dry and level surface at least 12" from walls or any other obstruction
- Keep children and animals away from unit
- Any incorrect installation, alterations, adjustments and/or improper maintenance can lead to property loss and injury. All repairs should be done by authorized professionals only
- If gas odor is detected, shut unit down at main shutoff valve and contact service company
- Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any appliance

TO INSTALL

Before installing the fryer, verify what type of gas (natural or propane) agrees with the specifications on the fryer date plate, which is located on the inside of the door panel. Make sure the fryer is configured for the proper elevation.

Record the fryer model, device and serial numbers for future reference in the space provided below. This information can be found on the fryer data plate:

Fryer Model No: _____

Device: _____

Serial No: _____

Minimum clearance from combustible construction:

- 6" (15 cm) from the side of the fryer
- 6" (15 cm) from the back of the fryer
- The fryer may be installed on combustible floors

Minimum clearance from noncombustible construction:

- 6' from side of fryer
- 6' from back of fryer

Between the fryer and any open-top flame units:

- 16" (41 cm)
 - Install fryer in an area with sufficient air supply for gas combustion at fryer burners.
 - Do not obstruct the flow of combustion and ventilation air.
 - Provide adequate clearance for air openings into the combustion chamber.
 - Do not permit fans to blow directly onto fryer.
 - Avoid wall-type fans, which create cross-currents within a room.
 - Avoid open windows next to sides or back.

CODES AND STANDARDS

The fryer must be installed in accordance with:

In the United States:

- State and local codes, or in the absence of local codes, with:

National Fuel Gas Code, ANSI-Z223.1/NFPA #54 (latest edition). Copies may be obtained from The American Gas Association Accredited Standards Committee Z223, @ 400 N. Capital St. NW, Washington, DC 20001 or the Secretary Standards Council, NFPA, 1 Batterymarch Park Quincy, MA 02169-7471.

NFPA Standard #96 Vapor Removal from Cooking Equipment, latest edition, available from the National Fire Protection Association, Batterymarch Park, Quincy, MA. In the commonwealth of Massachusetts all gas appliances vented through a ventilation hood or exhaust system with a damper or with a power means of exhaust shall comply with 248 CMR.

In Canada:

- Local codes

CAN/CSA-B149.1 Natural Gas Installation (latest edition).

CAN/CSA-B149.2 Propane Installation Code (latest edition), available from the Canadian Gas Association 178 Rexdale Blvd., Etobicoke, Ontario Canada M9W 1R3.

The installer of this unit should be aware of state, county or local code for connecting this equipment to determine if an external regulator is required.

TO ASSEMBLE

The fryer must be restrained to prevent tipping and the splashing of hot liquid. The means of restraint may be the manner of installation, such as connection to a battery of appliances, installing the fryer in an alcove, or by separate means such as adequate ties.

Note: The gas supply pressure at gas inlet should be less than 3.5 kPa.

1. Turn all burner controls OFF.
 - Turn gas supply valve OFF.
2. Reconfigure Pressure Regulator
 - Remove converter cap and pin from pressure regulator.
 - Carefully remove pin from cap.
 - Invert pin and reinstall in cap.
 - Be sure gasket is in place on cap, then securely reinstall cap and pin on pressure regulator.
3. Remove burners.
4. Remove and discard orifice hoods from burner control nozzles; install orifice hoods from kit.
5. Reinstall burners.
6. Turn gas supply valve ON.
7. Adjust pilot flames.
8. Adjust burner flames.
9. Affix propane conversion label to rear of appliance, near the nameplate.

Procedure is complete.

TO CONNECT FLUE

- Comply with *Vapor Removal from Cooking Equipment*, ANSI-NFPA Standard #96 (latest edition), available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.
- Locate the fryer under a hood with adequate connection to an exhaust duct. The hood must extend 6" (15 cm) beyond fryer on both sides.
- Clearance above the fryer should be adequate for combustion byproducts to be removed efficiently.
- An 18" (46 cm) minimum clearance should be maintained between the flue vent and the filters of the hood venting system.
- Never make flue connections directly to the fryer.
- Do not obstruct the flow of the gases from the appliance. Proper air balance should be maintained in the room.

