

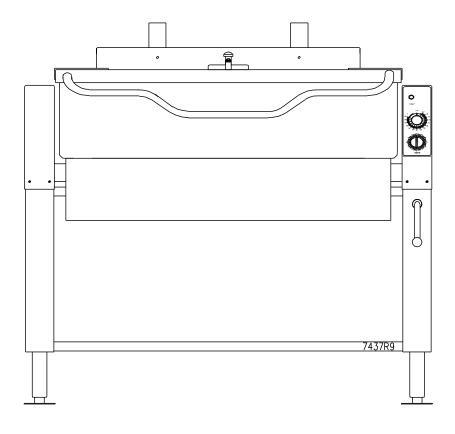
IMPORTANT FOR FUTURE REFERENCE Please complete this information and retain this manual for the life of the equipment:

Model #:

Serial #:

Date Purchased:

# INSTALLATION & OPERATION MANUAL UniVerse Plus- Gas Tilting Skillet 30P-STGL (-LX) 40P-STGL (-LX) 30P-STGM (-LX) 40P-STGM (-LX)



#### 

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 70 Oakdale Road, Downsview (Toronto) Ontario, Canada, M3N 1V9 Telephone: 919-762-1000 www.crownsteamgroup.com Printed in Canada



# **IMPORTANT NOTES FOR INSTALLATION AND OPERATION**



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: 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.

FOR YOUR SAFETY: Do not store or use gasoline or other flammable vapours and liquids in the vicinity of this or any other appliance.

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.

This manual should be retained for future reference.

Intended for commercial use only. Not for household use.

# TABLE OF CONTENTS

# DESCRIPTION

# PAGE

Section 1, Service Connections	5
Section 2, Installation Instructions	6
Section 3, Operating Instructions	10
Section 4, Test Kitchen Bulletin	12
Section 5, Troubleshooting and Maintenance	19

# SUMMARY OF SAFETY NOTICES

The following general safety notices supplement the specific warnings and cautions contained in this technical manual. They are recommended precautions that must be understood and adhered to during the installation, operation, and maintenance of these electrically operated appliances.



WARNING: Do not get water on wiring in controls. Be sure to wash inside of skillet pan, inside of cover including under drip-lip, and pouring spout area.



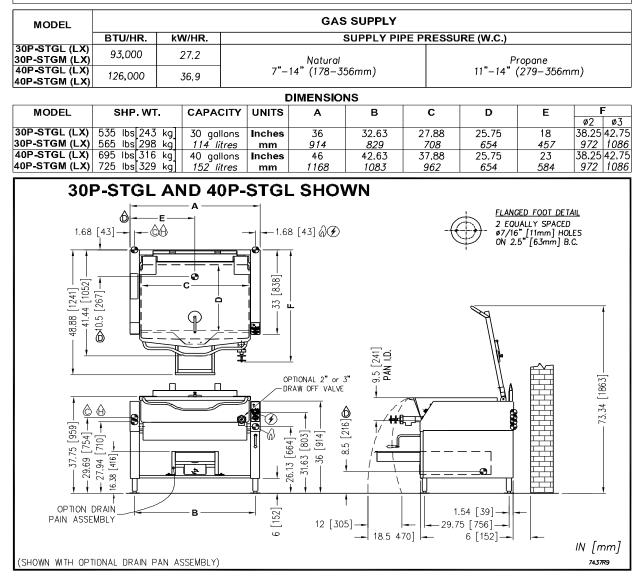
CAUTION: Do not install in such a manner that the service person cannot remove the control box cover.

Supply wires must be suitable for temperature of at least 90 °C. Additionally, all wiring must conform to the requirements of local and national electric codes. Conduit and fittings should be watertight type.

Unit is equipped with an interlock switch that shuts off gas to the burners when skillet pan is more than 10° above normal horizontal cooking position.

