

OWNER'S MANUAL

UNIVERSE PLUS GAS SKILLET

MODELS:

○ 30P-STGL ○ 30P-STGM ○ 40P-STGL ○ 40P-STGM

WARNING:

Improper installation, adjustment, alteration, service or maintenance can cause damage, injury or death. Read the installation, operating & maintenance instructions thoroughly before installing or servicing the equipment.

FOR YOUR SAFETY:

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



CAUTION:

Instruction to be followed in the event the user smells gas shall be posted in a prominent location. This information shall be obtained by consulting the local gas supplier.



Form No.: S-6003 Rev. B 11/06

PRINTED IN  

35 Garvey Street • Everett • MA • 02149-4403
Tel: (617) 387-4100 • Toll Free: (866) 698-3188
Fax: (617) 387-4456 • Outside MA Fax: (800) 227-2659
E-Mail: custserv@mfi.com • Website: www.mfi.com

TABLE OF CONTENTS

SPEC SHEET INFORMATION	1
INSTALLATION	3
OPERATION	4
TEST KITCHEN BULLETIN	5
TROUBLE-SHOOTING	8
MAINTENANCE	8
WIRING	9
PARTS	10-18

INTRODUCTION

NOTICE:

THE FOLLOWING FAUCETS ARE THE ONLY ONES APPROVED BY THE MASSACHUSETTS BOARD OF REGISTRATION OF PLUMBERS AND GAS FITTERS FOR INSTALLATION ON THIS EQUIPMENT.

SINGLE PANTRY FAUCET MANUFACTURED BY T & S BRASS AND BRONZE WORKS, INC. MODEL # B-0305 OR CONCEALED MIXING FAUCET WITH 4-ARM HANDLES MANUFACTURED BY T & S BRASS AND BRONZE WORKS, INC. MODEL # B-0512.

IMPORTANT:

- **INSTALLING, OPERATING AND SERVICE PERSONNEL:**
- **INSTALLATION OF THE EQUIPMENT SHOULD BE PERFORMED BY QUALIFIED, CERTIFIED, LICENSED AND/OR AUTHORIZED PERSONNEL WHO ARE FAMILIAR WITH AND EXPERIENCED IN STATE/LOCAL INSTALLATION CODES.**
- **OPERATION OF THE EQUIPMENT SHOULD BE PERFORMED BY QUALIFIED OR AUTHORIZED PERSONNEL WHO HAVE READ THIS MANUAL AND ARE FAMILIAR WITH THE FUNCTIONS OF THE EQUIPMENT.**
- **SERVICE OF THE EQUIPMENT SHOULD BE PERFORMED BY AN AUTHORIZED MARKET FORGE SERVICE AGENT.**

SHIPPING DAMAGE CLAIM PROCEDURE:

THE EQUIPMENT IS INSPECTED & CRAFTED CAREFULLY BY SKILLED PERSONNEL BEFORE LEAVING THE FACTORY. THE TRANSPORTATION COMPANY ASSUMES FULL RESPONSIBILITY FOR SAFE DELIVERY UPON ACCEPTANCE OF THIS EQUIPMENT.

IF SHIPMENT ARRIVES DAMAGED:

- 1. VISIBLE LOSS OR DAMAGE: NOTE ON FREIGHT BILL OR EXPRESS DELIVERY AND HAVE SIGNED BY THE PERSON MAKING DELIVERY.**
- 2. FILE CLAIM OR DAMAGES IMMEDIATELY REGARDLESS OF THE EXTENT OF DAMAGES.**
- 3. CONCEALED LOSS OR DAMAGE: IF DAMAGE IS NOTICED AFTER UNPACKING, NOTIFY THE TRANSPORTATION COMPANY IMMEDIATELY AND FILE 'CONCEALED DAMAGE' CLAIM WITH THEM. THIS SHOULD BE DONE WITHIN FIFTEEN DAYS FROM THE DATE DELIVERY IS MADE TO YOU. RETAIN CONTAINER FOR INSPECTION. IDENTIFY IMMEDIATELY**

G

UNIVERSE PLUS GAS TILTING SKILLET

JOB NAME: _____

ITEM NO.: _____

NO. REQUIRED: _____

- MODELS:**
- 30P-STGL
 - 40P-STGL
- 30P-STGM
 - 40P-STGM

DESCRIPTION:

The Market Forge Gas Universe Plus Tilting Skilletts are available in 30-gallon (87-liter) and 40-gallon (114-liter) pan bodies with 93,000 BTU and 126,000 BTU inputs respectively. Both models are available in open-leg and closed-base frame assemblies with manual or power tilt capabilities.

The heavy duty construction of our Universe Plus Skilletts incorporates sides formed of 10 gauge stainless steel and a 5/8" thick stainless steel clad plate that will provide a rigid flat cooking surface with improved heat distribution. The balanced design of the pan allows the operator to easily and quickly tilt to the desired position. Our new power tilt operates smoothly, with manual override that works easily when needed and without the use of tools or drills as required by other manufacturers.

CONSTRUCTION:

The Universe Plus Skillet has a fully polished stainless steel cooking surface that prevents food from adhering and helps to safely clean the equipment. Gas burners turn off automatically when the cooking pan is tilted from the horizontal position. The skillet is provided with a heavy-duty spring assisted cover and a condensate vent. The cooking pan and cover are supported by two consoles with a fully welded stainless steel tubular frame system that provides stable support to the unit.

The consoles are completely covered with stainless steel that provides protection to the controls and is also easily cleanable and provides clear access for easy floor cleaning. The closed-base model incorporates an easily removable stainless steel front panel. The sloped front of the pan allows for complete draining of the pan when tilted to 70°. The tilting mechanism includes a precision ground and polished worm for smooth and long lasting tilt operation and positive control with a collapsible hand crank. A power tilting option is available and is also supplied with the collapsible handle for manual override operation if required.

TECHNICAL SPECIFICATIONS:**COOKING PAN:**

The unitized cooking pan with integral clad plate cooking surface is welded with full penetration to resist cracking due to expansion and contraction. The polished cooking surface resists product adherence and improves cleanup and appearance. The pan incorporates an easy-pour lip and 5-gallon increment markings. The clad plate cooking surface has integrally welded labyrinth fins for positive control and heat transfer from the reliable atmospheric

*30P-STGL Shown*

burners. An interlock switch is provided to turn the burners off when the pan is tilted more than 10° from the normal horizontal position. The spring assisted cover with integral vent, condensate drip guide and full width handle affords effortless operation and will maintain an open position.

CONTROLS:

The skillet comes standard with a solid-state temperature control with a positive OFF position and 100°-450° Fahrenheit scale, a pilot light to indicate when the burners are ON, spark pilot ignition system as standard and a 1 hour mechanical timer is included. The optional power tilting mechanism also utilizes an UP/DOWN rocker switch. The manual tilting mechanism uses a collapsible hand crank conveniently located below the control panel. The controls are resistant to dripping and light splashing water (NEMA T-2).

