CONTINENTAL®
GIRBAU.INC.

OWNER'S MANUAL

75 Lb. Laundry Dryer

MODELS

GAS		STEAM	ELECTRIC
L36USS36G	L36URD36G	L36URS36S	L36URS36E
L36USD36G	L36URS36G	L36URD36S	L36URD36E

CONTINENTAL GIRBAU, INC.

HEADQUARTERS

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THIS MANUAL MUST BE GIVEN TO THE EQUIPMENT OWNER.

MAN2075C 9/98 D0569

IMPORTANT NOTICES—PLEASE READ

For optimum efficiency and safety, we recommend that you read the Manual before operating the equipment. Store this manual in a file or binder and keep for future reference.

WARNING: **For your safety, the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury, or loss of life.**

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

- WHAT TO DO IF YOU SMELL GAS

- **Do not try to light any appliances.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Clear the room, building, or area of all occupants.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot reach the gas supplier, call the fire department.**

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

WARNING: In the event the user smells gas odor, instructions on what to do must be posted in a prominent location. This information can be obtained from the local gas supplier.

WARNING: Wear Safety Shoes to prevent injuries.

WARNING: Purchaser must post the following notice in a prominent location:

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

WARNING: A clothes dryer produces combustible lint and should be exhausted outside the building. The dryer and the area around the dryer should be kept free of lint.

WARNING: Be safe, before servicing machine, the main power should be shut off.

WARNING: To avoid fire hazard, do not dry articles containing foam rubber or similar texture materials. Do not put into this dryer flammable items such as baby bed mattresses, throw rugs,undergarments (brassieres, etc.) and other items which use rubber as padding or backing. Rubber easily oxidizes causing excessive heat and possible fire. These items should be air dried.

WARNING: Synthetic solvent fumes from drycleaning machines create acids when drawn through the dryer. These fumes cause rusting of painted parts, pitting of bright or plated parts, and completely removes the zinc from galvanized parts, such as the tumbler basket. If drycleaning machines are in the same area as the tumbler, the tumbler's make-up air must come from a source free of solvent fumes.

WARNING: Do not operate without guards in place.

WARNING: Check the lint trap often and clean as needed but at least a minimum of once per day.

WARNING: Alterations to equipment may not be carried out without consulting with the factory and only by a qualified engineer or technician. Only **Cissell** parts may be used.

WARNING: Remove clothes from dryer as soon as it stops. This keeps wrinkles from setting in and reduces the possibility of spontaneous combustion.

WARNING: Be Safe - shut main electrical power and gas supply off externally before attempting service.

WARNING: Never use drycleaning solvents, gasoline, kerosene, or other flammable liquids in the dryer. ***FIRE AND EXPLOSION WILL OCCUR. NEVER PUT FABRICS TREATED WITH THESE LIQUIDS INTO THE DRYER. NEVER USE THESE LIQUIDS NEAR THE DRYER..***

WARNING: Never let children play near or operate the dryer. Serious injury could occur if a child should crawl inside and the dryer is turned on.

WARNING: Never tumble fiberglass materials in the dryer unless the labels say they are machine dryable. Glass fibers break and can remain in the dryer. These fibers cause skin irritation if they become mixed with other fabrics.

WARNING: Before operating gas ignition system - purge air from Natural Gas or Propane Gas Lines per manufacturer’s instructions..

CONTINENTAL DRYER WARRANTY

The Continental Manufacturing Company (Continental) warrants all new equipment (and the original parts thereof) to be free from defects in material or workmanship for a period of two (2) years from the date of sale thereof to an original purchaser for use, except as hereinafter provided. With respect to nondurable parts normally requiring replacement in less than two (2) years due to normal wear and tear, and with respect to all new repair or replacement parts for Continental equipment for which the two (2) year warranty period has expired, or for all new repair or replacement parts for equipment other than Continental equipment, the warranty period is limited to ninety (90) days from date of sale. The warranty period on each new replacement part furnished by Continental in fulfillment of the warranty on new equipment or parts shall be for the unexpired portion of the original warranty period on the part replaced.

With respect to electric motors, coin meters and other accessories furnished with the new equipment, but not manufactured by Continental, the warranty is limited to that provided by the respective manufacturer.

Continental's total liability arising out of the manufacture and sale of new equipment and parts, whether under the warranty or caused by Continental's negligence or otherwise, shall be limited to Continental repairing or replacing, at its option, any defective equipment or part returned f.o.b. Continental's factory, transportation prepaid, within the applicable warranty period and found by Continental to have been defective, and in no event shall Continental be liable for damages of any kind, whether for any injury to persons or property or for any special or consequential damages. The liability of Continental does not include furnishing (or paying for) any labor such as that required to service, remove or install; to diagnose troubles; to adjust, remove or replace defective equipment or a part; nor does it include any responsibility for transportation expense which is involved therein.

The warranty of Continental is contingent upon installation and use of its equipment under normal operating conditions. The warranty is void on equipment or parts; that have been subjected to misuse, accident, or negligent damage; operated under loads, pressures, speeds, electrical connections, plumbing, or conditions other than those specified by Continental; operated or repaired with other than genuine Continental replacement parts; damaged by fire, flood, vandalism, or such other causes beyond the control of Continental; altered or repaired in any way that effects the reliability or detracts from its performance, or; which have had the identification plate, or serial number, altered, defaced, or removed.

No defective equipment or part may be returned to Continental for repair or replacement without prior written authorization from Continental. Charges for unauthorized repairs will not be accepted or paid by Continental.

CONTINENTAL MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY, STATUTORY OR OTHERWISE, CONCERNING THE EQUIPMENT OR PARTS INCLUDING, WITHOUT LIMITATION, A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OR A WARRANTY OF MERCHANTABILITY. THE WARRANTIES GIVEN ABOVE ARE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. CONTINENTAL NEITHER ASSUMES, NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT, ANY OTHER WARRANTY OR LIABILITY IN CONNECTION WITH THE MANUFACTURE, USE OR SALE OF ITS EQUIPMENT OR PARTS.

For warranty service, contact the Distributor from whom the Continental equipment or part was purchased. If the Distributor cannot be reached, contact Continental.

IDENTIFICATION NAMEPLATE

The Identification Nameplate is located on the rear wall of the dryer. It contains the dryer serial number, product number, model number, electrical specifications and other important data that may be needed when servicing and ordering parts, wiring diagrams, etc. Do not remove this nameplate.

TABLE OF CONTENTS
75 LB. LAUNDRY DRYER

SYMBOLS

The following symbols are used in this manual and/or on the machine. The numbers between () refer to the numbers on the machine surveys.

Symbol	Description	Part/Measurement
	**NOTE!**	
	**Hot! Do Not Touch** **Heib! Nicht Beruhren** **Haute temperature! Ne pas toucher** **Caliente! no tocar** **Heet! Niet Aanraken**	
	**dangerous voltage** **tension dangereuse** **Gafahrliche elektrische Spannung** **tension peligrosa**	
	**on** **marche** **Ein** **conectado**	
	**off** **arrêt** **Aus** **desconectado**	
	**start** **demarrage** **Start** **arranque de un movimiento**	
	**emission of heat in general** **êmission de chaleur en general** **Warmeabgabe allgemein** **emisión de calor**	
	**cooling** **refroidissement** **Kuhlen** **enfriamiento**	

SYMBOLS

Symbol	Description	Part/Measurement
	**rotation in two directions** **rotation dans les deux sens** **Drehbewigung in zwei Richtungen** **movimiento rotativo en los dos sentidos**	
	**direction of rotation** **sens de mouvement continu de rotation** **Drehbewegung in Pfeilrichtung** **movimiento giratorio o rotatorio en el sentido de la flecha**	
	**End of Cycle**	
	**caution** **attention** **Achtung** **atencion; precaucion**	

UNPACKING

Upon arrival of the equipment, any damage in shipment should be reported to the carrier immediately.

Upon locating permanent location of a unit, care should be taken in movement and placement of equipment.

See outline clearance diagrams for correct dimensions.

Remove all packing material such as: tape, manuals, skid, etc.

Leveling: Use spirit level on top of dryer. Adjust leveling bolts on dryer (see adjustable leveling bolts in maintenance section).

Check voltage and amperes on rating plate before installing the dryer.

The construction of Continental dryers permits installation side-by-side to save space or to provide a wall arrangement. Position dryer for the least amount of exhaust piping and elbows, and allow free access to the rear of dryer for future servicing of belts, pulleys and motors. Installation clearance from all combustible material is 0" ceiling clearance, 0" rear clearance, and 0" side clearance.

GENERAL INSTALLATION (ALL DRYERS)

Before operating dryer, open basket door and remove blocking between front panel and basket. Read the instruction tags, owner's manual, warnings, etc.

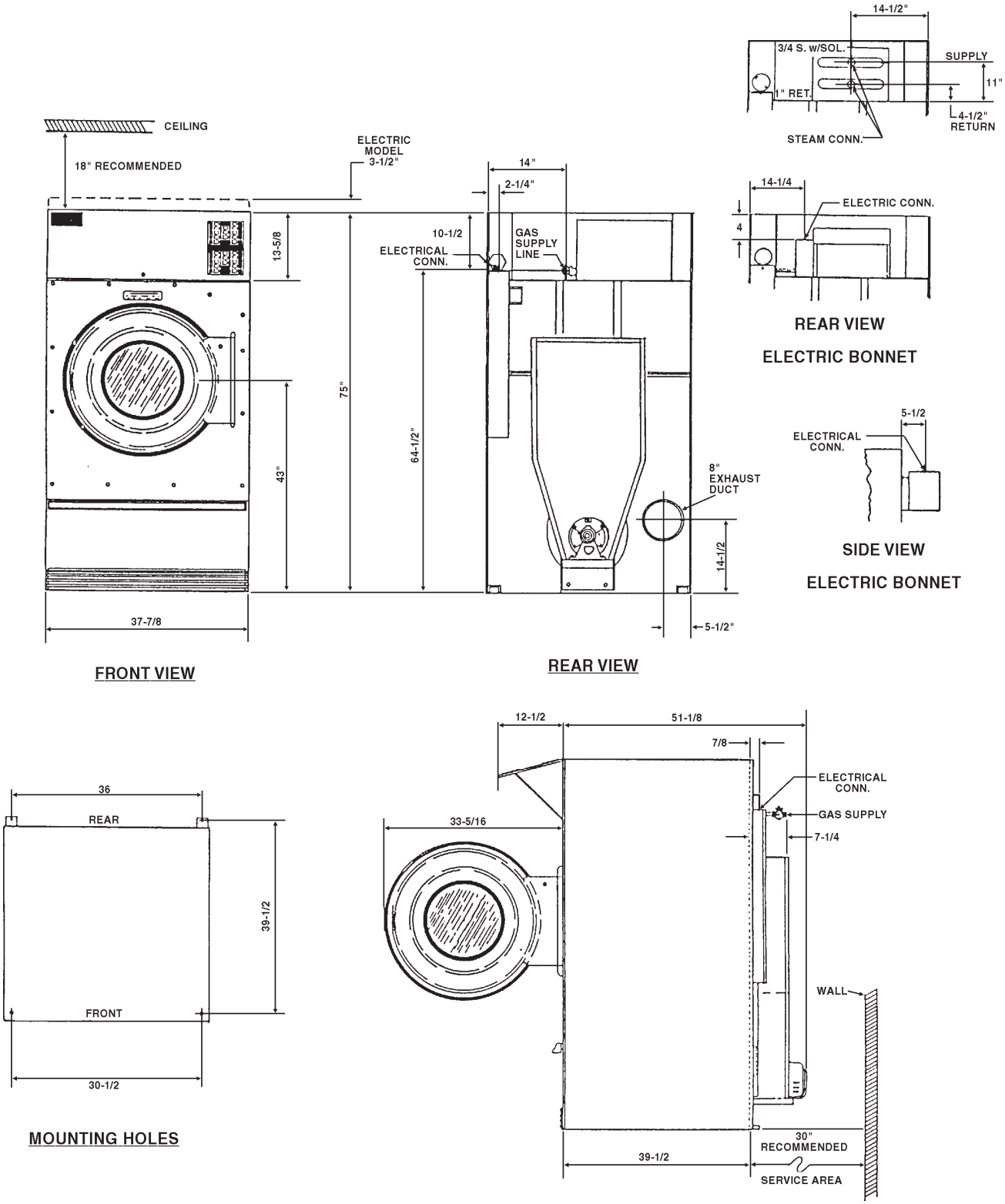
IMPORTANT
Opening the clothes loading door deactivates the door switch to shut off the motors, fan, gas, steam, or electric element. To restart the dryer, close the door and press in the push to start button and hold briefly.

IMPORTANT
This dryer is designed for a capacity maximum load. Overloading it will result in long drying times and damp spots on some clothes.

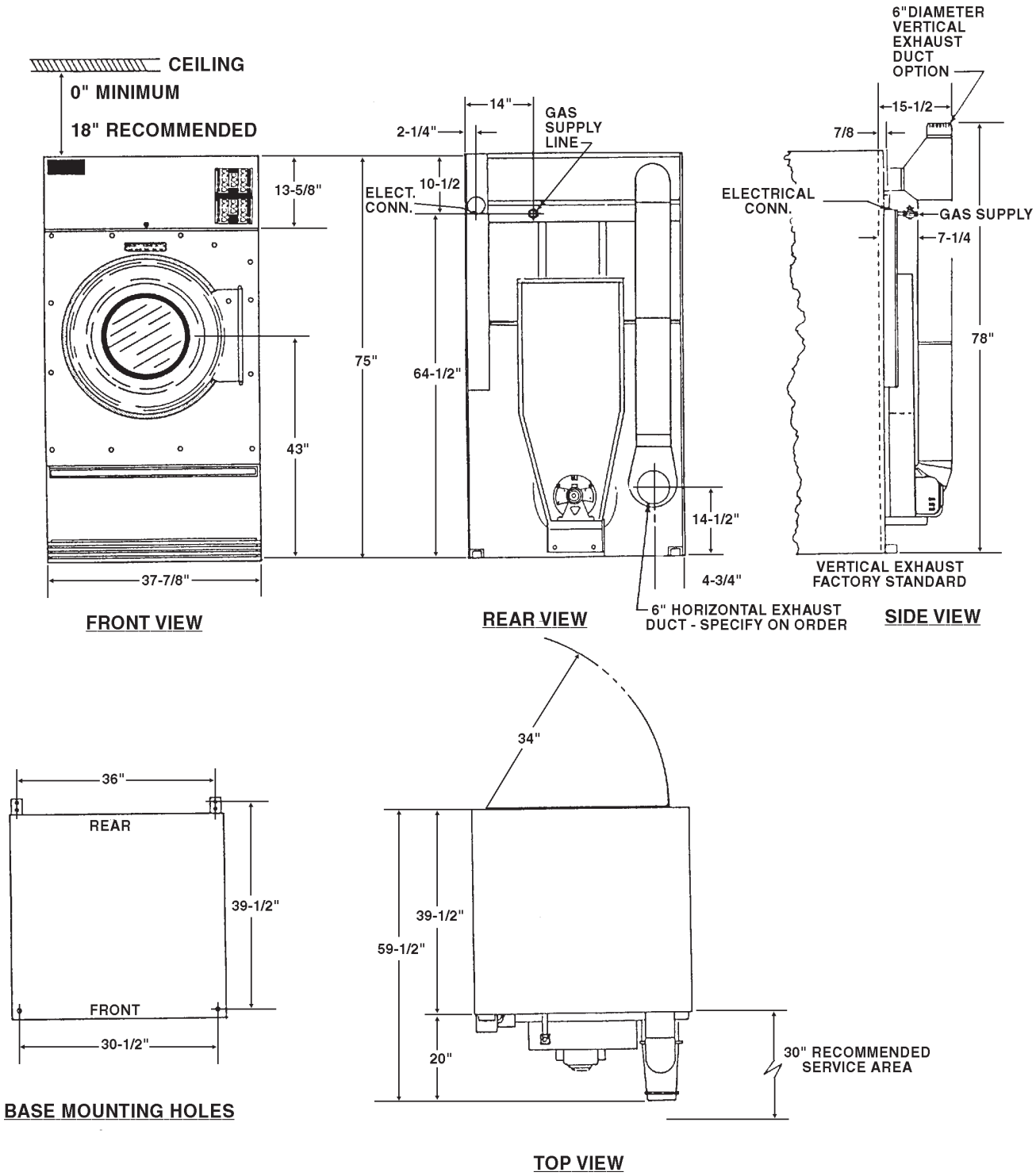
IMPORTANT
Maximum operating efficiency is dependent upon proper air circulation. The lint screen must be kept cleaned daily to insure proper air circulation throughout the dryer.

