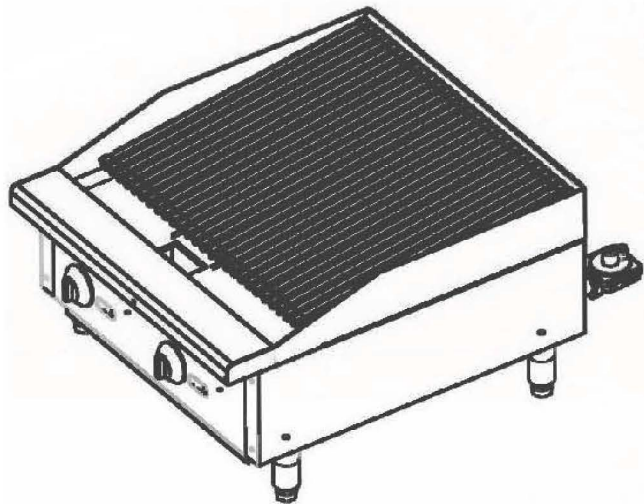


Flamaster

INSTALLATION & OPERATION MANUAL **Gas Countertop Charbroiler**

Models: FLM-CB12-M FLM-CB24-M FLM-CB36-M FLM-CB48-M



⚠ WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

For Service on Your Gas Charbroiler:

Please call the Service Department and ask for contact information for your local service company.

- IMPORTANT SAFETY NOTICE -

This manual contains important safety instructions which must be strictly followed when using this equipment. **Please retain this manual for future reference.**

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

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Attention Owners and Operators

The equipment is designed to provide safe and productive processing, cooking and warming of food products as long as the equipment is used in accordance with the instructions in this manual and is properly maintained. Unless the operator is adequately trained and supervised there is a possibility of serious injury. Owners of this equipment bear the responsibility to make certain that this equipment is used properly and safely, and to strictly follow all of the instructions contained in this manual and the requirements of local, state or federal law.

Owners should not permit anyone to touch this equipment unless they are over 18 years old, are adequately trained and supervised, and have read and understood this manual. Do not attempt to repair or convert any gas types on your own. Repairs and conversions are to be made solely by an authorized merchant servicer. Owners should also ensure that no customers, visitors or other unauthorized personnel come in contact with this equipment. Please remember that our company cannot anticipate every circumstance or environment in which its equipment will be operated. It is the responsibility of the owner and the operator to remain alert to any hazards posed by the function of this equipment. If you are ever uncertain about a particular task or the proper method of operating this equipment, ask your supervisor.

This manual contains a number of precautions to follow to help promote safe use of this equipment. Throughout the manual you will see additional warnings to help alert you to potential hazards.

Warnings affecting your personal safety indicated by:



Warnings affecting your possible damage to the equipment and property are indicated by:



If any warning labels or this manual are misplaced, damaged, or illegible, or if you require additional copies, please contact your nearest representative or equipment supplier directly for these items at no charge.

Please remember that this manual or the warning labels do not replace the need to be alert, to properly train and supervise operators, and to use common sense when using this equipment.

Model	GAS	Number Of Burners	BTU/hr Input Rating
24"Charbroiler	Natural	2	70,000
36"Charbroiler	Natural	3	105,000
48"Charbroiler	Natural	4	140,000

Unpacking & Installation

WARNING

TO AVOID SERIOUS PERSONAL INJURY AND PROPERTY DAMAGE:

- **ALWAYS** install equipment in a work area with adequate light and space.
- **ONLY** operate on a solid, level, nonskid surface that is nonflammable and away from sinks and water hazards.
- **NEVER** bypass, alter or modify this equipment in any way from its original condition. Doing so may create hazards and will void warranty.

GAS and GAS PRESSURE

CAUTION

This unit is factory supplied in Natural Gas. This unit can be converted to L.P. gas by a licensed and certified gas technician. Documentation may be necessary for warranty issues. Failure to comply with this instruction, will void warranty.
See the included L.P. conversion kit for gas conversion parts and instructions.

WARNING

Unit installation must conform with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, the National Gas Installation Code, CSA-B149.1, or the Propane Installation Code, CSA-B149.2 as applicable and in accordance with local codes.

WARNING

The appliance and it's individual shutoff valve (to be supplied by user) must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ psi (3.45 kPa).

These models are designed, built, and sold for commercial use only.