OPERATION SHALL BE BY:

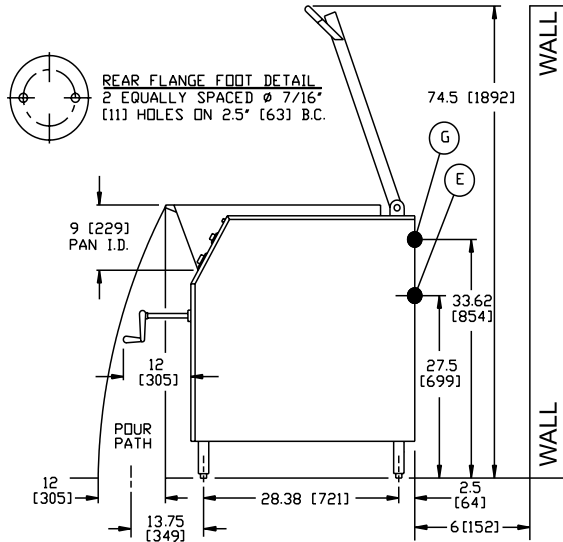
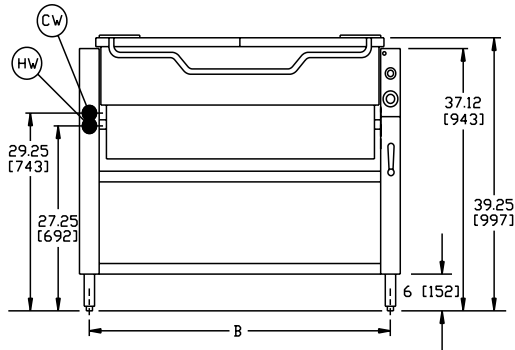
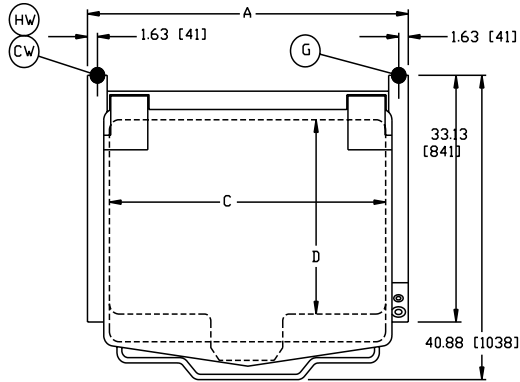
The Universe Tilting Plus Skilletts models 30P-STGL and 30P-STGM' will be rated at 93,000 BTU at 3.5" W.C. natural gas and 10" W.C. propane gas.

Models 40P-STGL and 40P-STGM will be rated at 126,000 BTU at 3.5" W.C. natural gas and 10" W.C. propane gas.

G

UNIVERSE PLUS GAS TILTING SKILLET

DETAILS & DIMENSION



DIMENSIONS

MODEL	CAPACITY		A	B	C	D
30P-STGL	30 Gallon	inches	36	34.63	30.5	25.75
30P-STGM	114 liter	mm	914	879	775	654
40P-STGL	40 Gallon	inches	46	44.63	40.5	25.75
40P-STGM	152 liter	mm	1168	1133	1029	654

SERVICE CONNECTIONS

Gas Fired

G	Gas Connection - Supplied through 3/4" NPT pipe. A gas shut-off valve must be installed in supply piping convenient and adjacent to appliance.
E	Electrical Connection - 120V units supplied with 8' foot cord with 3 prong plug.
CW	Cold Water - 3/8" O.D. NPT to faucet (Optional).
HW	Hot Water - 3/8" O.D. NPT to faucet (Optional).

OPTIONAL AT EXTRA COST:

- 2" Draw-Off Valve with Strainer.
- Modular Joining Kit.
- Pan Support.
- Pan Holder Inserts.
- Pouring Lip Strainer.
- Single Pantry Faucet.
- Posi-Set.
- 2" Tangent Draw-Off Valve with Drain Hose Assembly, Includes:
 - 2" Tangent Draw-Off Valve with Strainer.
 - 90° Stainless Steel Elbow.
 - 8 Foot Long of 2" ID Hose (cut to required length).
 - Hose Clamp.
- Drain Cup Assembly, Includes:
 - Stainless Steel Cup Assembly.
 - 8 Foot Long of 2" ID Hose (cut to required length).
 - Hose Clamp.
- Drain Pan Assembly, Includes:
 - 6" x 12" x 20" Stainless Steel Solid Pan with Elbow.
 - 8 Foot Long of 2" ID Hose (cut to required length).
 - Hose Clamp.
- Double Pantry Faucet.
- Single Pantry Spray Hose.
- Double Pantry Spray Hose.
- Caster Kit w/Strain Relief.
- Correctional Package.

MANIFOLD GAS PRESSURE AND INPUTS:

	W.C.	30 Gallon BTU	40 Gallon BTU
• Natural Spark Pilot	3.5"	93,000	126,000
• Propane Spark Pilot	10"	93,000	126,000

NOTE: HIGH ALTITUDE - If equipment is to be installed above 2,000 feet specify installation height, so that proper gas orifices can be provided.

CLEARANCE:	30 GALLON 93,000 BTU	40 GALLON 126,000 BTU
○ Left Side	0"	0"
○ Right Side	0"	0"
○ Back	6"	6"

INSTALLATION

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 the National Fuel Gas Code, ANSI 2223. 1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA . B 149.1, as applicable.
- ▶ 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 1/2 PSI (0.035 kg/cm²).
- ▶ 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 1/2 PSI (0.035 kg/cm²).
- ▶ This unit is serviceable from the front. Do not install in such a manner that a service person cannot remove front panels if provided.
- ▶ 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, or the Canadian Electrical Code, CSA C22.2, as applicable.
- ▶ In Canada, this installation must conform to C.S.A. Standard C22.1 Canadian Electrical Code, Part 1.
- ▶ 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 non-combustible construction are 0" from side walls, 10" (254mm) from rear wall.
- ▶ This unit has a flexible cord wired into electrical system.

GENERAL INSTALLATION:

1. Remove carton from skid, being careful not to dent or scratch finished surface of the unit.
2. Inspect unit carefully for shipping damage. File clam 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 the floor.
 5. Raise skillet cover to full open position. Raise skillet by turning 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.
 7. Gas service conditions:
 - a. This unit is factory-adjusted for gas consumption of 93,000 BTU/Hour (on 30 Gallon units) or 126,000 BTU/Hour (on 40 Gallon units) at the pressure indicated. Please read 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 qualified installer or service person 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 accessible to the operator.

- c. Natural gas units are equipped with a pressure regulator factory-adjusted to give 3.5" (89mm) water column manifold pressure. The supply pressure must be at least 7" (178mm) water column pressure.
 - d. Propane gas units are equipped with a pressure regulator factory-adjusted to give 10" (254mm) water column manifold pressure. The supply pressure must be at least 11" (279mm) water column pressure.
 - e. Maximum supply pressure must not exceed 1/2 PSI (.035 kg/cm²) 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 pilot burner, using a soap solution. DO NOT USE FLAME!
8. Electrical service connection - Connect skillet controls to 110/120 volt AC, 60 Hz, 1 pH (phase) branch circuit rated 15 Amps capacity. Wiring will conform to the requirements of national and local electrical codes. ONLY A LICENSED ELECTRICIAN SHOULD MAKE ELECTRICAL CONNECTIONS!

