



IMPORTANT FOR FUTURE REFERENCE Please complete this information and retain this manual for the life of the equipment:
Model #: _____
Serial #: _____
Date Purchased: _____

Installation & Operation Manual

Gas Skillets GS-30, GS-40 & GS-40N



Model GS-40N

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.

CROWN FOOD SERVICE EQUIPMENT

 A Middleby Company

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SAFETY PRECAUTIONS

Before installing and operating this equipment, be sure everyone involved in its operation is fully trained and aware of precautions. Accidents and problems can be caused by failure to follow fundamental rules and precautions.

The following symbols, found throughout this manual, alert you to potentially dangerous conditions to the operator, service personnel, or to the equipment.



This symbol warns of immediate hazards that will result in severe injury or death.



This symbol refers to a potential hazard or unsafe practice that could result in injury or death.



This symbol refers to a potential hazard or unsafe practice that could result in injury, product damage, or property damage.



This symbol refers to information that needs special attention or must be fully understood, even though not dangerous.

IMPORTANT NOTES FOR INSTALLATION AND OPERATION

WARNING

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

WARNING

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

NOTICE

This product is intended for commercial use only. NOT FOR HOUSEHOLD USE.

NOTICE

This manual should be retained for future reference.

PURCHASER: Instructions to be followed in the event the operator of this appliance smells gas must be posted in a prominent location. This information shall be obtained by consulting the local gas supplier.

Keep the appliance area free and clear from combustibles.

DO NOT obstruct the flow of combustion and ventilation air.

Adequate clearances **MUST** be maintained for servicing and proper operation.

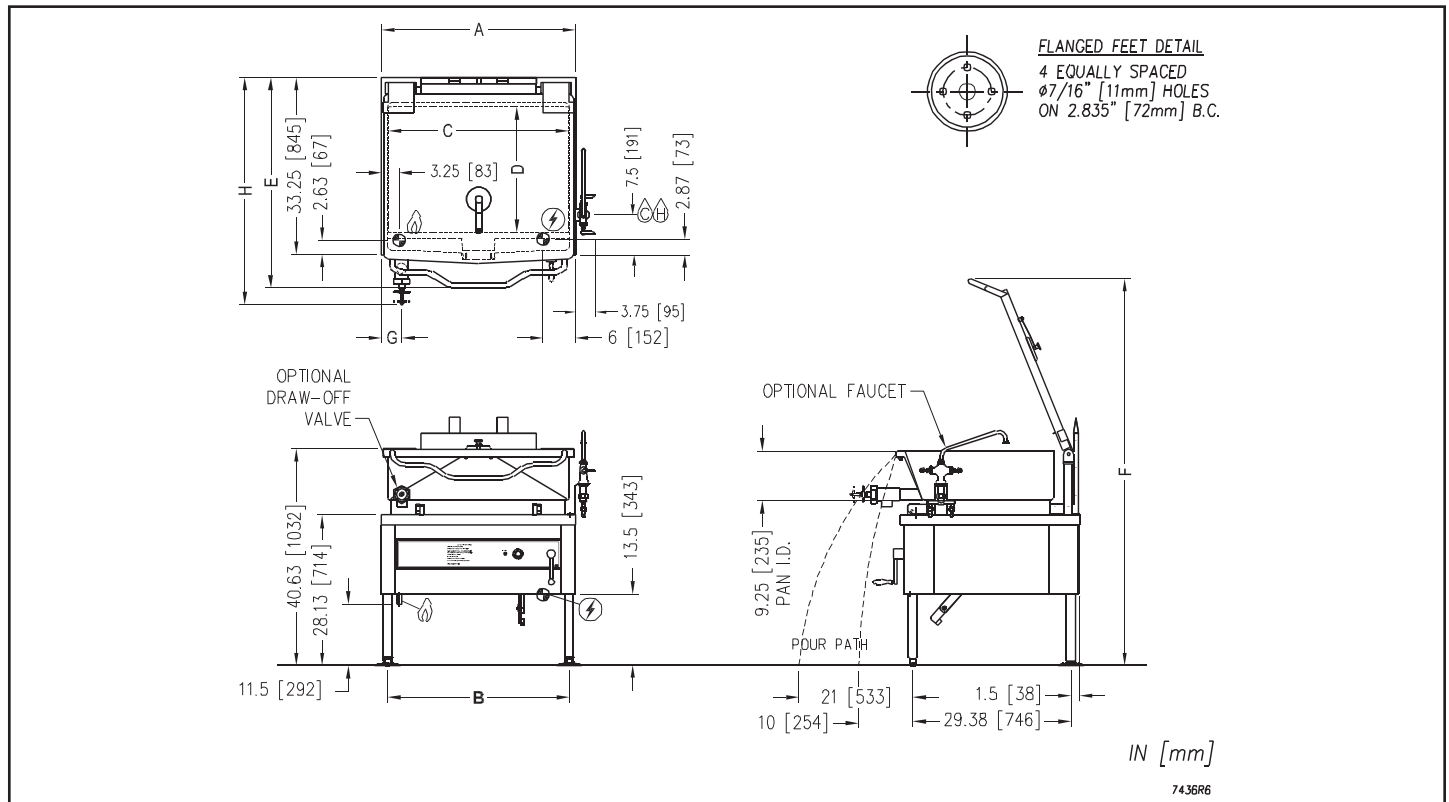
Contact the factory, the factory representative or a local service company to perform maintenance and repairs should the appliance malfunction. Refer to warranty terms.