IMPORTANT
Provide adequate clearance for air opening into the combustion chamber.

75 lb. "UR" Dryer Outline Dimensions (Illustration)



75 lb. "US" Dryer Outline Dimensions (Illustration)



Specifications

GENERAL SPECIFICATIONS NON-ENERGY SAVER MODELS

Basket Load Capacity	75 lbs. (34.0 kg) dryweight
Floor Space	75" (191 cm) H x 38" (96 cm) W x 51" (130 cm) Deep
Basket Size	36" (91 cm) diameter x 36" Deep - 21 cu. ft. (0.63 M^3)
Exhaust Duct	8" diameter (20.3 cm)
Motor Sizes	Fan - 1/3 HP; Basket—1 HP Single Motor Dryer—1 HP
Maximum Air Displacement	1000 CFM (28.31 M^3/Min.)
Recommended Operating Range	788-913 CFM (22.31 - 25.85 M^3/Min.)

GAS FIRED MODEL

Net Weight (approximate)	601 lbs. (183 kg) - Single Motor
	621 lbs. (189 kg) - Double Motor
Domestic Shipping Weight (carton)	636 lbs. (194 kg) - Single Motor
	656 lbs. (200 kg) - Double Motor
Export Shipping Weight (box)	645 lbs. (197 kg) - Single Motor
	621 lbs. (213 kg) - Double Motor
Export Shipping Dimensions	83" (211 cm) H x 45" (114 cm) W x 61" (155 cm) L
Export Crating	99.3 ft^3 (3.73 M^3)
Basket RPM	Reversing 40-3.2 reversals per minute. Non-reversing - 40.
Gas Supply	1/2" pipe connection (1.27 cm)
Gas Pressure Regulator (natural gas)	Set at 3.5" water column (8.9 cm)
*****BTU Input (4 burners)	130,000 - 225,000 BTU/HR (Natural & LP gas)
	180,000 BTU/HR (Modulating gas)
Electronic Ignition	Direct Spark Ignition System
Drying Time (approximate)	75 lbs. dryweight (Indian Head cloth) 70% moisture retention—38 minutes

*** Input ratings as shown are for elevations up to 2000 ft. (610 M). For higher elevations, ratings should be reduced 4% for each 1000 feet (305M) above sea level.**

Specifications

ENERGY SAVER GAS MODEL

Basket Load Capacity	75 lbs. (34.0 kg) dryweight
Floor Space	78" (195 cm) H x 59 1/2" (149 cm) Deep x 38" (96 cm) W
Basket Size	36" (92 cm) diameter x 36" Deep - 21 cu. ft. (0.63 M^3)
Exhaust Duct	6" diameter (15 cm)
Motor Sizes	Fan - 1/3 HP; Basket - 1 HP Single Motor Dryer - 1 HP
* BTU Input (3 burners)	144,000 BTU/HR natural and LP gases
Maximum Air Displacement	536 CFM (15.18 M^3/Min.)
Recommended Operating Range	436-536 CFM (12.35 - 15.18 M^3/Min.)
Gas Supply	1/2" pipe connection (1.91 cm)
Gas Pressure Regulator (natural gas)	Set at 3.5" (8.9 cm) water column
Manifold Pressure (LP Gas)	11" (28 cm) water column
Drying Time (approximate)	75 lbs. dryweight (Indian Head), 70% moisture retention — 38 minutes
Net Weight (approximate)	675 lbs. (306 kg)
Domestic Shipping Weight (approximate)	725 lbs. (329 kg) 1 carton
Export Shipping Weight (approximate)	1215 lbs. (551 kg) 1 box
Export Shipping Dimensions	83" (208 cm) L x 45" (113 cm) W x 61" (153 cm) H
Export Crating	131.8 cu. ft. (3.73 M^3)
Basket RPM	Reversing 40-3.2 reversals per minute. Non-reversing - 40.

*** Input ratings as shown are for elevations up to 2000 ft. (610 M). For higher elevations, ratings should be reduced 4% for each 1000 feet (305M) above sea level.**

Specifications

STEAM HEATED MODEL	Operating Steam Pressure	15 PSIG (low pressure) 100 PSIG (high pressure)
	Supply Connection to Solenoid	3/4" (1.91 cm)
	Return Connection	1" (2.54 cm)
	Steam Consumption	214, 265 BTU/HR - 6.4 BHP - 221 lbs. of condensate
	Drying Time (approximate)	75 lbs. dryweight - 70% water retention - 32 minutes
	Heat Capacity	6 Coils
	Net Weight (approximate)	705 lbs. (215 kg) - Single Motor
		733 lbs. (223 kg) - Double Motor
	Domestic Shipping Weight (carton)	730 lbs. (223 kg) - Single Motor 769 lbs. (234 kg) - Double Motor
	Export Shipping Weight (box)	740 lbs. (226 kg) - Single Motor 778 lbs. (237 kg) - Double Motor
	Export Shipping Dimensions	83" (211 cm) H x 45" (114 cm) W x 61" (155 cm) L
	Export Crating	99.3 ft^3 (3.73 M^3)
ELECTRIC HEATED MODEL	Heater Input	40 Kw/Hr (34,416 K/Cal)
	Drying Time (approximate)	75 lbs. dryweight (Indian Head cloth) 70% moisture retention - 47 minutes
	Net Weight (approximate)	639 lbs. (195 kg) - Single Motor
		674 lbs. (205 kg) - Double Motor
	Domestic Shipping Weight (carton)	674 lbs. (205 kg) - Single Motor 686 lbs. (209 kg) - Double Motor
	Export Shipping Weight (box)	686 lbs. (209 kg) - Single Motor 700 lbs. (213 kg) - Double Motor
	Export Shipping Dimensions	83" (211 cm) H x 45" (114 cm) W x 61" (155 cm) L
	Export Crating	99.3 ft^3 (3.73 M^3)

DOUBLE MOTOR MODELS

Motor No.	Voltage	Hz.	Phase	Basket/Fan	HP	Amps	RPM
MTR203	115/200/230	60	1	B	1	10.4/5.2	1725
MTR212	200/230/460	60	3	B	1	3.8/1.9	1725
MTR104	220/380	60	3	B	3/4	2.4/1.4	1725
MTR301	110/220	50	1	B	1	9.0/4.9	1425
MTR104	200/346	50	3	B	3/4	2.6/1.5	1425
MTR104	220/380	50	3	B	3/4	2.6/1.5	1425
MTR104	240/415	50	3	B	1	3.1/1.8	1425
MTR101	575	60	3	B/F	1	1.7	1725
MTR209	115/208-230	60	1	F	1/3	5.2/2.6	1725
MTR218	208/230/460	60	3	F	1/3	1.6/.80	1725
MTR302	220/380	60	3	F	1/2	1.8/0.9	1725
MTR300	110/220	50	1	F	1/2	6.2/3.1	1425
MTR302	200-220/346-380	50	3	F	1/2	1.8/0.9	1425
MTR184	240/415	50	3	F	1/3	1.6/.90	1425

SINGLE MOTOR MODELS

Motor No.	Voltage	Hz.	Phase	HP	Amps	RPM
MTR301	115/208-230	60	1	1	9.0/4.9	1725
MTR247	208-230/460	60	3	1	3.8-4.2/2.1	1725
MTR303	220/380	60	3	1	3.2/1.6	1725
MTR248	575	60	3	1	1.8	1725
MTR250	240	50	1	1	7.3	1425
MTR303	200-240/346-415	50	3	1	3.2/1.6	1425

GENERAL INFORMATION

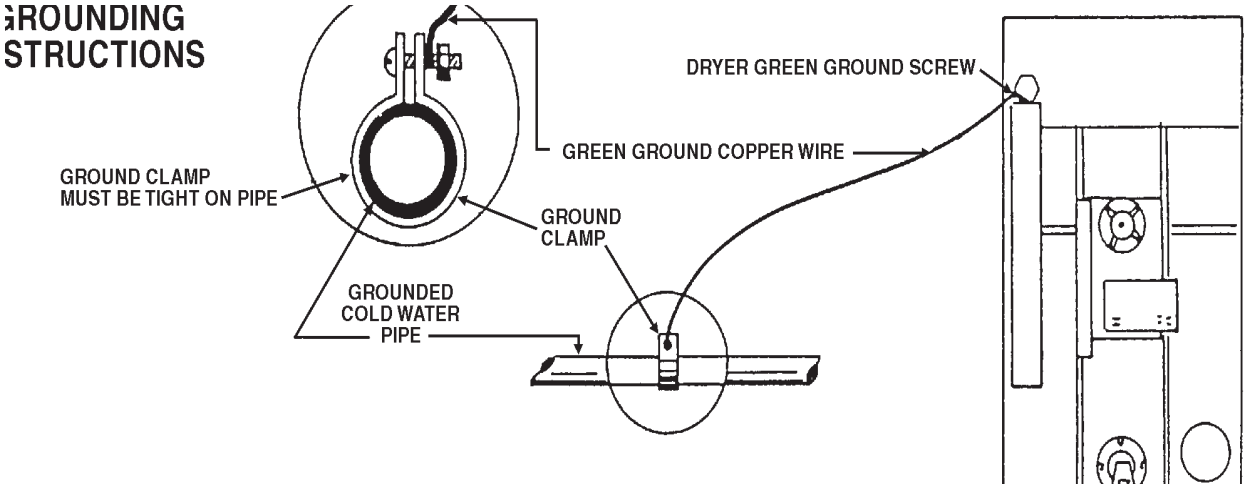
The Continental Dryer is so designed that when an operator opens the dryer door, the basket and exhaust fan stops. You can expect fast drying from a Continental Laundry Dryer. Hot, dry air is properly and effectively moved through the basket and exhausted through a lint trap to the atmosphere. The Continental Dryer comes equipped with an inclined, self-cleaning lint screen. In this system, lint accumulates on the underside of the screen until a blanket approximately 1/4" thick is formed. This blanket of lint will fall from the screen to the bottom of the dryer cabinet and should be removed daily, or as required, to prevent an over accumulation.

Permanent press, durable press and other modern day fabrics require the care that your Continental Laundry Dryers now provide.

CONTINENTAL COOL-DOWN

At the end of the drying cycle, a timed "cool-down" control automatically takes over and continues the rotation of the fan and basket without heat until the garment load reaches a safe cool temperature. This function is performed at the end of each drying cycle and continues for two minutes.

Dryers must be electrically grounded by a separate #14 or larger green wire from the **grounding** terminal within the service connection box to a cold water pipe, or through the fourth green wire properly **grounded** and connected to the **grounding terminal**. **In all cases, the**



ELECTRICAL CONNECTIONS

grounding method must comply with local electrical code requirements; or in the absence of local codes, with the National Electrical Code as ANSI/NFPA 70 (Latest Edition).

See wiring diagram furnished with dryer. Your Continental Dryer is completely wired at the factory and it is only necessary for the electrician to connect the power leads to the wire connectors within the service connection box on the rear of the dryer. **Do not change wiring without consulting factory as you may void the factory warranty. Do not connect the dryer to any voltage or current other than that specified on the dryer rating plate.** (Wiring diagram is located on rear wall of dryer.)

PIPING RECOMMENDATIONS

1. Trap each dryer individually. Always keep the trap clean and in good working condition.

2. When dryer is on the end of a line of equipment, extend header at least 4 feet beyond dryer. Install globe valve, union, check valve and by-pass trap at end of line. If gravity return to boiler, omit trap.

3. Insulate steam supply and return line for safety of operator and safety while servicing dryer.

4. Keep dryer in good working condition. Repair or replace any worn or defective parts.

STEAM HEATING UNITS

1. Keep steam coils clean.

2. Check periodically and clean as often as required.

3. Remove lint and dirt accumulation from coil fins periodically as dirty lint-laden coil fins decrease the efficiency of steam-heated dryers.

GAS PIPING INSTALLATION

1. The installation must conform with local codes, or in the absence of local codes with the National Fuel Gas Code as: ANSI Z223.1—(Latest Edition).