CASTER INSTALLATION:

Adequate means must be provided to limit the movement of the appliance without depending on the connector and quick disconnect device or its associated piping to limit the appliances movement.

The location (s) where the restraining means may be attached to the appliance shall be approximately 3" below the gas inlet on the rear of the right hand console.

INSTALLATION

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 cleaning instructions in the maintenance section of this manual) and wipe dry with a soft clean cloth.

START-UP PROCEDURE:

1. Open manual gas shut-off valve.
2. Ensure that the braising pan is in the DOWN position.
3. Turn the THERMOSTAT dial to desired setting. The RED TEMPERATURE LIGHT will come on. This will turn on the electronic ignition on, which will light the burners.
4. If the burners do not come on after 30 seconds, turn the THERMOSTAT dial to OFF and then ON again to restart.
5. When braising pan has reached set temperature, the RED TEMPERATURE LIGHT will go OFF and the burners will shut OFF. The RED TEMPERATURE LIGHT will blink ON and OFF thereafter when the burners are OFF letting the

operator know that the burners are cycling to maintain temperature.

6. If gas supply is interrupted during operation, turn the THERMOSTAT dial to OFF position and turn the gas supply OFF. Wait five minutes, then repeat steps 1 through 4 to restart.
7. Turn the THERMOSTAT dial to OFF when braising pan is not in use.

SHUTDOWN INSTRUCTIONS:

Turn the THERMOSTAT dial counterclockwise to the OFF position.

PROLONGED SHUTDOWN:

1. Turn the THERMOSTAT dial counterclockwise to the OFF position.
2. Turn the GAS VALVE located at the right rear to the OFF position.

OPERATION

BEFORE FIRST USE:

1. Check to see that the correct gas connection has been made to the unit (110/120 volt connection).
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 Test Kitchen Bulletin Section for thermostat settings.
5. Preheat to desired setting before grilling, pan frying, or any other type of cooking except boiling.
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.

9. For cleaning instructions, See Trouble-Shooting and Maintenance Section.

CAUTION: BE SURE TO READ:

- ▶ Disconnect the power supply to skillet before cleaning or servicing.
- ▶ If the 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.
- ▶ 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 unit is returned to its originally installed position.

TEST KITCHEN BULLETIN

COOKING FACTS ON PARADE:

1. The Universe Plus Skillet is one of the most versatile pieces of equipment to be found in any restaurant or institution kitchen.
2. This unit will stew, simmer, pan-fry, braise, grill and saute all with 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 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
Sauteing	225-275°F
Searing	300-350°F
Shallow 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 to 150-175°F to 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 2 inches from the pouring lip of the skillet.
14. The stainless steel UniVerse Plus 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 Plus 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 cooking, be sure to add water occasionally to keep level at about 3 - 4 inches. Thermostat should be set at 250°F.
20. Perforated 2 1/2" - deep pans are suggested for vegetables for the most satisfactory results. The pan can then be removed

TEST KITCHEN BULLETIN

ITEM	PORTION SIZE	THERMOSTAT SETTING		BATCHES PER HOUR	30 Gallon PER LOAD		40 Gallon PER LOAD	
					QTY.	YIELD	QTY.	YIELD
BREAKFAST FOODS								
Bacon	3 Slices	350 °		12	2 lbs.	10	3 lbs.	15
Eggs	1 Egg							
Boiled-Hard	1 Egg	225 °		5	50	50	75	75
Boiled-Soft	1 Egg	225 °		8	50	50	75	75
Fried	1 Egg	400 °		4	30	30	45	45
Poached	1 Egg	225 °		5	36	36	60	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 lbs.	500	40 lbs.	1000
Pancakes	2 Each	400 °		10	30 each	15	50 each	25
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
Swordfish	5 oz.	450 °		3	50-5 oz.	50	75-5 oz.	75
SAUCES, GRAVIES AND SOUPS								
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 Soups	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 lb.raw	320	40 lb.	650
Spaghetti	4 oz.	350 °	225 °	2	8 lb.	200	12 lb.	300
MEAT & POULTRY								
Beef								
American Chop Suey	6 oz.	400 °	225 °	2	18 gal.	350	35 gal.	700
Beef Stew	8 oz.	300 °		--	18 gal.	280	35 gal.	560
Corn Beef Hash	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 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.	100	40 lb.	160
Chicken								
Pan-Fired	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
Frankfurters								
Grilled	2 oz.	300 °		8	22 lb.	176	33 lb.	264
Boiled	2 oz.	250 °		12	16 lb.	128	25 lb.	200
Ham Steak	3 oz.	400 °		8	10 lb.	50	15 lb.	75
Pork Chops	5 oz.	400 °		4	15 lb.	50	25 lb.	75
Sausage Links	3 links	350 °		7	30 lb.	120	45 lb.	180

TEST KITCHEN BULLETIN

ITEM	PORTION SIZE	THERMOSTAT SETTING		BATCHES PER HOUR	30 Gallon PER LOAD		40 Gallon PER LOAD	
					QTY.	YIELD	QTY.	YIELD
MEAT & POULTRY								
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
VEGETABLES								
Canned	oz.	400 °		6	30 lb.	125	45 lb.	200
Fresh								
Beans	oz.	400 °		3	25 lb.	125	50 lb.	250
Beets	oz.	400 °		1	30 lb.	125	60 lb.	300
Broccoli	oz.	400 °		3	25 lb.	125	40 lb.	200
Cabbage	oz.	400 °		5	20 lb.	80	30 lb.	125
Carrots	oz.	400 °		2	35 lb.	150	70 lb.	300
Cauliflower	oz.	250 °		5	15 lb.	75	25 lb.	125
Corn	ear	400 °		8	50 ears	50	75 ears	75
Potatoes	oz.	400 °		2	40 lb.	200	60 lb.	300
Spinach	oz.	225 °		10	6 lb.	25	9 lb.	35
Turnips	oz.	400 °		2	20 lb.	100	30 lb.	150
Frozen								
Beans	oz.	400 °		6	15 lb.	60	22 1/2 lb.	90
Lima Beans	oz.	250 °		4	15 lb.	60	22 1/2 lb.	90
Broccoli	oz.	400 °		8	12 lb.	50	18 lb.	75
Sliced Carrots	oz.	250 °		6	15 lb.	60	22 1/2 lb.	90
Baby Carrots	oz.	250 °		3	15 lb.	50	22 1/2 lb.	90
Corn	oz.	250 °		18	15 lb.	50	22 1/2 lb.	90
Baby Onions	oz.	250 °		7	15 lb.	50	22 1/2 lb.	90
Peas	oz.	400 °		10	15 lb.	75	22 1/2 lb.	110
Spinach	oz.	400 °		3	15 lb.	75	22 1/2 lb.	110
DESSERT ITEMS								
Butterscotch Sauce	1 oz.	200 °		1	18 gal.	2330	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
Cornstarch Pudding	4 oz.	200 °		1	21 gal.	575	38 gal.	1100
Fruit Gelatin	3 oz.	250 °		2	22 gal.	750	39 gal.	1500

TROUBLE-SHOOTING

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.