RETAIN THIS MANUAL FOR FUTURE REFERENCE.

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SERVICE CONNECTIONS



SERVICE CONNECTIONS

⚡ – Unless otherwise specified unit is furnished with 6' cord with 3 prong plug for use at 120 Volts, 60 Hz, single phase, maximum 2 Amps.

⊕ – COLD WATER: 3/8" O.D. tubing to optional faucet

⊖ – HOT WATER: 3/8" O.D. tubing to optional faucet

⚡ – GAS CONNECTION: 3/4" IPS

DIMENSIONS

MODEL	CAPACITY	A	B	C	D	E	F	G	H	
									Ø2	Ø3
GS-30	30 Gallons (114 liters)	36" (914 mm)	33.63" (854 mm)	33.5" (851 mm)	23.5" (597 mm)	39.5" (1003 mm)	72.38" (1838 mm)	3.75" (95 mm)	41.13 (1045)	46.75 (1187)
GS-40	40 Gallons (152 liters)	48" (1219 mm)	45.63" (1159 mm)	43.5" (1105 mm)	23" (584 mm)	39.88" (1000 mm)	71.88" (1826 mm)	4.75" (121 mm)	41.63 (1057)	46.13 (1172)

GAS CHARACTERISTICS

MODEL	GAS SUPPLY			
	BTU/HR	kW/HR	Supply Pipe Pressure (W.C)	
			Natural 6" - 14" (152 mm - 356 mm)	Propane 11" - 14" (279 mm - 356 mm)
GS-30	100,000	29.3		
GS-40	125,000	36.6		

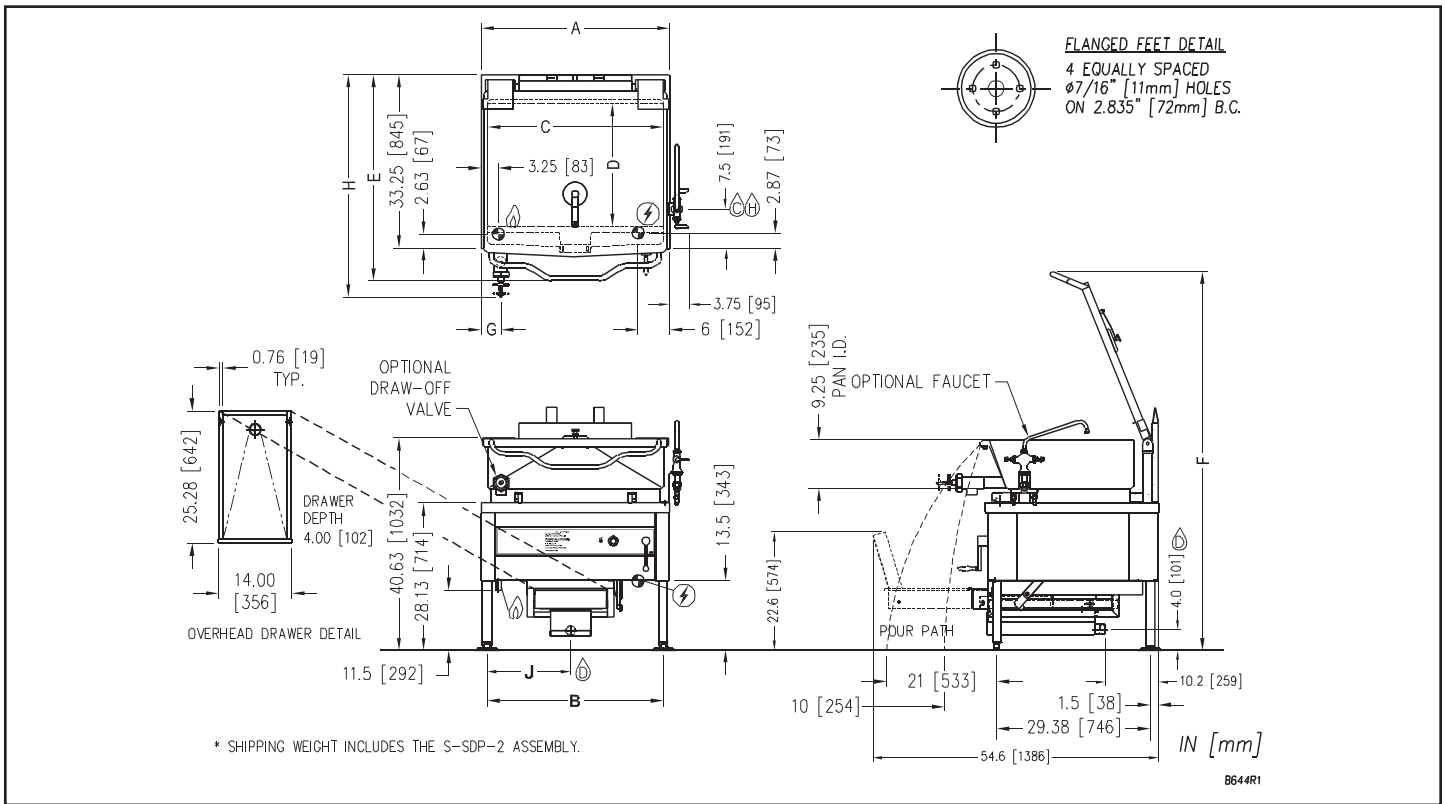
* For use on non-combustible floors only.

