

ILLUSTRATED PARTS LIST AND SERVICE MANUAL

MJ-41 & MJ-41E



Frymaster



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SERVICE HOT LINE
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USERS INSTRUCTIONS



HOW TO INSTALL, USE, AND SERVICE YOUR MJ-41 & MJ-41E FRYER

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HOW TO ORDER PARTS

Dealers and customers should order all parts from the AUTHORIZED U.S. PARTS AND SERVICE AGENCY in their area. When ordering parts, be sure to include the following: an accurate description of the part, the model and serial number of the unit and the type of gas being used. In Canada – Garland Commercial Ranges, Ltd., 1177 Kamato, Mississauga, Ontario, L4W 1X4

I. INSTALLATION INSTRUCTIONS

Included in the accessory package is the leg and caster installation instruction sheet. Lay the fryer on its back and install the legs. Since the gas line protrudes out the back, the fryer should be laid on blocks to prevent damage to the burner and control assembly.

When the fryer is set upright, you are ready to make the service connections. The MJ-41E is a gas fired fryer which is equipped with an automatic gas valve with either a 120 or 240 volt operator. The unit **must** be connected to the power source as specified by the equipment data plate as well as to the proper type of gas as indicated on the data plate.

See your "**Master Jet Fryer Service Manual**" for additional installation instructions, gas line sizing and ventilation requirements.

NOTE: ALL DEEP FAT FRYERS SHOULD BE INSTALLED SO AS TO PROVIDE A 16 INCH SPACE BETWEEN THE FRYER AND ANY OPEN FLAME. IN CANADA INSTALLATION MUST BE MADE IN ACCORDANCE WITH STANDARDS CGA B. 149.1 OR .2 "INSTALLATION CODES FOR GAS BURNING APPLIANCES & EQUIPMENT" & LOCAL CODES.

II. OPERATING INSTRUCTIONS

Make sure frypot drain valve is closed. Fill pot with cooking oil to the oil level mark.

Before starting your new fryer, see the lighting and shut-down instructions located on the inside of the door on how to turn on the main burner once the pilot is lighted.

If solid shortening is used, pre-melt the shortening and pour into frypot, or cut into small pieces and pack into frypot.

The main burner should be turned on and off for short periods until the shortening is completely melted. If any smoke is seen during this process, you are heating too fast and scorching the shortening, thus cutting down its useful life and possibly damaging the frypot. If your unit is equipped with the melt cycle feature, this portion of the operation is eliminated since the melt cycle will automatically melt the solid shortening.

Turn the main burner **ON**, by switching the **ON-OFF** switch, notice the white light will come on indicating the unit is on. If the white light does not come on, make sure the automatic gas valve knob is in the **ON** position. Now, set the thermostat to the desired cooking temperature and start by experimenting a little to determine the right temperature for your menu items. See our suggested Frying Chart on page 4 of your **Master Jet Service Manual**.