2. Check Identification Nameplate for type of gas for dryer.

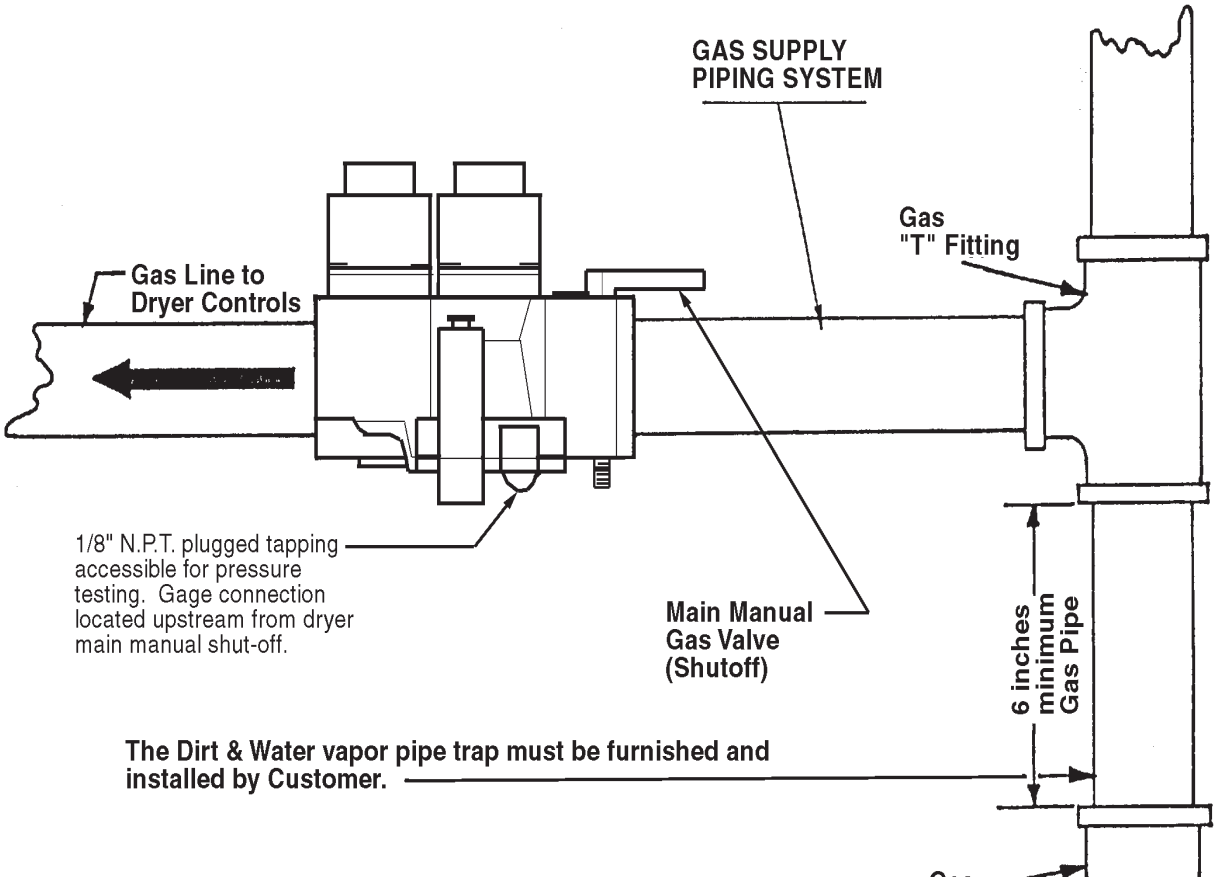
3. Check for altitude elevation of dryer.

4. Check with utilities company for proper gas pressure and gas supply line.

5. Natural Gas Only—Check the gas pressure inlet supply to dryer, 11 inches Water Column maximum. Manifold Pressure—3.5 inches Water Column pressure.

6. L.P. Gas Only—Manifold pressure—13 inches Water Column maximum.

CAUTION: Low gas pressure and intermittent gas will cause gas ignition problems and inadequate drying of laundry.



The dryer and it's individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 PSIG.

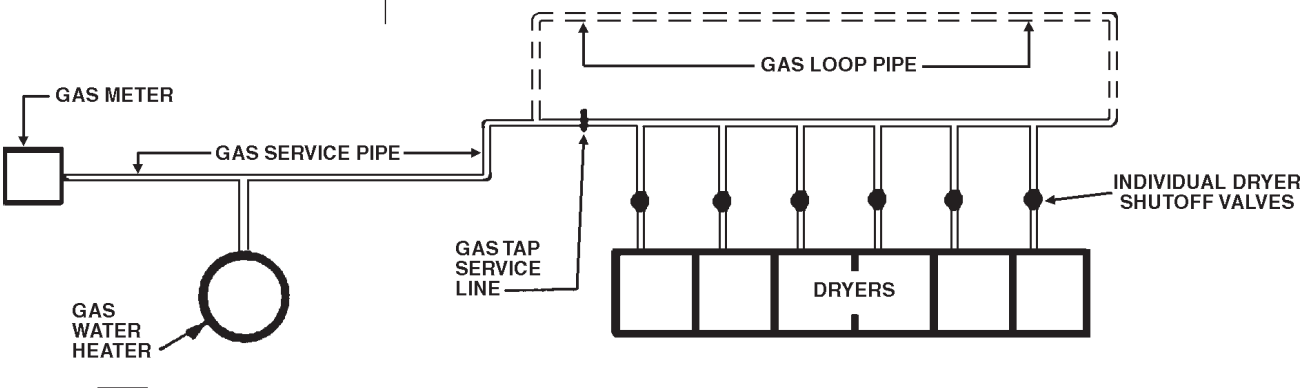
The dryer must be isolated from the gas supply piping system by closing it's individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 PSIG.

GAS SERVICE INSTALLATION INSTRUCTIONS

The size of the gas service pipe is dependent upon many variables, such as tees, lengths, etc. Specific pipe size should be obtained from the gas supplier. Refer to the "Gas Pipe Size" chart in this manual for general gas pipe size information.

CAUTION: Gas loop piping must be installed as illustrated to maintain equal gas pressure for all dryers connected to a single gas service

Other gas-using appliances should be connected upstream from the loop.



WARNING:
LIQUIFIED PETROLEUM GASES ONLY !

GAS PRESSURE REGULATOR FOR LIQUIFIED PETROLEUM GASES

A Gas Pressure Regulator for Liquified Petroleum Gases is not furnished on Continental Gas Heated Clothes Dryers. This regulator is normally furnished by the installer. In accordance with American Gas Association (AGA) standards, a gas pressure regulator, when installed indoors, must be equipped with a vent limiter or a vent line must be installed from the gas pressure regulator vent to the outdoors.

Gas Pipe Size Chart

TOTAL BTU/HR (for LP Gas correct total BTU/HR below by multiplying by .6)	TOTAL KCAL	GAS PIPE SIZE FOR 1000 BTU (250 KCAL) NATURAL GAS AT 7" (17.8 CM) W.C. PRESSURE In figuring total length of pipe, make allowance for tees and elbows.					
	HOUR	(25 ft.) 7,62 m	(50 ft.) 15,24 m	(75 ft.) 22,86 m	(100 ft.) 30,48 m	(125 ft.) 38,1 m	(150 ft.) 45,72 m
60,000	15000	3/4	3/4	3/4	3/4	3/4	3/4
80,000	20000	3/4	3/4	3/4	1	1	1
100,000	25200	3/4	3/4	1	1	1	1
120,000	30200	3/4	1	1	1	1	1
140,000	35200	3/4	1	1	1	1	1 1/4
160,000	40300	3/4	1	1	1 1/4	1 1/4	1 1/4
180,000	45300	1	1	1	1 1/4	1 1/4	1 1/4
200,000	50400	1	1	1 1/4	1 1/4	1 1/4	1 1/2
300,000	75600	1	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2
400,000	100800	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	2
500,000	126000	1 1/4	1 1/2	1 1/2	2	2	2
600,000	151200	1 1/2	1 1/2	2	2	2	2
700,000	176400	1 1/2	2	2	2	2	2 1/2
800,000	202000	1 1/2	2	2	2	2 1/2	2 1/2
900,000	230000	2	2	2	2 1/2	2 1/2	2 1/2
1,000,000	250000	2	2	2	2 1/2	2 1/2	2 1/2
1,100,000	270000	2	2	2 1/2	2 1/2	2 1/2	2 1/2
1,200,000	300000	2	2	2 1/2	2 1/2	2 1/2	2 1/2
1,300,000	330000	2	2 1/2	2 1/2	2 1/2	2 1/2	3
1,400,000	350000	2	2 1/2	2 1/2	2 1/2	3	3
1,500,000	380000	2	2 1/2	2 1/2	2 1/2	3	3
1,600,000	400000	2	2 1/2	2 1/2	3	3	3
1,700,000	430000	2	2 1/2	2 1/2	3	3	3
1,800,000	450000	2 1/2	2 1/2	3	3	3	3
1,900,000	480000	2 1/2	2 1/2	3	3	3	3
2,000,000	504000	2 1/2	2 1/2	3	3	3	3 1/2
2,200,000	550000	2 1/2	3	3	3	3 1/2	3 1/2
2,400,000	605000	2 1/2	3	3	3	3 1/2	3 1/2
2,600,000	650000	2 1/2	3	3	3 1/2	3 1/2	3 1/2
2,800,000	705000	2 1/2	3	3	3 1/2	3 1/2	3 1/2
3,000,000	750000	2 1/2	3	3 1/2	3 1/2	3 1/2	4
3,200,000	806000	3	3	3 1/2	3 1/2	3 1/2	4
3,400,000	850000	3	3 1/2	3 1/2	3 1/2	4	4
3,600,000	907000	3	3 1/2	3 1/2	3 1/2	4	4
3,800,000	960000	3	3 1/2	3 1/2	4	4	4
4,000,000	1000000	3	3 1/2	3 1/2	4	4	4

STEAM PIPING INSTALLATION INSTRUCTIONS

1. Set and anchor dryer in position. Machine should be level to assure proper steam circulation.

2. To prevent condensate draining from headers to dryer, piping should have a minimum 12” above respective header. Do not make steam connection to header with a horizontal or downwardly facing tee or elbow.

3. Whenever possible, horizontal runs of steam lines must drain, by gravity, to respective steam header. Water pockets, or an improperly drained steam header will provide wet steam, causing improper operation of dryer. If pockets or improper drainage cannot be eliminated, install a by-pass trap to drain condensate from the low point in the steam supply header to the return.

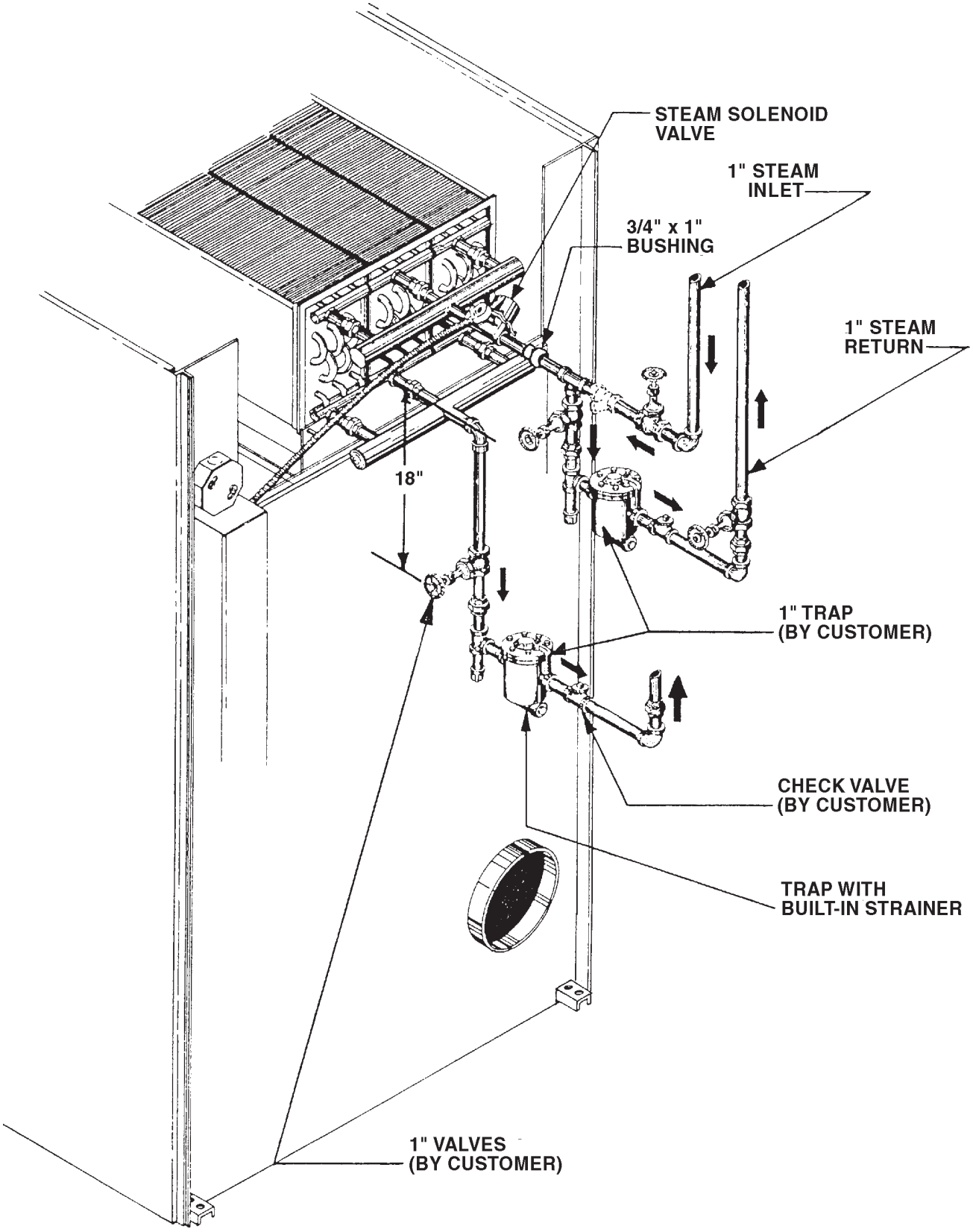
4. In both steam supply and steam return line, it is recommended that each have a 3/4” union and 3/4” globe valve. This will enable you to disconnect the steam connections and service the dryer while your plant is in operation.

5. Before connecting trap and check valve to dryer, open globe valve in steam supply line and allow steam to flow through dryer to flush out any dirt and scale from dryer. This will assure proper operation of trap when connected.

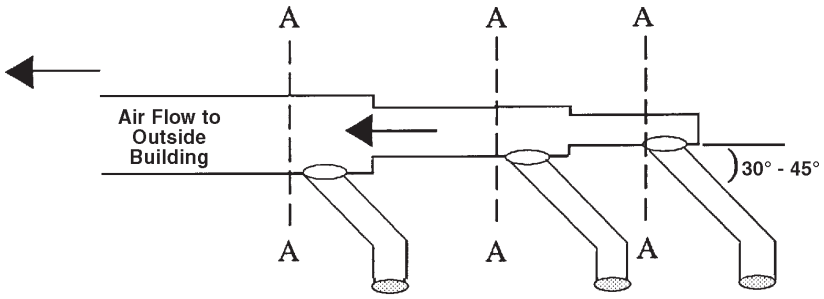
6. After flushing system, install bucket trap (with built-in strainer) and check valve. For successful operation of dryer, install trap 18” below coil and as near to the dryer as possible. Inspect trap carefully for inlet and outlet markings and install according to trap manufacturer's instructions. If steam is gravity returned to boiler, omit trap but install check valve in return line near dryer.