TO CONNECT GAS

- All gas supply connections and any pipe joint compound must be resistant to the action of propane gases
- The gas inlet is located on the lower rear of the fryer. Codes require that a gas shutoff valve be installed in the gas line ahead of the fryer.
- The gas supply line must be at least the equivalent of ½" X (12.7 mm) iron pipe for single units and 1-1/4" (31.75 mm) for batteries. If using the optional quick-disconnect flex hose, ¾" X (19mm) iron pipe for single units and 1-1/4" (31.75 mm) iron pipe for batteries.
- Make sure the pipes are clean and free of obstructions, dirt, and piping compound.
- A battery requires one or two connections of appropriate size for the gas requirement.

Note: Prior to lighting, check all joints in the gas supply line for leaks. Use soap and water solution. Do not use an open flame.

After piping has been checked for leaks, fully purge gas pipes to remove air.

GAS PRESSURES (ALL MODELS):

The gas pressure should be set at 5" W.C. (Water Column) (1.25 kPa) of pressure for natural gas and 10" W.C. (2.54kPa) of pressure for propane gas. If incoming pressure exceeds ½ PSI (3.5 kPa), an additional pressure regulator must be installed.

TESTING THE GAS SUPPLY PIPING SYSTEM:

When test pressures exceed ½ PSI (3.5 kPa), the fryer and its individual shutoff valve must be disconnected from the gas supply piping system. When test pressures are ½ PSI (3.5 kPa) or less, the fryer must be isolated from the gas supply piping system by closing its individual shutoff valve.

FRYERS AND CASTERS:

Separate instructions for installing casters are included in with the casters:

The installation shall be made with a connector that complies with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69 or Connectors for Moveable Gas Appliances, CAN/CGA-6.16, and a quick disconnect device that complies with the Standard for Quick-Disconnect Devices for Use with Gas Fuel, ANSI z21.41 or Quick-Disconnect Devices for Use with Gas Fuel, CANI-6.9. When installing a quick disconnect, you must also install a means for limiting

the movement of the fryer. This device will prevent the gas line or quick disconnect from being strained. The restraining device must be attached to the cutout on the back panel.

In Australia, use only the caster supplied by the manufacturer for the fryer device. The fryer must be installed using a hose assembly restraining device to limit the movement of the appliance in accordance with AS1869. The fryer must be installed with a connector complying with the above codes. The fryer must be installed with restraining means to guard against transmission of strain to the connector.

The fryer must be installed with the casters provided. If the restraint is ever to be disconnected, first turn the gas supply off.

TO LEVEL

- Check the level of the fryer by placing a level on top of the fryer after gas connections have been made.
- Ensure that the fryer is level front-to-back and side-to-side in the final installed position.
- If using casters, lock the casters after unit is level.

TO USE

Before any food preparation, thoroughly wipe protective oil from all surface parts and the tank interior with hot soapy water to remove any film residue and dust or debris.

To Fill Tank with Shortening:

- Solid shortening should *NOT* be used with fryers.
 - Melting solid shortening will damage the tank and void your warranty.
1. Close the drain valve.
 2. Fill the fryer tank with liquid shortening.
 3. Shortening level should be between the min and max lines in the fryer tank.
 4. Shortening will expand when heated. Do not fill the fryer tank past the
 5. MAX line.
 6. Add fresh shortening as needed to maintain oil level.

Lighting the Pilot:

1. Open the door.
2. Turn the thermostat OFF. The thermostat is located behind the door.
3. Push the gas control valve knob and turn to OFF. Wait 5 minutes for unburned gas to vent.
4. Push and turn gas control valve knob to the "L" in PILOT.
5. While still holding the knob in, light the pilot with a lit flame. Continue to depress the knob until pilot remains lit when knob is released. If the pilot does not remain lit, repeat step 3 through 5.
6. Depress and turn gas control knob to ON.
7. If gas supply is interrupted, repeat steps 2 through 6.

Turning Fryer On:

1. Set the temperature knob to desired temperature.
2. After the set temperature has been reached, the thermostat shuts off the gas flow to burners.
3. The pilot remains lit. The burners will cycle on and off, maintaining the set temperature.