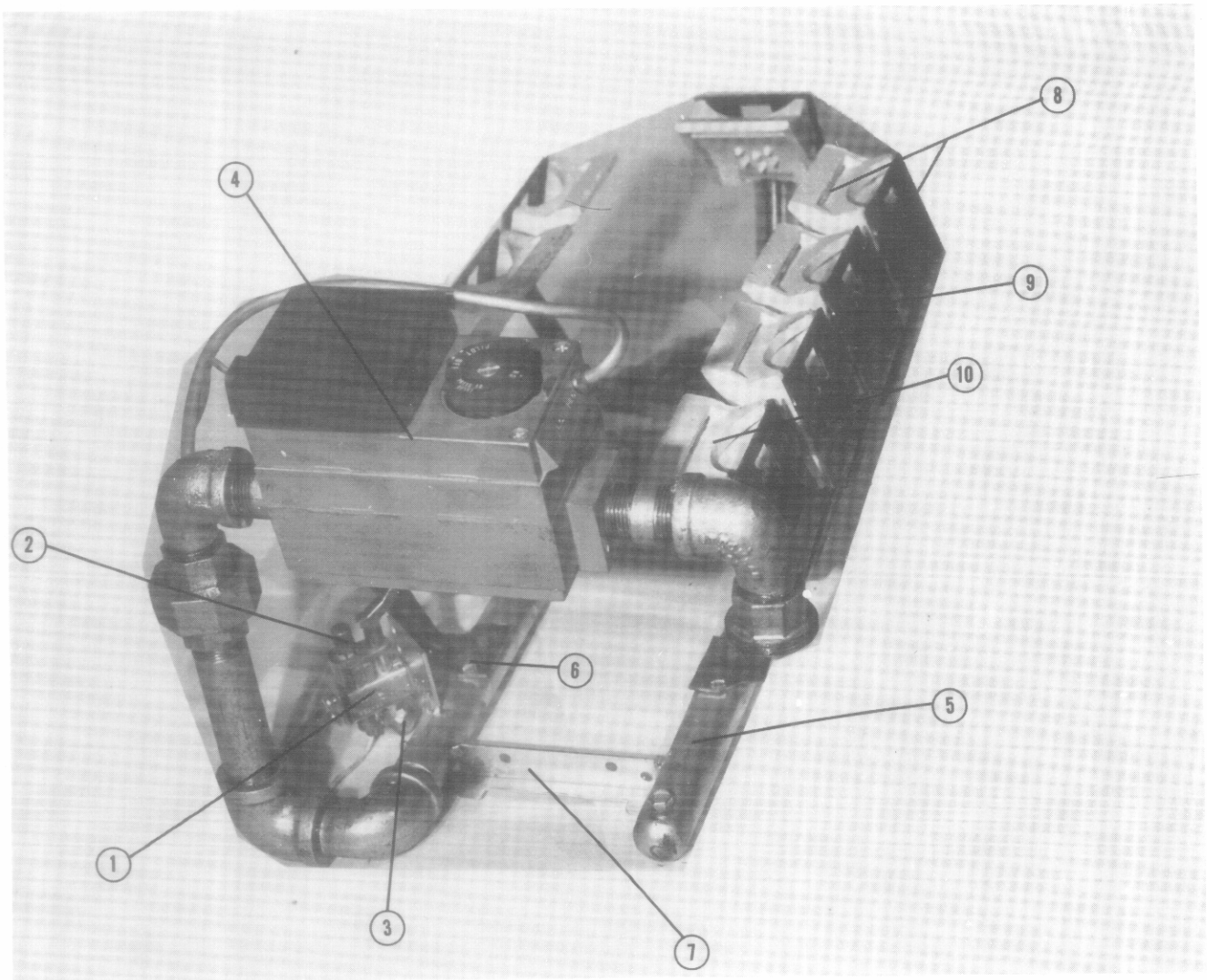
III. NORMAL SERVICE NEEDED

See your "**Master Jet Fryer Service Manual**" which covers everything on your Model **MJ-41E** except the electrically operated controls.

With this in mind, let us see what trouble we are most likely to find concerning the electrical controls on your fryer. Following is a chart showing some of the problems, what may cause each one to occur, and how to remedy the problems.

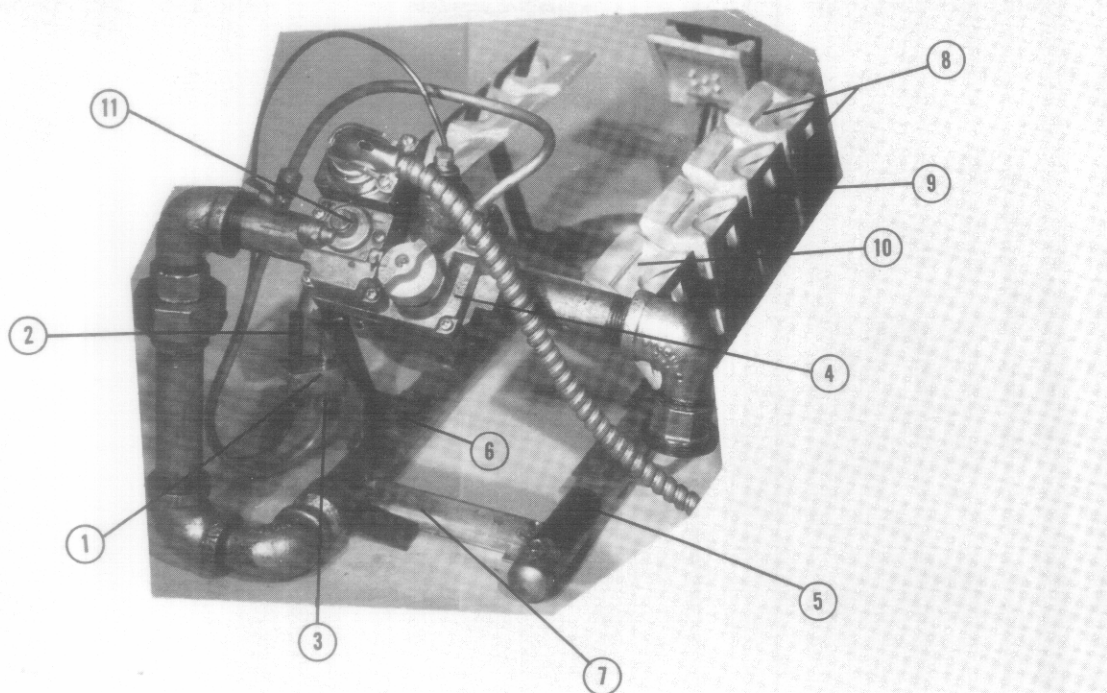
These possible problems and their causes do not include every possibility – only the more common ones. Nothing will take the place of carefully observing just what is happening and thinking of everything which could cause the trouble, one thing at a time.