Instructions must be posted in a prominent location. All safety precautions must be taken in the event the user smells gas. Safety information can be obtained from your local gas supplier.

UNPACKING

Unpack the charbroiler immediately after receipt. Remove the gas charbroiler from the crate; remove all packaging on and surrounding the unit and be certain to remove all protective plastics and residues from all surfaces. Make sure that all parts provided including the L.P. gas conversion kit are located. Equipment must have the legs properly installed before use. Equipment must have the legs properly installed before use.

If the machine is found to be damaged, save the packaging material and contact the carrier within fifteen (15) days of delivery. Immediately contact supplier or your local dealer of the equipment. **You have no recourse to damage after fifteen (15) days.**

Unpacking & Installation

INSTALLATION

1. Read this manual thoroughly before installation and operation. DO NOT proceed with installation and operation if you have any questions or do not understand anything in this manual. Contact your local representative first.
2. Select a location for the charbroiler that has a level, solid, nonskid surface that is nonflammable and away from water hazards or sinks, and is in a well-lighted work area away from children and visitors.
3. Equipment must be installed under proper ventilation as required per local code.

NOTICE: Local codes regarding installation and ventilation vary greatly by area. The National Fire Protection Association, Inc, states that local codes are “authority having jurisdiction” when it comes to requirements for installation of equipment. Therefore, installation should comply with all local codes.

4. This appliance is equipped for Natural gas, for conversion to LP gas please see another conversion kits instruction.
5. Screw legs into the permanently fastened nuts on the four corners of the unit and tighten by hand. Legs must be installed to adequately provide proper ventilation to the unit.
6. Level unit by adjusting the four feet and tighten securely. The adjustable feet have an adjustment of one inch for lineup with other countertop lines. Do not slide unit with legs mounted, lift if necessary to move unit.
7. The supplied gas pressure regulator is factory set at 4" Natural gas W.C. or 10" for L.P.
8. THESE UNITS ARE SUITABLE FOR INSTALLATION ON NON-COMBUSTIBLE SURFACES ONLY.
Noncombustible clearances: 0" sides (0 mm) 6" rear (152 mm) 4" floor (102 mm)
9. Do not obstruct the flow of combustion and ventilation air, under the unit by the legs or behind the unit by the flue. Do not place objects between the bottom of the unit and the counter top.
10. There must be adequate clearance for removal of the front panel. All major parts except the burners are removable thru the front if the gas line is disconnected.
11. It may be necessary to adjust the balance of gas volume and air supply to each burner. This must be done by an authorized service technician.
12. Pipe threading compound must be resistant to the action of liquefied petroleum gases.

WARNING

DO NOT use an open flame to check for leaks. Check all gas piping for leaks with a soap and water solution before operating unit.

COMMISSIONING:

Commissioning of your new charbroiler is of the utmost importance. Commissioning is the thorough and methodical testing of the equipment, sub systems, and systems to ensure that the final product functions properly and safely at the work site. By identifying any potential problems (i.e.: equipment location, ventilation, local fire/electrical codes, installation, operator training and certification) prior to equipment being placed into service, costly outages and potential damages may be avoided.

SAFETY ALWAYS.

Warnings and Safeguards for Operation

⚠ WARNING

TO AVOID SERIOUS PERSONAL INJURY AND PROPERTY DAMAGE:

⚠ WARNING

For your safety, do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliances. Keep the area free and clear of combustible. (See ANSI Z83. 14B, 1991).

⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance of this equipment can cause property damage, personal injury, or death and voids warranty. Read the installation operating and maintenance instructions thoroughly before installing, or operating this equipment.

⚠ WARNING

Instructions must be posted in a prominent location. All safety precautions must be taken in the event the user smells gas. If you smell gas, immediately shut off the main gas valve, extinguish all heat and flames, and call 911. Safety information can be obtained from your local gas supplier.

IMPORTANT SAFEGUARDS & SAFETY INSTRUCTIONS

⚠ CAUTION

When using gas cooking equipment, basic safety precautions should always be followed, including the following:

The charbroiler burners, cooking grates and outside surfaces may become HOT after use. Use caution when touching the unit.