SPECIFICATIONS

MODEL	BTU	CAPACITY	
		GALLON	LITER
GS-30	100,000	30	114
GS-40	125,000	40	152

MODEL	SHIPPING WEIGHT	MINIMUM CLEARANCE *	
GS-30	550 lbs. [250 kg]	Sides	0
GS-40	720 lbs. [327 kg]	Back	6" (152 mm)

WITH OPTIONAL S-SDP-2 ASSEMBLY



SERVICE CONNECTIONS

- ⚡ – Unless otherwise specified unit is furnished with 6' cord with 3 prong plug for use at 120 Volts, 60 Hz, single phase, maximum 2 Amps.
- ⚡ – GAS CONNECTION: 3/4" IPS
- ⊖ – COLD WATER: 3/8" O.D. tubing to optional faucet
- ⊕ – HOT WATER: 3/8" O.D. tubing to optional faucet

DIMENSIONS

MODEL	CAPACITY	A	B	C	D	E	F	G	H		J
									Ø2	Ø3	
GS-30	30 Gallons (114 liters)	36" (914 mm)	33.63" (854 mm)	33.5" (851 mm)	23.5" (597 mm)	39.5" (1003 mm)	72.38" (1838 mm)	3.75" (95 mm)	42.63 (1083)	46.5 (1181)	15.9 (404)
GS-40	40 Gallons (152 liters)	48" (1219 mm)	45.63" (1159 mm)	43.5" (1105 mm)	23" (584 mm)	39.88" (1000 mm)	71.88" (1826 mm)	4.75" (121 mm)	42.63 (1083)	46.5 (1181)	22.8 (580)