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION BY OWNER	CORRECTIVE ACTION BY SERVICEMAN
1. Main burner will not come on, pilot remains lighted.	a. Ignition (On-Off) switch off.	a. Turn on.	a. Same.
	b. Ignition (On-Off) switch defective.	b. None.	b. Replace.
	c. Automatic gas valve wires loose or broken.	c. None.	c. Tighten or repair.
	d. Automatic gas valve knob turned to pilot position.	d. Turn to ON position.	d. Same.
	e. Automatic gas valve defective.	e. None.	e. Replace.
	f. Thermostat defective.	f. None.	f. Replace.
	g. Low pilot flame.	g. Raise flame to encompass top $\frac{1}{2}$ of thermopile.	g. Same.
	h. Thermopile defective.	h. Replace.	h. Same.
	i. Loose wire in disconnect plug.	i. None.	i. Push wires in so that proper contact is made.
	j. Unit cord set unplugged.	j. Plug in.	j. Same.
	k. Thermostat shaft or coupling slipped.	k. None.	k. Tighten set screws. Replace shaft or coupling if necessary.
2. Thermostat does not call for heat.	a. Lead wires damaged.	a. None.	a. Replace.
	b. Set too low.	b. Raise setting.	b. Same.
	c. Out of calibration.	c. None.	c. Recalibrate.
	d. Thermostat defective.	d. None.	d. Replace and recalibrate.
	e. Thermostat shaft or coupling slipped.	e. None.	e. Tighten set screws. Replace shaft or coupling if necessary.
3. Indicating lights out.	a. Wires loose or disconnected	a. None.	a. Tighten or connect.
	b. Unit cord set unplugged.	b. Plug into outlet.	b. Same.
	c. Bulbs defective.	c. None.	c. Replace lights.
	d. Wires loose in disconnect plug.	d. None.	d. Push wires in so that proper contact is made.
4. Hi limit indicator (Red) light is on. Pilot out	a. Operating thermostat out of calibration.	a. None.	a. Calibrate.
	b. Hi-limit or adapter defective.	b. None.	b. Replace both.
	c. Automatic gas valve defective.	c. None.	c. Replace.
	d. Thermopile defective.	d. Replace.	d. Same.
	e. Low pilot flame.	e. Raise setting per 1g.	e. Same.
	f. Pressure switch defective.	f. None.	f. Replace.
	g. Thermopile loose at valve connection.	g. Tighten finger tight plus $\frac{1}{4}$ turn.	g. Same.
	h. Pilot magnet defective.	h. Replace.	h. Same.
5. Hi-limit indicator (Red) light is on. Pilot remains lighted.	a. Pressure switch diaphragm binding.	a. None.	a. Remove pressure switch cap and spread all sides slightly and replace cap. Reseal cap with RTV cement.
6. Burner does not light all the way around.	a. Deflector(s) out of adjustment.	a. Adjust so flame burns in center of target.	a. Same.
7. Delayed ignition.	a. Deflector(s) out of adjustment.	a. Adjust so flame burns in center of target.	a. Same.
	b. Ceramic target broken or missing.	b. Replace.	b. Replace.
8. Slow recovery.	a. Deflector(s) out of adjustment.	a. Adjust so flame burns in center of target.	a. Same.
	b. Low gas pressure.	b. None.	b. Increase to proper pressure.
9. Flame rolls out of combustion chamber.	a. Excessive gas pressure.	a. None.	a. Reduce to proper pressure.
	b. Flue blocked.	b. Remove blockage.	b. Same.