****If the shortening becomes overheated, a high-temperature shutoff device will turn the gas valve off and extinguish the pilot. If the fryer shuts down due to overheating, DO NOT relights the pilot until the shortening temperature is below 300 F (149 C). If an overheating situation persists, contact your local authorized service office.***

Turning Fryer Off:

1. Turn the thermostat OFF.
2. To keep the pilot lit, turn the gas valve to "L" in Pilot.
3. To shut off all gas to the system, including the pilot, turn the gas valve knob to OFF.

Extended Shutdown

1. Turn the thermostat knob to OFF.
2. Push in the pilot knob and turn to OFF.
3. Thoroughly drain the fryer. Refer to DRAINING THE FRYER.
4. Clean the fryer according to CLEANING.
5. Turn off the main gas shutoff valve.

BASIC USAGE

1. Set the desired temperature and allow shortening to heat.
2. To ensure equally fried items, make sure food pieces are about the same size.
3. Drain or wipe dry raw or wet foods to minimize splatter when lowering into hot shortening.

4. Add fresh shortening as needed.

Guidelines for Fry Baskets

- Do not overfill baskets. (*See recommended basket capacities below*)
- Carefully lower basket into oil.
- When frying doughnuts and fritters, turn product only once during frying.
- When cooking French fries or onion rings, shake the basket several times carefully, as not to splatter oil.
- Batter-covered foods should be dropped carefully, one by one, into shortening or basket.
- If using the basket, first dip the basket into the shortening to reduce batter-build up on basket surfaces.
- When frying is completed, remove basket or product.
- Hang basket on rear hanger.

Fry Basket Capacity:

Recommended pounds per basket are 1.5 lbs. (0.7 kg).

Extending Shortening Life

Shortening life can be extended by the following guidelines:

- Do not salt foods over the fryer.
- Use good-quality shortening.
- Filter shortening daily (at a minimum).
- Replace shortening if it becomes poorly flavored.
- Keep equipment and surrounding area clean.
- Set thermostat correctly.
- Remove excess moisture and particles from food products before placing on fryer.

Draining the Tank

- Turn the thermostat to OFF.
- To keep the pilot lit, turn the gas valve to PILOT.
- Direct the drain spout into the container that you want to drain the shortening into.
- Open the drain valve. The oil will drain into the container. When the container is full or the fryer tank is empty, close the drain valve. Repeat this step until the fryer is empty.
- If desired, perform the weekly clean-out as described under CLEANING.
- Once tank is completely empty, add new shortening and set thermostat to desired temperature.

Daily Filtering

- Filter shortening at least once a day. Refer to the instructions provided with your filtering equipment.
- A cold fryer will not drain properly.
- Always filter shortening between 250F and 350F.
- The shortening in the cold zone area will remain hard if the heat is only on for a few minutes.
- If necessary, use the clean-out rod to carefully stir the hard shortening to an area above the cold zone where it will melt.
- Use the tank brush to help clear sides and tubes of debris.

CLEANING - NOTE: To maintain cleanliness and increase service life, the fryer should be cleaned daily. Do not immerse in water or any other liquid, if liquid enters the electrical compartment it may cause a short circuit or electrical shock

1. Hot oil and hot parts can cause burns. Use care when operating, cleaning, and servicing the fryer.
2. Clean the unit with the tank brush and a damp cloth then polish with a soft dry cloth.
3. Clean all exterior surfaces with warm soapy water.
4. To avoid fingerprints on highly polished surfaces of stainless steel, apply a cleaner that will leave a thin oily or waxy film.
5. To avoid damage, do not use abrasive cleaners or metallic scouring pads.
6. Use a self-soaping, non-metallic scouring pad for stubborn discolorations.
7. If soap or chemical cleaners are used, be sure they are completely rinsed away with clear water immediately after cleaning. Chemical residue could damage or corrode the surfaces of the unit.

Boil Out

Procedure should be done weekly or as required.