#### **SECTION 1, SERVICE CONNECTIONS**

- Electrical connection to be as specified on data plate. 120 VAC units supplied with 8 foot cord with 3-prong plug.
- $\Diamond$  GAS CONNECTION: Supply gas through 3/4" pipe. A gas shut-off value must be installed in supply piping convenient and adjacent to appliance.
- Ĝ COLD WATER: 3∕8"−NPT to faucet. (OPTIONAL)
- $\hat{\square}$  HOT WATER: 3/8"-NPT to faucet. (OPTIONAL)
- $\hat{\mathbb{O}}$  DRAIN: 1 1/2" NPT (OPTIONAL DRAIN PAN ASSEMBLY)



As continued product improvement is our policy, specifications are subject to change without notice.

Part No. 10158R3

# SECTION 2, INSTALLATION INSTRUCTIONS

# CAUTION: BE SURE TO READ

- Keep this appliance area free and clear of combustibles.
- Do not obstruct the flow of combustion and ventilation air.
- Allow adequate ventilation to unit. Install under exhaust hood.
- Keep this manual for future reference.
- This installation must conform with local codes or, in the absence of local codes, with National Fuel Gas Code, ANSI Z223.1 – latest edition; or the Natural Gas Installation Code, CAN/ CGA–B149.1; or the Propane Installation Code, CAN/CGA-B149.2, as applicable.
- The griddle and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressure in excess of ½ psig (3.45 k/Pa).
- The griddle must be isolated from the gas supply system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½" psig (3.45 k/PA).
- This unit is serviceable from the front. Do not install in such a manner that a service person cannot remove front panels if provided.
- When installed, this appliance must be electrically grounded in accordance with local codes, or, in the absence of local codes, with the National Electric Code, ANSI/NFPA No. 70 latest edition.
- In Canada, this installation must conform to C.S.A. Standard C22.2 Canadian Electrical Code.
- The wiring diagram adhesive label is located on the inside of the control box cover.
- The product must be installed in a room with adequate air supply for complete gas combustion.
- Do not place on or directly against the unit any objects that would block air openings into the combustion chamber.
- Suitable for use on combustible floors.
- Clearances from both combustible and noncombustible construction are 0" (0 mm) from side walls, 6" (183 mm) from rear wall.
- This unit has a flexible cord wired into electrical system.

# UniVerse TILTING SKILLET WITH ELECTRONIC IGNITION

## **GENERAL INSTALLATION**

- 1. Remove carton from skid, being careful not to dent or scratch finished surfaces of unit.
- 2. Inspect unit carefully for shipping damage. File claim with carrier immediately if damage is found.
- 3. Remove screws holding unit to skid.
- 4. Transfer unit to desired position and make level and steady by adjusting feet to compensate for floor irregularities. Bolt the flange feet to floor.
- 5. Raise skillet cover to full open position. Raise skillet by turning hand crank clockwise. Check to make sure burners and carryover tube are in position and securely seated.
- 6. Lower skillet by turning hand crank counterclockwise until fully seated on frame. Skillet is equipped with interlock switch, which does not permit burners to ignite until skillet is lowered to less than 10° off normal horizontal cooking position.

**NOTE**: "LX" models may be raised or lowered using tilt switch after connecting to electrical supply.

- 7. Gas service connections:
  - a. This unit is factory-adjusted for gas consumption of 93,000 BTU/Hour (on 30-gallon unit) or 126,000 BTU/Hour (on 40-gallon unit) at the pressure indicated. Please read the rating plate on top of control box. If this plate is marked for a different gas than that supplied, notify your dealer immediately.