GAS CHARACTERISTICS

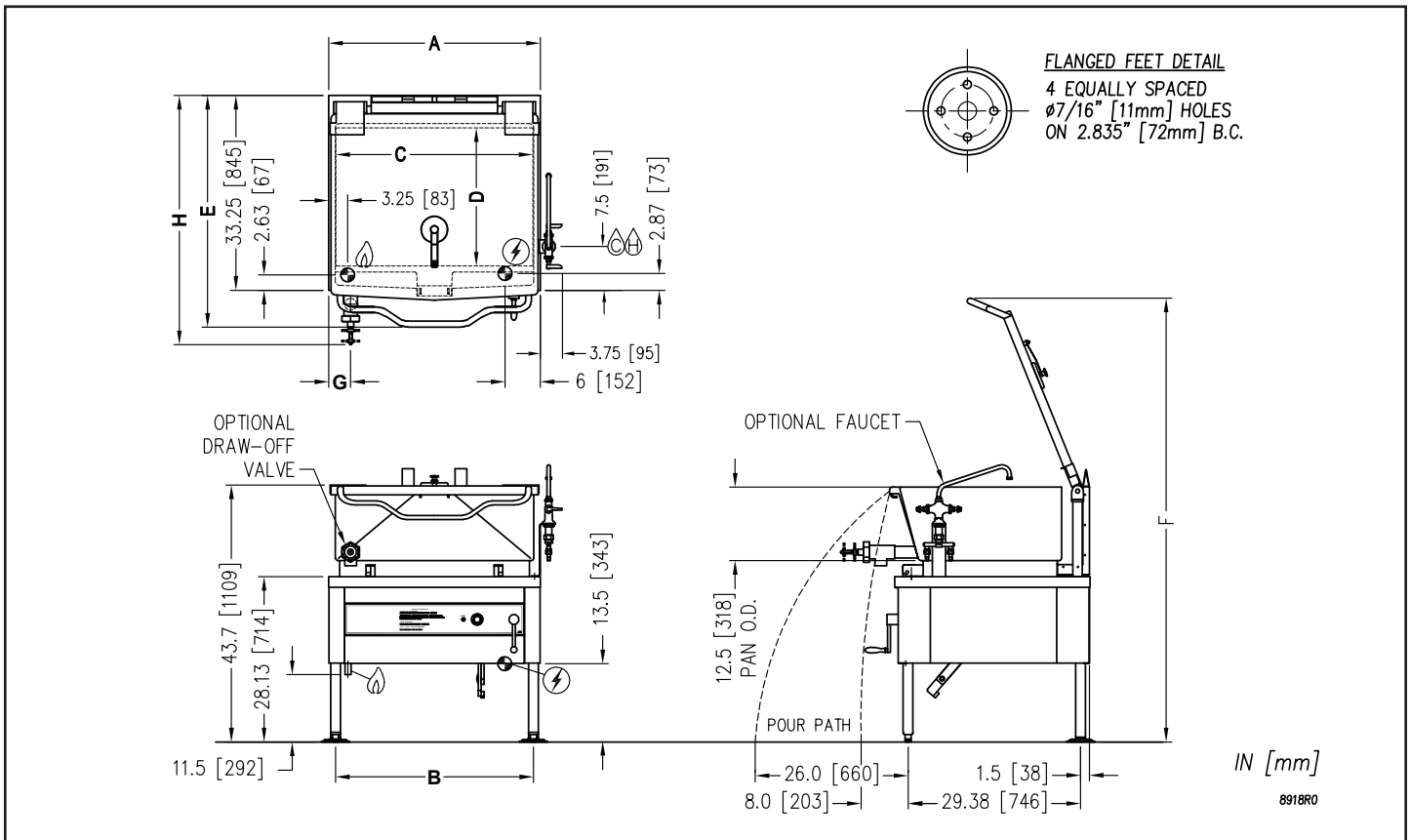
MODEL	GAS SUPPLY		
	BTU/HR	kW/HR	Supply Pipe Pressure (W.C)
			Natural 6" - 14" (152 mm - 356 mm)
GS-30	100,000	29.3	
GS-40	125,000	36.6	

* For use on non-combustible floors only.

SPECIFICATIONS

MODEL	BTU	CAPACITY	
		GALLON	LITER
GS-30	100,000	30	114
GS-40	125,000	40	152

MODEL	SHIPPING WEIGHT	MINIMUM CLEARANCE *	
GS-30	590 lbs. [268 kg]	Sides	0
GS-40	760 lbs. [345 kg]	Back	6" (152 mm)



SERVICE CONNECTIONS

- ⚡ – Unless otherwise specified unit is furnished with 6' cord with 3 prong plug for use at 120 Volts, 60 Hz, single phase, maximum 2 Amps.
- 🔥 – GAS CONNECTION: 3/4" IPS
- Ⓢ – COLD WATER: 3/8" O.D. tubing to optional faucet
- 🔥 – HOT WATER: 3/8" O.D. tubing to optional faucet

DIMENSIONS

MODEL	CAPACITY	A	B	C	D	E	F	G	H	
									Ø2	Ø3
GS-40N	40 Gallons (152 liters)	36" (914 mm)	33.63" (854 mm)	33.5" (851 mm)	23.5" (597 mm)	39.5" (1003 mm)	75.50" (1918 mm)	3.75" (95 mm)	42.5 (1080)	48.13 (1222)

GAS CHARACTERISTICS

MODEL	GAS SUPPLY			SHIPPING WEIGHT	MINIMUM CLEARANCE *		CAPACITY	
	BTU/HR	kW/HR	Supply Pipe Pressure (W.C)		Sides	Back	GALLON	LITER
GS-40N	100,000	29.3	Natural 6" - 14" (152 mm - 356 mm)	565 lbs. [257 kg]	Sides	0	40	152
			Propane 11" - 14" (279 mm - 356 mm)		Back	6" (152 mm)		

* For use on non-combustible floors only.

INSTALLATION INSTRUCTIONS

UNPACKING

IMMEDIATELY INSPECT FOR SHIPPING DAMAGE

Immediately after unpacking the steamer, check for possible shipping damage. If the steamer is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Prior to installation, verify that the electrical service agrees with the specifications on the machine data plate which is located on the left side panel.

LOCATION

The equipment must be kept free and clear of combustible substances. The tilting braising pan, when installed, must have minimum clearance from combustible and non-combustible construction of 0" from sides and 6" (152 mm) from the rear. The tilting braising pan is intended for use on non-combustible floors.