- Never directly touch the burners or cooking grates while the charbroiler is on.
- Always turn off the unit when not in use, servicing or adjusting any parts or attachments, and before cleaning.
- Never leave the charbroiler on overnight.
- Do not operate any equipment with a damaged or leaking gas line, ignitor or valves or if the unit is dropped or damaged in any manner. Call for service.
- The use of attachments not recommended or sold by the manufacturer may cause fire, injury or even death.
- Do not use outdoors.
- Do not use this equipment for any use other than the use intended by the manufacturer.
- Never use the charbroiler as a heating source
- The charbroiler does not contain any user-serviceable parts. Dealers or recommended qualified technicians should carry out repairs. Do not remove any components or service panels on this product.
- Never bypass, alter, modify or attach any unauthorized parts to this equipment. Doing so may create hazards and will void warranty
- Our company takes every care to ensure that all products are safe. Steel cutting procedures used to manufacture these items result in sharp edges. These sharp edges are removed to the best of our ability; however, we insist the operator take care when in contact with this piece of equipment.
- Always keep hands, hair and clothing away from heating source.
- Allow the charbroiler to cool down after use and before dismantling for cleaning; the unit will be too hot to handle immediately after use.

Operating Instructions

Operating the Charbroiler - Pilot Lighting Instructions

Before operating charbroiler, it should be checked to see that it is sitting level. Adjust the feet to level the charbroiler. Be sure the catch tray has been properly placed.

The pilot light on the appliance have been set at the factory. Each burner has a pilot light.

1. Make sure all knobs are in the "OFF" position.
2. The main gas valve should be "CLOSED/OFF" for five (5) minutes prior to lighting pilots to clear any existing gas. (Main gas valve is supplied by others.)
3. Turn "ON/OPEN" the main gas valve to the unit.
4. Light and hold an ignition source (match) at the pilots. When the flame is established, remove the ignition source. Repeat this step for each burner as each burner has its own individual pilot.

The pilot can be reached through the holes on the front of the unit or through the top grate. Remove the radiant before attempting to light.

5. Adjust the pilot valve, make sure the pilot flame at 1/2 inch height.
6. Turn each burner knob "ON". If the burners do not ignite promptly, turn the knobs "OFF". From the opening in the front panel, use a screwdriver and turn the pilot valve screw counterclockwise which will increase the flame height and repeat step 4.

If the pilot flame appears larger than necessary, turn it down and reset burner ignition.

The pilot flame should be as small as possible but large enough to guarantee reliable ignition of the burners when the knobs are turned to "ON". The holes located in the front panel are pilot valve adjustments. Use a screwdriver to turn the valve to adjust the flame height to your desired level.

Igniting the Burner

To ignite the burner, turn knob to the "ON" position. Then back off to the desired flame level.

The range of adjustment is virtually infinite between "ON" and "OFF".

The space between the legs at the bottom admits combustion air. DO NOT BLOCK THIS SPACE.

All burners are lit from a constantly burning pilots. Turning the valve to the desired flame height is all that is

required to put the unit in service.

Do not permit fans to blow directly at the unit. Wherever possible, avoid open windows next to the unit's sides or back. Avoid wall type fans which create air cross-currents within a room.

It is also necessary that sufficient air should be allowed to enter the room to compensate for the amount of air removed by any ventilating system. Otherwise, a subnormal atmospheric pressure will occur, affecting operation and causing undesirable working conditions.

A properly designed and installed hood will act as the heart of the ventilating system for the room or area in which the unit is installed, and will leave the unit independent of changing draft conditions.

NOTE: It may be necessary to adjust the balance of gas, volume and air supply to each burner. This must be done by an authorized service technician.

Shutdown burner

To turn 'OFF' the appliance completely, turn the gas control knob completely clockwise to the 'O' position, the pilot burner will extinguish.

Operating Instructions

Operating the Charbroiler

Prior to operating your new charbroiler, thoroughly wash the exterior with a mild detergent or soap solution. Do not use abrasive cleaners, since this might damage the cabinet finish. If the stainless steel surfaces become discolored, scrub by rubbing only in the direction of the finished grain.

Turn the burners on about 15-20 minutes before cooking for preheating. Set the knobs to the desired flame height or temperature. Each valve will control the gas flow to the burner to bring that area of the unit up to the set temperature. If different temperature settings are to be used, adjoining areas should be set at progressively higher temperatures using the lowest temperatures on the outside burners. A uniform and systematic approach to the loading of the unit will produce the most consistent product results.