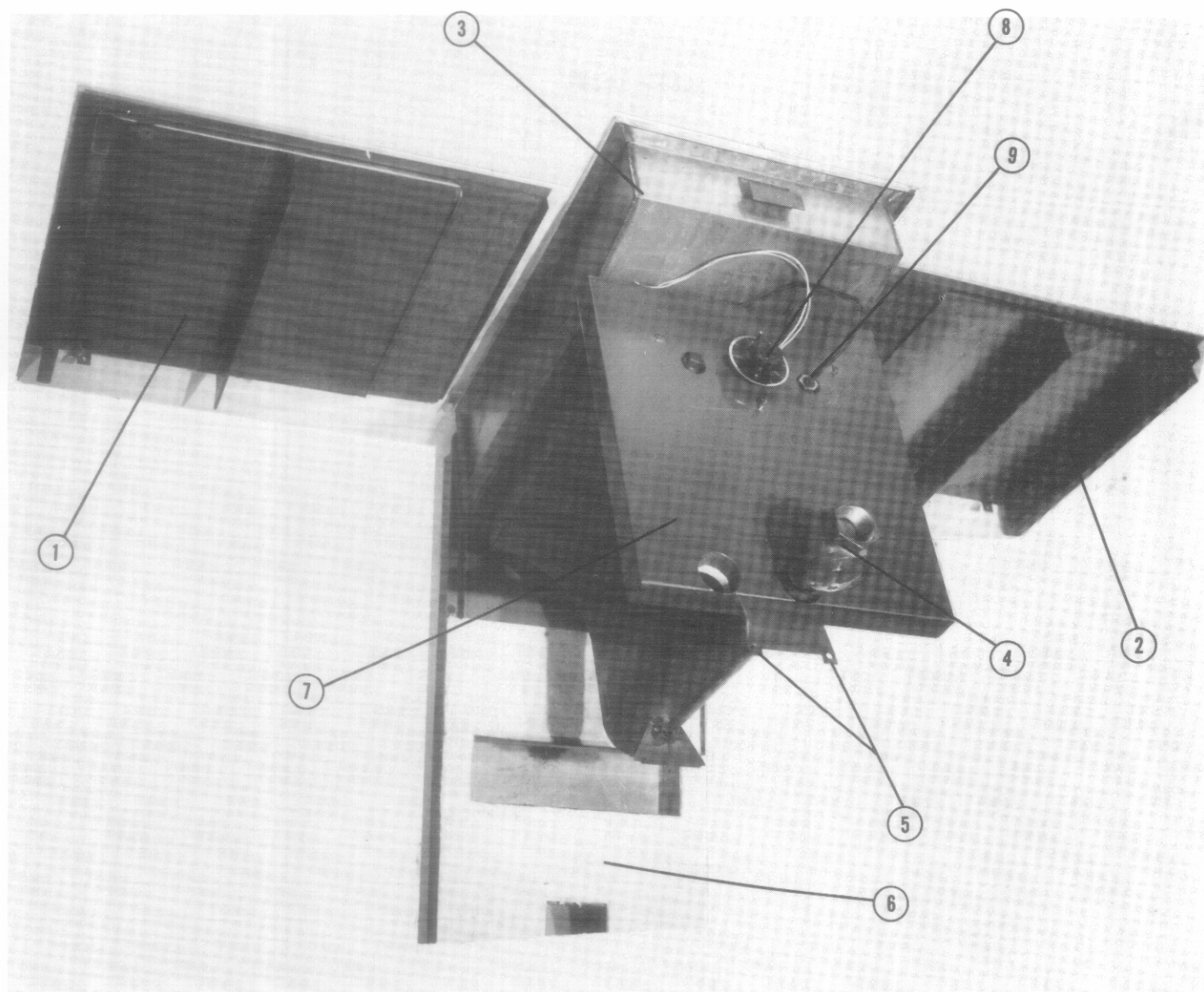
MJ-41

KEY NO.	NEW PART NO.	DESCRIPTION
1	810-0156	Pilot Generator, Complete. Natural Gas.
*	810-0157	Pilot Generator, Complete, L. P. Gas
2	810-0159	Pilot Generator Cartridge, MJ-40 & MJ-41.
3	810-0150	Pilot Orifice, Natural Gas.
*	810-0148	Pilot Orifice, L.P. Gas.
4	807-0306	Automatic Gas Valve, B-69, 3/4", Natural Gas.
*	807-0307	Automatic Gas Valve, B-69, 3/4", L.P. Gas.
5	823-0123	Manifold Assembly w/Pilot Mounting Bracket.
6	810-0130	Orifice, Main Burner, No. 53, Natural Gas.
*	810-0138	Orifice, Main Burner, No. 65, L.P. Gas
7	806-0419-1	Burner & Control Assembly Complete as Shown, L.P. Gas.
*	806-0419	Burner & Control Assembly Complete as Shown, Natural Gas.
8	806-0225	Deflector Assembly w/Ceramic Target.
9	900-0226	Deflector Bracket.
10	814-0034	Ceramic Target.