The installation location must allow adequate clearances for servicing and proper operation. A minimum front clearance of 36" (914 mm) is required.

The tilting braising pan must be installed so that the flow of combustion and ventilation air will not be obstructed. Adequate clearance for air openings into the combustion chamber must be provided. Make sure there is an adequate supply of air in the room suitable for the amount of combustion gas feeding the braising pan burners.

Do not permit fans to blow directly at the tilting braising pan, and wherever possible, avoid open windows next to the tilting braising pan. Avoid wall-type fans which create air cross currents within the room.

INSTALLATION CODES AND STANDARDS

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

1. The appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at pressures in excess of ½ psig (3.5 kPa).
2. The appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psig (3.5 kPa).

Electrical grounding must be provided in accordance with local codes, or in the absence of local codes, with the National Electrical Code ANSI/NFPA 70. In Canada, installation must be in accordance with the Canadian Electrical Code CSA C22.2.

ANSI/NFPA 96 - (latest edition), "Standard for Ventilation and Fire Protection of Commercial Cooking Operations," available from the National Fire Protection Association, Batterymarch Park, Quincy, MA, USA, 02269.

FLUE CONNECTIONS

Do not obstruct the flow of flue gases from the flue duct located on the rear of the tilting braising pan. It is recommended that the flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

WARNING

ELECTRICAL GROUNDING INSTRUCTIONS

This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug. (120V units only).

LEVELING AND ANCHORING

1. Set the appliance in place and level left to right and front-to-back using spirit level.
2. Mark hole locations on floor through anchoring holes provided in flanged adjustable feet.
3. Remove appliance and drill holes in locations marked on floor and insert proper anchoring devices (not supplied).
4. Set unit back in position and re-level left to right and front to back.
5. Bolt and anchor appliance securely to the floor.
6. Seal bolts and flanged feet with Silastic or equivalent compound.

WARNING

Do not connect the appliance to the electrical supply until after the gas connection has been made.

GAS CONNECTIONS

All gas supply connections and any pipe joint compound used must be resistant to the action of propane gases.

The gas inlet is located under the control panel on the left-hand side.

Connect gas supply to the tilting braising pan. The gas supply line must be at least the equivalent of 3/4" iron pipe with an incoming pressure of approximately 7" W.C. (Water Column) for natural gas or 11" W.C. (Water Column) for propane gas. Make sure the pipes are clean and free of obstructions, dirt and piping compound.

Codes require that a gas shutoff valve be installed in the gas line ahead of the tilting braising pan.

Natural gas and propane gas braising pans are equipped with fixed orifices and no adjustment is necessary. Gas burner manifold is set at 3.5" W.C. (Water Column) for natural gas, and 10" W.C. (Water Column) for propane gas.

WARNING

Never use an open flame to check for gas leaks. Check all connections for leaks using soapy water before use.

After piping has been checked for leaks, all piping receiving gas should be fully purged to remove air.

OPERATION

When set to ON, your steamer has been factory set to maintain the generator standby temperature just below the boiling point, approximately 205 degrees Fahrenheit, in READY mode.

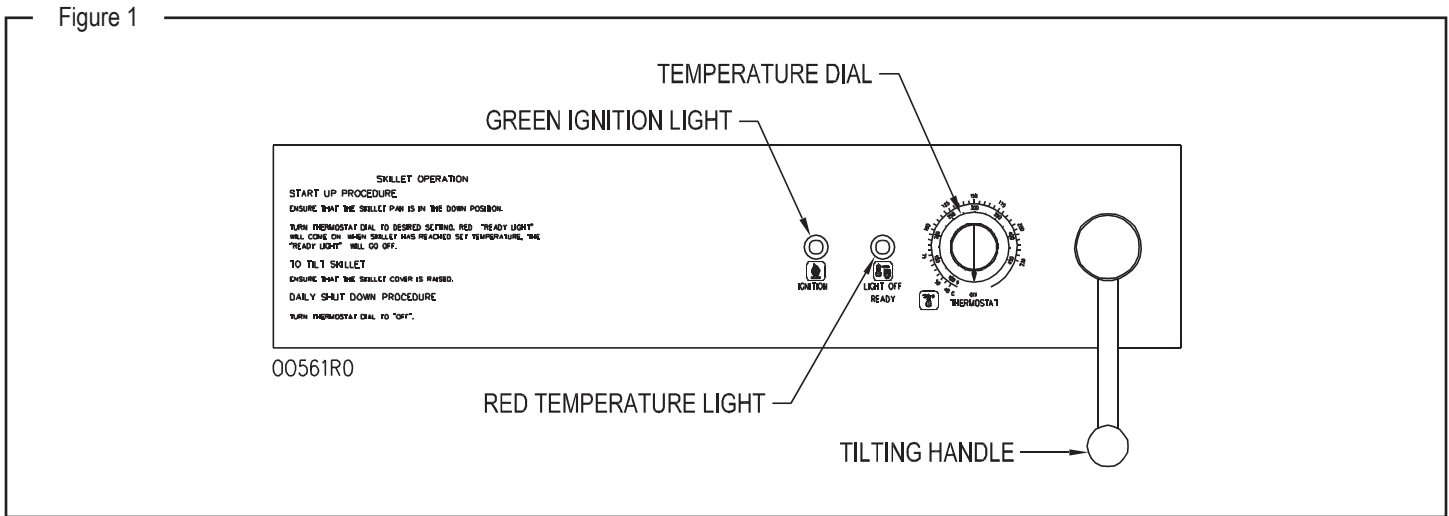
CONTROLS (FIGURE 1)