7. Install union and globe valve in return line and make final pipe connections to return header.

Steam Piping Installation (Illustration)



For Exhaust Duct less than 14 feet and 2 elbows equivalent and less than 0.3 inches static pressure.



DRYER EXHAUSTS

Area of section "A-A" must be equal to the sum of dryer exhaust pipes entering multiple exhaust pipe. (*See chart below.*)

MODELS: L28FD30, L28US30, L36FD30, L36UR30, L36CD36, L44FD42

No. of Dryers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Duct Diameter (in inches)	6	9	11	12	14	15	16	17	18	19	20	21	22	23	23	24	25	26	26	27	28	28	29	30
(in CM)	15	23	27	30	35	38	41	43	46	48	51	53	56	58	58	61	63	66	66	68	71	71	73	76

MODELS: L28CD30, L28UR30, L36CD30, L36UR30, L36CD36, L44FD42

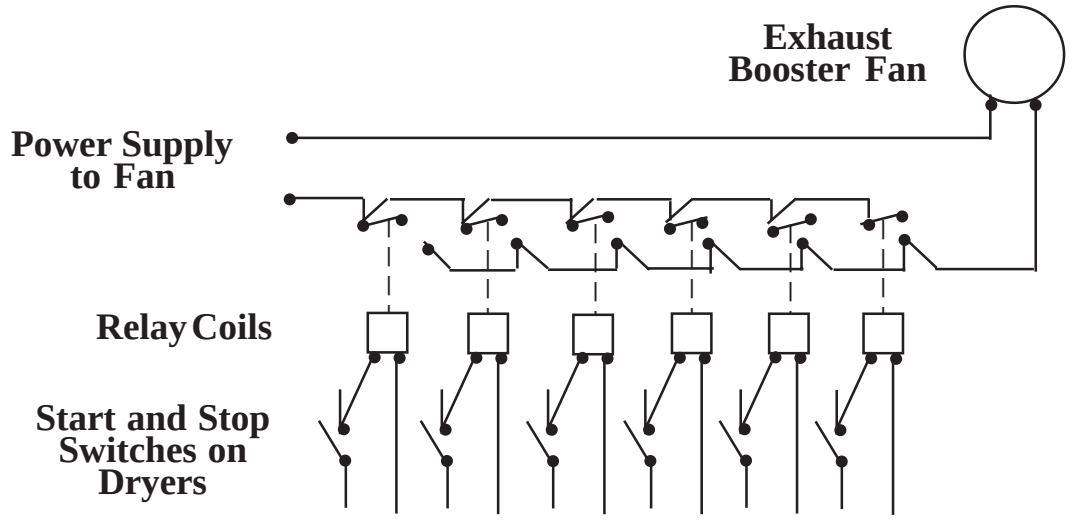
No. of Dryers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Duct Diameter (in inches)	8	12	14	16	18	20	22	23	24	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
(in CM)	20	30	35	41	46	51	56	58	61	66	68	71	73	76	78	81	84	86	89	91	94	97	99	100

MODELS: L44CD42, L50CD42

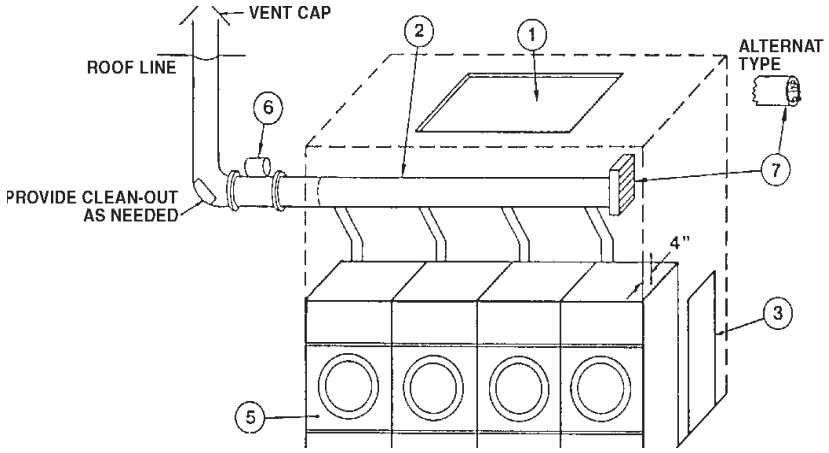
No. of Dryers	1	2	3	4	5	6	7	8	9	10	11	12
Duct Diameter (in inches)	12	17	21	24	27	30	32	34	36	38	40	42
(in CM)	30	43	53	61	68	76	81	86	91	97	100	106

AUTOMATIC ELECTRICAL CONTROL FOR EXHAUST FAN

For one or more dryers to start fan.



Dryer Installation with Multiple Exhaust



DRYER INSTALLATION WITH MULTIPLE EXHAUST

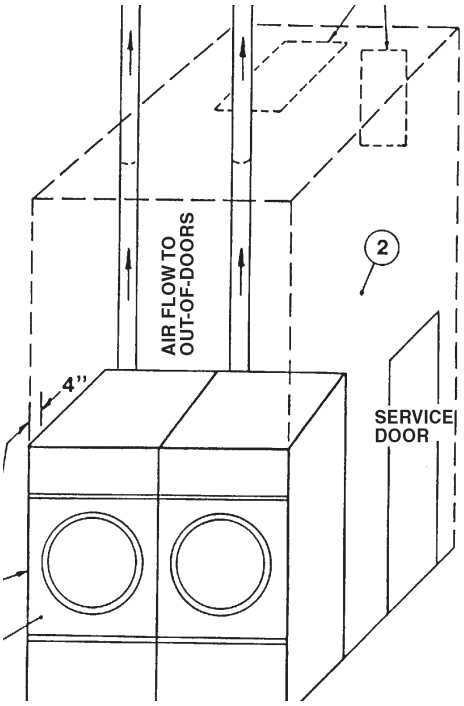
For Exhaust Duct more than 14 feet and 2 elbows equivalent and more than 0.3 inches static pressure.

(See illustration on next page.)

1. Make-up air from outside building may enter enclosure from top or side walls. Area of opening should be equal to 4 to 6 times the sum of dryer duct areas. Provide 1 square foot (.1m²) for each 6 inches (15.24 cm) diameter; 2 square feet (.2m²) for each 8 inches (20.3 cm) diameter; and 4 square feet (.4m²) for each 12 inches (30.5 cm) diameter.
2. Use constant diameter duct with area equal to the sum of dryer duct areas.
   EXAMPLE: 6-8 inches (20 cm) diameter duct = 1-19.6 inches (49.8 cm) diameter duct in area. Use 20 inches (50 cm) diameter duct or diameter to match tube-axial fan.
3. Enclosure (plenum) with service door. This separates the dryer air from room comfort air. If dryers use room air instead of outside air, the heat loss can be another 25 BTU/HR (6.3 kcal/hr) for each cubic foot per minute (CFM) used.
4. Zero inches clearance to combustible material allowed on sides and at points within 4 inches (100 mm) of front on top.
5. Heat loss into laundry room from dryer fronts *only* is about 60 BTU/HR per square foot (15 kcal/hr per 0.1m²).
6. Flange mounted, belt driven tube-axial fan. **Fan must run when one or more dryers are running.** *See suggested Automatic Electrical Control Wiring Diagram on previous page.* Must meet local electrical codes. Fan air flow (CFM) (M³/min.) is equal to sum of dryer air flows, but static pressure (SP) is dependent on length of pipe and number of elbows.
7. **Barometric Bypass Damper**—Adjust to *closed flutter position* with all dryers and exhaust fan running. **Must be located within enclosure.**

CAUTION: *Never* install hot water heaters or other gas appliances in the same room as dryers. *Never* install cooling exhaust fans in the same room as dryers.

CAUTION: *Never* exhaust dryers with other types of equipment.



DRYER INSTALLATION WITH SEPARATE EXHAUST (PREFERRED)

For ductwork less than 14 feet and 2 elbows equivalent and less than 0.3 inches static pressure:

NEVER exhaust the dryer into a chimney.

NEVER install wire mesh screen over the exhaust or make-up air area.

NEVER exhaust into a wall, ceiling, or concealed space.

1. Make-Up Air opening from outside the building may enter the enclosure from the top or side walls. The area of the opening should be equal to 4 to 6 times the sum of the dryer duct areas. Provide 1 square foot (.1m²) for each 6 inches (15.24 cm) diameter; 2 square feet (.2m²) for each 8 inches (20.3 cm) diameter; and 4 square feet (.4m²) for each 12 inches (30.5 cm) diameter.
2. Enclosure (plenum) with service door. This separates the dryer air from the room comfort air. If dryers use room air instead of outside air, additional heat loss can be another 25 BTU/HR (6.3 kcal/hr) for each cubic foot per minute (CFM) (.03m³/min.) used.
3. Zero inches (mm) clearance to combustible material allowed on sides and at points within 4 inches (100 mm) of front on top.
4. Heat loss into laundry room from dryer front panels is about 60 BTU/HR per square foot (15 kcal/hr per 0.1m²).

DRYER AIR FLOW INSTALLATION

Nothing is more important than air flow for the proper operation of a clothes dryer. A dryer is a pump which draws make-up air from the out-of-doors, through the heater, through the clothes and then forces the air through the exhaust duct back to the out-of-doors. Just as in a fluid water pump, there must be a fluid air flow to the inlet of the dryer, if there is to be the proper fluid air flow out of the exhaust duct.

In summary, there must be the proper size out-of-doors inlet air opening (4-6 times the combined areas of the air outlet) and an exhaust duct, size and length of which allows flow through the dryer with no more than 0.3 inches water column static pressure in the exhaust duct.

In some instances, special fans are required to supply make-up air, and/or boost exhaust fans are required for both regular and energy saving models.

EXHAUSTING DUCT

FOR BEST DRYING:

1. Exhaust duct maximum length 14 feet (4.3 mm) of straight duct and maximum of two 90° bends.
2. Use 45° and 30° elbows wherever possible.
3. **Exhaust each dryer separately.**
4. Use 2 feet (0.6 m) of straight duct on dryer before installing an elbow on Energy-Saver models only.
5. **Do not** install wire mesh or other restrictions in the exhaust duct.
6. Use clean-outs in the exhaust duct and clean periodically when needed.
7. **Never** exceed 0.3 inches (7.6 mm) water column static pressure in the exhaust duct.
8. Inside surface of the duct **must be smooth**.
9. Recommend pop rivets for duct assembly.

MAKE-UP AIR

FOR BEST DRYING:

1. Provide opening to the out-of-doors in accordance with the following:
   For each dryer—
   6 inches (15 cm) diameter exhaust requires a 1 square feet (0.1 m^2) opening for make-up air.
   8 inches (20 cm) diameter exhaust requires a 2 square feet (0.2 m^2)opening for make-up air.
   12 inches (30 cm) diameter exhaust requires a 4 square feet (0.4 m^2)opening for make-up air.
2. Use barometric shutters in the inlet air opening to control air when dryers are not running.

OTHER RECOMMENDATIONS

Other Recommendations

To assure compliance, consult local building code requirements.

TROUBLESHOOTING

Troubleshooting

Hot dryer surfaces, scorched clothes, slow drying, lint accumulations, or air switch malfunction are indicators of exhaust duct and/or make-up air problems.

RULES FOR SAFE OPERATION OF DRYER

1. **Be sure** your dryer is installed properly in accordance with the recommended instructions.
2. **CAUTION**
   Be safe—**shut main electrical power supply and gas supply off externally before attempting service.**
3. **CAUTION**
   Never use drycleaning solvents: gasoline, kerosene, or other flammable liquids **in the dryer**. ***Fire and explosion will occur.***
   Never put fabrics treated with these liquids into the dryer.
   Never use these liquids near the dryer.
   Always keep the lint screen clean.
   Never use heat to dry items that contain plastic, foam or sponge rubber, or rags coated with oils, waxes or paints. The **heat may** damage the material or **create a fire hazard**. **Rubber easily oxidizes, causing excessive heat and possible fire.**
   Never dry the above items in the dryer.
4. **Never let children play near or operate the dryer. Serious injury will occur if a child should crawl inside and the dryer is turned on.**
5. **Never** use dryer door opening and top as a step stool.
6. **Read** and follow manufacturer's instructions on packages of laundry and cleaning aids. Heed any **warnings** or **precautions**.
7. **Never** tumble fiberglass materials in the dryer unless the labels say they are machine dryable. Glass fibers break and can remain in the dryer and could cause skin irritation if they become mixed into other fabrics.
8. **Reference**
   Lighting and shutdown instructions and wiring diagrams are located on the rear wall of the dryer cabinet.
9. **The dryer must not be installed or stored in an area where it will be exposed to water and/or weather.**

ENERGY-SAVING TIPS

1. Install dryer so that you can use short, straight venting. Turned elbows and long vent tubing tend to increase drying time. Longer drying time means the use of more energy and higher operating costs.
2. Operate dryer using full-size loads. Very large loads use extra energy. Very small loads waste energy.
3. Dry lightweight fabrics separately from heavy fabrics. You will use less energy and get more even drying results by drying fabrics of similar weight together.
4. Clean the lint screen area daily. A clean lint screen helps give faster, more economical drying.
5. **Do not** open the dryer door while drying. You let warm air escape from the dryer into the room.
6. Unload the dryer as soon as it stops. This saves having to restart your dryer to remove wrinkles.

OPERATING INSTRUCTIONS—COIN METER MODELS

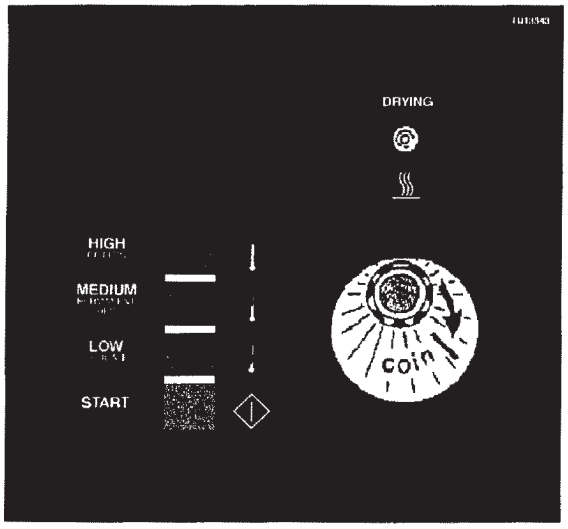
OPERATING INSTRUCTIONS—COIN METER MODELS

1. After loading the dryer with water washed clothes, close the loading door.

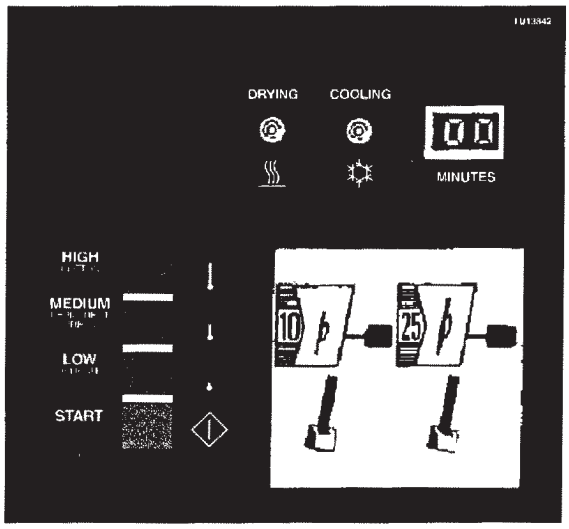
2. **ELECTRO-MECHANICAL COIN METER:** Insert proper coin(s) in slot and turn knob until it stops.
   COMPUTERIZED COIN METER: Insert coin. Amount of drying time will appear on the digital display. Maximum time is 99 minutes. Additional coins may be vended any time during the cycle.