# DO NOT CONNECT GAS LINES. Only a qualified installer or service man should make the installation.

- b. Use new 3/4 I.P.S. iron or steel pipe complying with ANSI Standard for Wrought-Steel and Wrought-Iron Pipe B36 – latest edition, properly threaded, reamed, and free from chips, oil, and dirt. If pipe dope is used, apply a moderate amount, leaving two end threads bare. Gas connection is on the rear of the right console. Pipe in a gas shut-off valve (not included), accessible to the operator.
- Natural gas units are equipped with a pressure regulator factory-adjusted to give 3.5" (89 mm) water column manifold pressure. The supply pressure must be at least 7" (178 mm) water column pressure.

# **GENERAL INSTALLATION** (Continued)

- d. Propane gas units are equipped with a pressure regulator factory-adjusted to give 10" (254 mm) water column manifold pressure. The supply pressure must be at least 11" (279 mm) water column pressure.
- e. Maximum supply pressure must not exceed ½ psig (3.45 k/PA) for both natural and propane gas.
- f. Perform a gas leak test of all newly-made joints, as well as those leading to the main gas control valve and pilot burner, using a soap solution. Do not use flame.
- 8. Electrical service connection:

Connect skillet controls to 110/120 volt AC, 60 Hz, single-phase branch circuit rated 15 amps capacity. Wiring will conform to the requirements of national and local electrical codes (220 volts, 50 Hz, single-phase for export units). Only a licensed electrician should make electrical connection.

# INSTALLATION WITH CASTERS

- 1. Installation shall be made with a connector that complies with the Standard for Connectors for Moveable Gas Appliances, ANSI Z21.69, 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 the Standard for Quick-Disconnect Devices for Use with Gas Fuel, CAN-6.9.
- Adequate means must be provided to limit the movement of the appliance without depending on the connector and the quick-disconnect device or its associated piping to limit the appliance movement.
- 3. The location(s) where the restraining means may be attached to the appliance shall be to the optional bracket located on the lower end of the right hand pan cover post assembly in the rear of the unit.

# **BEFORE FIRST USE**

Using a non-corrosive, grease-dissolving commercial cleaner, clean the protective metal oils from all surface parts and the interior of the tilting braising pan. Follow the cleaner manufacturer's directions. Rinse thoroughly and drain the pan. Wipe dry with a soft clean cloth.

## **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 burners do not come on after 30 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 five minutes, then repeat Steps 1 through 4 to restart.
- 7. Turn THERMOSTAT to OFF when braising pan is not in use.

#### SHUTDOWN INSTRUCTIONS

Turn the thermostat counterclockwise to off position.

# PROLONGED SHUTDOWN

Prolonged Shutdown

- 1. Turn the thermostat counterclockwise to off position.
- 2. Turn gas valve located at right-rear to off position.

# **SECTION 3, OPERATING INSTRUCTIONS**

## UniVerse TILTING SKILLET

#### INTRODUCTION

This technical manual contains general information, installation, operation, principles of operation, troubleshooting guide, and maintenance information for the UniVerse Tilting Skillet. Also included is an illustrated parts list and a directory of authorized parts and service agencies.

#### DESCRIPTION

The Market Forge Industries UniVerse Models 30P-STGL (93,000 BTU input) and 40P-STGL (126,000 BTU input) are electrically operated skillets, tilting type, with 30-and 40-gallon capacities, respectively. They are equipped with a solid state thermostat and high-limit control with a 100°F to 450°F temperature scale.

#### **BASIC FUNCTIONS**

The UniVerse Tilting Skillet is a very versatile cooking appliance. It can perform basic cooking functions, such as braising meat, sautéing, pan-frying chicken, steaming vegetables, boiling, and simmering. Refer to Section 4–Test Kitchen Bulletin, which gives detailed information on the various types of food products that can be cooked in the skillet.

# **OPERATION OF UniVerse TILTING SKILLET WITH ELECTRONIC IGNITION**

- 1. Check to see that the correct gas connection has been made to the unit and the electric 110/120-volt connection has been made.
- 2. Be sure skillet has been or is cleaned before using.
- 3. Be certain skillet is lowered to the normal horizontal cooking position so burners will light.
- 4. Set the thermostat to the desired temperature. See Section 4–Test Kitchen Bulletin for thermostat settings.
- 5. Preheat to desired setting before grilling, pan frying, or any other type of cooking except boiling.