- Drain the tank as described under DRAINING THE TANK.
- Once the shortening has been drained, flush out scraps and sediment with a small amount of warm shortening, using tank brush. Allow the tank to drain thoroughly.
- Close the drain valve and fill tank with non-corrosive, grease-dissolving commercial cleaner. Follow the manufacturer's instructions. Do not use chlorine or sulfate/sulfide cleaners.
- Add commercial boil-out solution. Solution level must be between the MIN and MAX levels on the fryer tank.
- Set thermostat to the temperature recommended for the solution being used. Allow solution to simmer for about 15 to 20 minutes.
- Drain the cleaning solution from the tank.
- Close the drain valve and refill the tank with water. Add 1 cup (1/4 L) of vinegar to neutralize alkaline left by the cleaner. Solution level must be between the MIN and MAX level on the fryer tank.
- Bring the solution to a simmer only, turn the thermostat off. Allow to stand for a few minutes.
- Drain the tank according to DRAINING THE TANK. Rinse thoroughly with clear, hot water. All traces of cleaner must be removed. Dry the tank thoroughly.
- Close the drain valve and add shortening. Follow the FILLING TANK WITH SHORTENING procedure in this manual. The fryer is now ready for use.

MAINTENANCE

- Hot oil and hot parts can cause burns.
- Use care when operating, cleaning, and servicing the fryer.
- Spilling hot fryer compound can cause severe burns.
- Do not move fryer without draining all frying compound from the tank.
- The fryer should be restrained to prevent tipping when installed in order to avoid the splashing of hot liquid.
- The means of restraint may be the manner of installation, such as connection to a battery of appliances or installing the fryer in an alcove, or by separate means, such as adequate ties.

FLUE VENT INSPECTION

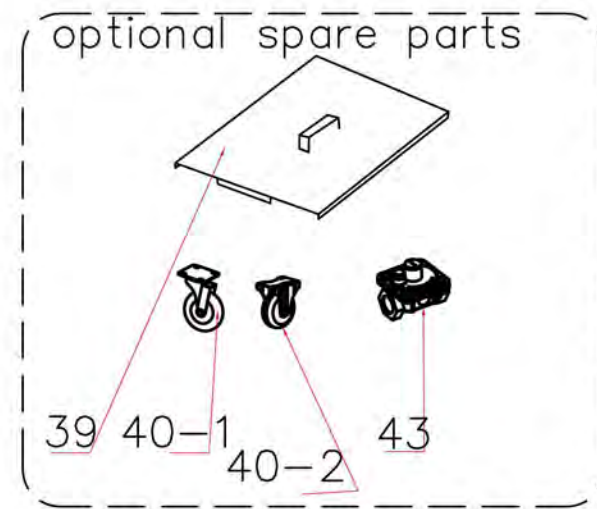
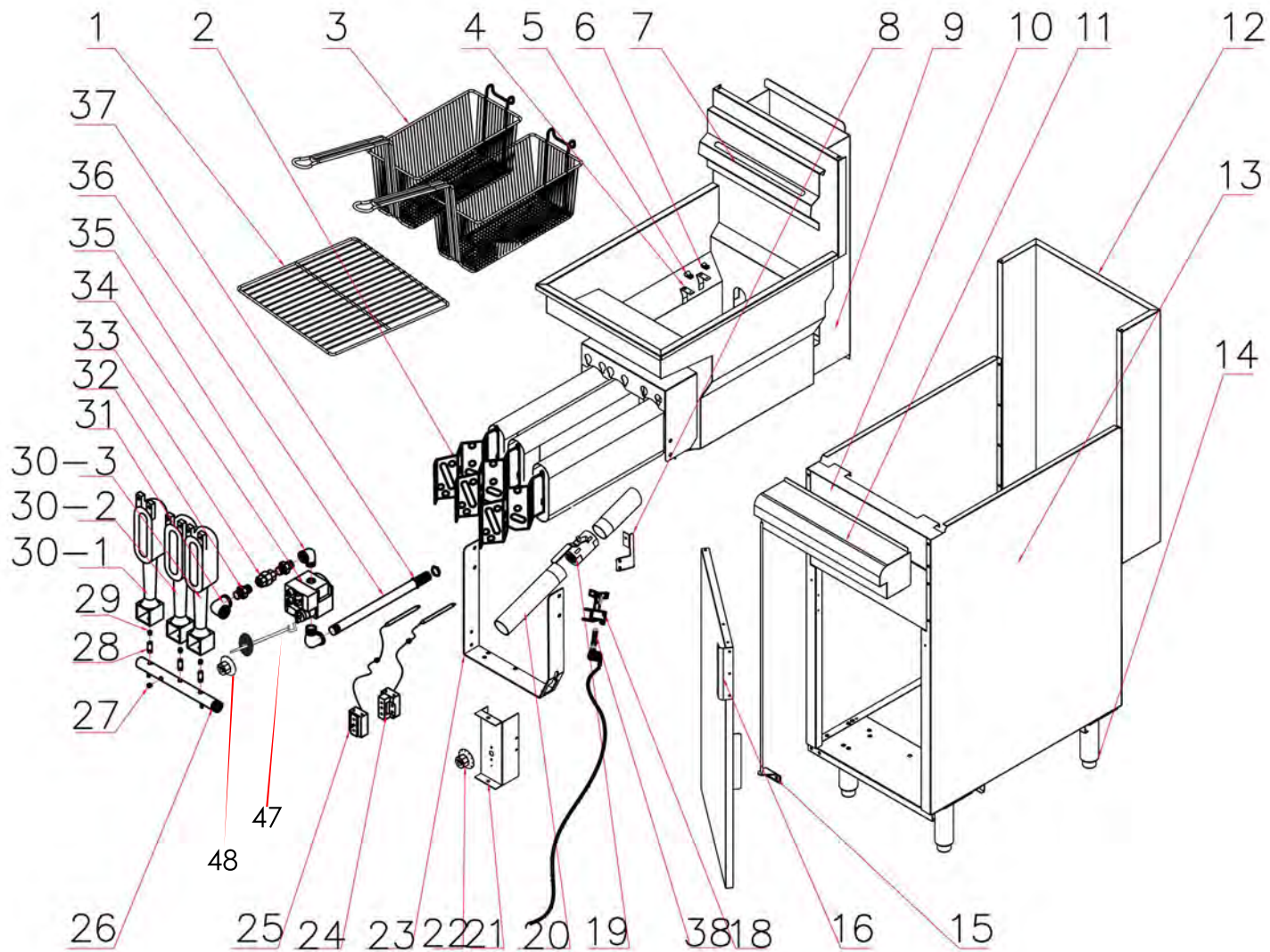
- When the fryer is cool, inspect annually. Check the flue and clear any obstructions.