3. Turn Temperature Fabric Selector to desired setting:
   HIGH—185° F exhaust temperature, *heavy fabrics and hard to dry, (cottons and linens).*
   MEDIUM—150°F exhaust temperature, *permanent press, synthetic blends.*
   LOW—135°F exhaust temperature, *delicate, sheer fabrics.*

4. Press the **"Start"** button to start the drying and cooling cycles.



ELECTRO-MECHANICAL COIN METER



COMPUTERIZED COIN METER

WHAT IS HAPPENING AFTER STEP 4:

1. Digital Display will count down time remaining in cycle (Computerized Coin Meter).

2. The fan motor and basket will revolve.

3. The heat source will be energized.

4. The heated air will mix with the wet clothes and evaporate the moisture.

5. The thermostats will operate at a safe temperature.

6. The heat will shut off and the cooling cycle will begin.

IMPORTANT

IMPORTANT

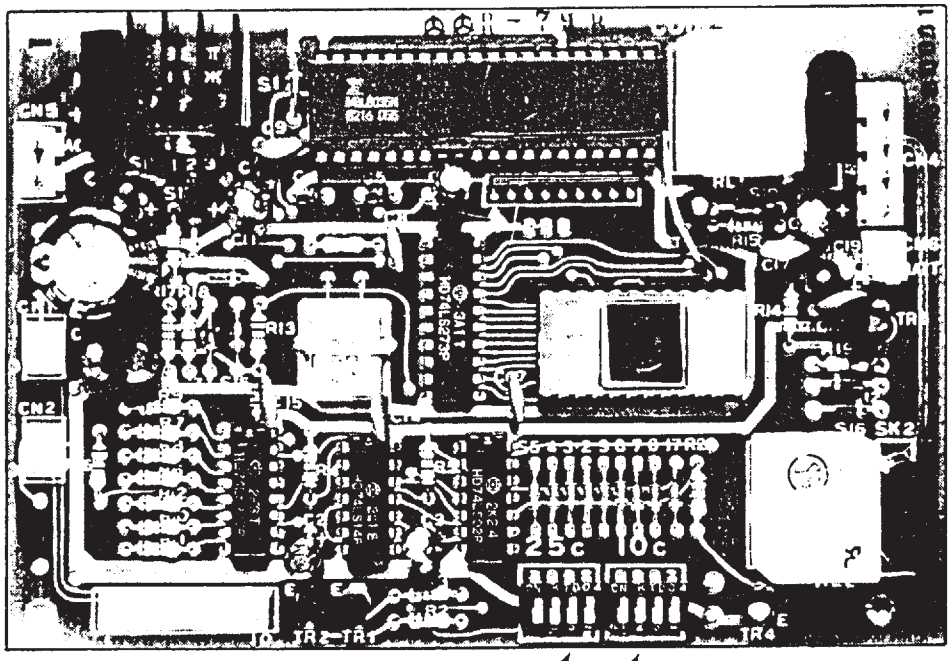
If the tumbler door is opened during the drying cycle, the fan and heat will shut off. Press **"START"** button to resume the cycle.

This dryer is designed for a capacity maximum load. Overloading it will result in longer drying time and damp spots on some of the load.

Maximum operating efficiency depends on proper air flow. The lint screen must be kept clean daily to insure proper circulation of air throughout the dryer.

This commercial dryer has keys for the lint door and access door to burners and controls. This is for the safety of the user.

INSTRUCTIONS FOR SETTING TIME ON "COMPUTERIZED COIN METER"

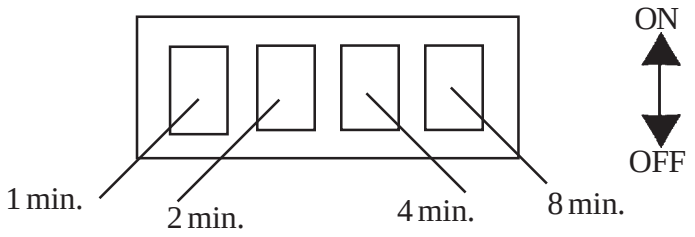


DIP Switch Banks are located here

INSTRUCTIONS FOR SETTING TIME ON COMPUTERIZED COIN METER

1. This dryer is equipped with a bank of four DIP switches.

2. Each DIP switch bank consists of 4 small switches each with a specified amount of time (minutes), as shown:

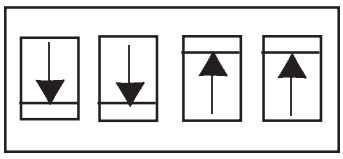


3. To set the time on the DIP bank simply set the appropriate switch to the **ON** (up) position to total the desired amount of time.

NOTE
There are three minutes built into the electronic coin board which should be included in the total time desired.

NOTE
OFF (down) position equals 0 minute.

EXAMPLE: 25¢ for 15 minutes



MINUTES: 0 + 0 + 4 + 8 + 3 (Built-In) = 15 min.

OPERATING INSTRUCTIONS—SINGLE TIMER MODELS

Step 1. After loading the dryer tumbler with the washed clothes load, proceed to close the loading door.

Step 2. Turn timer knob to the desired drying time.

Step 3. Turn *Temperature Fabric Selector* to desired setting.
"LOW" is for delicate, sheer, and easy dry fabrics 130°-140°F exhaust temperature.
"MEDIUM" is for synthetics and permanent press fabrics 155°-165°F exhaust temperature.
"HIGH" is for cottons, linens and heavy fabrics 170°-180°F exhaust temperature.

Step 4. Then **"ON/OFF"** toggle switch to **"ON"** and press **"START"** button, holding about 2 seconds, until dryer is running.
(To shut the dryer off at any time during the cycles, switch the **"ON/OFF"** switch to **"OFF"**.)

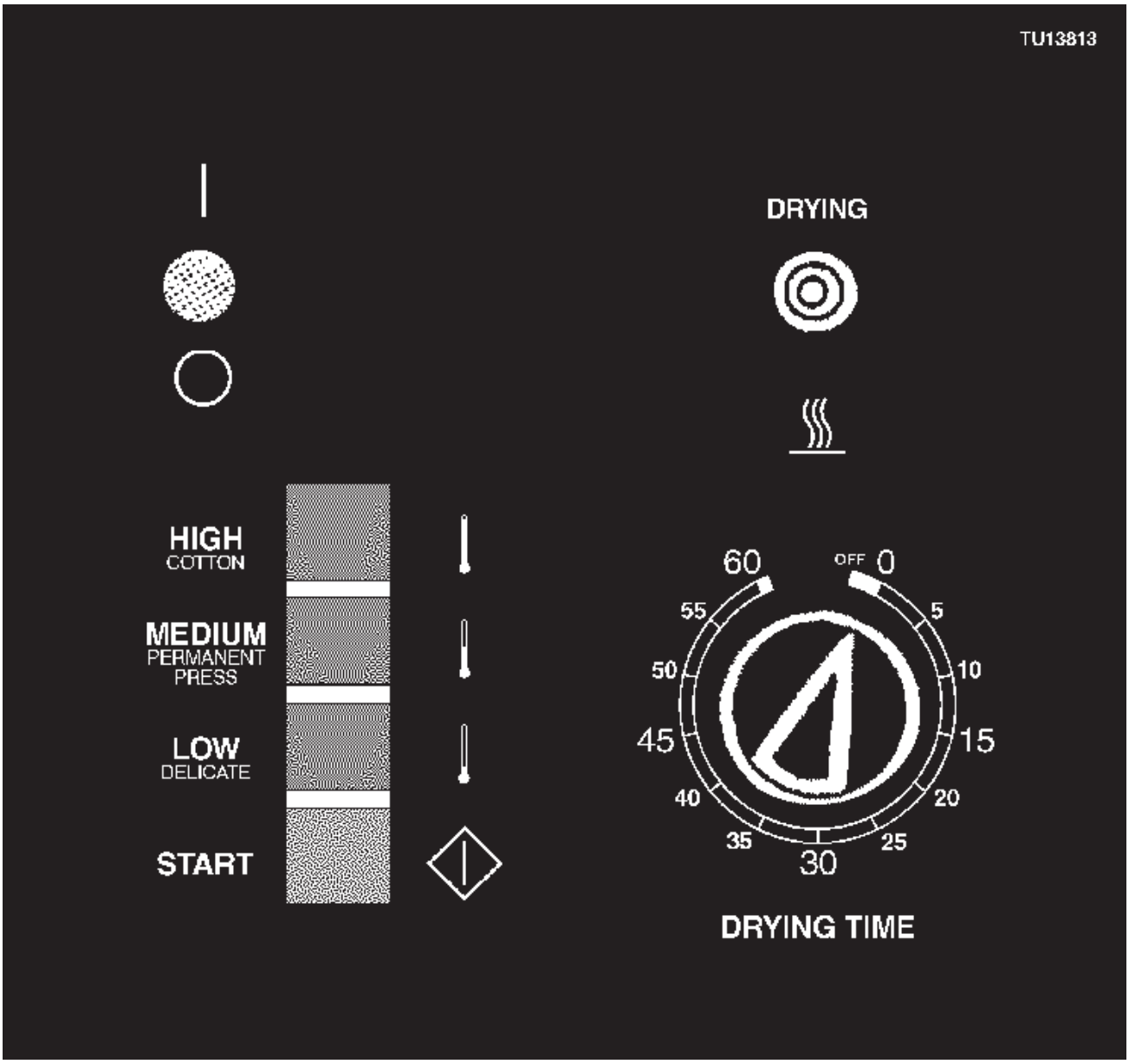
Step 5. *1)* The fan motor and basket will be energized and revolve.
2) The heat source will be energized (gas burners will operate).
3) The heated air will mix with the wet clothes and evaporate the moisture from the garments.
4) The thermostats will operate at a safe temperature.
5) The heat will shut off and the cooling cycle will begin (motor will operate only to cool the clothes load for desired handling temperature).
6) The light will stay on until the therm-o-cool thermostat cools below 135°F before the contacts open to shut off dryer.

IMPORTANT

IMPORTANT
If tumbler door is opened during the drying cycle, the fan and heat will shut off. Press "START" button to resume cycle.

This dryer is designed for a capacity maximum load. Overloading it will result in longer drying time and damp spots on some of the load.

Maximum operating efficiency depends on proper air flow. The lint screen must be kept clean daily to insure proper circulation of air throughout the dryer.


TU13813
DRYING
HIGH
COTTON
MEDIUM
PERMANENT
PRESS
LOW
DELICATE
START
OFF
0
5
10
15
20
25
30
35
40
45
50
55
60
DRYING TIME

TROUBLESHOOTING

To help you troubleshoot the dryer, we list below the most common reasons for service calls and some answers to the problems. **Before you call service**, please review the following items:

DRYER WON'T START

DRYER WON'T START

1. Is the door completely closed?
2. Are the controls set to the **"on"** position?
3. Did you push the **"start"** control?
4. Has a fuse blown or a circuit breaker tripped?
5. Are the fuses tight?
6. Check for low voltage.
7. Has the Bonnet thermostat (Gas only) tripped? If so, push to reset.

DRYER WON'T HEAT

DRYER WON'T HEAT

1. Is the dryer set for **"cooling time"** rather than **"drying time"**?
2. Are the gas valve in the dryer and the valve on the main gas line turned on?
3. Check for low or intermittent **gas pressure**.
4. Check Spark Ignition Module diagnostic light.

CLOTHES ARE NOT SATISFACTORILY DRY

CLOTHES ARE NOT SATISFACTORILY DRY

1. *Timed cycle*—Did you allow enough heating time before the cooldown part of the cycle?
2. Is the lint screen blocked?
3. Is the exhaust duct to the outside clean and not blocked? *(A blocked exhaust will cause slow drying and other problems.)*

GAS DRYER IGNITION

GAS DRYER IGNITION

Refer to the page on *"Instructions for the Direct Ignition System Operation"*. Check to see if the manual gas valve is open. Then reset the dryer controls. **All panels, covers, and doors must be in place and closed before starting the dryer.**

VERY IMPORTANT

VERY IMPORTANT
When calling the factory for service, always refer to the model number and serial number.

Troubleshooting Chart

TROUBLE	CAUSE	REMEDY
Motor will not start.	No power.	Check fuses on Circuit Breakers. Make sure Main Control Switch is "ON". Check Bonnet Thermostat (Gas only).
	Incorrect power.	Check power source; voltage, phase and frequency must be the same as specified on Electrical Rating Plate.
	Time off.	Check Timer for proper setting or check Coin Meter for properly vending.
	Loose wiring connections.	Check wire connections in electrical box on rear of dryer.
	Loading Door OPEN.	Close door.
	Door Switch out of adjustment.	Adjust switch by removing front panel and bend Actuator Lever to clear Switch Button 3/8" with front panel in place.
	Defective Door Switch.	Replace switch.
	Defective Basket Motor Contactor.	Replace contractor.
	Tripped/defective safety thermostat on gas bonnet.	Reset/replace thermostat.
	Low voltage.	
Motor tripping on thermal.		Check voltage at motor terminals. Voltage must be within $\pm$ 10% of voltage shown on Motor Rating Plate. If not, check with local power company for recommended corrective measures.
	Inadequate wiring.	Check with local power company to insure that wiring is adequately sized for load.
	Loose connections.	Check all electrical connections and tighten any loose connections.
	Inadequate air.	Check Installation Sheet for recommended make-up air openings.
	Poor housekeeping.	Clean lint accumulation on and around motors.
Dryer does not stop at end of time period.	Defective Timer.	Replace Timer.
Motor runs but basket will not revolve.	V-Belt broken.	Replace V-Belt.
	V-Belt loose.	Adjust belt tension.
	Motor Pulley loose.	Tighten set screw.
	Basket overloaded.	Remove load.