Green Ignition Light Will light when ignition has occurred.

Red Temperature Light Will light when burners are supplying heat to the tilting braising pan.

Thermostat When turned ON, will initiate electronic ignition system. Temperature settings are marked on the control panel in C and F.

Manual Lift Crank Handle Used to manually raise and lower braising pan.



START-UP PROCEDURE

1. Open manual gas shutoff valve.
2. Ensure that the braising pan is in the DOWN position.
3. Turn THERMOSTAT dial to desired setting. The red TEMPERATURE LIGHT will come on. This will turn on the electronic ignition which will light the burners.
4. If the green IGNITION LIGHT does not come on after 90 seconds, turn THERMOSTAT OFF and then ON again for restart.
5. When braising pan has reached set temperature, the red TEMPERATURE LIGHT will go off and the burners will shut off. The burners will cycle on and off thereafter to maintain set temperature. The red TEMPERATURE LIGHT will be on when the burners are on and off when burners are off.
6. If gas supply is interrupted during operation, turn THERMOSTAT dial to OFF position and turn gas supply OFF. Wait 5 minutes, then repeat Steps 1 through 4 to restart.
7. Turn THERMOSTAT to OFF when braising pan is not in use.

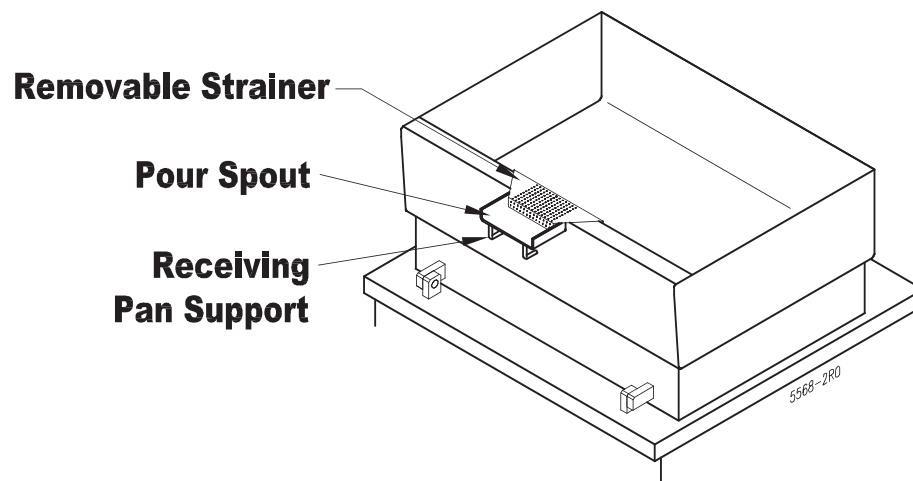
DAILY SHUTDOWN PROCEDURE

Turn THERMOSTAT dial to OFF. Close manual gas shutoff valve.

TILTING THE BRAISING PAN

1. DO NOT try to tilt braising pan with lid down.
2. Make sure the receiving pan is in place.
3. Turn crank handle clockwise to lift the braising pan and counterclockwise to lower the braising pan. When the braising pan is raised 5° or more, the gas supply will be turned off automatically. The braising pan will not operate once the pan has been tilted.
4. Food is poured through the removable strainer (Figure 2) into a food receiving pan positioned under the lip of the pouring spout (Figure 2).

Figure 2



PREVENTATIVE MAINTENANCE

WARNING

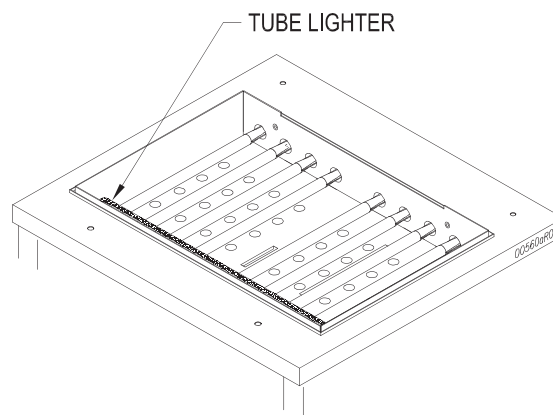
Disconnect the power supply to the appliance before cleaning or servicing.

