

Gas Fryer

Installation and Operation Instructions

CE 2575-22
PIN: 2575DN32161
EN203-1:2014

**UK
CA** 0359-22
PIN: 0359CU05301
BSEN203-1:2014

Gas heated catering equipment(TYPE A)

Model: DC319-P, DC319-N

IMPORTANT FOR FUTURE REFERENCE

Please complete this information and retain this manual for the life of the equipment. For Warranty Service and/or parts, this information is required.

Model Number

Serial Number

Date Purchased



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 materials.



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.



WARNING: 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.



WARNING: Components must not be cleaned in a dishwasher



Nisbets PLC

Fourth Way, Avonmouth, Bristol, BS11 8TB,
Unit 9003, Blarney Business Park, Blarney, Co. Cork

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Introduction

We are confident that you will be delighted with your Buffalo Gas Fryer, and it will become a most valued appliance in your commercial kitchen.

To ensure you receive the utmost benefit from your new Gas Fryer, there are two important things you can do.

Firstly:

Please read the instruction book carefully and follow the directions given.

Secondly:

If you are unsure of any aspect of the installation, instructions or performance of your appliance, contact your dealer promptly. In many cases a phone call could answer your question.

CE Only:

These instructions are only valid if the country code appears on the appliance. If the code does not appear on the appliance, refer to the supplier of this appliance to obtain the technical instructions for adapting the appliance to the conditions for use in that country.

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 APPLIANCE.

WARNING:

INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE USER SMELLS GAS ARE TO BE POSTED IN A PROMINENT LOCATION. THIS INFORMATION SHALL BE OBTAINED BY CONSULTING THE LOCAL GAS SUPPLIER.

WARNING:

GREAT CARE MUST BE TAKEN BY THE OPERATOR TO USE THE EQUIPMENT SAFELY TO GUARD IT AGAINST RISK OF FIRE.

- THE APPLIANCE MUST NOT BE LEFT ON UNATTENDED.
- IT IS RECOMMENDED THAT AN INSPECTION IS MADE AT LEAST ANNUALLY BY A COMPETENT SERVICE PERSON TO ENSURE CORRECT AND SAFE OPERATION OF YOUR APPLIANCE IS MAINTAINED.
- DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPOURS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.
- DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION.

CAUTION:

THIS APPLIANCE IS;

- FOR PROFESSIONAL USE AND IS TO BE USED BY QUALIFIED PERSONS ONLY.
- ONLY PERSONS WHO ARE QUALIFIED TO CARRY OUT INSTALLATION, SERVICING AND GAS CONVERSION OPERATIONS MAY DO SO.
- COMPONENTS HAVING ADJUSTMENTS PROTECTED BY THE MANUFACTURER SHOULD NOT BE ADJUSTED BY THE USER/OPERATOR.
- DO NOT OPERATE THE APPLIANCE WITHOUT THE CASTORS SUPPLIED FITTED.

A colour version of this manual is available online

Specifications

General

- Stainless steel enclosure
- All burners have flame safeguard
- The valve is the modulating thermostat with on/off function with temperature selecting knob
- Cast iron burner
- Thermostat with manual reset limit switch
- Three/four burner; Three/four combustion tube
 - ◆ Oil Tank size 14" X 14"

Pack Contents

The following is included:

- Gas Fryer
- Castors
- Instruction
- Fryer Restraint Chain

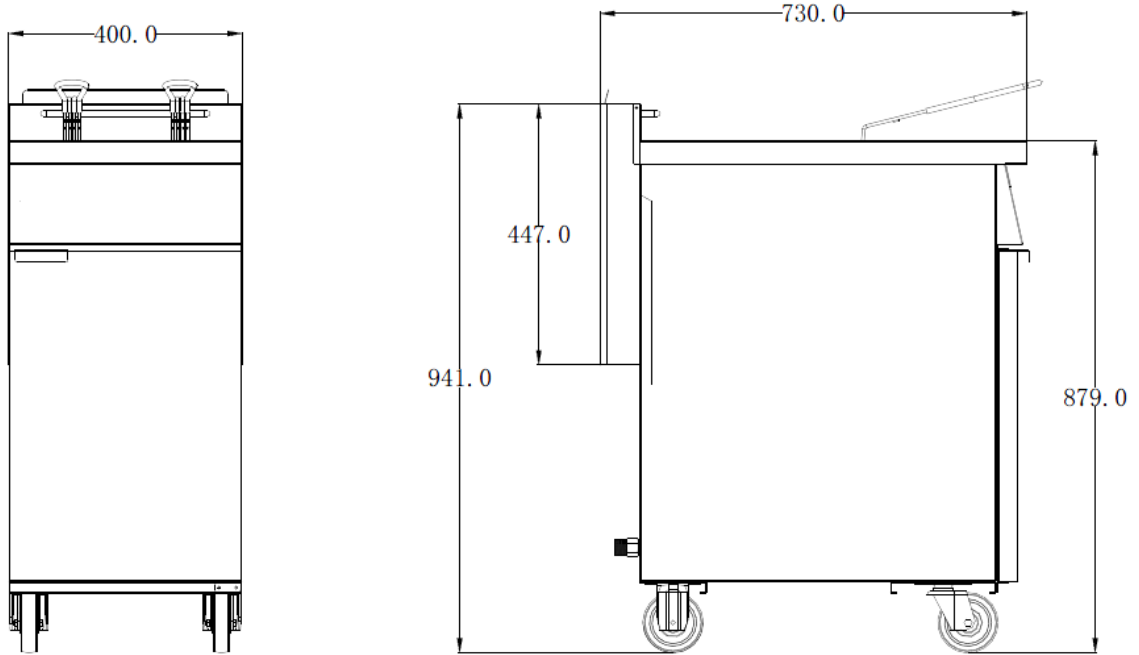
Gas Supply Requirements

Gas Type	Natural Gas (G20)	Propane (G31)	Butane (G30)
Models	DC319-N	DC319-P	DC319-P
Single burner Heat Input	8.8KW	8.8KW	8.8KW
Heat Total	26.4 KW	26.4 KW	26.4 KW
Manifold Pressure	17 mbar	36 mbar	29 mbar
Min. Inlet Supply Pressure	20mbar	37 mbar	30 mbar
Main burner injector orifice	#43 (Ø2.28mm)	#53 (Ø1.51mm)	#53 (Ø1.51mm)
Pilot Injector Orifice Size	Ø 0.021" (Ø0.53mm)	Ø 0.01" (Ø0.25mm)	Ø 0.01" (Ø0.25mm)
Gas Connection	¾" BSP	¾" BSP	¾" BSP

The burner operating pressure is to be measured at the gas control valve outlet test point with one burner operating at 'High' setting. The operating pressure must be in accordance with the requirements of the pressure in the above table.

Dimensions

DC319-P, DC319-N



Installation

Installation Requirements

NOTE:

- **It is most important that this appliance is installed correctly and that operation is correct before use. Installation shall comply with local gas, health and safety requirements.**
- **This appliance shall be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to health.**

Our Gas Fryers are designed to provide years of satisfactory service and correct installation is essential to achieve the best performance, efficiency and trouble-free operation.

This appliance must be installed in accordance with National installation codes and in addition, in accordance with relevant National / Local codes covering gas and fire safety.

Australia:

AS 5601/AG 601 (to be AS 5601) - Gas Installations

New Zealand:

NZS 5261-Gas Installation.

United Kingdom:

Gas Safety (Installation and Use) Regulations 1998

BS 6173-Installation of Catering Appliances.

BS 5440-1&2 Installation Flueing & Ventilation.

Ireland:

IS 820-Non Domestic Gas Installations.

Installations must be carried out by qualified persons only. Failure to install equipment to the relevant codes and manufacturer's specifications shown in this section will void the warranty. Components having adjustments protected by the manufacturer are only to be adjusted by an authorized service agent. They are not to be adjusted by the installation person.

Unpacking

- Remove all packaging and transit protection from the appliance including all protective plastic coating from the exterior stainless steel panels.
- Check equipment and parts for damage. Report any damage immediately to the carrier and distributor.
- Ensure that the 4 adjustable castors are fitted with the protruding center screw.
- Report any deficiencies to the distributor who supplied the appliance.
- Check that the available gas supply is correct to that shown on the rating plate located on the right hand panel.

Location

1. Installation must allow for a sufficient flow of fresh air for the combustion air supply.
2. Installation must include adequate ventilation means, to prevent dangerous build-up of combustion products.
3. Any gas burning appliance requires adequate clearance and ventilation for optimum and trouble-free operation. The minimum installation clearances shown are to be adhered to.
4. Position the appliance in its approximate working position.
5. All air for burner combustion is supplied from underneath the unit. The legs must always be fitted and no obstructions placed on the underside or around the base of the unit, as obstructions will cause incorrect operation and / or failure of the appliance.
6. Components having adjustments protected by manufacturer are only allowed to be adjusted by an authorized service agent. They are not to be adjusted by the installation person.

Installation

Clearances

NOTE: THESE UNITS ARE SUITABLE FOR INSTALLATION ON NON-COMBUSTIBLE SURFACES ONLY.

For use in non-combustible locations only

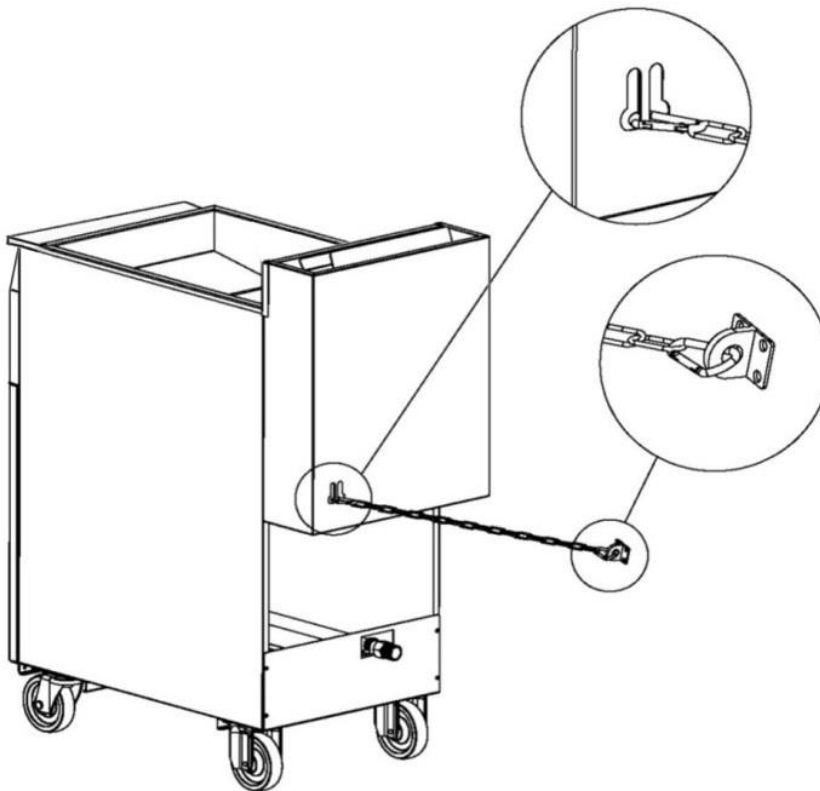
For use only on non-combustible ground

Noncombustible and unit clearances: sides and rear – 14”(355mm) floor

Assembly

NOTE:

- This appliance is assembled before delivery except castors.
- This appliance is fitted with castors to enable the appliance to be positioned securely and level. This should be carried out on completion of the gas connection. Refer to the 'Gas Connection' section.
- IM states that the appliance shall be installed in such a way that side body surfaces are not accessible in the installed position.
-



When a fryer is installed on castors, the fryer restraint chain must be attached to the back of the unit and adjacent wall.