# **OPERATION OF UniVerse TILTING SKILLET WITH ELECTRONIC IGNITION** (Continued)

*Note*: For best results, allow unit to cycle ON/OFF once.

- 6. Cover should be up for most types of cooking, except simmering or boiling. The cover has a lip at the rear that will direct condensate into the skillet rather than onto the cabinet base.
- 7. When food is cooked, it should be immediately removed from skillet to prevent overcooking.
- 8. To lower skillet, merely turn tilt skillet hand crank counterclockwise. To raise skillet, turn hand crank clockwise.

Note: "LX" models are raised and lowered using switch on front of control box.

9. For cleaning instructions, see Section 6–Troubleshooting and Maintenance.

# CAUTION: BE SURE TO READ

- Disconnect the power supply to skillet before cleaning or servicing. (Note: "LX" models should have the skillet raised to washing position before disconnecting power supply.)
- Keep this appliance area free and clear of combustibles.
- Do not obstruct the flow of combustion and ventilation air.
- If skillet pan is difficult to raise, the lift gears may need to be lubricated. The gears are located on the right side under the control box. Apply a liberal amount of grease along the helical thread of the worm where it engages the worm gear. Use multi-purpose, NLGI #2 lithium-based, water-resistant grease.
- Keep this manual for future reference.
- Consult the factory, the factory representative, or a local service company to perform maintenance and repairs.
- In the event of a power failure, do not operate appliance.
- Periodically examine the flue outlet located behind the skillet cover for any obstructions.
- Appliances with casters are always to be restrained from movement. If removal of the restraint is necessary, always reconnect the restraint when the appliance is returned to its originally installed position.

# **SECTION 4, TEST KITCHEN BULLETIN**

# COOKING FACTS ON PARADE

- 1. The UniVerse Skillet is one of the most versatile pieces of equipment to be found in any restaurant or institutional kitchen.
- 2. This unit will stew, simmer, pan-fry, braise, grill, and sauté and all with a very uniform heat pattern.

Note: DO NOT ATTEMPT TO DEEP FRY WITH YOUR SKILLET!

- 3. For best results, the Tilting Skillet should always be preheated and allowed to cycle once.
- 4. A great deal of heavy lifting and transferring of foods from one pan to another can be eliminated, and, therefore, pot washing will be reduced.
- 5. This type of equipment usually reduces the total cooking time by as much as 25% on combination dishes.
- 6. Sauces usually lose less moisture, as the cover reduces evaporation.
- 7. Large batches of gourmet items can be prepared with less work and with more uniform results.
- 8. Frozen vegetables can be cooked in the UniVerse Skillet in the serving pan, then removed and transferred directly to the serving line.

9.	The following temperatures should be used:	Simmering:	Maximum of 200°F
		Sautéing:	225 - 275°F
		Searing:	300 - 350°F
		Frying:	325 - 375°F
		Grilling:	350 - 425°F

- 10. Temperatures of approximately 200°F should always be used for milk-based products, or scorching will take place. Lower temperatures (150 175°F) prevent thickening.
- 11. Some items should be started at a high temperature and then reduced. This permits sealing for about 20% of the time and cooking for the remaining 80%.