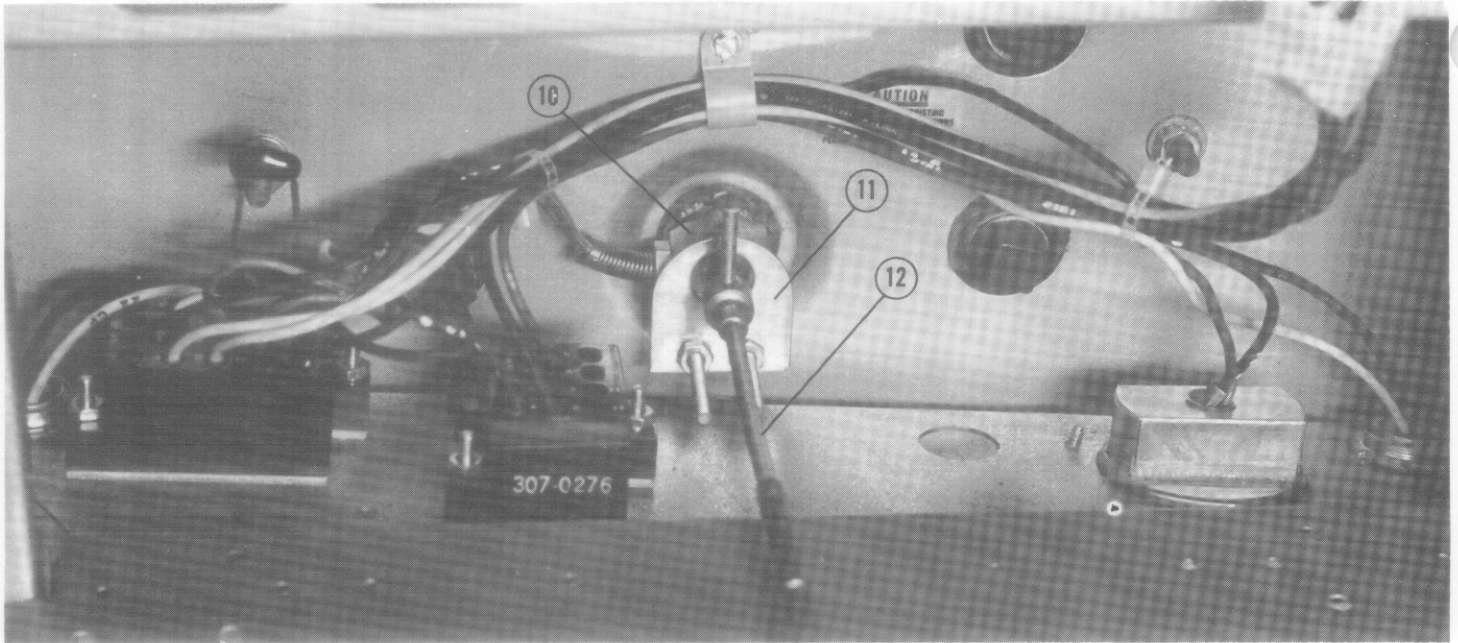


MJ-41E

KEY NO.	NEW PART NO.	DESCRIPTION
1	810-0154	Pilot Burner, 3CH-6, Natural Gas.
*	806-0528	Pilot Burner, 3CH-6, L.P. Gas.
2	810-0162	Thermopile, CP-2-24".
3	810-0126	Pilot Orifice for 3CH-6 Burner, Natural Gas, .018.
*	810-0125	Pilot Orifice for 3CH-6 Burner, L.P. Gas, .011.
4	806-1452	Automatic Gas Valve, Robertshaw 3/4". 120V, Natural Gas.
*	806-1986	Automatic Gas Valve, Robertshaw 3/4". L.P. Gas.
*	806-1453	Automatic Gas Valve, Robertshaw 3/4", 240V, Natural Gas.
*	806-1993	Automatic Gas Valve, Robertshaw 3/4", 240V, L.P. Gas.
*	807-0089	Automatic Gas Valve Operator, 240V.
*	807-0090	Automatic Gas Valve Operator, 120V.
5	823-0123	Manifold Weld Assembly, Includes Pilot Mounting Bracket.
6	810-0130	Orifice, Main Burner, No. 53, Natural Gas.
*	810-0136	Orifice Main Burner, No. 61, L.P. Gas.
7	806-0069	Burner Control Assembly Complete as Shown, Natural Gas.
*	806-1107	Burner Control Assembly Complete as Shown, L.P. Gas.
8	806-0225	Deflector Assembly w/Ceramic Target.
9	900-0226	Deflector Bracket.
10	814-0034	Ceramic Target.
*	900-6561	Burner Suspended Heat Shield.
11	817-0098	Regular Conversion Kit for Robertshaw Valve, L.P. Gas.
*	810-0187	Regulator Conversion Kit for Robertshaw Valve, Natural Gas.
*	810-0116	Pilot Magnet.
*	807-0280	Hi-Limit Adapter Wire Assembly.
*	812-0086	Pilot Tubing 1/4", Specify Length.

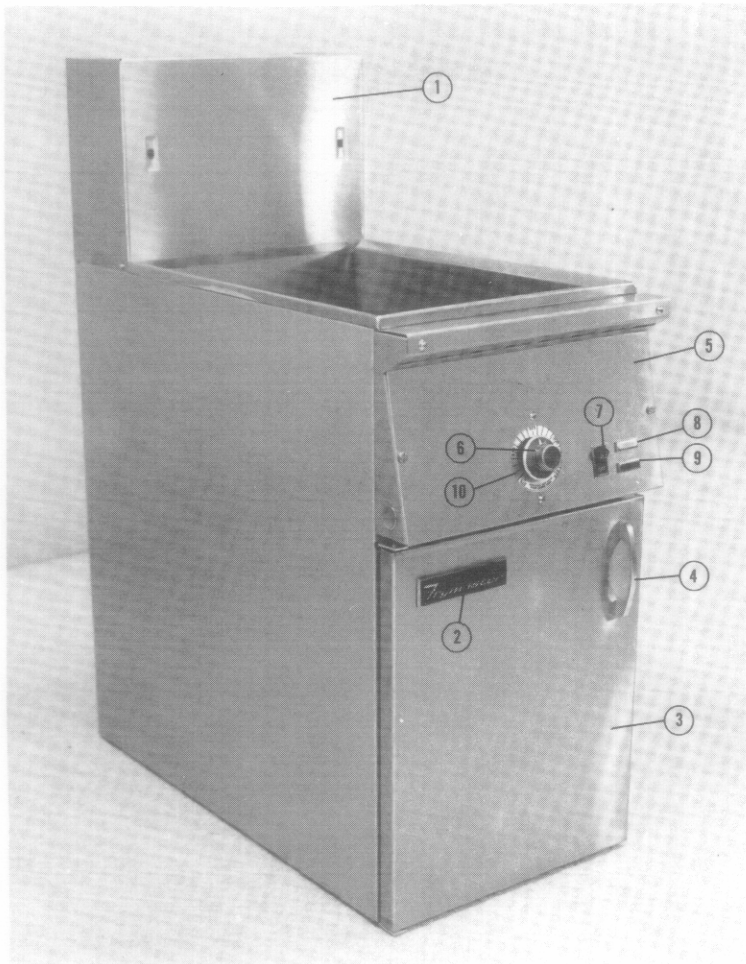


KEY NO.	NEW PART NO.	DESCRIPTION
1	4349	Baffle Pot Side Assembly, Left.
2	4350	Baffle Pot Side Assembly, Right.
3	823-0599	Frypot, S/S, MJ-40 & MJ-40E Only.
*	823-0118	Frypot, S/S, MJ-41 & MJ-41E Only.
*	806-0220	Frypot, S/S, MJ-41 & MJ-41E Complete with Combustion Chamber & Flue
4	810-0379	Drain Valve, 1 1/4" Gemini.
5	809-0173	'J' Type Clip.
*	806-0065	Flue Assembly.
7	806-1095	Baffle Pot Front Assembly.
*	823-0110	Suspended Heat Shield.
*	910-0400	Pilot Door.