NOTE: When the charbroiler is first heated, it will smoke until oil used in manufacturing, preservation and dust from storage and shipping are burned off. An hour at "max." on all burners is usually sufficient.

Radiant Charbroiler

1. Place the angled radiants in their position as shown in 8-1
2. Make sure that the radiants are setting properly into the slots on the front and rear supports. Radiants should be centered over straight section of the burners.

COOKING GRATES

Place the top cooking grates with the grid bars angled toward the front as shown in Fig. 8-2. Or, place the grid bars flat, not angled for cooking.

NOTE: When cooking grates are placed angled toward the front, the grooves on top will guide the excess fat drippings into the grease trough.

The cooking grates are heavy duty cast iron which will oxidize if emerged in water. Lightly oil grates if not being used regularly.

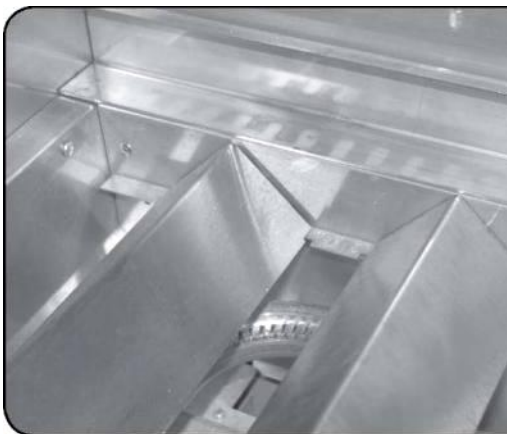
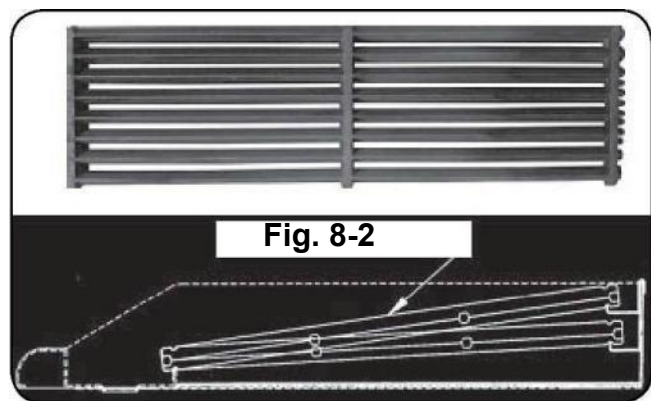


Fig. 8-1



Cleaning Instructions

CAUTION

- **DO NOT** use any abrasive or flammable cleaning fluids.
- **DO NOT** hose down, immerse or pressure wash any part of the charbroiler, excluding the catch tray.
- **NEVER** use a scrubber pad, steel wool or abrasive material, or cleaners containing chlorine, iodine and ammonia or bromine chemicals as these will deteriorate the stainless steel and shorten the life of the unit.

IF CLEANING THE BURNER OF THE CHARBROILER, THE MAIN GAS VALVE MUST BE SWITCHED TO THE CLOSED POSITION. AFTER CLEANING, THE GAS LINE CAN BE SWITCHED BACK TO THE



OPEN POSITION. PLEASE FOLLOW THE LIGHTING INSTRUCTIONS IN THIS MANUAL TO RELIGHT THE CHARBROILER'S PILOT LIGHTS.

RECOMMENDED CLEANING

It takes very little time and effort to keep the charbroiler attractive and performing at top efficiency. Wait at least one hour for the unit and grates to cool after the unit has been turned off. Please follow the cleaning steps below:

PART	REQUIRED ACTION	FREQUENCY
Body	Use a clean cloth and a non-abrasive cleaner to clean the stainless steel body of the charbroiler. Wipe the polished areas with a soft cloth.	Daily
Controls	Unit should be turned off when not in use. It is recommended that the unit be disconnected from the gas supply by closing the main gas valve. Use a clean cloth to wipe any down controls and/or knobs	Daily
Grates and Radiants	<p>Caution: When handling grates/grids or radiants, always use insulated gloves to prevent burns.</p> <ul style="list-style-type: none"> • Place grates on broiler, with grid bars horizontal, facing down. • Turn the broiler on for approximately 45 minutes. • Turn off the broiler and allow it to cool for 20 Minutes. • Clean top and bottom surfaces of grate with a wire brush to remove animal fats and carbonized grease. • Clean channels on grates with a scraper. • Remove grates from broiler. Clean top surface of radiants with the wire brush. They may be cleaned in place. <p>Warning: Do not cover the top of the grates grid during a burn off operation. Restricting the airflow by covering the grid grates may cause them to warp. It will also cause damage to the valves, the knobs and the front panel decal.</p>	Daily or as needed