Service in the US and Canada

Contact your local Service office or address on the front of this manual.

TROUBLESHOOTING

Problem	Cause
No heat	Thermostat dial not turned on. Pilot not lit. Gas supply not turned on. Wire connections loose (call service) Wires connections need cleaning (call service) Thermopile (call service)
Insufficient or too much heat	Thermostat dial not set to desired temperature. High limit tripped (call service) Temperature probe (call service)
Tank will not drain	Shortening too cold. Drain pipe clogged with debris.



Gas Fryers Parts

Reference Number	Description
1	Tube Screen Grate
2	Fire Damper Plate
3	Fry Basket
4	Fixing Plate for Probe
5	Clamp for Probe 1
6	Clamp for Probe 2
7	Hanging Plate
8	Connection Plate for Pilot
9	Tank Assembly
10	Upper Front Cross Beam
11	Front Decoration Board
12	Rear Board of Body
13	Side Board of Body
14	Adjustable Feet
15	Supporting Plate for Door Shaft
16	Door
18-1	Pilot NG
18-2	Pilot LPG
19	Oil Drain Valve
20	Oil Drain Extension Pipe
21	Holder
22	Thermostat Knob
23	Mounting Rack for Drain Pipe
24	Temperature Limiter
25	Thermostat
26	Inlet Pipe
27	Test Plug Screw
28	Injector Pipe
29	#39 NG Brass Tips 2,500 Ft.
29	#52 LPG Brass Tips 2,500 Ft.
29-1	#42 NG Elevation Tips 3000-5000 Ft.
29-2	#55 LPG Elevation Tips 3000-5000 Ft.
29-3	#45 NG Elevation Tips 10,000 Ft.
29-4	#57 LPG Elevation Tips 10,000 Ft.
29-5	#43 NG Elevation Tips 6,000 Ft.
29-6	#56 LPG Elevation Tips 6,000 Ft.
30-1	Burner Left
30-2	Burner Middle
30-3	Burner Right
31	Reducing Elbow
32	Union
33	Inner Joint
34-1	Control Valve NG
34-2	Control Valve LPG
35	Elbow Joint
36	Gas Distribution Pipe
37	Nut
38	Thermopile
39	Gas Fryer Cover
40	Casters for Gas Fryers
41	LPG Conversion Kit
42	Maxitrol regulator 1/2"
43	Maxitrol regulator 3/4"
44	Joiner Strips
45	Conversion Kit - LPG to NG
46	Splash Guard
47	Pilot Extension Rod
48	Pilot Knob