Troubleshooting Chart

TROUBLE	CAUSE	REMEDY
Dryer noisy or vibrating.	Not leveled.	Check manual for proper leveling procedures.
	Fan out of balance.	Accidental damage to the fan blade can change the dynamic balance. Damaged fans should be replaced.
	Basket rubbing.	Adjust basket clearance.
	V-Belt sheaves.	Tighten set screws. Make sure sheaves are in proper alignment.
	Belt.	Adjust belt tension.
	Foreign objects.	Occasionally screws, nails, etc, will hang in the basket perforations and drag against the sweep sheets surrounding the basket. Such foreign objects should be removed immediately.
Dryer runs, but no heat.	Incorrect voltage.	Check for correct control voltage - 120V.
	No voltage.	Check power supply, check secondary voltage on transformer and check wiring and wiring diagram.
	Direct Spark Ignition module defective.	Replace Direct Spark Ignition module.
	Defective Gas Valve.	Replace Coil Assembly.
	Gas turned OFF.	Turn Manual Gas Valve ON.
	Defective Door Switch.	Replace Door Switch.
	Air Switch not operating.	Clean out lint compartment daily. Check Back Draft Damper for foreign objects, lint accumulation or other causes that may prevent damper from opening. Check duct work for lint build-up. Check installation sheet to insure that duct work and make-up air openings are adequately sized. Check exhaust outlet. If a screen has been improperly installed on the outlet, it may be clogged with lint or frozen over in winter. NEVER install a screen on the exhaust outlet. Vacuum within dryer drops to .09 inches of water column, or less, for normal operation of dryer. Vacuum reading (in inches of water) should range between .15 and .3 inches. Vacuum reading can be made with a vacuum U-gauge by removing a sheet metal screw in the front panel of dryer and inserting the rubber tube of the vacuum gauge into screw opening.

Troubleshooting Chart

TROUBLE	CAUSE	REMEDY
Dryer runs, but no heat. (continued)	Air Switch out of adjustment.	See Air Switch Adjustment Sheet.
	Air Switch defective.	Replace Air Switch.
	Gas pressure too low.	Check manifold pressure and adjust to pressure specified on Rating Plate. If this pressure cannot be obtained, have gas supplier check main pressure.
	Improper orifice.	Dryer is orificed for type of gas specified on Rating Plate. Check with gas supplier to determine specifications for gas being used. If different from Rating Plate, contact factory and obtain proper orifices.
	Electric power to heating unit turned OFF.	Turn power ON.
	Line Fuse or Heater Circuit Fuse blown to unit.	Replace fuse.
	Defective relay.	Replace relay.
	Defective electric elements.	Replace elements.
	Defective thermostat.	Replace thermostat.
	Defective Safety Overload Thermostat.	Replace thermostat.
	Lint compartment door OPEN.	CLOSE door.
Main Burners burning improperly.	Burner Air Shutters CLOSED.	OPEN for blue flame.
	Dirt in burner.	Blow out.
	High gas pressure.	Adjust gas pressure per Rating Plate.
	Orifice too large.	Send to factory for correct orifices.
	Restricted or blocked exhaust.	Clean exhaust.
Main Burner cycles ON and OFF.	Direct Spark Ignition defective.	Replace Direct Spark Igniter.
Low or high gas flame.	Incorrect Main Burner orifices.	Replace orifices. Check factory for correct size.

Troubleshooting Chart

TROUBLE	CAUSE	REMEDY
Dryer too hot.	Incorrect Main Burner orifice.	Replace orifices. Check factory for correct size.
	Inadequate make-up air.	Make-up air must be 4 to 6 times the exhaust area of the dryer.
	Lint accumulated.	Remove lint.
	Exhaust duct dampers.	Must be full OPEN or replace.
	High gas pressure.	Adjust gas pressure per Rating Plate.
	Partially restricted or inadequately sized exhaust system.	Check service section for recommended sizes. Remove obstructions or lint build up from duct work. NEVER use smaller size exhaust duct.
	Defective thermostat.	ALWAYS use larger size.
	Valve CLOSED.	Replace thermostat.
Dryer runs no steam to coils.	Steam Trap blocked.	Check all valves in steam supply and return. Make sure they are OPEN.
	Solenoid Valve.	Remove and clean. Replace if defective.
		On dryers using solenoid temperature control, check operation of Solenoid Valve by advancing thermostat.
	Thermostat.	On dryers using solenoid temperature control, thermostat controls operation of Solenoid Valve. If defective, replace thermostat.
	Check Valve installed incorrectly.	Check for inlet and outlet marking on Check Valve and invert if necessary.
	Strainer clogged.	Remove plug and blow down Strainer or remove and clean thoroughly if heavily clogged.
Water in Steam Line.	Steam Piping installed incorrectly.	Check piping per Steam Installation Instructions.
	Trap not functioning.	Check trap for size and capacity. If dirty and sluggish, clean thoroughly or replace. Check return line for high back pressure, or another trap charging against the trap functioning improperly.

DIRECT SPARK IGNITION OPERATION

NOTE: Some models are equipped with a dual ignition system. The dual ignition system contains two Direct Spark Ignition modules in parallel. Each module has its own Flame Sense circuit and acts independently of the other. If either Bonnet Limit Thermostat opens because of high heat or flame impingement, the entire ignition system will shut down.

1. When a call for heat is received from the control supplying 24VAC to the Ignition Control Module, the pre-purge delay timer begins. This delay time allows any air/sediment to be ejected prior to burner ignition. Following the pre-purge delay period, the gas valve is energized and the spark ignitor sparks for the trial ignition period.

2. When a flame is detected during the trial for ignition period, the spark ignitor shuts off and the gas valve remains energized.

3. If no flame is detected by the Flame Sense Circuit, the Ignition Control Module will go into safety lockout. The valve will be turned off immediately. If the module has multiple retries and no flame is detected, the gas valve is de-energized and the module goes into an interpurge delay. After this delay, the module will attempt another trial for the ignition period. This will continue until the number of retries has been used up. At the time, the module will go into safety lockout.

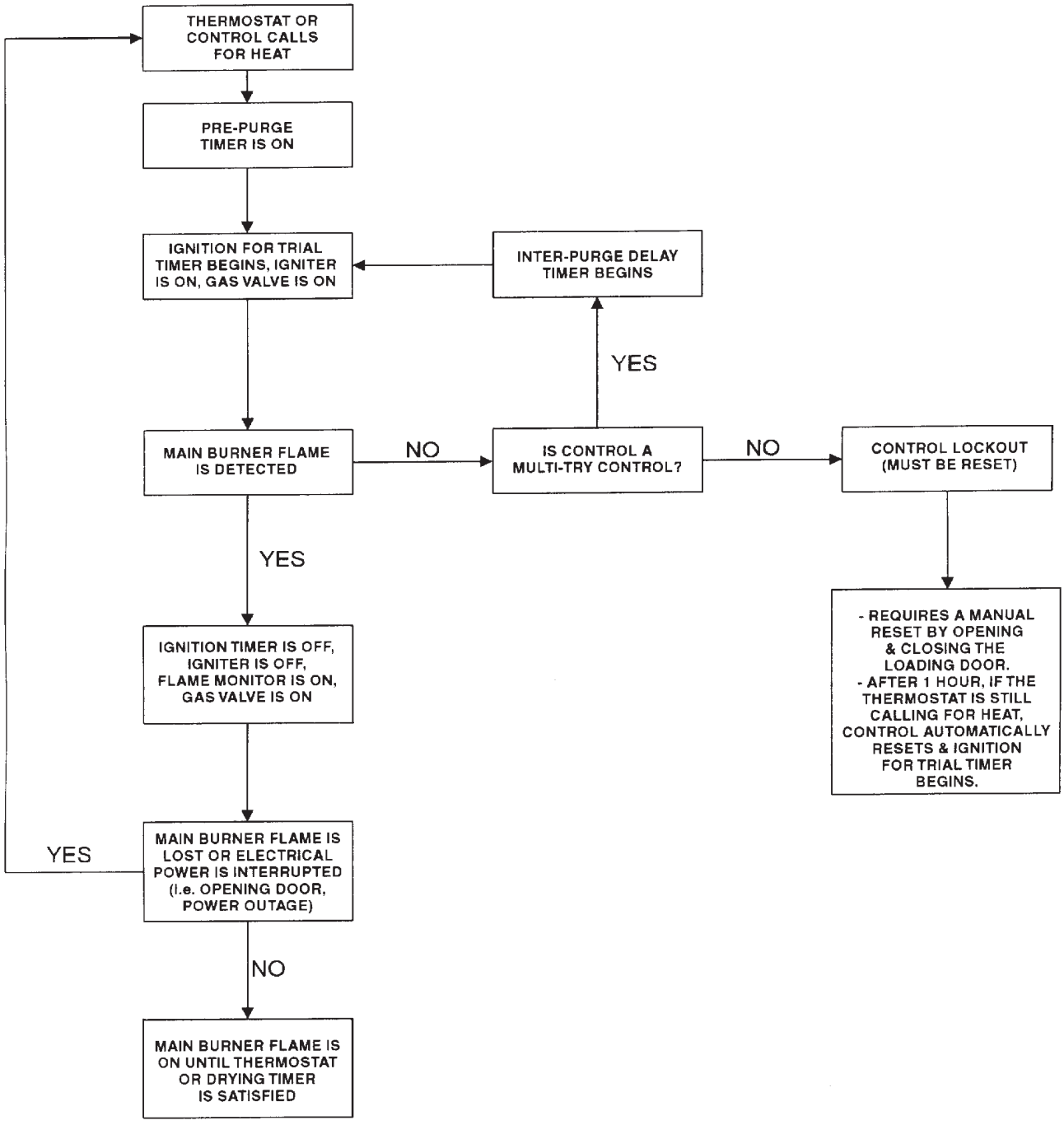
4. Recovery from safety lockout requires one of the following:
   a. A manual reset by opening and closing the loading door.
   b. After one hour if the Control Thermostat is still calling for heat, the module will automatically reset and the trial for ignition period will start over.

5. Opening the loading door will cause the flame to extinguish. Closing the door and starting the dryer will restart the trial for ignition period.

6. Once the Control Thermostat has been satisfied and/or the Drying Timer has been timed out, the Ignition Control Module(s) will be de-energized, the gas valve(s) will be de-energized and the flames will extinguish.

7. The machine will continue to run in a cooldown mode without heat. This process will cool the load to the touch and help to eliminate wrinkling.

DIRECT SPARK IGNITION OPERATION FLOW CHART



GENERAL MAINTENANCE

1. **Clean lint trap daily.** Remove lint before or after each day of operation. A clean lint trap will increase the efficiency of the dryer and the moisture-laden air will be exhausted outside more quickly.

2. **Keep basket and sweep sheets clean.** Clean as often as needed. The basket and sweep sheets are accessible by removing the front panel of the dryer.

3. **Gas burners, steam coils, electric coils.** Check and clean often.

4. **Pulleys and belts.** Keep clean as oil and dirt will shorten the life of a belt. Check periodically for alignment. Pulley shafts must be parallel and the grooves must be aligned. Check belt tension periodically. Adjust tension by movement of idler bracket. Lubricate idler pulley once every two months using six grams of high temperature grease. Do not over-grease.

5. **Electric motor.** Keep motor clean and dry. Motors are packed with sufficient grease for 10 years normal service. After that, bearings and housing should be cleaned and repacked one third full with Chevron Grease No. SR1-2. See label on motor for further information.

   If motor overheats, check voltage and wiring. Low voltage, inadequate wiring and loose connections are the main cause of motor failures.

6. **Adjustable leveling bolts.** One at each corner permits accurate alignment of dryer.
   To adjust: Block one corner of dryer up off the floor, loosen hex nut. With wrench, turn bolt clockwise to raise dryer, opposite to lower. Rear bolts are outside of dryer and front bolts are inside lint trap compartment.

GENERAL MAINTENANCE

7. **Periodically clean** and examine exhaust system.

8. **Keep dryer area clean** and free of gasoline, combustible materials and other flammable liquids or vapors.

9. **Do not obstruct the flow** of combustion (make-up) air and ventilating air.

10. **Check gas pressure** periodically.

11. **Gas burners air inlet shutters** can be adjusted for proper flame by following instructions outlined on separate page of this manual.

12. **Main Basket Bearings.** Lubricate once every six months using six grams of high temperature grease. Do not over-grease.

13. **Steam Heating Units.** Keep steam coils clean. Check periodically and clean as often as required. Remove lint and dirt accumulation from coil fins to avoid decreasing their efficiency.

14. **Clean Out Panel (Energy Saver Gas Models Only).** Remove this panel located on the Energy Saver Heating Unit and clean the inside area of lint and dirt on a regular basis.

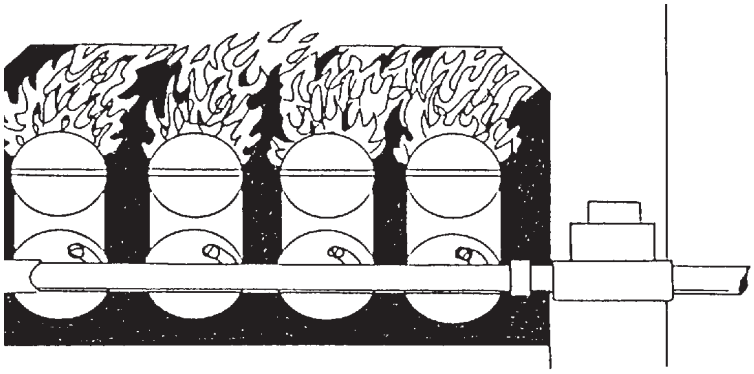
BURNER AIR INLET SHUTTERS ADJUSTMENT

Type of Gas	Burner Air Inlet Shutters Adjustment
Natural Gas	1/2 Open
Liquid Petroleum	1/4 Open
Manufactured Gas	1/16 Open

Air Shutters Adjustment

Proper Method: Close air shutters to yellow tip, then open air shutters to blue flame tip. Orange tips are impurities in the air such as lint, dust, etc.

Burner Air Inlet Shutters are correctly adjusted when flame is primarily blue.

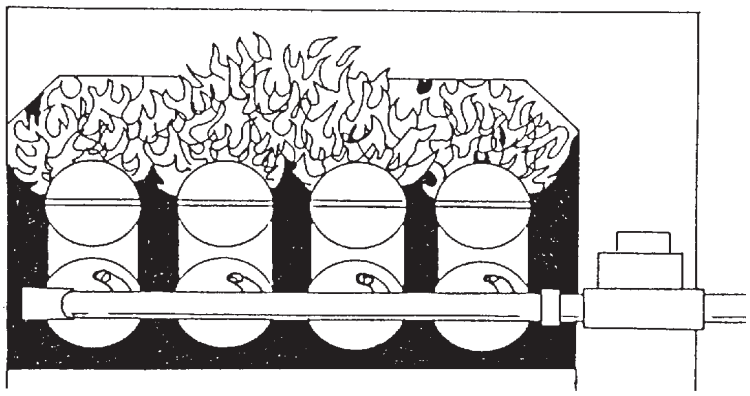


CORRECT

NEED TO ADJUST SHUTTER

Need to Adjust Shutter

Burners Air Inlet Shutters are adjusted insufficient; air is admitted through the burner. Flame pattern is straight up and flame is yellow.