Gas Connection

NOTE: ALL GAS FITTING MUST ONLY BE CARRIED OUT BY A QUALIFIED PERSON.

A 3/4" male BSP line for the gas connection is located near the lower left rear corner of the fryer. The serial plate (located inside the front door of the fryer) indicates the type of gas the unit is equipped to burn (natural gas or propane). The fryer should be connected ONLY to the type of gas for which it is equipped.

For orifice sizes, refer to spare parts list. If the fryer is being installed at over 2,000 feet altitude and that information was not specified when ordered, contact the appropriate authorized Buffalo Service Representative or the Buffalo Service Department. Failure to install with proper orifice sizing will result in poor performance and may void the warranty.

If applicable, the vent line from the gas appliance pressure regulator shall be installed to the outdoors in accordance with local codes or, in the absence of local codes, with the

United Kingdom:

Gas Safety (Installation and Use) Regulations 1998
BS 6173-Installation of Catering Appliances.
BS 5440-1&2 Installation Flueing & Ventilation.

Ireland:

IS 820-Non Domestic Gas Installations.

An adequate gas supply is imperative. Undersized or low pressure lines will restrict the volume of gas necessary for satisfactory performance. A combination gas valve is provided with each unit.

Purge the supply line to clean out dust, dirt, or other foreign matter before connecting the line to the unit. It is recommended that an individual manual shutoff valve be installed in the gas supply line to the unit. Use pipe joint compound that is suitable for use with both natural and LP gas on all threaded connections.

ALL PIPE JOINTS AND CONNECTIONS MUST BE TESTED THOROUGHLY FOR GAS LEAKS. USE GAS LEAK DETECTION FLUID FOR TESTING ON ALL GASES. NEVER USE AN OPEN FLAME TO CHECK FOR GAS LEAKS. ALL CONNECTIONS MUST BE CHECKED FOR GAS LEAKS BEFORE THE UNIT HAS BEEN PUT INTO OPERATION.

Installation



CAUTION

THIS APPLIANCE AND ITS INDIVIDUAL COMBINATION GAS VALVE MUST BE CONNECTED FROM THE GAS SUPPLY PIPING SYSTEM DURING ANY PRESSURE TESTING.

Connect the gas supply directly to the 3/4" male BSP connector located near the lower left rear corner of the fryer. When tightening the supply pipe, be sure to hold the mating connector extending from the unit securely with a wrench. This will prevent any damage or distortion to the internal piping and controls of the unit.

After connecting the gas supply, check again that the fryer is level. Use along spirit level four ways; across the front and rear of the fryer pot, and along each edge.

Commissioning

1. Before leaving the new installation;
 - a. Check the following functions in accordance with the operating instructions specified in the 'Operation' section of this manual.
 - Light the Pilot Burner.
 - Light the Main Burner.
 - Turning 'Off' the Main Burner/Pilot.
 - b. Ensure that the operator has been instructed in the areas of correct lighting, operation, and shutdown procedure for the appliance.
2. This manual must be kept by the owner for future reference and a record of the Date of Purchase, Date of Installation and the Serial Number of the Appliance must be recorded and kept with this manual. (These details can be found on the Rating label which is located behind the fryer door.).

NOTE: If for some reason it is not possible to get the appliance to operate correctly, shut off the gas supply and contact the supplier of this appliance.

Operation

Operation Guide

CAUTION:

- THIS APPLIANCE IS FOR PROFESSIONAL USE AND IS ONLY TO BE USED BY QUALIFIED PEOPLE.
- ONLY PERSONS WHO ARE QUALIFIED TO CARRY OUT INSTALLATION, SERVICING AND GAS CONVERSION OPERATIONS MAY DO SO.
- COMPONENTS HAVING ADJUSTMENTS PROTECTED (E.G. PAINT SEALED) BY THE MANUFACTURER SHOULD NOT BE ADJUSTED BY THE USER/OPERATOR.

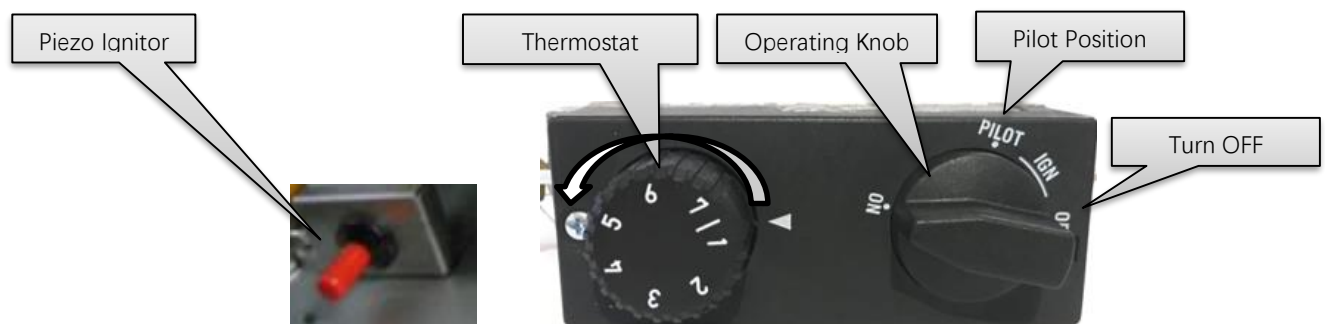
Lighting Procedure:

Do NOT turn the thermostat On until the fryer pot is filled with oil or solid shortening.