WARRANTY

ACE warrants its equipment against defects in materials and workmanship, subject to the following conditions:

ACE Equipment is warranted for one year, effective from the date of purchase by the original owner. A copy of the original receipt or other proof of purchase is required to obtain warranty coverage. This warranty applies to the original owner only, and is not assignable.

The stainless steel fry tank has a five (5) year limited tank warranty. If during the first year, the tank is found to have a leak and is verified by an authorized service company, the entire fryer will be replaced. During years two through five, a new tank will be given.

Should any product fail to function in its intended manner under normal use within the limits defined in this warranty, at ACE's discretion, such product will be repaired, replaced with a refurbished unit, or replaced with a new unit by ACE, after defective unit has been inspected and defect has been confirmed. ACE does not assume any liability for extended delays in replacing any item beyond its control. This warranty does not apply to rubber and non-metallic synthetic parts that may need to be replaced due to normal usage, wear or lack of preventative maintenance.

This warranty covers products shipped into the 48 contiguous United States, Hawaii, and metropolitan areas of Alaska and Canada. Warranty coverage on products used outside the 48 contiguous United States, Hawaii and metropolitan areas of Alaska and Canada may vary.

The following conditions are not covered by warranty:

- Equipment failure relating to improper installation, improper utility connection or supply and problems due to improper ventilation.
- Equipment that has not properly been maintained, damage from improper cleaning, and water damage to controls.
- Equipment that has not been used in an appropriate manner, or has been subject to misuse, neglect, abuse, accident, alteration, negligence, damage during transit, delivery or installation, fire, flood, riot, or act of God.
- Equipment that has the model number or serial number removed or altered.
- Equipment on which the security seal has been broken.

If the equipment has been changed, altered, modified, or repaired without express written permission from ACE, then the manufacturer shall not be liable for any damages to any person or to any property, which may result from the use of this equipment thereafter.

This equipment is intended for commercial use only and this warranty is void if equipment is used in other than a commercial application.

For warranty and non-warranty related issues and technical support call NSA at 877-672-7740. Please have your model number, serial number and proof of purchase ready. It is not necessary to contact the place where you originally purchased your product from.

"THE FOREGOING WARRANTY IS IN LIEU OF ANY AND ALL WARRANTIES EXPRESSED OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES AND CONSTITUTES THE ENTIRE LIABILITY OF ACE. IN NO EVENT DOES THE LIMITED WARRANTY EXTEND BEYOND THE TERMS STATED HEREIN."

Please fill out and return the warranty registration card below to the address provided

WARRANTY REGISTRATION CARD

MAIL CARD
IMMEDIATELY



This card must be mailed immediately after installation date for warranty to be in effect.

National Service America • 230 Park Ave, Suite 1000 • New York, NY • 10169

_____		_____	
(Name of Business)		(Dealer Purchased From)	

(Address)	(City)	(State)	(Zip Code)
_____		_____	
(Model Number)		(Serial Number)	

This is to inform that I, _____
(Please print name of individual who owns business)

have had the above installed in my place of business _____
(Date of Purchase)

_____	_____	_____
(Contact Phone Number)	(Contact E-mail)	(Signature of individual who owns Business)

The above warranties are in effect from this installation date, or 90 days, which ever comes first.