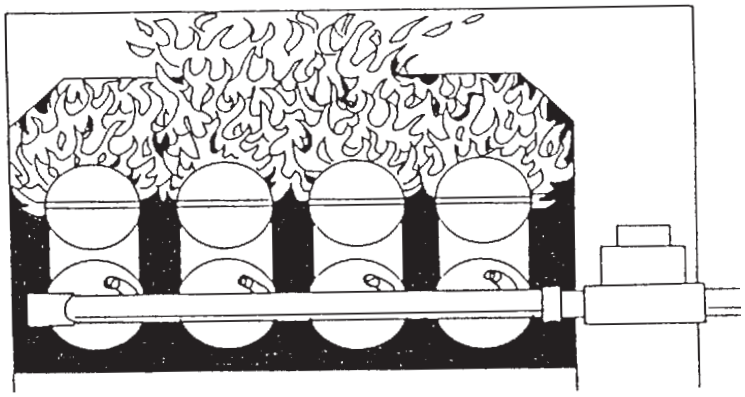


WRONG

NEED TO PROVIDE CORRECT AIR FLOW THROUGH THE DRYER

Need to Provide Correct Airflow Through the Dryer

This flame pattern indicates the Burner Air Inlet Shutters are correctly adjusted, but air through the dryer is insufficient. This condition indicates excessive lint in the lint compartment, lack of make-up air in the room, restricted exhaust duct, or a vacuum in the room caused by an exhaust fan.



WRONG

REPLACING BEARINGS AND COLLARS INSTRUCTIONS

Step 1 Remove belt guard, V-belt, spacer and basket sheave.

Step 2 Loosen set screw in first locking collar and remove from shaft by rotating clockwise. If necessary, use punch and mallet, hitting in clockwise direction to break collar loose.

Step 3 Remove the two bolts holding the pillow block bearing and take it off the shaft.

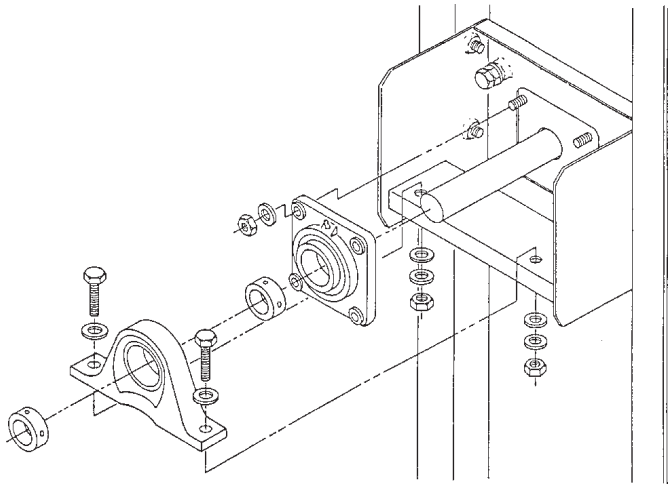
Step 4 Remove the second locking collar in the same manner as in Step 2.

Step 5 Remove the three nuts and washers holding the flange basket bearing and take it off the dryer.

Step 6 Inspect the bearings and collars for damage and replace as necessary, in reverse order of removing them. Before tightening securely, align basket per instructions on separate instruction sheet.

Step 7 Lubrication Guide—Grease bearings at regular intervals shown on the following page. Use #42-032-6015 Lubriplate #310
1 lb. can or 14.5 oz. tube, Lubriplate #930-2 multipurpose grease #10098.
Bearings are factory lubricated and ready for use. They are equipped with fittings for lubricating. Add grease slowly; when grease begins to come out of the seals, the bearing will contain the correct amount.

Operating Conditions	Grease Intervals
Clean	Every 6 months
Dirty	Every month
Moisture	Every week



BASKET ALIGNMENT—SINGLE MOTOR MODEL

Step 1 Loosen both eccentric locking collars on the two basket bearings (flange and pillow block types). Loosen the set screws and turn clockwise. If necessary, use a punch and mallet, striking the punch hole in a clockwise direction to break it loose.

Step 2 Loosen the 4 side bolts, "1, 2, 3, 4," on the basket bearing bracket. (see figure 3) Loosen the two adjusting bolts and locknuts "5, 6," inside the bracket. And loosen the bolts "7," on the pillow block bearing.

Step 3 Place one "A" and two "B" diameter pins inside the drying compartment between the rim of the basket opening and the rim of the door opening in the positions shown in figures 1 and 2. Check the two "B" pins for equal clearance.

NOTE
Push the basket toward the rear.

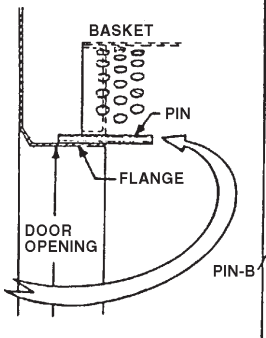
Step 4 With the pins in position, lock the collar nearest the rear wall of the dryer on the shaft by striking the punch hole in a counterclockwise direction. Tighten the set screw.

Step 5 Tighten the side bolts "1, 2, 3, 4," in numerical order. Tighten the bolts "7" on the pillow block bearing. And tighten the bolts "5" and locknuts "6".

Step 6 Remove the aligning pins and if alignment is okay, then tighten the collar on the pillow block bearing the same as in Step 4.

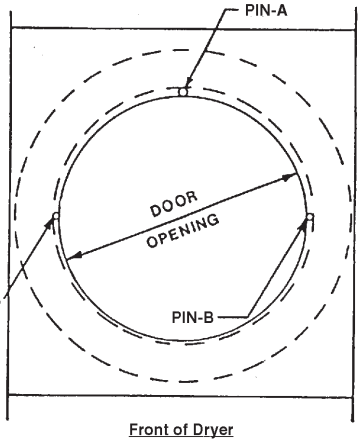
CAUTION
Check to see that the set screws are wrench tight on the locking collars.

FIG. 1



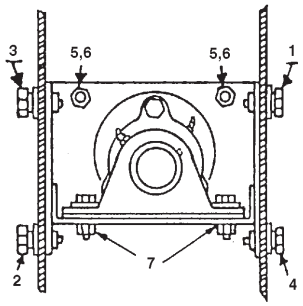
Right Side of Dryer

FIG. 2



Front of Dryer

FIG. 3



PIN A - 1/2" Dia.
PIN B - 3/8" Dia.

BASKET ALIGNMENT—DOUBLE MOTOR MODEL

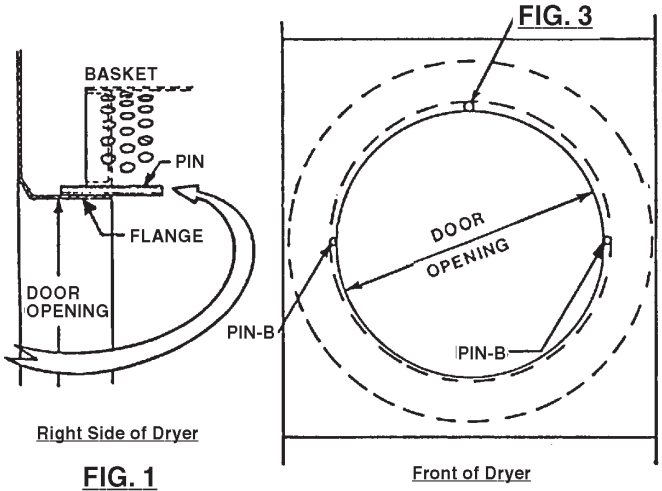
Step 1 Loosen the 4 gear reducer mounting bolts "1, 2, 3, & 4" on rear of dryer, and 2 adjusting bolts "5", on gear reducer housing. (figure 3)

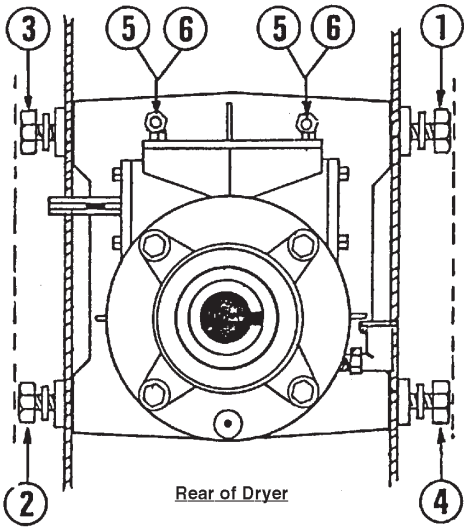
Step 2 Place one "A" and two "B" diameter pins inside the drying compartment between the rim of the basket opening and the rim of the door opening, in the positions shown in figure 1 and figure 2. Check the two "B" pins for equal clearance.

Step 3 With the pins in position, tighten the two "5" bolts until flush against back of dryer. Retighten gear reducer mounting bolts in the numerical order indicated in figure 3. Tighten lock nuts "6" to secure bolts "5" in position. Then remove pins.

Step 4 Check the space between basket and door opening at "A" pin and "B" pin positions (figure 2). If the gap is not approximately the same on both sides; repeat Steps 1, 2, & 3.

NOTE
Use short sections of round steel rod for pins, or drill bits may be used in place of round rod.





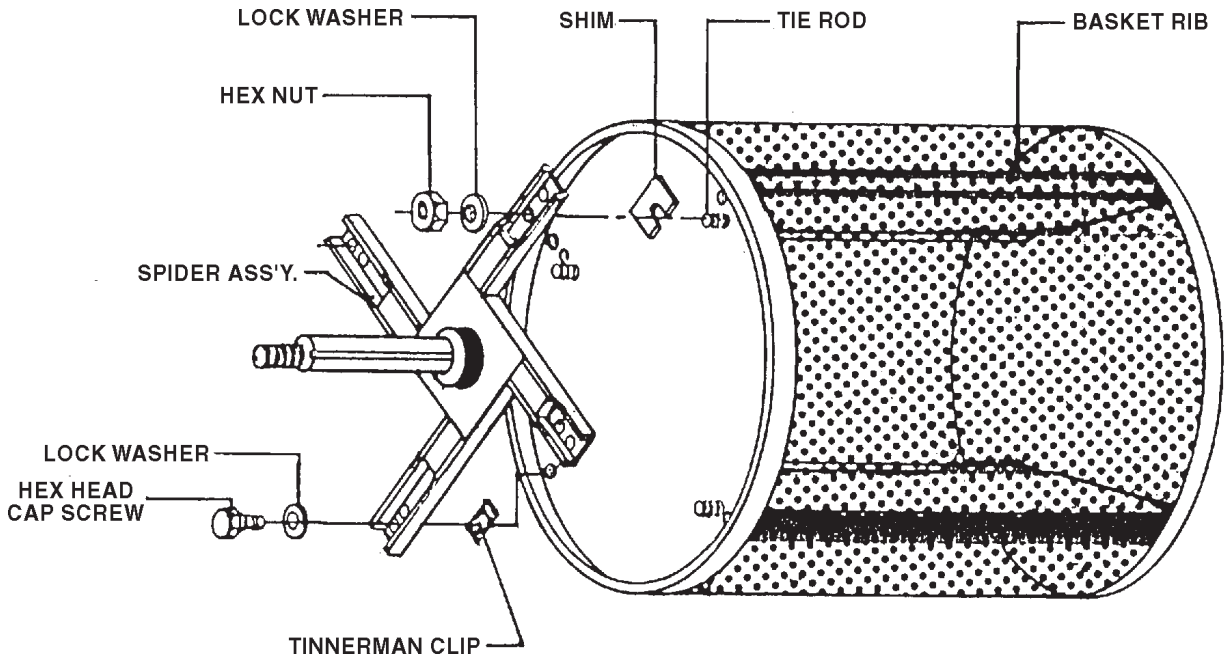
SHIMMING THE BASKET AND SPIDER ASSEMBLY

ALIGN ROTATE

This procedure is normally necessary when replacing either the basket or the spider assembly on any Continental tumbler. The alignment of these two parts is crucial in assuring a true running basket.

1. Align the basket as per instructions in the manual.
2. Rotate the basket to determine where the most out-of-round point is (where the basket scrapes or comes closest to scraping the sweep sheet).
3. Mark this position and the nearest rib to this position.
4. Remove the basket **(do not loosen the alignment bolts)**.
5. With the basket on the floor (spider up), place one or two shims between the spider leg and the back of the basket at the marked rib position. (see drawing)
6. Reinsert spider and basket assembly and recheck cylinder.
7. If at this point basket is still out-of-round, procedure must be repeated, starting with Step B.
8. Upon completion of shimming process, realignment of basket is necessary.

NOTE
If the point mentioned in *Step B* is between two ribs, both ribs might have to be shimmed.



AIR SWITCH ADJUSTMENT

1. Shut off current; disconnect leads and remove air switch.

2. Lay air switch assembly on flat surface. Adjust air blade at "A" (figure 1), so that air blade lays flat and surface "B" is parallel to the flat surface.

3. Place 3/8" x 5/8" spacer bar or equivalent "C" (figure 2), under air blade in position shown; hold switch mounting bracket firmly and adjust switch actuator "D" with needle nose pliers at "E" by twisting actuator right or left, whichever is needed, so that switch closes when end of air blade engages bar "C".

4. Maximum opening of air switch must be no greater than 3/4" (figure 3). Bend tab "F" in or out to maintain this dimension.

5. Reinstall air switch assembly on rear of dryer.

6. Recheck operation of air blade. Switch must close before air blade engages face of opening and reopen before stop "F" engages.

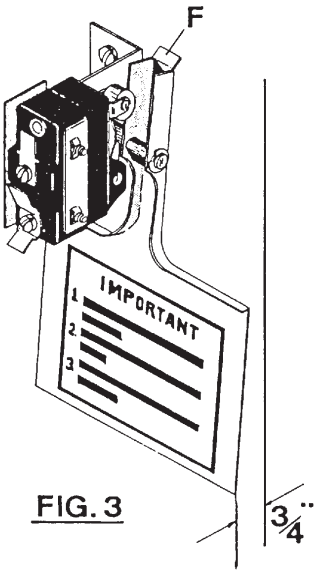


FIG. 3

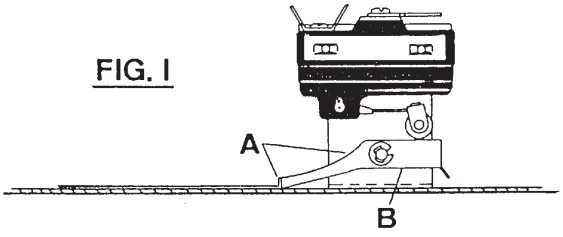


FIG. 1

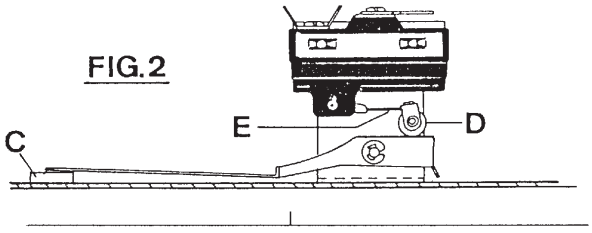


FIG. 2

INSTRUCTIONS FOR DRYERS WITH REVERSING CONTROL TIMER

Instruction

In operation, coasting of basket increases, making it necessary to readjust reversing timer.