Open the burner compartment door and do the following:

1. Turn Operating knob to Pilot position and push down. A piezo igniter or a match can be used to ignite the pilot gas while the operating knob is pushed down. If the pilot does not stay lit when the Operating knob is released, wait 10 seconds before repeating the lighting procedure and keep the Operating knob down longer. Adjustment of pilot flame may be necessary.
2. After the gas is alight, turn Operating knob to ON position.
Note: By turning the Operating knob to the OFF position, the gas flow is turned off.
3. Once the fryer pot is filled with oil, set the thermostat to the desired temperature. To select the desired temperature with the thermostat, see reference table.

Temperature reference table							
Thermostat knob setting	1	2	3	4	5	6	7
°C	110°C	123°C	137°C	150°C	163°C	177°C	190°C
°F	230°F	253°F	279°F	302°F	325°F	351°F	374°F



Filling the fryer pot

1. Close drain valve completely before filling the fryer pot.
2. When the fryer is new, fill the fryer pot with water and clean thoroughly (see "Weekly Cleaning" on page 13) in order to remove protective coatings and any foreign matter.
3. Remove the basket support frame when filling the fryer pot with solid shortening.

Operation

4. When solid shortening is used, be careful not to bend, break, or twist the thin capillary wires of the elements located in the fryer pot.
5. Pack solid shortening into the zone below the tubes, all spaces between the tubes, and at least an inch above the top of the tubes before lighting the fryer. If any air spaces are left around the heat tube surfaces when the heat is turned on, the tube surfaces will become red hot, burn the solid shortening, weaken the fryer pot, and could result in a fire.

CAUTION

NEVER ATTEMPT TO MELT A SOLID BLOCK OF SHORTENING ON TOP OF THE HEAT TUBES. NEVER START THE BURNERS WHEN THE FRY POT IS EMPTY.

7. To prevent burning or scorching the solid shortening, keep the thermostat set at the lowest temperature until all the solid shortening between and above the tubes has been melted. Additional solid shortening can then be added until the desired frying depth has been reached.
8. Replace the basket support frame over the fryer pot heat tubes.

Shutdown Procedure

Standby: Turn Operating Knob on the combination gas valve to the "PILOT" position. At this setting, only the pilot burner will remain ignited.

Complete Shutdown: Turn Operating Knob on the combination gas valve to the "OFF" position to extinguish pilot burner and main burner and turn thermostat off completely

Relighting

In the event of a main burner ignition failure, a five minute purge period must be observed prior to re-establishing the ignition source.

1. Shut off all gas.
2. Wait five minutes.
3. Follow the "Lighting" procedure described on page 10.

Automatic Pilot Valve

The Automatic Pilot Valve provides an automatic safety shut off or the fryer when the pilot flame is extinguished. When the pilot flame is burning, the valve is held open electromagnetically by the electrical current from a thermopile in the pilot flame. When the pilot flame goes out, generation of current ceases and the valve closes automatically.

Operation

High Limit Control

Buffalo Fryers are equipped with a secondary heat control that prevents the oil temperature from rising above 195°C/450°F. (Because of the accuracy tolerance of the sensor, the oil temperature may reach as high as 200°C/475°F.)

In the event the fryer shuts down due to this condition, the oil must be cooled to below 185°C/400°F before the pilot burner can be re-ignited. When the oil has cooled, use the "Lighting" procedure on page 10 to place the fryer back in operation. If the problem persists, contact our Buffalo Service Representative or the Buffalo Service Department.

Main burner air supply:

1. For efficient burner operation, a proper balance of gas volume and primary air supply must be maintained which will result in complete combustion. Insufficient air supply results in a yellow streaming flame. Primary air supply is controlled by an air shutter on the front of the burner.
2. Loosen the screws on the front of the burner and adjust the air shutter to just eliminate the yellow tips of the burner flame. Lock the air shutter in place by tightening the screws.

CAUTION

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

All burners are lit from constantly burning pilots. Turning the valve to the desired 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 units' 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.

The Combination Valve must be checked periodically. This must be done by an authorized service representative in your area.

Note:

Please wait at least 15 seconds to restart the main burners to maintain the best function of the thermostat valve after turning off the main burners.

IMPORTANT

Should any abnormal operation like;

- ignition problems,
- abnormal burner flame,
- burner control problems,
- partial or full loss of burner flame in normal operation,

be noticed, the appliance requires IMMEDIATE service by a qualified service person and should not be used until such service is carried out.

Cleaning and Maintenance

Buffalo equipment is constructed with the best quality materials and is designed to provide durable service when properly maintained. To expect the best performance, your equipment must be maintained in good condition and cleaned daily. Naturally, the frequency and extent of cleaning depends on the amount and degree of usage.

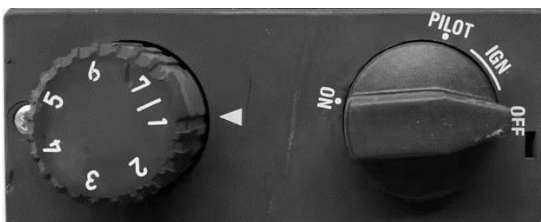
Following daily and more extensive periodic maintenance procedures will increase the life of your equipment. Climatic conditions (e.g., salt, air) may result in the need for more thorough and more frequent cleaning in order to keep equipment performing at optimal levels.