TROUBLE-SHOOTING GUIDE

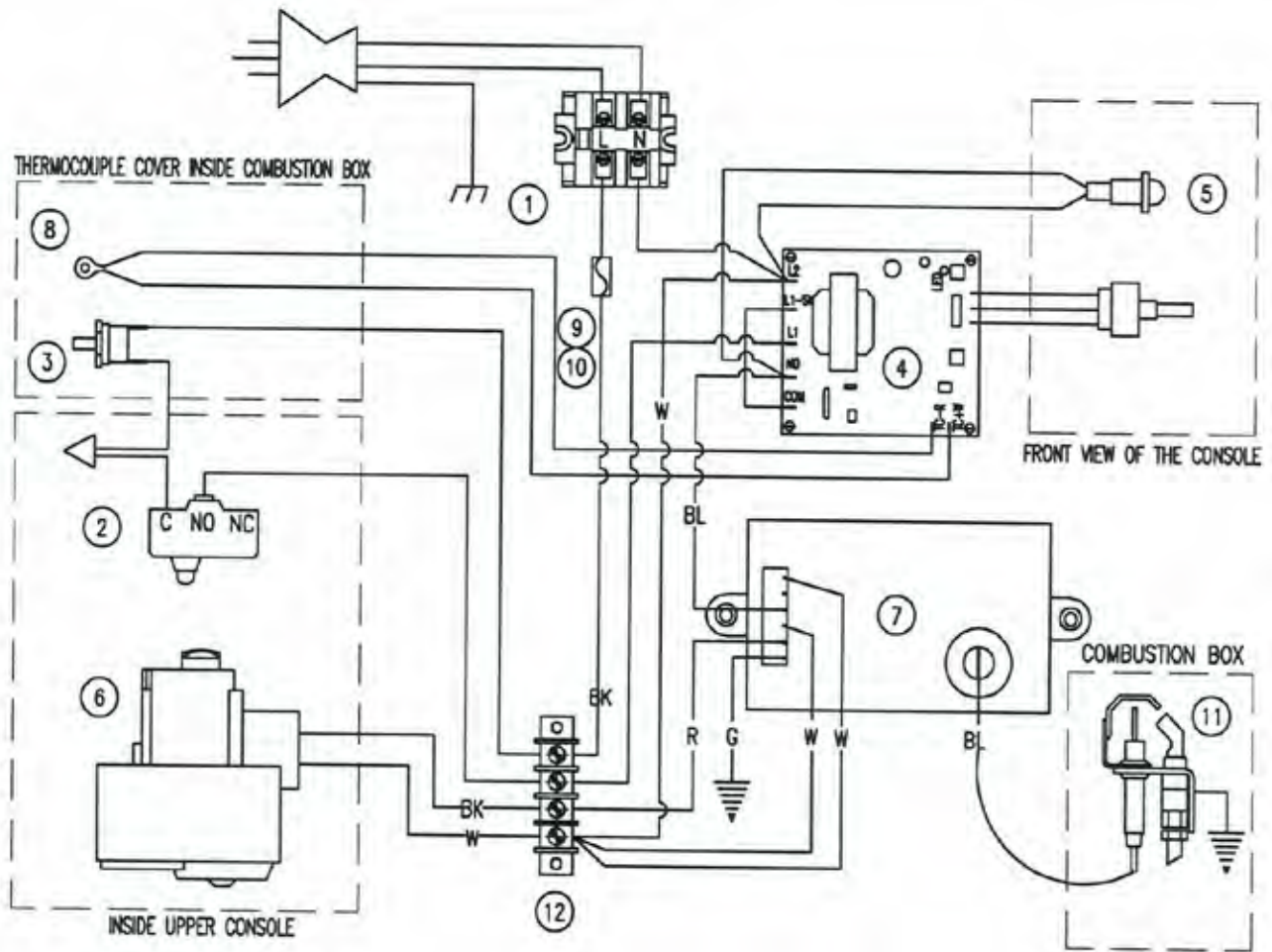
PROBLEM	PROBABLE CAUSE	REMEDY
Uneven or poor heating.	<ol style="list-style-type: none"> a. Temperature control out of calibration or defective. b. Unit attached to wrong gas supply. c. Combination gas control set to wrong pressure. 	<ol style="list-style-type: none"> a. Replace temperature control. b. Compare to specifications on data plate. c. Adjust manifold pressure to equal that listed on data plate.
Signal light out.	<ol style="list-style-type: none"> a. Burnt out bulb. b. Broken temperature control. c. Loose electrical connection. 	<ol style="list-style-type: none"> a. Replace. b. Replace. c. Repair.
Unit fails to heat.	<ol style="list-style-type: none"> a. Circuit breaker is off. b. Malfunction of interlock switch. c. Broken ignition module d. Broken ignitor/sensor. 	<ol style="list-style-type: none"> a. Reset circuit breaker. b. Adjust or replace. c. Replace. d. Replace.
No 110 Volts output.	<ol style="list-style-type: none"> a. Defective temperature control. b. Broken temperature sensor. 	<ol style="list-style-type: none"> a. Replace. b. Replace.
No gas to unit.	<ol style="list-style-type: none"> a. Defective gas valve. 	<ol style="list-style-type: none"> a. Replace.

MAINTENANCE

DAILY 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 or loosen the food. Then, wash with clean 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.

WIRING



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1A	10-6963	TERMINAL BLOCK	2
1B	10-6962	TERMINAL BLOCK END	1
2	97-6154	INTERLOCK SWITCH	1
3	97-6155	THERMOSTAT, HIGH LIMIT SAFETY	1
4	97-6030	TEMPERATURE CONTROL	1
5	97-5782	TEMPERATURE PILOT (RED)	1
*6	97-5808	GAS VALVE , NATURAL GAS	1
*6	97-5809	GAS VALVE, PROPANE GAS	1
7	97-5960	DSI IGNITION MODULE	1
8	97-6289	THERMOCOUPLE	1
9	97-5476	FUSE, 3A, 250V	2
10	97-5864	FUSE HOLDER	2
*11	97-6157	PILOT ASSEMBLY, NATURAL	1
*11	97-6158	PILOT ASSEMBLY, PROPANE	1
12	97-6159	4 POLE TERMINAL BLOCK	1

* SELECT AS REQUIRED FOR GAS TYPE OR MODEL.