KEY NO.	NEW PART NO.	DESCRIPTION
8	810-0110	Knob, Thermostat, MJ-40 & MJ-41 Only.
9	806-0179	Hi-Limit Thermostat, MJ-40 & MJ-41 Only.
*	806-0178	Hi-Limit Thermostat with Adapter, MJ-40E & MJ-41E Only.
10	806-0183	Thermostat Operating, MJ-40E & MJ-41 Only.
*	806-0813	Thermostat Operating, MJ-40 & MJ-41 Only.
11	806-0066	Thermostat Stop Plate Assembly.
*	806-0168	Dial Plate Assembly, Series 135 F. MJ-40 & MJ-41 Only.
*	810-0201	Thermostat Extension Shaft Adapter.
12	810-0198	Flexible Thermostat Shaft, 9½" Long.
*	810-0255	Extension Shaft, Solid.
*	810-0089	Flexible Coupling.
*	810-0345	Flexible Thermostat Shaft, 7¼" Long.
*	823-0125	Thermostat Dial Lock Plate Assembly.
22	806-0236	Capacitor Assembly.
20	807-0276	Terminal Block, 12 Pole. MJ-41E.
21	806-0315	Terminal Block, 20 Pole. MJ-41E.
19	807-0241	Pressure Switch.
18	807-0155	Disconnect Plug, Male, 9 Circuit.
*	807-0156	Disconnect Plug, Female, 9 Circuit.
*	806-0428	Timer Melt Cycle, 120V 60 cy.
*	806-0925	Timer, Melt Cycle, 240V 50 cy.
*	807-0345	Micro Switch for Melt Timers 806-0428 and 806-0925.
*	807-0257	Female Pin for 807-0156.
*	807-0258	Male Pin for 807-0155.

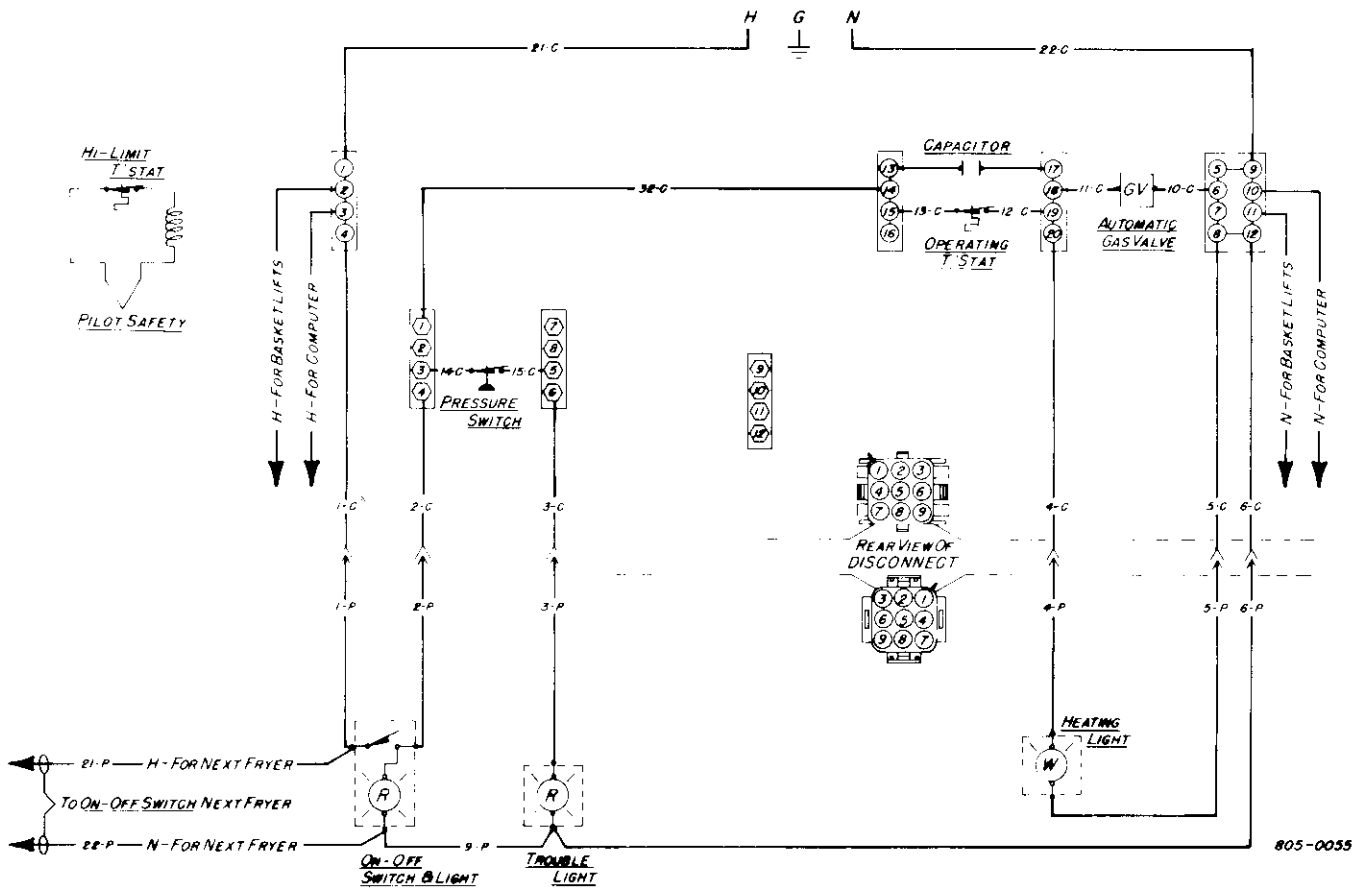
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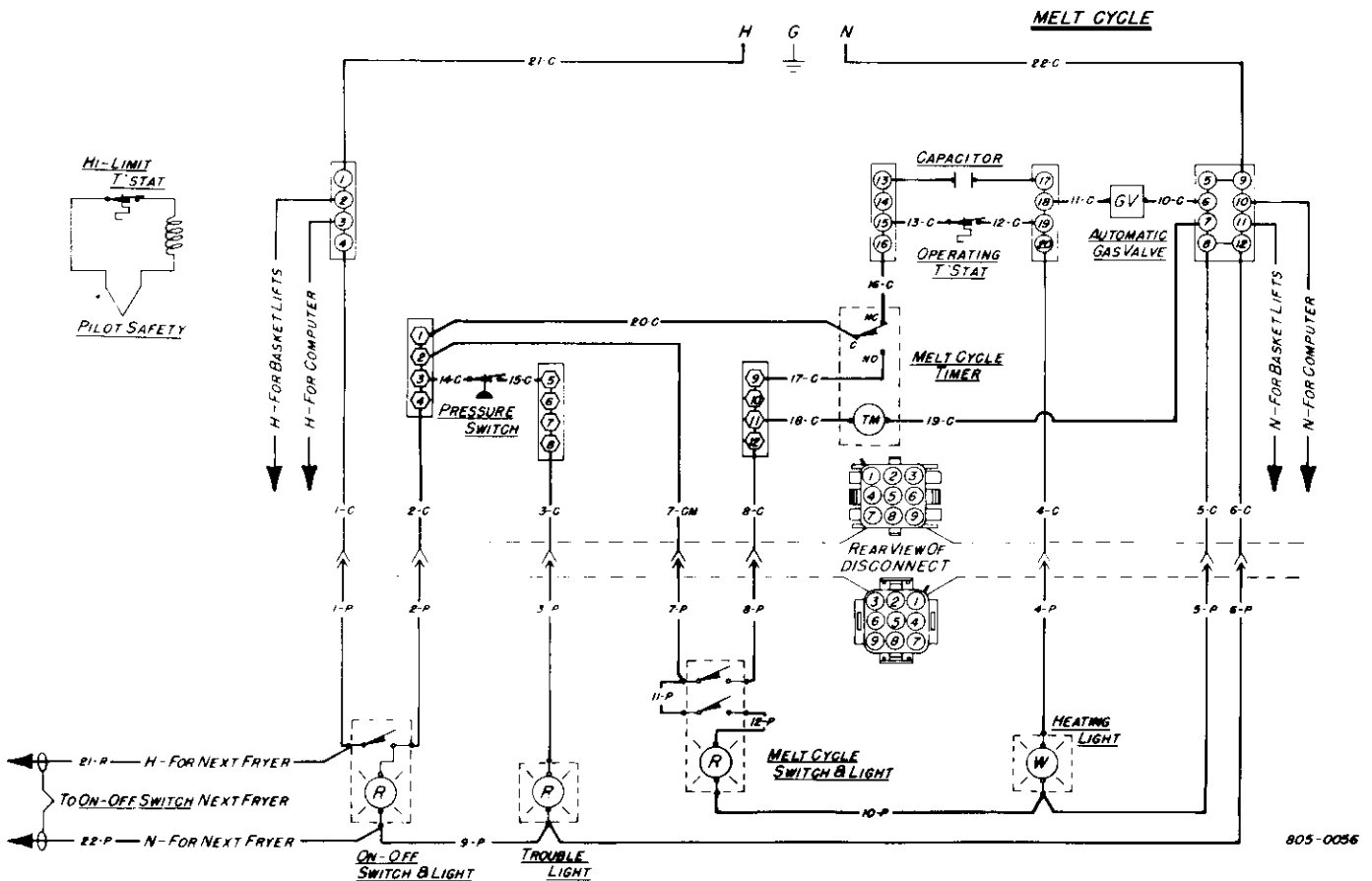
SEE PAGE 10
 FOR DESCRIPTIONS
 AND PART NUMBERS