If necessary to move the fryer for cleaning, etc., drain oil first to avoid death or serious injury.

If disconnection of the restraint is necessary to move the appliance for cleaning, etc., reconnect it when the appliance is moved to its originally installed position.

DAILY CLEANING

1. Turn Operating knob to "OFF" position



2. Place hot-oil safe container under the drain and drain the fryer pot completely.
3. Remove the basket support frame (if applicable) and flush out any sediment remaining in the fryer pot with a little hot oil.
4. Wipe off the basket support frame and the inside of the fryer pot with a clean cloth.

CAUTION

SOME AREAS OF THE FRY POT MAY BE HOT!

5. Close drain valve and strain the oil back into the fryer pot through several layers of cheese cloth, or filter it back using a filter machine.
6. Replace the basket support frame (if applicable)
7. Add oil or shortening to MIN oil level marked on rear of fryer pot.
8. To resume cooking, turn the thermostat on.

WEEKLY CLEANING

1. Follow steps 1 through 4 of the Daily Cleaning procedure (see previous section).
2. Close drain valve and fill fryer pot with a solution of warm water and boil-out compound
3. Relight the fryer and bring the solution to a gentle boil for at least five minutes.
4. Turn off main burners and let the solution stand until the gum deposits are softened and the carbon spots and burned grease spots can be rubbed off.
5. Scrub the fryer pot walls and heat tubes, then drain out fryer pot and rinse it with clean water.
6. Refill the fryer pot with clean water and boil again.
7. Turn off gas and drain and rinse well until clean.
8. Wipe dry with a clean cloth.
9. Refill as specified in the "Filling the Fryer "pot" section

WARNING

Ensure that the thermostat capillaries and bulbs clipped to the elements are not damaged during cleaning

MONTHLY CLEANING

1. Perform the Weekly Cleaning procedure (see previous section).
2. Clean around burner and orifices if lint has accumulated.
3. Visually check that burner carry-over ports are unobstructed.

CLEANING STAINLESS STEEL SURFACES

To remove normal dirt, grease and product residue from stainless steel use ordinary soap and Water (with or without detergent) applied with a sponge or cloth. Dry thoroughly with a clean cloth. Never use vinegar or any corrosive cleaner.

To remove grease and food splatter or condensed vapors that have baked on the equipment, apply cleanser to a damp cloth or sponge and rub cleanser on the metal in the direction of the polishing lines on the metal. Rubbing cleanser, as gently as possible, in the direction of the polished lines will not mark the finish of the stainless steel. NEVER RUB WITH A CIRCULAR MOTION. Soil and burnt deposits that do not respond to the above procedure can usually be removed by rubbing the surface with scouring pads or STAINLESS scouring pads. DO NOT USE ORDINARY STEEL WOOL, as any particles left on the surface will rust and further spoil the appearance of the finish. NEVER USE A WIRE BRUSH, STEEL SCOURING PADS (EXCEPT STAINLESS), SCRAPER, FILE OR OTHER STEEL TOOLS. Surfaces that are marred collect dirt more rapidly and become more difficult to clean.

Marring also increases the possibility of corrosive attack. Refinishing may then be required.

Darkened areas, called "heat tint," sometimes appear on stainless steel surfaces where the area has been subjected to excessive heat. These darkened areas are caused by thickening of the protective surface of the stainless steel and are not harmful. Heat tint can normally be removed by the above cleaning techniques, but tint which does not respond to that procedure calls for a vigorous scouring in the direction of the polish lines, using scouring pads or a STAINLESS scouring pad in combination with a powdered cleanser. Heat tint action may be lessened by not applying or by reducing, heat to equipment during slack periods.

Service (For Authorized Service Technician Only)

NOTICE

Warranty will be void and the manufacturer is relieved of all liability if:

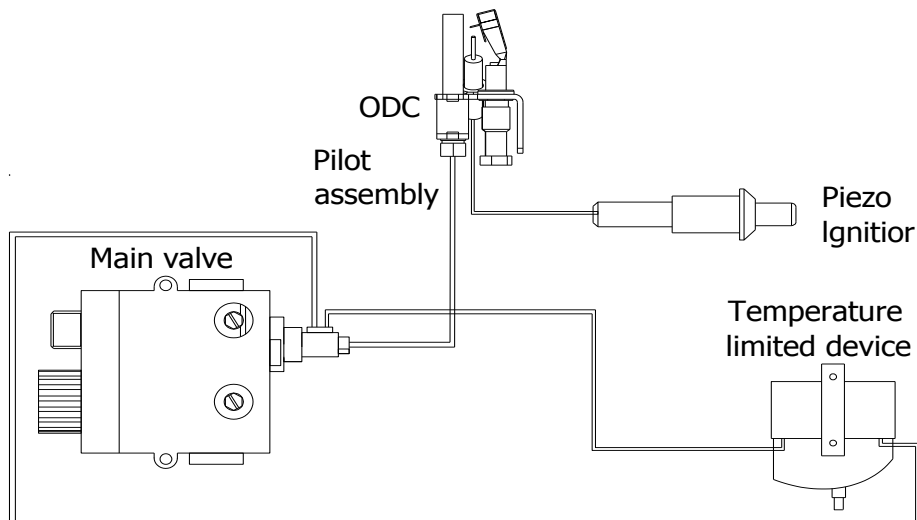
Service work is performed by other than a qualified technician OR Other than approved Buffalo replacement parts are installed.

⚠ WARNING

Adjustments and service work may be performed only by a qualified technician who is experienced in, and knowledgeable with, the operation of commercial gas cooking equipment. However, to assure your confidence, contact your Buffalo Service Representative for reliable service, dependable advice or other assistance, and for genuine factory parts.