Part No. 10158R3

# COOKING FACTS ON PARADE (Continued)

- 12. The cover has a lip at the back edge that directs the condensate on the cover back into the skillet.
- 13. The unit tilts easily to 90°, and receiving pan is always approximately 2 inches from the pouring lip of the skillet.
- 14. The stainless steel UniVerse Skillet is rapidly cleaned with a mild detergent. Water, waste, and scraps are easily removed into the receiving pan for disposal. (It is always recommended that this type of unit be pre-soaked if possible.)
- 15. Breakfast foods such as sausage, bacon, pancakes, fried eggs, scrambled eggs, and French toast are a few of the more common items that can be cooked in the UniVerse Skillet.
- 16. When cooking meat or poultry, all pieces should be of fairly uniform size and weight and should be turned at least once while simmering.
- 17. This unit can be converted to a proof box by placing a small amount of water in the pan to form steam and then placing the food in another pan. The thermostat should be set very low (100 150°F).
- 18. The unit can also be used as a holding cabinet by adding water and settling the thermostat at approximately 175°F.
- 19. When using water over and over for vegetable cookery, be sure to add water occasionally to keep level at about 3 4 inches. Thermostat should be set at 250°F.
- 20. Perforated 2 <sup>1</sup>/<sub>2</sub>" deep pans are suggested for vegetables for the most satisfactory results. The pan can then be removed easily and transferred to the serving line.

# **SECTION 4, TEST KITCHEN BULLETIN**

# TABLE 4.1

## **COOKING PORTIONS AND TIMES**

#### UniVerse SKILLET

# ALL MODULAR AND TUBULAR LEG MODELS

The UniVerse Skillet is one of the most versatile pieces of equipment to be found in any restaurant or institutional kitchen. It enables the cook to stew, simmer, pan-fry, braise, grill, or sauté, and all with a very uniform heat pattern. The figures given below are suggested quantities and temperature settings and estimated numbers of orders per load and per hour. When two temperatures are given, the first is to start the product, the second to finish the product.

ITEM	PORTION SIZE	THERMOSTAT SETTING	BATCHES PER HOUR	30 GALLON PER LOAD QTY. YI		40 GAL PER LO QTY.	
BREAKFAST FOODS							
Bacon	3 slices	350°	12	2 lbs.	10	3 lbs.	15
Eggs Boiled-Hard Boiled-Soft Fried Poached Scrambled	1 egg 1 egg 1 egg 1 egg 1 ½ eggs	225° 225° 400° 225° 300° 200°	5 8 4 5 1	50 50 30 36 18 gal.	50 50 30 36 720	75 75 45 60 28 gal.	75 75 45 60 1100
French Toast	3 slices	450°	7	35 slices	12	50 slices	17
Regular Oatmeal	½ cup	250°	2	20 lbs.	500	40 lbs.	1000
Pancakes	2 each	400°	10	30 each	15	50 each	25
FISH	FISH						
Clams	1 pt.	400°	10	10 qts.	20	15 qts.	30
Fish Cakes	2 oz.	400°	5	70-3 oz.	35	110-3 oz.	55
Haddock Filet	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