PARTS

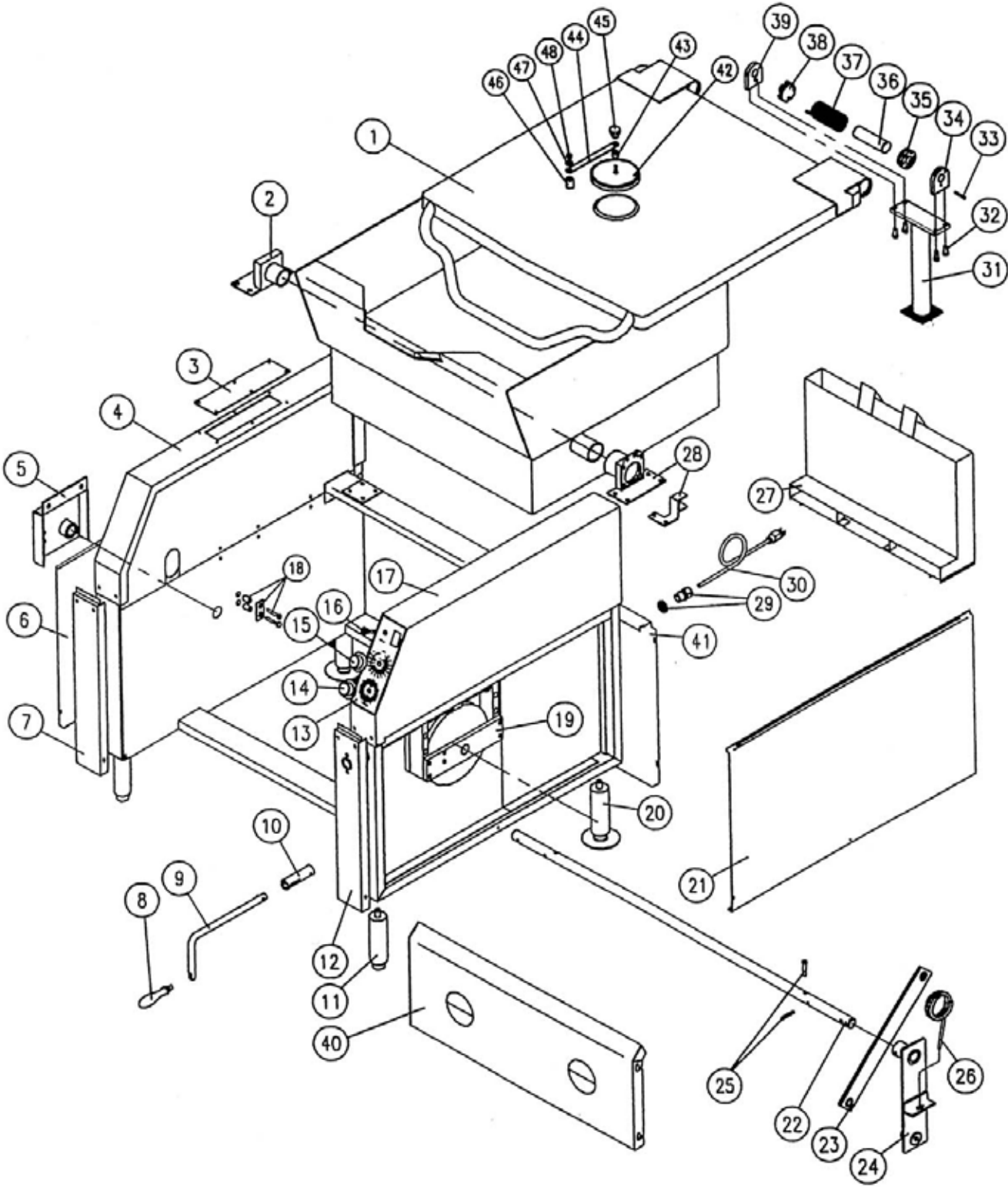


FIGURE NO. 1 Main Assembly

PARTS

ITEM NO.	PART NO.	FIGURE NO. 1 DESCRIPTION	30 GAL.	40 GAL.
1	98-6031	PAN COVER ASSEMBLY	1	
	98-6032	PAN COVER ASSEMBLY		1
2	98-6033	LEFT HAND TRUNNION ASSEMBLY	1	1
3**	98-6034	FAUCET COVER PLATE	1	1
	~NPN~	FAUCET MOUNTING PLATE PANTRY FAUCET	1	1
	~NPN~	FAUCET MOUNTING PLATE DOUBLE FAUCET	1	1
4	98-6035	LEFT HAND CONSOLE TOP COVER	1	1
5	98-6036	LEFT HAND CONSOLE TILT SHAFT BEARING BRACKET	1	1
6	98-6037	LOWER CONSOLE SIDE PANEL LEFT HAND	1	1
7	98-6038	LEFT HAND CONSOLE FRONT COVER	1	1
8	97-5577	HANDLE	1	1
9	98-6040	CRANK HANDLE	1	1
10	98-6041	INPUT SHAFT ADAPTOR	1	1
11	98-6042	ADJUSTABLE BULLET FOOT	2	2
12	98-6043	RIGHT HAND FRONT CONSOLE COVER	1	1
13	98-6044	DECAL	1	1
14	98-6045	TIMER COMPLETE WITH DIAL	1	1
15	98-6046	THERMOSTAT DIAL	1	1
*	98-6047	ROTARY SHAFT SEAL	1	1
16	98-6048	PILOT LIGHT - TEMPERATURE, RED	1	1
17	98-6049	RIGHT HAND CONSOLE TOP COVER	1	1
18	98-6050	SPRING RETAINER	2	2
*	98-6051	Hx. BOLT 3/8-16 x 1 1/2	4	4
*	98-6052	WASHER 3/8 STAINLESS STEEL	4	4
*	98-6053	SPACER	4	4
19	98-6054	GEAR BOX ASSEMBLY	1	1
20	98-6055	FLANGE ADJUSTABLE FOOT	2	2
21	98-6056	LOWER CONSOLE SIDE PANEL RIGHT HAND	1	1
22	98-6057	TILT SHAFT	1	
	98-6058	TILT SHAFT		1
23	98-6059	TILT ARM EXTENSION	2	2
24	98-6060	ARM, LIFT	2	2
25	98-6061	ROLL PIN, 1/4 x 1 1/2 STAINLESS STEEL	2	2
	98-6062	Hx. BOLT 1/4 x 1 1/2 STAINLESS STEEL	2	2
26	~NPN~	SPRING, RIGHT HAND	1	1
	~NPN~	SPRING, LEFT HAND	1	1
27	98-6065	FLUE ASSEMBLY	1	
	98-6066	FLUE ASSEMBLY		1

PARTS

ITEM NO.	PART NO.	FIGURE NO. 1 DESCRIPTION	30 GAL.	40 GAL.
27	98-6065	FLUE ASSEMBLY	1	
	98-6066	FLUE ASSEMBLY		1
28	98-6067	RIGHT HAND TRUNNION ASSEMBLY	1	1
	98-6068	SWIVEL BRACKET	1	1
29	98-6069	LIQUID TIGHT CONNECTOR 1/2"	1	1
	98-6070	LOCKNUT 1/2"	1	1
30	97-5702	CORD SET	1	1
31	98-6072	POST ASSEMBLY	2	2
32	97-5545	CAP SCREW 5/16-18 x 3/4 STAINLESS STEEL	8	8
33	97-5352	LOCK PIN	2	2
34	97-5343	END LOCK PIN	2	2
35	98-6073	STATIONARY DISC	2	2
36	98-6074	CORE	2	2
37	97-5160	SPRING	2	2
38	98-6076	ROTARY DISC	2	2
39	97-5356	END STOP PLATE	2	2
40	98-6078	FRONT COVER PANEL (MODULAR UNITS)	1	
	98-6079	FRONT COVER PANEL (MODULAR UNITS)		1
41	98-6080	BACK COVER PANEL (MODULAR UNITS)	1	1
	98-6081	BACK COVER PANEL (MODULAR UNITS)		1
42	98-6082	VENT COVER	1	1
43	98-6083	SWIVEL SPACER	1	1
44	~NPN~	ARM	1	1
45	98-6084	KNOB	1	1
46	98-6085	SWIVEL BASE	1	1
47	98-6086	WASHER 1/4 STAINLESS STEEL	1	1
48	98-6087	Hx. Hd. SCREW 1/4-20 x 3/8 STAINLESS STEEL	1	1
49*	98-6013	POUR LIP STRAINER	1	1