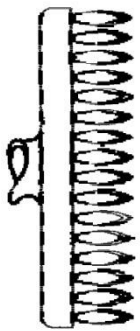
All units are adjusted at the factory. In case of problems in operation at initial installation, check type of gas and manifold pressure and compare with information listed on the serial plate.

Electrical Diagrams

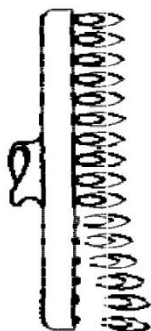


CHECKING AND ADJUSTING MAIN BURNERS

The main burners should burn with a steady blue flame, and the inner cone of the flame from each port should be about 19mm long. The flame from each main burner should enter each heat tube without touching the front of the fryer pot or the sides, top, or bottom of each tube.



Yellow Tips
(too little air or
too much gas)



Blowing or Lifting Flames
(too much air)



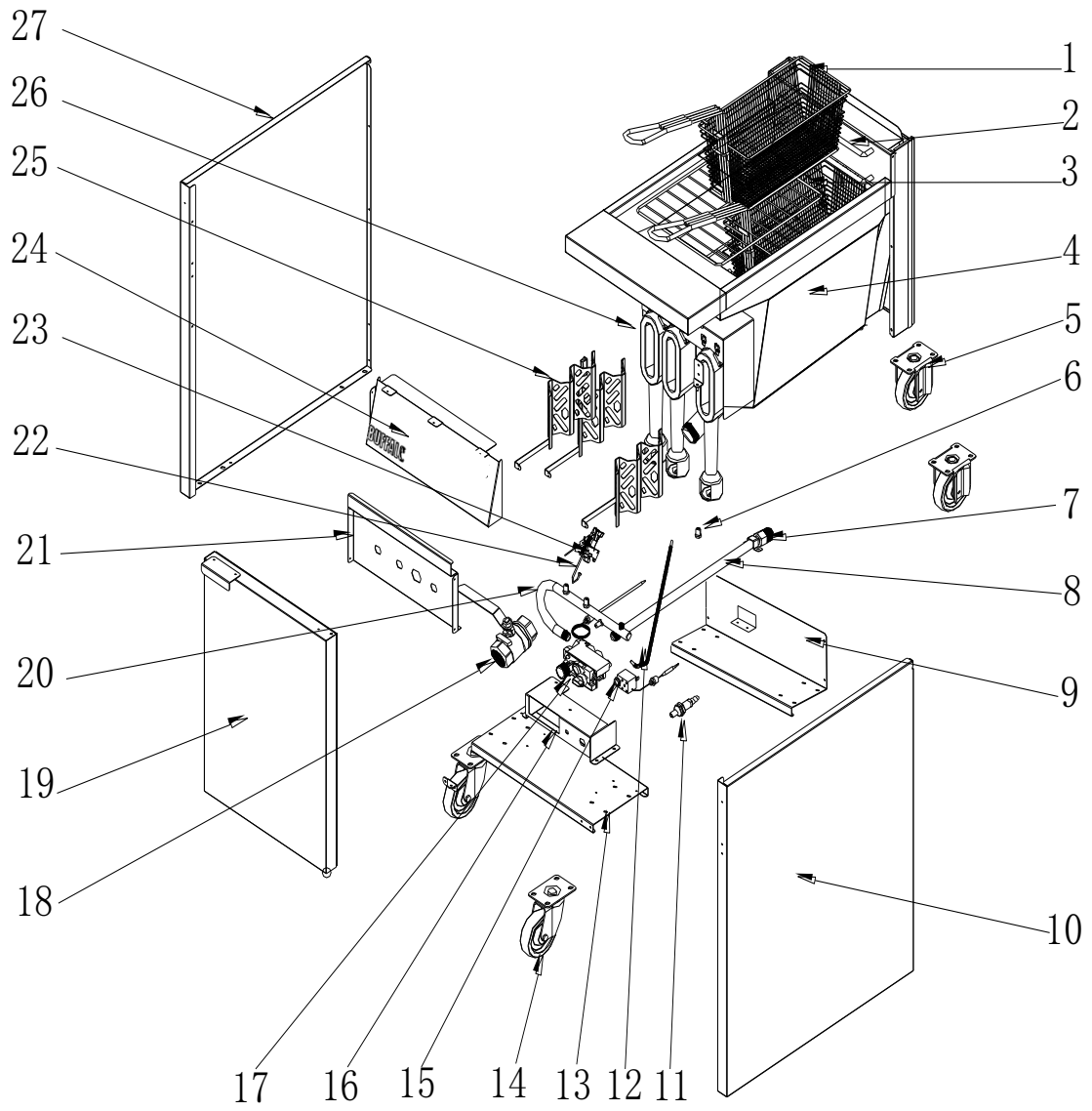
Normal Flame

Troubleshooting

Fault	Possible Cause	Remedy
Pilot won't light.	No gas supply.	<p>Ensure gas isolation valve is turned on, and that bottles are not empty.</p> <p>Call the service provider.</p>
Pilot goes out when gas control knob released.	<p>Releasing knob before the thermocouple has heated.</p> <p>Pilot flame too small.</p> <ul style="list-style-type: none"> - Gas pressure too low. - Partially blocked pilot injector. <p>Thermocouple connection to the gas control is loose or faulty.</p> <p>Thermocouple faulty.</p> <p>Electromagnet in the rear of the gas control unit is faulty.</p>	<p>Hold knob in for at least 20 seconds following ignition of the pilot.</p> <p>Clean or replace the pilot injector.</p> <p>Tighten the thermocouple connection.</p> <p>Check that the thermocouple is producing between 20-30mV.</p> <p>Inspect and replace if not in good working order.</p> <p>Call the service provider.</p>
Main burner will not light.	<p>Incorrect supply pressure.</p> <p>Faulty gas control.</p>	<p>Call the service provider.</p> <p>Call the service provider.</p>