Part No. 10158R3

ITEM	PORTION SIZE		IOSTAT TING	BATCHES PER HOUR	30 GALL PER LO QTY.		40 GALI PER LO QTY.	
Swordfish	5 oz.	450°		3	50-5oz.	50	75-5 oz.	75
SAUCES, GRAVIES & S	OUPS							
Brown Gravy	1 oz.	350°	200°	2	18 gal.	2300	35 gal.	4500
Cream Sauces	2 oz.	250°	175°	1	18 gal.	1150	35 gal.	2250
Cream Soup	6 oz.	200°		1	18 gal.	375	35 gal.	725
French Onion Soup	6 oz.	225°		1	18 gal.	350	35 gal.	700
Meat Sauce	4 oz.	350°	200°	1	18 gal.	575	35 gal.	1100
MISCELLANEOUS								
Grilled Cheese	1 sand.	400°		8	35 sand.	35	40 sand.	50
Macaroni & Cheese	8 oz.	200°		2	18 gal.	300	35 gal.	525
Rice	4 oz.	350°	225°	1	20 lbs. raw	320	40 lbs.	650
Spaghetti	4 oz.	350°	225°	2	8 lbs.	200	12 lbs.	300
MEAT, POULTRY								
Bacon	3 Slices	350°		12	2 lbs.	10	3 lbs.	15
Beef American Chop Suey Beef Stew Corned Beef Hash Cheeseburger Hamburger Meatballs Pot Roast Salisbury Steak Sirloin Steak Swiss Steak	6 oz. 8 oz. 5 oz. 3 oz. 3 oz. 1 oz. 2 oz. 5 oz. 6 oz. 4 oz.	400° 300° 400° 300° 400° 350° 400° 400° 300°	225° 225° 200° 200°	2 - 5 12 15 3 - 3 5 1	18 gal. 18 gal. 16 lbs. 7 lbs. 7 lbs. 12 ½ lbs. 120 lbs. 16 lbs. 15 lbs. 25 lbs.	350 280 50 35 35 65 500 50 40 100	35 gal. 35 gal. 25 lbs. 10 lbs. 10 lbs. 18 lbs. 180 lbs. 24 lbs. 22 ½ lbs. 40 lbs.	700 560 75 50 50 100 750 75 60 160
Chicken Pan-Fried Whole	2 1/4's 2 oz.	350° 350°	200°	3	50 Pieces 16-5 lbs.	25 200	80 Pieces 24-5 lbs.	40 265
Frankfurters Grilled Boiled	2 oz. 2 oz.	300° 250°		8 12	22 lbs. 16 lbs.	176 128	33 lbs. 25 lbs.	264 200
Ham Steak	3 oz.	400°		8	10 lbs.	50	15 lbs.	75

Part No. 10158R3

ITEM	PORTION SIZE	THERMOSTAT SETTING	BATCHES PER HOUR	30 GALLON PER LOAD QTY. YIELD	40 GALLON PER LOAD QTY. YIELD
Pork Chops	5 oz.	350°	4	15 lbs. 50	25 lbs. 75
Sausage Links	3 Links	350°	7	30 lbs. 120	45 lbs. 180
Turkey Off Carcass On Carcass	2 oz. 2 oz.	400° 200° 400° 200°	-	3-26-30 lbs. 200 4-16-20 lbs. 175	4-26-30 lbs. 275 6-16-20 lbs. 265
VEGETABLES				1	
Canned Fresh	3 oz.	400°	6	30 lbs. 125	45 lbs. 200
Beans Beets Broccoli Cabbage	3 oz. 3 oz. 3 oz. 3 oz. 3 oz.	400° 400° 400° 400°	3 1 3 5	25 lbs.12530 lbs.12525 lbs.12520 lbs.80	50 lbs.25060 lbs.30040 lbs.20030 lbs.125
Carrots Cauliflower Corn	3 oz. 3 oz. 1 ear	400° 250° 400°	2 5 8	35 lbs.         150           15 lbs.         75           50 ears         50	30 lbs.         125           70 lbs.         300           25 lbs.         125           75 ears         75
Potatoes Spinach Turnips	3 oz. 4 oz. 4 oz.	400° 225° 400°	2 10 2	40 lbs.2006 lbs.2520 lbs.100	60 lbs.3009 lbs.3530 lbs.150
Frozen Beans Lima Beans Broccoli	3 oz. 3 oz. 3 oz.	400° 250° 400°	6 4 8	15 lbs. 60 15 lbs. 60 12 lbs. 50	22 ½ lbs. 90 22 ½ lbs. 90 18 lbs. 75
Sliced Carrots Baby Carrots Corn Baby Onions	3 oz. 3 oz. 3 oz. 3 oz. 3 oz.	250° 250° 250° 250°	6 3 18 7	15 lbs.         60           15 lbs.         50           15 lbs.         50           15 lbs.         50           15 lbs.         50           15 lbs.         50	22 ½ lbs.         90           22 ½ lbs.         90
Peas Spinach	3 oz. 3 oz. 3 oz.	400° 400°	10 3	15 lbs.         36           15 lbs.         75           15 lbs.         75	22 ½ lbs.         30           22 ½ lbs.         110           22 ½ lbs.         110
DESSERT ITEMS		1			
Butterscotch Sauce	1 oz.	200°	1	18 gal. 2300	35 gal. 4500
Cherry Cobbler	3 oz.	200°	1	19 gal. 750	36 gal. 1500
Chocolate Sauce	1 oz.	200°	1	20 gal. 2300	37 gal. 4500
Corn Starch Pudding	4 oz.	200°	1	21 gal. 575	38 gal. 1100
Fruit Gelatin	3 oz.	250°	2	22 gal. 750	39 gal. 1500