Cleaning Instructions

RECOMMENDED CLEANING (CONTINUED)

PART	REQUIRED ACTION	FREQUENCY
Char Grate Back Support Brace	Once the unit has cooled, remove the cast iron grates. Lift the support brace up off of the back splash guard.. Clean and de-grease/remove debris from char grate back support brace. Once the char grate back support brace is clean, reinstall it back into place.	Daily or as need
Catch Tray	Once the unit has cooled, remove the catch tray and discard the waste, grease/debris and crumbs. CAUTION: If the catch tray is permitted to fill too high, grease/debris is likely to accumulate under the unit. The catch tray/drawer is removed by pulling forward. USE CAUTION WHEN REMOVING!	per Use or at least Daily
Burner Air Shutter Openings	Main burner ports must be kept clean. Close the gas valve to the unit, shutting off the gas and extinguishing the pilot light. Clean in place with a wire brush, or clean gas ports with a sharp-pointed metal instrument to insure open ports; or the burners may be removed and washed in soapy water for 15-20 minutes.	As needed
Regulator	Make sure the vent is open and not blocked in any way. Failure to do so will cause variations in pressure. Your unit will not function as well and it could shorten the life of the product.	Monthly

Troubleshooting

ISSUE	CAUSE	SOLUTION
Charbroiler not lighting	Main gas line is closed	Open valve
	Pilot light is not lit	Ignite pilot light
	Cause unknown	Call for service
Flame is too high or too low	Adjustment knob is turned up or down	Adjust flame with control knob
Pilot light not staying lit	Flame is too low	Adjust pilot light flame height
	Pilot tube clogged	Replace pilot tube. Call for service
Strong smell of gas in cooking area	Main gas line leak	Turn off main gas valve. DO NOT LIGHT FLAME, ignite anything, or turn/switch on anything electrical Call fire department if needed and call for service
Cooking surface is heating up slowly	Carbon build up	Ensure that the burners are kept clean and free from carbon build up/ debris
Gas type of unit needs to be converted	Unit ships from the factory Natural gas. Conversion from Natural Gas to L.P. is possible for this unit	Contact an authorized servicer. Do not attempt conversion on your own

If problems persist and the assigned solution does not remedy the issue, please call supplier's Service Department or your local service company.

Conversion Kit Instructions for the Gas Countertop Charbroiler

- IMPORTANT SAFETY NOTICE -

These conversion instructions are for conversion of the CHARBROILER. The instructions provide in this kit are for the conversion of Natural Gas to L.P. gas and refer to the conversion of the unit and kit provided. An authorized licensed technician must be called to perform the complete conversion of the unit. Failure to properly convert this unit, can result in serious injury, property damage or death and will void warranty.

Char broiler Conversion Kit Instructions



Do not attempt gas conversion by yourself. Gas conversion of your unit is to be made by a certified/licensed technician.

CONVERSION

Instructions are for conversion from Natural Gas to Propane (L.P.) on all models. The conversion should be done before connecting the unit to the gas supply. Units are shipped from the factory equipped for use on natural gas. Parts necessary for L.P. (liquid propane) are provided with the unit. **Turn off the main gas supply before doing any maintenance.**

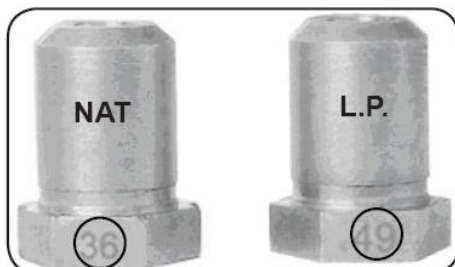
1. Remove the knobs and front panel.