KEY NO.	NEW PART NO.	DESCRIPTION
1	910-6154	Flue Cap Assembly, MJ-41 & MJ-41E Only, Single.
*	823-0255	Cowl Weld Assembly, MJ-41 Only.
2	820-0005	Frymaster Diecast Insignia w/Clips.
*	806-1962	Door Assembly Complete, S/S, MJ-40E, Left or Right.
*	806-1961	Door Assembly Complete, Enameled, MJ-40E Only.
3	806-1961	Door Assembly Complete Enameled, MJ-41E, Left or Right.
*	806-1962	Door Assembly Complete, S/S, MJ-41E, Left or Right.
*	806-1961	Door Assembly Complete, Enameled, Right, MJ-41E Only.
*	806-1962	Door Assembly Complete, S/S Right, MJ-41E Only.
4	810-0180	Door Pull. Will Not Fit 806-1961 or 906-1962.
*	901-0032	Door Hinge, Left. Will Not Fit 806-1961 or 806-1962.
*	902-0032	Door Hinge, Right. Will Not Fit 806-1961 or 806-1962.
*	810-0066	Door Catch, Magnetic.
38	803-0022	Basket, Twin Size.
43	803-0033	Basket Support, Rack Type.
39	813-0188	Drain Pipe, 1¼".
*	803-0050	Leg, 6" Chrome Plated. For Units Mfg. w/Serial Suffix Prior to EH.
40	803-0051	Leg 6" Chrome Plated w/½" Shaft. For Units Mfg. w/Serial Suffix EH and Later.
41		Filter Cone Holder, 10". Available in Boxes of 4.
42	803-0028	Basket Hanger Package.
*	809-0171	Thumb Screw for Basket Hanger.
5		Control Panel Weld Assembly Only. Advise Model and Serial Number When Ordering.
6	806-0047	Knob Assembly, Thermostat w/Pointer. For Units Mfg. w/Serial Suffix DZ and Later.
*	806-0004	Knob Assembly, Timer, 15 Min., Mechanical.
*	810-0223	Timer, 15 Minute, Mechanical.
7	807-0041	Switch, On-Off, 120V.
*	807-0044	Switch, On-Off, 240V.
*	807-0402	Switch, Melt, 120V.
*	807-0045	Switch, Melt, 240V.
*	807-0233	Indicating Light, Dual Lens, 120V.
8	807-0049	Light, Heating, 120V.
*	807-0051	Light, Heating, 240V.
9	807-0050	Light, Trouble, 120V.
*	807-0052	Light, Trouble, 240V.
10	806-0168	Thermostat Dial Plate Assembly.
*	807-0154	Cord Set.
*	900-0734	Door Hinge, Fits Left or Right for 806-1961 and 806-1962.
*	910-3672	Door Handle, For 806-1961 and 806-1962.
*	809-0105	Screw, For Mounting 900-0734 and 910-3672.
*	900-0048	Door Strike.