Explosion drawing

DC319-P, DC319-N



Spare Parts List

NO.	SUPPLIER CODE	DESCRIPTION	QTY.
1	01.10.1061041	Basket	2
2	01.10.1061042	basket Hook	2
3	01.11.1062050	Oil Net	1
4	06.05.1473525	Oil Tank Assembly	1
5	01.02.1005320	Fixed Wheel	2
6	01.20.1068653(LPG) 01.20.1068643(NG)	Main Injector	3
7	01.18.1067504	Connector	1
8	01.02.1005721	Inlet Tube	1
9	01.05.1031380	Stand	1
10	01.05.1031378	right panel	1
11	03.99.1290152	Lighter	1
12	01.24.1071045	Pilot pipe	1
13	01.05.1031379	Stand	1
14	01.02.1005319	Universal Wheel(brake)	1
15	03.99.1290238	High Temperature Protector	1
16	01.05.1031167	Solenoid Electric Valve Fix Plate	1
17	06.05.1473702	Combination valve Assy	1
18	01.20.1068560	Valve	1
19	06.05.1473524	Door Assembly	1
20	01.09.1050652	Manifold Assembly	1
21	01.05.1031381	mirror plate	1
22	06.05.1473753	Flame Device System	1
23	01.20.1068567(LPG) 01.20.1068570(NG)	FDS injector	3
24	01.05.1031375	front panel	1
25	06.05.1472961(LPG) 06.05.1472962(NG)	Flame distribution plate	3
26	01.03.1015095	Burner	3
27	01.05.1031377	Left panel	1

Gas Conversion

CAUTION!

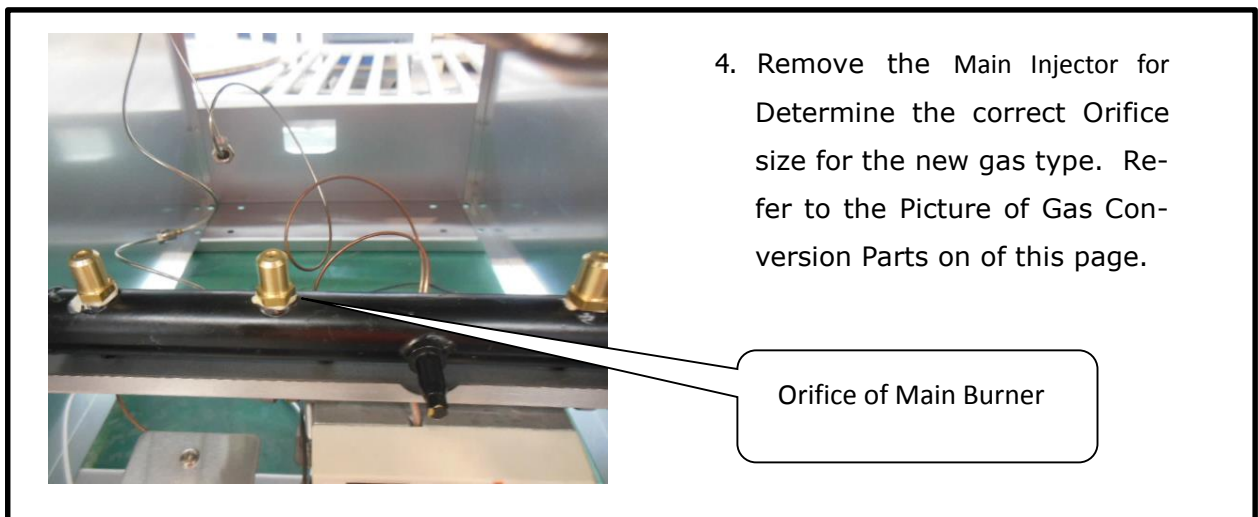
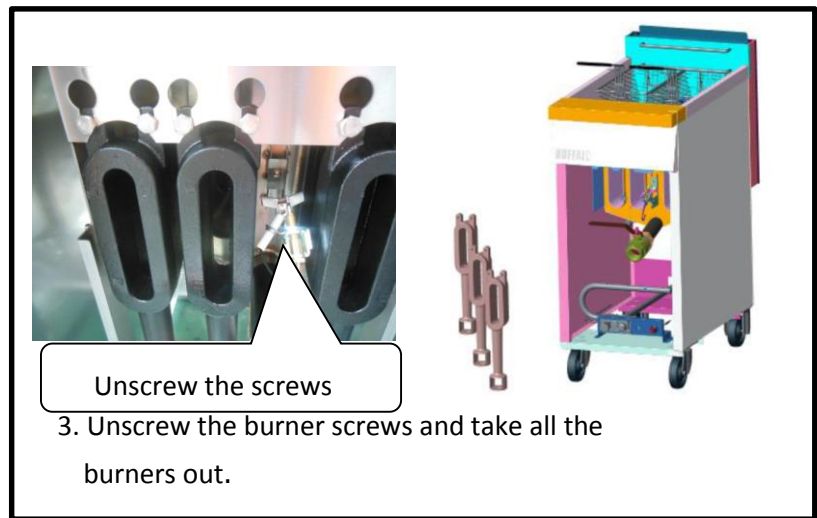
Only qualified/authorized service persons are to carry out gas conversion operations. Before proceeding with the gas conversion procedure, allow the unit to cool down first, and ensure that the main gas supply connected to the equipment is shut-off, and lock-out/tag-out procedure is followed, to prevent injury to persons or damage to property.