2. Unscrew bolts and pilot valve, then remove manifold.



3. Replace the orifice fittings into the valve.
Note: Unit Number on side of orifice fittings.



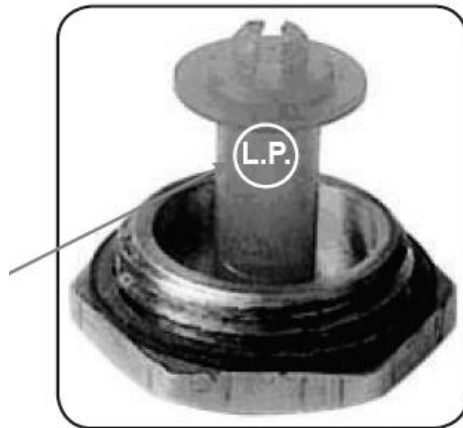
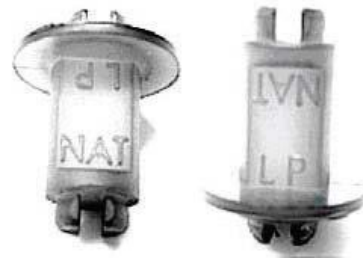
4. Replace the front panel and knobs

5. Before installing the included convertible regulator, unscrew the octagon cap. You can read (NAT) on the plastic insert attached to the head of the cap; flip it over and snap back in place.

Pictured is the plastic insert. Pull off insert from octagon cap and reverse the plastic insert position so that the L.P. position is attached to the octagon cap head.



Convertible regulator with octagon cap. Unscrew from regulator.



L.P. Position of insert. Regulator is now converted to L.P.

L.P. Position

6. Continue with installation.

A product with the name incorporates the best in durability and low maintenance. We all recognize, however, that replacement parts and occasional professional service may be necessary to extend the useful life of this unit. When service is needed, contact a Authorized Service Agency, or your dealer. To avoid confusion, always refer to the model number, serial number, and type of your unit.



Limited Warranty

warrants to the original purchaser of new equipment that said equipment, when installed in accordance with our instructions within North America and subjected to normal use, is free from defects in material or workmanship for a period of 1 year. The labor warranty is one year from original installation or 18 months from actual factory shipment date whichever date occurs first. Warranty includes onsite service calls within 60 miles of an authorized service company. End user is responsible for all extra travel and mileage at prevailing rates.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED. EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR EXPRESSED OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

'S OBLIGATION AND LIABILITY UNDER THIS WARRANTY IS EXPRESSLY LIMITED TO REPAIRING AND REPLACING EQUIPMENT WHICH PROVES TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP WITHIN THE APPLICABLE WARRANTY PERIOD. All repairs pursuant to this Warranty will be performed by an Authorized Designated Service Location during normal working hours. This warranty does not cover services performed at overtime or premium labor rates. End user is responsible for the difference between normal service rates and premium service rates. IN NO EVENT SHALL BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES TO BUYER OR ANY THIRD PARTY, INCLUDING, WITHOUT LIMITATION, LOSS OF PROPERTY, PERSONAL INJURY, LOSS OF BUSINESS OR PROFITS OR OTHER ECONOMIC LOSSES, OR STATUTORY OR EXEMPLARY DAMAGES, WHETHER IN NEGLIGENCE, WARRANTY, STRICT LIABILITY, OR OTHERWISE.

This warranty is given only to the first purchaser from a retail dealer. No warranty is given to subsequent transferees.

Warranty does not cover product failures caused by: failure to maintain, neglect, abuse, damage due to excess water, fire, normal wear, improper set up and use. Periodic maintenance is not covered. This warranty is not in force until such time as a properly completed and signed installation/warranty registration or an online registration form has been received by within 30 days from the date of installation. Proof of purchase is required to extend warranty more than 1 year from date of shipment from the factory.

THE FOREGOING WARRANTY PROVISIONS ARE A COMPLETE AND EXCLUSIVE STATEMENT BETWEEN THE BUYER AND SELLER. NEITHER ASSUMES NOR AUTHORIZES ANY PERSONS TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH SAID EQUIPMENT.

Example of items not covered under warranty, but not limited to just these items:

- 1 Acts of God, fire, water damage, burglary, accident, theft.
- 2 Freight damage.
- 3 Improper installation or alteration of equipment.
- 4 Use of generic or after market parts.
- 5 Repairs made by anyone other than a designated servicer.
- 6 Lubrication.
- 7 Expendable wear parts, adjustable feet, blown fuses, lamps, etc.
- 8 Cleaning of equipment.
- 9 Misuse or abuse.