* NOT SHOWN

** SELECT AS REQUIRED

PARTS

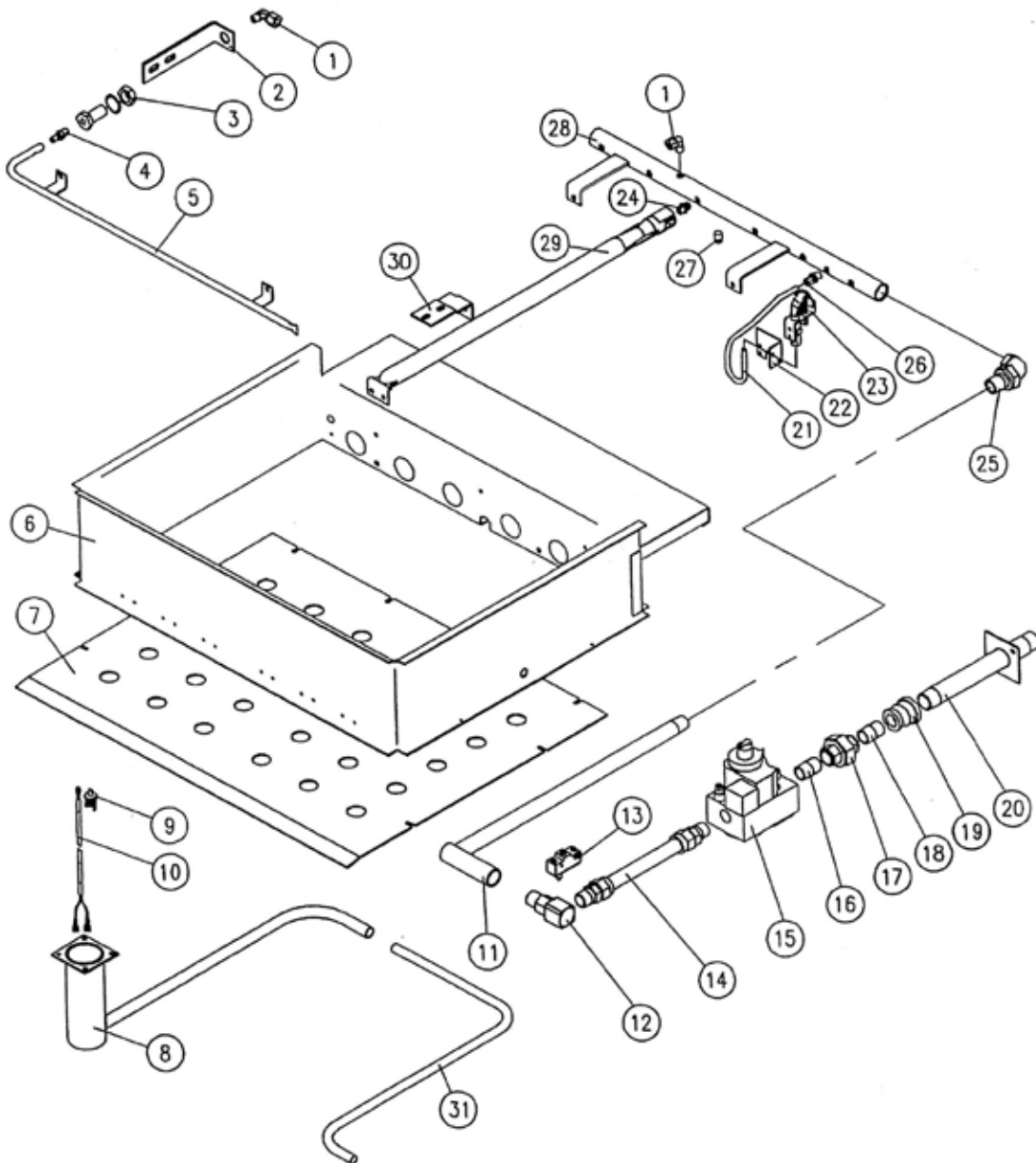


FIGURE NO. 2 Gas and Electric Connections

ITEM NO.	PART NO.	FIGURE NO. 2 DESCRIPTION	30 GAL.	40 GAL.
1	98-6089	ELBOW 1/4 C x 1/8 MPT	2	2
2	98-6090	LIGHTER TUBE BRACKET	1	1
3	98-6091	BULK HEAD	1	1
4**	98-6092	LIGHTER TUBE ORIFICE - NATURAL #56	1	1
	98-6093	LIGHTER TUBE ORIFICE - PROPANE #72	1	1
5	98-6094	LIGHTER TUBE	1	
	98-6095	LIGHTER TUBE		1

PARTS

ITEM NO.	PART NO.	FIGURE NO. 2 DESCRIPTION	30 GAL.	40 GAL.
6	98-6096	BURNER BASKET ASSEMBLY	1	
	98-6097	BURNER BASKET ASSEMBLY		1
7	98-6098	BOTTOM COVER	1	
	98-6099	BOTTOM COVER		1
8	98-6100	HIGH LIMIT THERMOCOUPLE COVER	1	1
9	98-6101	HIGH LIMIT SAFETY THERMOSTAT	1	1
10	98-6102	THERMOCOUPLE	1	1
11	98-6103	GAS SUPPLY PIPE ASSEMBLY	1	1
12	98-6104	SWIVEL	1	1
13	97-5414	INTERLOCK SWITCH	1	1
14	98-6030	CORRUGATED FLEX TUBE 1/2 x 7 1/2	1	1
15**	98-6107	COMBINATION GAS CONTROL - NATURAL (97-5808)	1	1
	98-6108	COMBINATION GAS CONTROL - PROPANE (97-5809)	1	1
16	98-6109	CLOSE NIPPLE 1/2"	1	1
17	97-5490	GROUND JOINT UNION 1/2"	1	1
18	98-6111	NIPPLE 1/2 x 1 1/4"	1	1
19	98-6112	REDUCER BUSHING 3/4 x 1/2"	1	1
20	98-6113	GAS SUPPLY PIPE ASSEMBLY	1	1
21	98-6114	PILOT TUBE	1	1
22	98-6115	PILOT BRACKET	1	1
23**	97-6157	PILOT BURNER ASSEMBLY - NATURAL	1	1
	97-6158	PILOT BURNER ASSEMBLY - PROPANE	1	1
24**	98-6118	BURNER ORIFICE #48 - NATURAL	6	
	98-6119	BURNER ORIFICE #56 - PROPANE	6	
	98-6120	BURNER ORIFICE #51 - NATURAL		10
	98-6121	BURNER ORIFICE #59 - PROPANE		10
25	98-6122	UNION ELBOW	1	1
26	98-6123	CONNECTOR 1/4 C x 1/8 MPT	1	1
27	98-6124	SQUARE Hd. PIPE PLUG 1/8"	1	1
28	98-6125	MANIFOLD ASSEMBLY	1	
	98-6126	MANIFOLD ASSEMBLY		1
29	98-6127	BURNER	6	10
30	98-6128	BURNER BOX MOUNTING BRACKET	2	2
31	98-6129	THERMOCOUPLE HIGH LIMIT WIRE TUBE	1	
	98-6130	THERMOCOUPLE HIGH LIMIT WIRE TUBE		1