PLAN WIRING DIAGRAM FOR GAS FRYERS WITH 120 V. CONTROLS

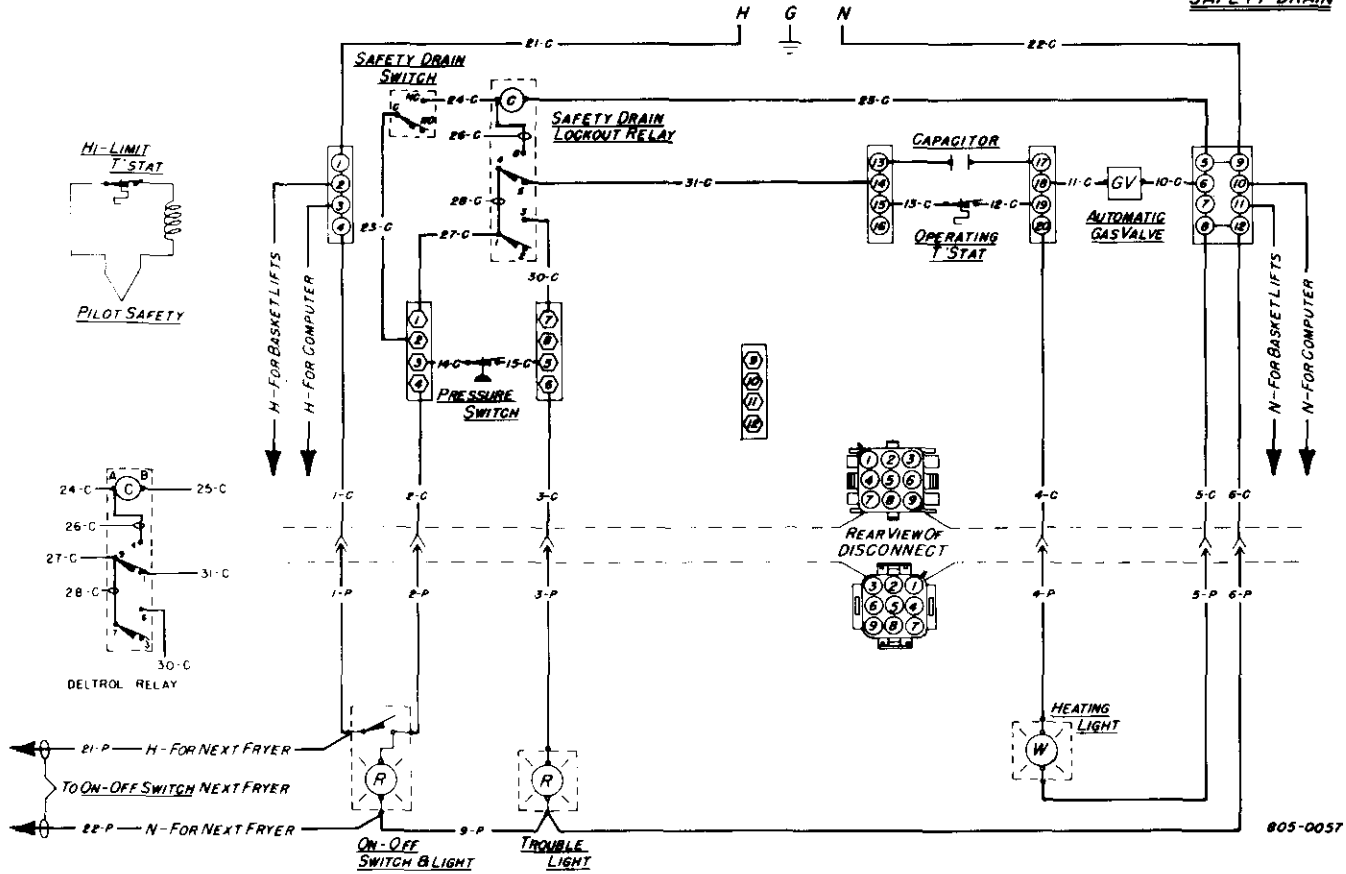


PLAN WIRING DIAGRAM FOR GAS FRYERS WITH 120 V. CONTROLS



PLAN WIRING DIAGRAM FOR GAS FRYERS WITH 120 V. CONTROLS

SAFETY DRAIN



PLAN WIRING DIAGRAM FOR GAS FRYERS WITH 120 V. CONTROLS

MELT CYCLE & SAFETY DRAIN