CLEANING

After each use, allow the tilting braising pan to cool and clean it. Keep exposed cleanable areas of the tilting braising pan clean at all times. Do not get water in electrical box or any electrical component.

1. Thoroughly wash pan, pouring spout (See Figure 2), lid and exterior surfaces with detergent and warm water. If necessary, soak pan to remove food that is stuck to pan surface. Rinse thoroughly and wipe dry with a soft clean cloth.
2. Clean removable strainer and receiving pan support (see Figure 2) with detergent and warm water. Rinse thoroughly and wipe dry with a soft clean cloth.
3. Clean around burner air mixers and orifices (at rear of burner) if lint has accumulated.
4. Visually ensure tube lighter ports (Figure 3) are unobstructed.

Figure 3



CAUTION

The appliance and its parts are hot. Use care when operating, cleaning and servicing the appliance.

ADJUSTMENTS

All tilting braising pans are adjusted at the factory.

At least twice a year, have an authorized service person clean and adjust the tilting braising pan for maximum performance.

COOKING GUIDELINES

The guidelines given below are suggested quantities, temperature settings, and estimated numbers of orders per load and per hour. When two temperatures are given, the first is to start the product, and the second to finish the product.

The following temperatures should be used:

COOKING METHOD	TEMPERATURE (°F)
Simmering	200 Maximum
Sautéing	225 - 275
Searing	300 - 350
Frying	325 - 375
Grilling	350 - 450

ITEM	PORTION SIZE	TEMP.(EF)	BATCHES PER HOUR	GS-30 PER LOAD		GS-40 PER LOAD	
				QTY.	PORTIONS	QTY.	PORTIONS
BREAKFAST FOODS							
Bacon	3 slices	350	12	2 lb	10	3 lb	15
Eggs							
- Boiled - Hard	1 egg	225	5	50 eggs	50	75 eggs	75
- Boiled-Soft	1 egg	225	8	50 eggs	50	75 eggs	75
- Fried	1 egg	400	4	30 eggs	30	45 eggs	45
- Poached	1 egg	225	5	36 eggs	36	60 eggs	60
- Scrambled	1-1/2 eggs	300-200	1	18 gal.	720	28 gal.	1100
French Toast	3 slices	450	7	35 slices	12	50 slices	17
Regular Oatmeal	1/2 cup	250	2	20 lb (100 cups)	500	40 lb (200 cups)	1000
Pancakes	2 each	400	10	30 each	15	50 each	25
FISH							
Clams	1 pint	400	10	10 quarts	20	15 quarts	30
Fish Cakes	2 - 3 oz	400	5	70 - 3 oz	35	110 - 3 oz	55
Haddock Fillet	4 oz	400	4	60 - 4 oz	60	90 - 4 oz	90
Halibut Steak	5 oz	450	3	60 - 4 oz	60	90 - 4 oz	90
Lobster	1 - 1 lb	350	4	20 - 1 lb	20	30 - 1 lb	30
Swordfish	5 oz	450	3	50 - 5 oz	50	75 - 5 oz	75
SAUCES, GRAVIES, SOUPS							
Brown Gravy	1 oz	350 - 200	2	18 gal.	2300	35 gal.	4500
Cream Sauce	2 oz	250 - 175	1	18 gal.	1150	35 gal.	2250
Cream Soup	6 oz	200	1	18 gal.	375	35 gal.	725
French OnionSoup	6 oz	225	1	18 gal.	350	35 gal.	700
Meat Sauce	4 oz	350 - 200	1	18 gal.	575	35 gal.	1100
VEGETABLES							
CANNED	3 oz	400	6	30 lb	125	45 lb	200
FRESH							
Beans, Wax,Green	3 oz	400	3	25 lb	125	50 lb	250
Beets	3 oz	400	1	30 lb	125	60 lb	300