** SELECT AS REQUIRED

PARTS

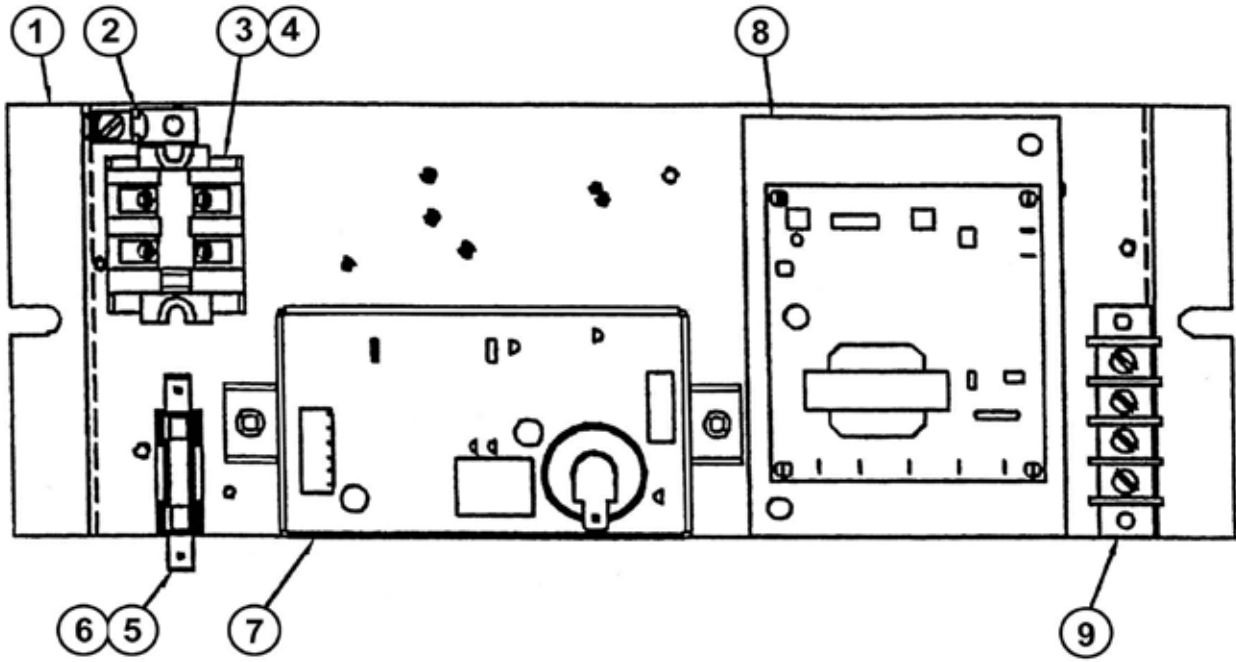


FIGURE NO. 3 Control Circuit Components

ITEM NO.	PART NO.	FIGURE NO. 3 DESCRIPTION	QTY.
1	98-6131	COMPONENT MOUNTING BOARD	1
2	97-5441	GROUND LUG	1
3	10-6963	TERMINAL BLOCK SECTION	2
4	10-6962	END SECTION	1
5	98-6132	FUSE HOLDER	1
6**	98-6133	FUSE, 3A, 250V (120V UNIT)	1
	98-6134	FUSE, 1A, 250V (220V UNIT)	1
7	98-6135	IGNITION MODULE	1
8	98-6136	TEMPERATURE CONTROL	1
9	98-6137	TERMINAL BLOCK, 4 POLE	1
10*	98-6138	TRANSFORMER, 220-120V, 100VA (220V UNIT)	1