Picture of Gas Conversion Parts



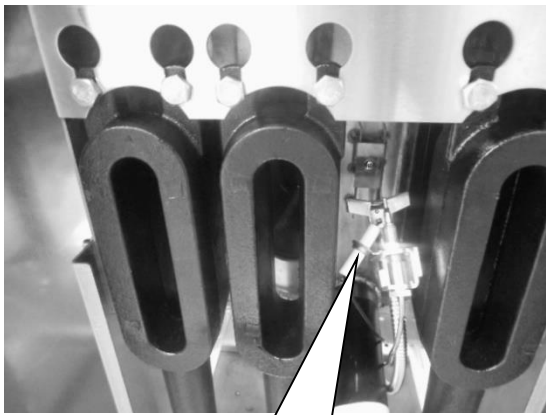
● Replace Orifice of Main Burners

1. Turn off the gas supply at the mains supply.



● Replace Injector of Pilot Burners

1. To remove the pilot burner injector, Slacken the gas supply tube at the gas control unit end of the supply tube to allow the tube to be moved easily without bending.
2. Disconnect the gas supply tube from the base of the pilot burner and withdraw the pilot injector from inside the pilot burner.
3. Determine the correct injector size for the corresponding gas from the rating label.
4. Re-connect the supply tube to the base of the pilot burner and tighten the gas supply tube at the gas control unit end.
5. Use screws lock ODS on ODS rack.



Unscrew the screws
then take ODS out



Replace the pilot
injector orifice

∅ 0.021



01.20.1068571x1PCS

Unit number on top of injector

21 indicates the diameter of injector is 0.021inch. This injector is used for NAT

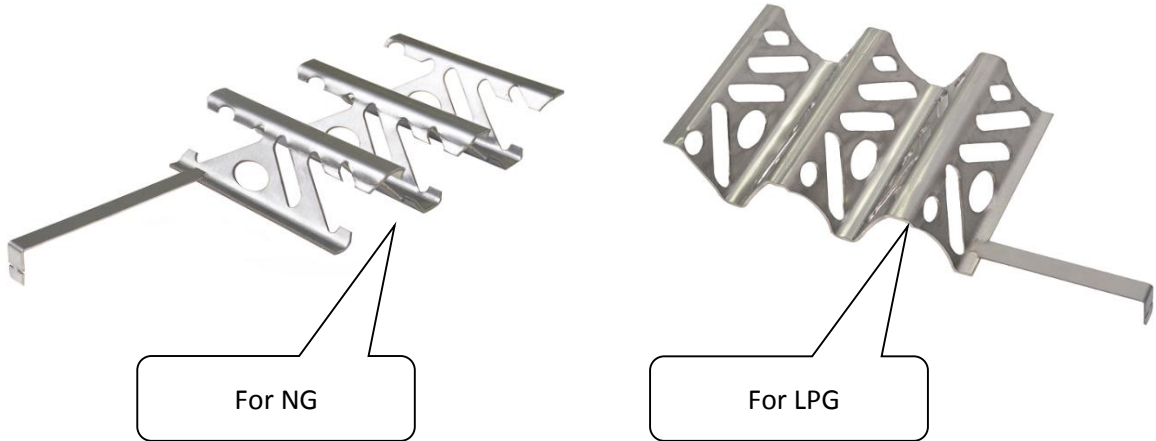
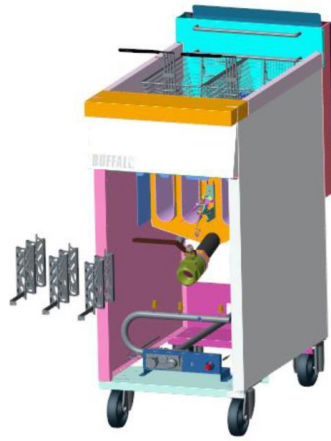
10 indicates the diameter of injector is 0.010inch This injector is used for LPG

∅ 0.01



01.20.1068567x1PCS

● **Replace Flame distributor**



Gas Type Identification Label

On completion of the gas conversion, replace the gas type identification label, located on the right hand panel.

GAS CONVERSION LABEL	
MODEL NO.:	DATE:
SERIAL NO.:	INPUT RATE (BTU/HR):
TYPE OF GAS:	MANIFOLD PRESS. (IN W.C.):
INLET GAS PRESS.:	
<p>CAUTION! THIS UNIT HAS BEEN CONVERTED TO THE ABOVE GAS SUPPLY SPECIFICATION. REFER TO OPERATION MANUAL FOR MANIFOLD PRESSURE AND INPUT RATE REQUIREMENTS.</p> <p>THIS APPLIANCE WAS CONVERTED ON (DATE) _____ TO (GAS TYPE) _____ BY (COMPANY NAME AND ADDRESS) _____</p> <p>_____ WHICH ACCEPTS THE RESPONSIBILITY THAT THIS GAS CONVERSION HAS BEEN MADE PROPERLY.</p>	

Commissioning

Before leaving the converted installation;

1. Check all gas connections for leakages.
2. Check the following functions in accordance with the operating instructions
 - *Light the Pilot Burner.*
 - *Light the Main Burner..*
 - *Ensure that all the controls operate correctly.*
 - *Ensure that the operating pressure remains correct.*
3. Ensure any adjustments done to components that have the adjustments / settings sealed (e.g. paint sealed) are re-sealed.

WARNING:

DO NOT USE A NAKED FLAME TO CHECK FOR GAS LEAKAGES.

NOTE: If for some reason it is not possible to get the appliance to operate correctly, shut off the gas supply and contact the supplier of this appliance.



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DC319-P_DC319-N_ML_A4_V1_Rev 0_20220310