# TABLE 4.1

# **COOKING PORTIONS AND TIMES**

- 1. The UniVerse Skillet is one of the most versatile pieces of equipment to be found in any restaurant or institutional kitchen.
- 2. This unit will stew, simmer, pan-fry, braise, grill, and sauté and all with a very uniform heat pattern. Note: Do not attempt to deep fry with your skillet!
- 3. For best results, the Tilting Skillet should always be preheated and allowed to cycle once.
- 4. A great deal of heavy lifting and transferring of foods from one pan to another can be eliminated, and, therefore, pot washing will be reduced.
- 5. This type of equipment usually reduces the total cooking time by as much as 25% on combination dishes.
- 6. Sauces usually lose less moisture, as the cover reduces evaporation.
- 7. Large batches of gourmet items can be prepared with less work and with more uniform results.
- 8. Frozen vegetables can be cooked in the UniVerse Skillet in the serving pan, then removed and transferred directly to the serving line.

9.	The following temperatures should be used:	Simmering: Sautéing: Searing: Frying:	Maximum of 200°F 225 - 275°F 300 - 350°F 325 - 375°F
		Frying:	325 - 375°F
		Grilling	350 - 425°F

# COOKING PORTIONS AND TIMES (Continued)

- 10. Temperatures of approximately 200°F should always be used for milk-based products, or scorching will take place. Lower temperatures (150 175°F) prevent thickening.
- 11. Some items should be started at a high temperature and then reduced. This permits sealing for about 20% of the time and cooking for the remaining 80%.
- 12. The cover has a lip at the back edge that directs the condensate on the cover back into the skillet.
- 13. The unit tilts easily to 90°, and receiving pan is always approximately two inches from the pouring lip of the skillet.
- 14. The stainless steel UniVerse Skillet is rapidly cleaned with a mild detergent. Water, waste, and scraps are easily removed into the receiving pan for disposal. (It is always recommended that this type of unit be presoaked if possible.)
- 15. Breakfast foods such as sausage, bacon, pancakes, fried eggs, scrambled eggs, and French toast are a few of the more common items that can be cooked in the UniVerse Skillet.
- 16. When cooking meat or poultry, all pieces should be of fairly uniform size and weight and should be turned at least once while simmering.
- 17. This unit can be converted to a proof box by placing a small amount of water in the pan to form steam and then placing the food in another pan. The thermostat should be set very low (100-150°F).
- 18. The unit can also be used as a holding cabinet by adding water and setting the thermostat at approximately 175°F.
- 19. When using water over and over for vegetable cookery, be sure to add water occasionally to keep level at about 3 4 inches. Thermostat should be set at 250°F.
- 20. Perforated 2  $\frac{1}{2}$ " deep pans are suggested for vegetables for the most satisfactory results. The pan can then be removed easily and transferred to the serving line.

# SECTION 5, TROUBLESHOOTING AND MAINTENANCE

## **REPLACEMENT OF TEMPERATURE CONTROL**

- 1. Place circuit breaker in off position.
- 2. Remove skirted dial knob by loosening two set screws in the knob. (Use a 5/64 Hex key to loosen screws).
- 3. Tilt control box up by first removing two pan head screws in the lower front of the console. Use the prop up arm located inside, in the rear vertical column, to keep the console cover tilted open.
- 4. Disconnect all wire leads from temperature control.