ITEM	PORTION SIZE	TEMP.(EF)	BATCHES PER HOUR	GS-30 PER LOAD		GS-40 PER LOAD	
				QTY.	PORTIONS	QTY.	PORTIONS
VEGETABLES (continued)							
FRESH (continued)							
Broccoli	3 oz	400	3	25 lb	125	40 lb	200
Cabbage	3 oz	400	5	20 lb	80	30 lb	125
Carrots	3 oz	400	2	35 lb	150	70 lb	300
Cauliflower	3 oz	250	5	15 lb	75	25 lb	125
Corn	1 ear	400	8	50 ears	50	75 ears	75
Potatoes	3 oz	400	2	40 lb	200	60 lb	300
Spinach	4 oz	250	10	40 lb	200	9 lb	35
Turnips	4 oz	400	2	40 lb	200	30 lb	150
FROZEN							
Beans, FrenchGreen	3 oz	400	6	15 lb	60	22-1/2 lb	90
Lima Beans	3 oz	250	4	15 lb	60	22-1/2 lb	90
Broccoli	3 oz	400	8	12 lb	50	18 lb	75
Sliced Carrots	3 oz	250	6	15 lb	60	22-1/2 lb	90
Small WholeCarrots	3 oz	250	3	15 lb	50	22-1/2 lb	90
Corn	3 oz	250	18	15 lb	50	22-1/2 lb	90
Small WholeOnions	3 oz	250	7	15 lb	50	22-1/2 lb	90
Peas	3 oz	400	10	15 lb	75	22-1/2 lb	110
Spinach	3 oz	400	3	15 lb	75	22-1/2 lb	110
DESSERTS, PUDDINGS, SWEET SAUCES							
ButterscotchSauce	1 oz	200	1	18 gal.	2300	35 gal.	4500
Cherry Cobbler	3 oz	200	1	18 gal.	750	35 gal.	1500
Chocolate Sauce	1 oz	200	1	18 gal.	2300	35 gal.	4500
CornstarchPudding	4 oz	200	1	18 gal.	575	35 gal.	1100
Fruit Gelatin	3 oz	250	2	18 gal.	750	35 gal.	1500
MEAT-POULTRY							
BEEF							
American ChopSuey	6 oz	400 - 225	2	18 gal.	350	35 gal.	700
Beef Stew	8 oz	300	-	18 gal.	280	35 gal.	560
Comed BeefHash	5 oz	400	5	16 lb	50	25 lb	75
Cheeseburger	3 oz	300	12	7 lb	35	10 lb	50
Hamburger	3 oz	300	15	7 lb	35	10 lb	50
Meatballs	1 oz	400 - 225	3	12-1/2 lb	65	18 lb	100
Pot Roast	2 oz	350 - 200		120 lb	500	180 lb	750
Salisbury Steak	5 oz	400	3	16 lb	50	24 lb	75
Sirloin Steak	6 oz	400	5	15 lb	40	22-1/2 lb	60
Swiss Steak	4 oz	300 - 200	1	25 lb	110	40 lb	160
CHICKEN							
Pan Fried	2-1/4's	350	3	50 pieces	25	80 pieces	40
Whole	2 oz	350 - 200		16 - 5 lb	200	24-5 lb	265

ITEM	PORTION SIZE	TEMP.(EF)	BATCHES PER HOUR	GS-30 PER LOAD		GS-40 PER LOAD	
				QTY.	PORTIONS	QTY.	PORTIONS
MEAT-POULTRY (continued)							
FRANKFURTERS							
Grilled	2 oz	300	8	22 lb	176	33 lb	264
Boiled	2 oz	250	12	16 lb	128	25 lb	200
PORK							
Bacon	3 slices	350	12	2 lb	10	3 lb	15
Ham Steak	3 oz	400	8	10 lb	50	15 lb	75
Pork Chops	5 oz	350	4	15 lb	50	25 lb	75
Sausage Links	3 links	350	7	30 lb	120	45 lb	180
TURKEY							
Off Carcass	2 oz	400 - 200	–	3 - 26-30 lb	200	4 - 26-30 lb	275
On Carcass	2 oz	400 - 200	–	4 - 16-20 lb	175	6 - 16-20 lb	265
MISCELLANEOUS							
Grilled Cheese Sandwich	1 sandwich	400	8	35 sandwiches	35	50 sandwiches	50
Macaroni & Cheese	8 oz	200	2	18 gal.	300	35 gal.	525
Rice	4 oz	350 - 225	1	20 lb raw	320	40 lb raw	650
Spaghetti	4 oz	350 - 225	2	8 lb raw	200	12 lb raw	300

TROUBLESHOOTING

BURNERS NO NOT COME ON

1. Gas supply to unit is “OFF”.
2. Manual shut off valve is “OFF”.
3. Thermostat is not turned “ON”.
4. Pan not in lowest position.
5. Ignition control not functioning.
6. Unit electrical supply is not plugged in or turned on.
7. Braising pan has overheated and burners were shut off by high-limit thermostat. Wait for pan to cool.

BURNERS PRODUCE CARBON DEPOSITS

1. Wrong size orifices.
2. Burner air not adjusted properly.
3. Wrong gas supply.
4. Incorrect pressure at supply.

GS-30, GS-40 & GS-40N Gas Skillets



A product with the Crown 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 appliance. When service is needed, contact a Crown Authorized Service Agency, or your dealer. To avoid confusion, always refer to the model number, serial number, and type of your appliance.



CROWN FOOD SERVICE EQUIPMENT

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