** SELECT AS REQUIRED

PARTS

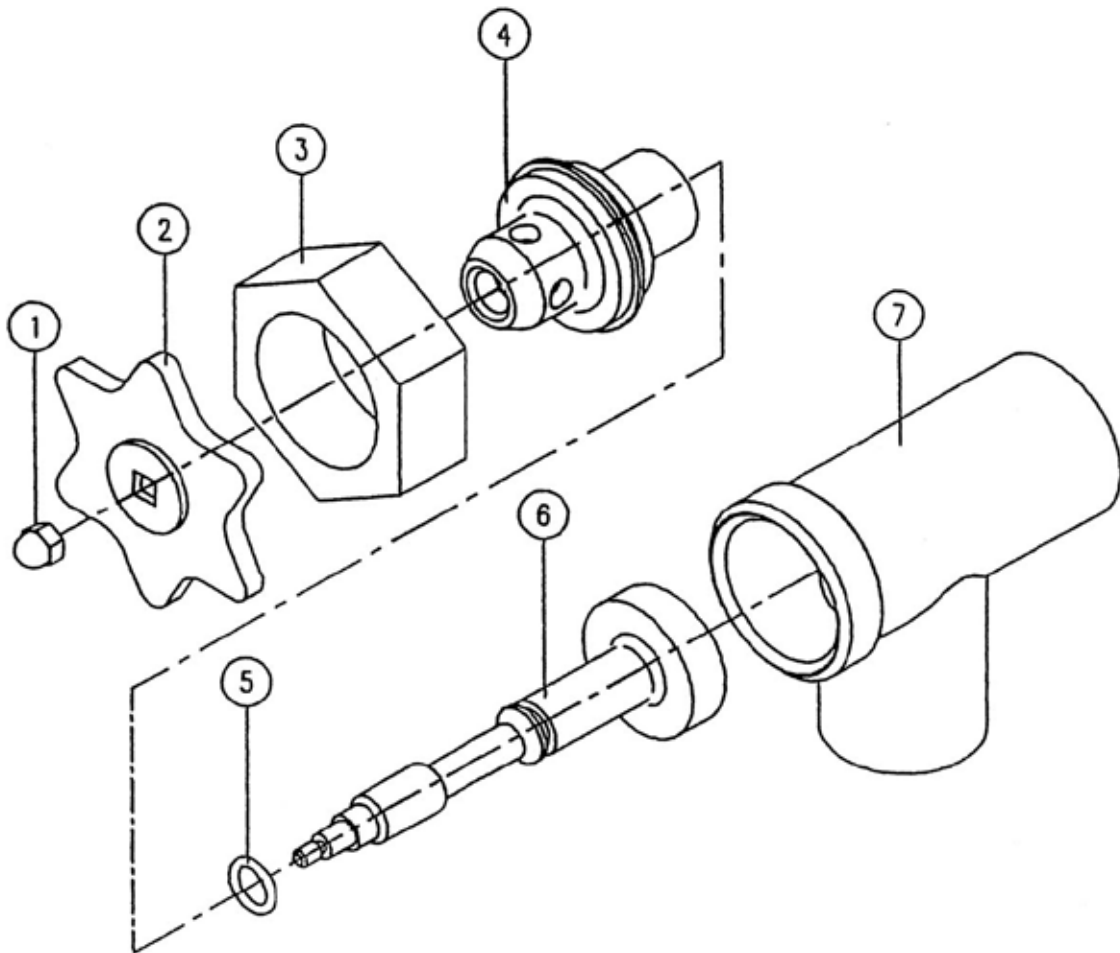


FIGURE NO. 4 Draw-Off Valve Assembly

ITEM NO.	PART NO.	FIGURE NO. 4 DESCRIPTION	QTY.
	98-6014	2" DRAW-OFF VALVE ASSEMBLY	
1	98-6155	ACORN NUT 10-24 UNC	1
2	97-5566	ACORN NUT 10-24 UNC	1
	97-5413	HANDLE STAINLESS STEEL	1
3	97-5069	GLAND NUT	1
4	97-5072	BONNET	1
5	97-5078	"O" RING	1
6	97-5075	STEM ASSEMBLY	1
7	98-6156	VALVE BODY	1
8*	98-6157	DRAW-OFF STRAINER (OPTIONAL)	1

* NOT SHOWN

PARTS

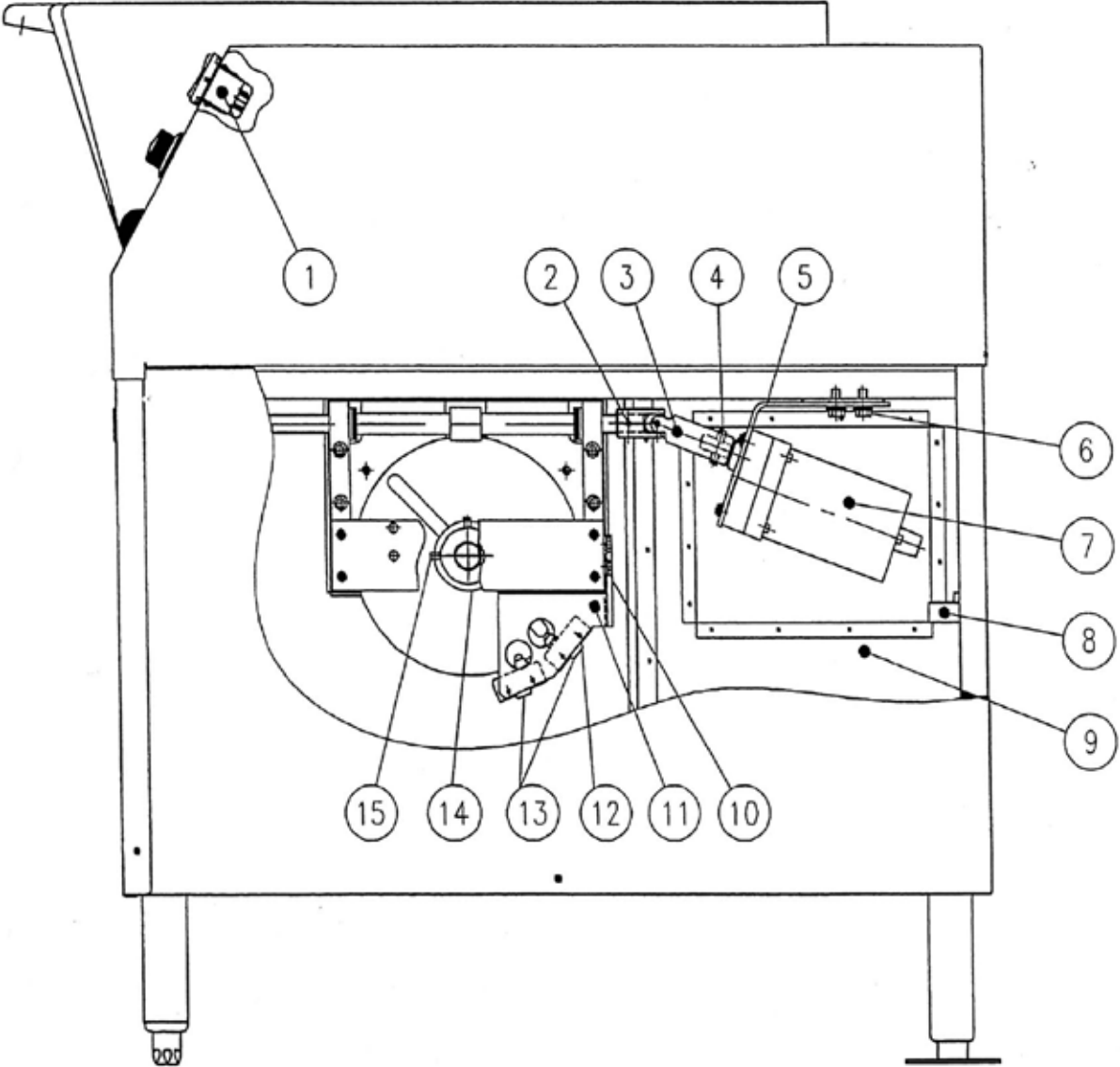


FIGURE NO. 5 Optional Motor Tilt Components (LX Models)

PARTS

ITEM NO.	PART NO.	FIGURE NO. 5 DESCRIPTION	QTY.
1	98-6139	TILT SWITCH	1
2	97-5793	SPRING TENSION PIN 3/16 x 1 1/4 LONG	1
3	98-6140	UNIVERSAL JOINT	1
4	98-6141	SET SCREW 5/16-18 x 3/8	2
5	98-6142	MOTOR MOUNTING BRACKET	1
6**	97-5595	Hx. SCREW 5/16-18 x 3/4	3
	~NPN~	FLAT WASHER 5/16	3
	~NPN~	LOCK WASHER 5/16	3
7**	98-6143	MOTOR 1/20 HP 115V	1
	98-6144	MOTOR 1/20 HP 230V	1
8**	98-6145	CAPACITOR 370 VAC 7.5 MFD (120V MOTOR)	1
	98-6146	CAPACITOR 440 VAC 2.0 MFD (230V MOTOR)	1
9	98-6147	MOTOR ACCESS PANEL	1
10	98-6148	Hx. BOLT 1/4-20 x 1/2	2
11	98-6149	SWITCH MOUNTING BRACKET	1
12	98-6150	SCREW 6-32 x 1	4
13	97-5414	LIMIT SWITCH	2
14	98-6151	CAM ACTUATOR	1
15	98-6152	SET SCREW 1/4-20 x 1/2"	2
16**	98-6153	FUSE 3/4 AMP TIME DELAY (120V MOTOR)	1
	98-6154	FUSE 0.3A TIME DELAY 250V (230V MOTOR)	1
	98-6132	FUSE HOLDER	1

** SELECT AS REQUIRED