**NOTE:** Leads should be marked appropriately to facilitate re-installation.

- 5. Remove temperature control by removing two (2) pan head screws from side of control box.
- 6. Install new temperature control and reverse steps 1 5.

#### ADJUSTMENT OF INTERLOCK SWITCH

- 1. Tilt skillet pan all the way in the downright position.
- 2. Place circuit breaker in off position.
- 3. Tilt control box up by first removing two pan head screws in the lower front of the console. Use the prop arm located inside, in the rear vertical column, to keep the console cover tilted open.
- 4. To reduce the angle where the switch disengages when the pan is tilted, use a pair of heavy duty needle nose pliers and lightly bend the tilt tab on the trunnion up. To increase the angle, bend the tilt-tab down. Test by tilting the pan and checking at what angle the switch clicks. The switch should click off at approximately 10° tilt of the pan from the horizontal position.
- 5. Close and fasten the control console by tightening the two screws at the lower front of the box.
- 6. Place circuit breaker in on position.

# SECTION 5, TROUBLESHOOTING & MAINTENANCE (Continued)

# CLEANING

- 1. The skillet should be cleaned daily.
- 2. Wash the skillet with a mild detergent and hot water. If food is stuck to the surface of the skillet pan, soak it and use a little heat to loosen the food. Then, wash with clear water and dry.
- 3. Be sure to wash under the skillet cover and rinse with clean water.
- 4. Check the skillet pouring lip corners to be sure they are clean. Also, wash around the exterior of the skillet. Rinse with clean water and air dry.

# ADJUSTMENT OF MOTOR TILT-STOP SWITCHES

- 1. Tilt skillet pan all the way in the down or horizontal position until the stops in the back engage.
- 2. Tilt control box cover up by first removing two pan head screws in the lower front of the console. Use the prop arm located inside, in the rear vertical column, to keep the console cover tilted open. Caution, circuit is live! Electrical power has not been turned off.
- 3. Remove control console lower side cover to expose motor, tilt cam and switches.
- 4. Using a 9/64 hex key, loosen the two set screws on the tilt cam located on the outside hub of the tilt gear.
- 5. Turn the cam so that one of the arms just engages the upper-right tilt switch as the arm is turned clockwise. Hold the cam/arm in that location and tighten the set screws.
- 6. Using the tilt UP/DOWN switch on the control panel, test the full travel up and down on the pan. The motor should stop just before the pan back stops engage in the horizontal position. It should stop at about 80° in the up or vertical position.
- 7. Repeat steps 4 to 6 until motor tilt stops as described in step 6.
- 8. Replace the control console lower side cover in its original position. Close and fasten the control console by tightening the two screws at the lower front of the box.

# SECTION 5, TROUBLESHOOTING AND MAINTENANCE (Continued)

PROBLEM		PROBABLE CAUSE	REMEDY	
1. Uneven or poor heating.	a.	Temperature control out of calibration or defective.	a.	Replace temperature control.
	b.	Unit attached to wrong gas supply.	b.	Compare to specifications on data plate.
	C.	Combination gas control set to wrong pressure.	C.	Adjust manifold pressure to equal that listed on data plate.
2. Signal light out.	a.	Burnt out bulb.	a.	Replace.
	b.	Broken temperature control.	b.	Replace.
	C.	Loose electrical connection.	c.	Repair.
3. Unit fails to heat.	a.	Circuit breaker is off.	a.	Reset circuit breaker.
	b.	Malfunction of interlock switch.	b.	Adjust or replace.
	C.	Broken ignition module.	C.	Replace.
	d.	Broken ignitor/sensor.	d.	Replace.
4. No 110 Volts output.	a.	Defective temperature control.	a.	Replace.
	b.	Broken temperature sensor.	b.	Replace.
5. No gas to unit.	a.	Defective gas valve.	a.	Replace.