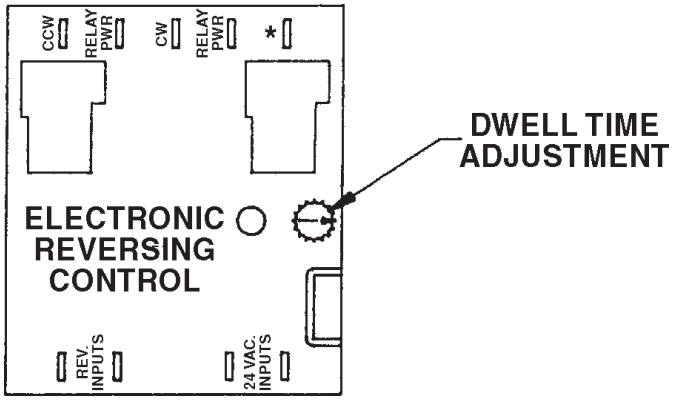
CAUTION
Failure to do this will cause the thermal overload units for the basket to cut-out unnecessarily and probably damage the gear reducer.

Adjustment of Reversing Timer Dwell Time

CAUTION
Dryer power supply must be shut off before adjusting timer.

The dwell time is the time from when the motor turns "off", to when it turns "on" again in the opposite direction.
Turning the dwell adjustment knob counterclockwise increases the dwell time and turning it clockwise decreases the dwell time.
Recommended dwell time for the basket to stop completely is 5 to 7 seconds.
Minimum basket stopping time is 4 seconds.

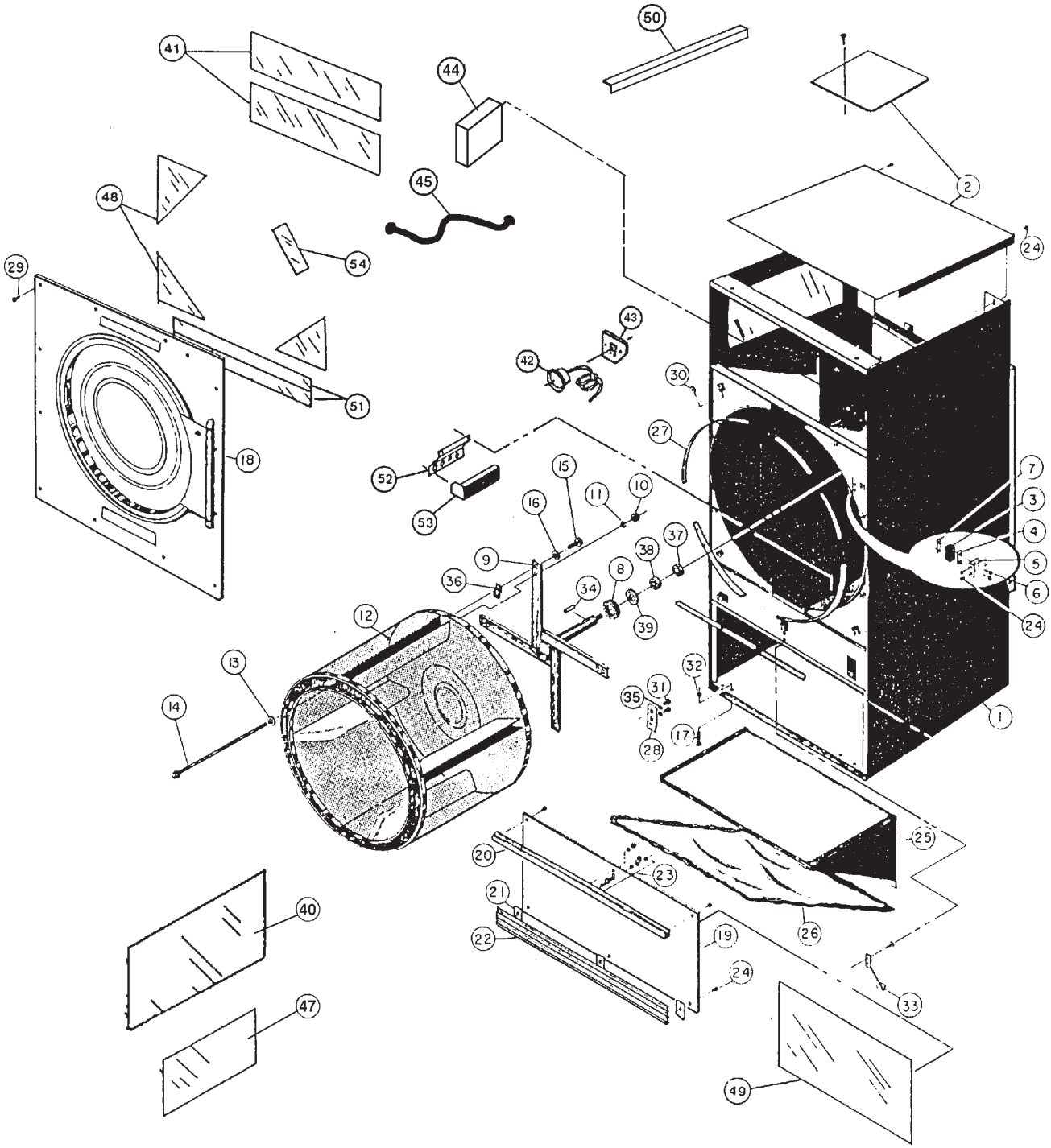
NOTE:
Select non-reversing or reversing before starting dryer.



NOTE:
Fan rotates counterclockwise as viewed from back end of motor. See arrow on motor support.

Basket rotates counterclockwise as viewed from back end of motor. See arrow on motor support.
Basket rotates counterclockwise as viewed from front of tumbler.
To change rotation of both fan and basket, reverse power leads L1 and L2.
To change rotation of fan only, reverse motor leads F1 and F2.
To change rotation of basket only, reverse motor leads B1 and B2.

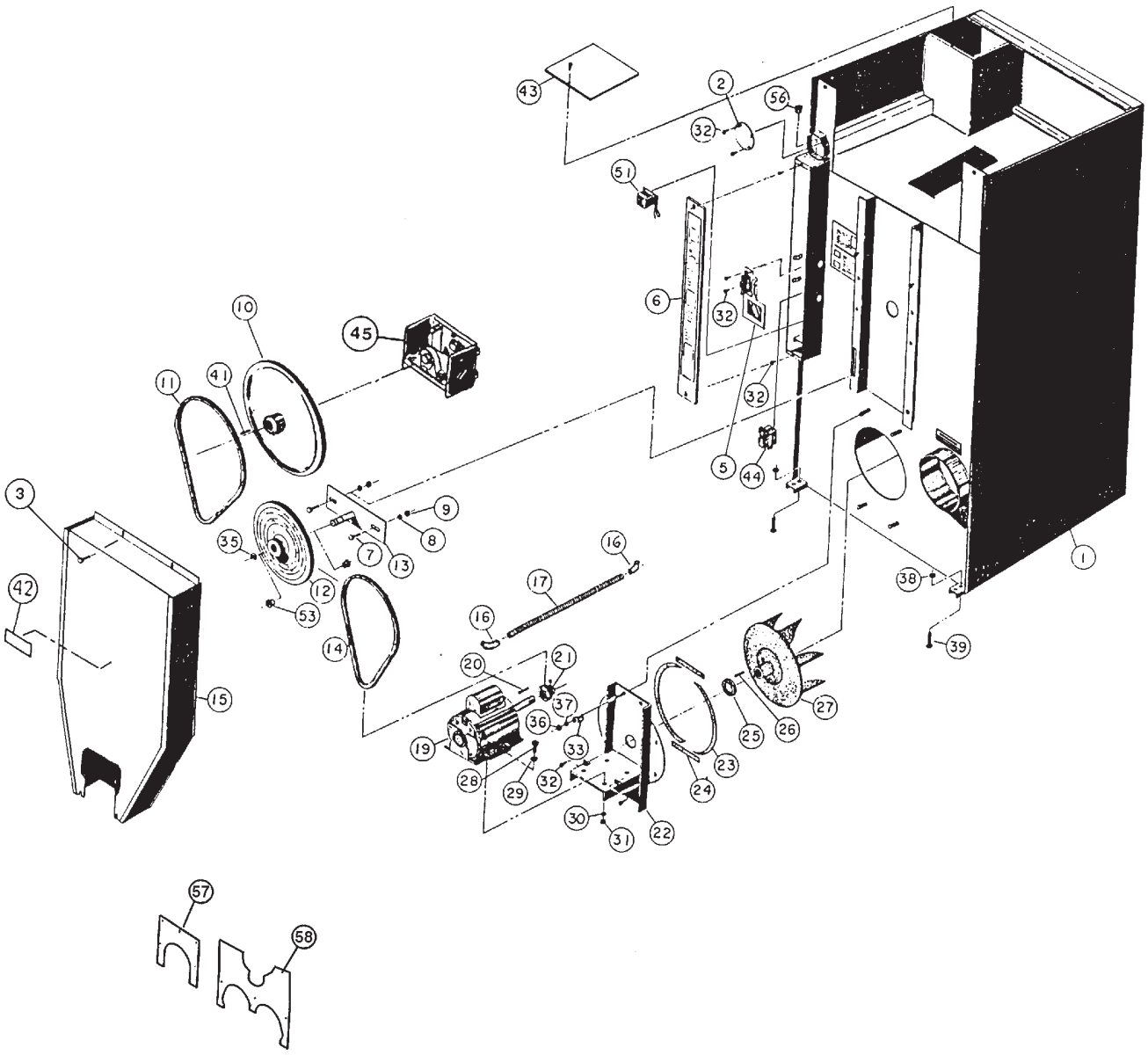
75 lb. Laundry Dryer—Front View (Illustration)



Parts—75 lb. Laundry Dryer—Front View

1	TU13111	Jacket - Gas or Electric Models (Single Motor)
	TU13112	Jacket - Steam Models (Single Motor)
2	TU8273	Solid Top (Gas Models)
	TU9274	Solid Top (Electric Models)
	TU10651	Mechanism Box Cover (Steam Dryer ONLY)
3	TU1979H	Door Switch
4	TU1770	Insulator
5	TU2373	Door with Bracket
6	TU3219	#6 x 1" Sheet Metal Screw
7	TU1771	#6 Tinnerman Nut (Pkg. of 12)
8	TU108	Felt Seal (Double Motor Models ONLY)
9	K369	Spider Replacement (Single Motor Models)
	K108	Spider Replacement (Double Motor Models)
10	TU2882	1/2" - 20 Hex Nut (Pkg. of 6)
11	TU2831	1/2" Split Lockwasher (Pkg. of 6)
12	TU8293	Basket ONLY (Single or Double Motor Models)
	TU8296	Basket/Spider Assembly (Double Motor Models ONLY)
	K384	Basket/Spider Assembly (Single Motor Models ONLY)
13	TU2883	1/2" Cut Washer
14	TU8297	Tie Rod
	TU7006	Shims
15	TU3210	5/16" - 18 x 5/8" Hex Head Cap Screw
16	TU2814	5/16" Lockwasher (Pkg. of 6)
17	TU3211	3/8" - 16 x 2-1/2" Leveling Bolt
18	TU6056	Front Panel and Door Assembly (for Time & Temperature) (Specify Color)
	TU13946	Front Panel and Door Assembly (Energy-Saver Models)
	TU7627	Front Panel and Door Assembly (for Time & Temperature) with Thermometer (Specify Color)
19	TU5566	Lint Door Weldment (Specify Color)
20	TU7473	Handle
21	TU2710	Trim Holder
22	TU2385	Trim
23	TUB1867	Lock and Key
24	TU7733	#8 x 1/2" Self Drill Screw (Pkg. of 6)
25	TU10290	Lint Screen Housing
26	TU10362	Self-Cleaning Lint Screen ONLY
	TU5225	Lint Screen Frame ONLY
27	TU5876	Sweep Sheet Gaskets
28	TU3206	Lock Plate
29	TU2878	#10 x 5/8" S.M.S. (Pkg. of 6)
30	TU2877	#10 Speed Nut (Pkg. of 6)
31	TU3209	#14 x 5/8" Sheet Metal Screw
32	TU4937	3/8" - 16 Jam Nut (Pkg. of 6)
33	TU8366	Lint Trap Front Support
34	TU5240	8" Large Shaft Key
35	RC349	1/4" Internal Lockwasher
36	TU8365	Tinnerman Nut
37	TU3536	Jam Nut (Double Motor Models ONLY)
38	TU3537	Full Nut (Double Motor Models ONLY)
39	TU14062	Washer (2 each)
40	TU7690	Side Insulation
41	TU7736	Front Panel Insulation
42	TU3593	Thermometer (Optional)
	TU3816	Lens Repl. (Texas Gage ONLY)
	TU8475	Lens Repl. (Marshaltown Inst. ONLY)
	TU11193	Lens Repl. (Weiss)
	TU13213	Lens Repl. (Weiss)
43	TU6766	Thermometer Mtg. Plate
44	TU13409	Spark Ignition Mount, 3-Trial (Gas Only)
	TU13627	Spark Ignition Mount, 1-Trial (Gas Only)
45	TU13629	Cable, H-Voltage DSI
47		Insulation (Mod. Valve Models)
48	TU7735	Front Panel Insulation (Energy-Saver Models)
49	TU8153	Lint Trap Door Insulation (Energy-Saver Models)
51	TU8107	Insulation (Energy-Saver Models)
52	TU9111	Thermostat Assembly
53	TU8457	Thermostat Cover Weldment
54	TU8108	Insulation (Energy-Saver Models)
	TU5808	Lint Door Assembly w/Lock consists of Ref. No's. 19, 20, 21, 22, 23, & 24 Specify Color
	TU13945	Lint Door Assembly w/Lock (Energy-Saver Models)
	TU13476	Lint Door Assembly w/Latch
	TU13950	Lint Door Assembly w/Latch E/S

Models: L36USS36 —— Gas (Energy-Saver)
L36URS36 —— Gas, Steam or Electric

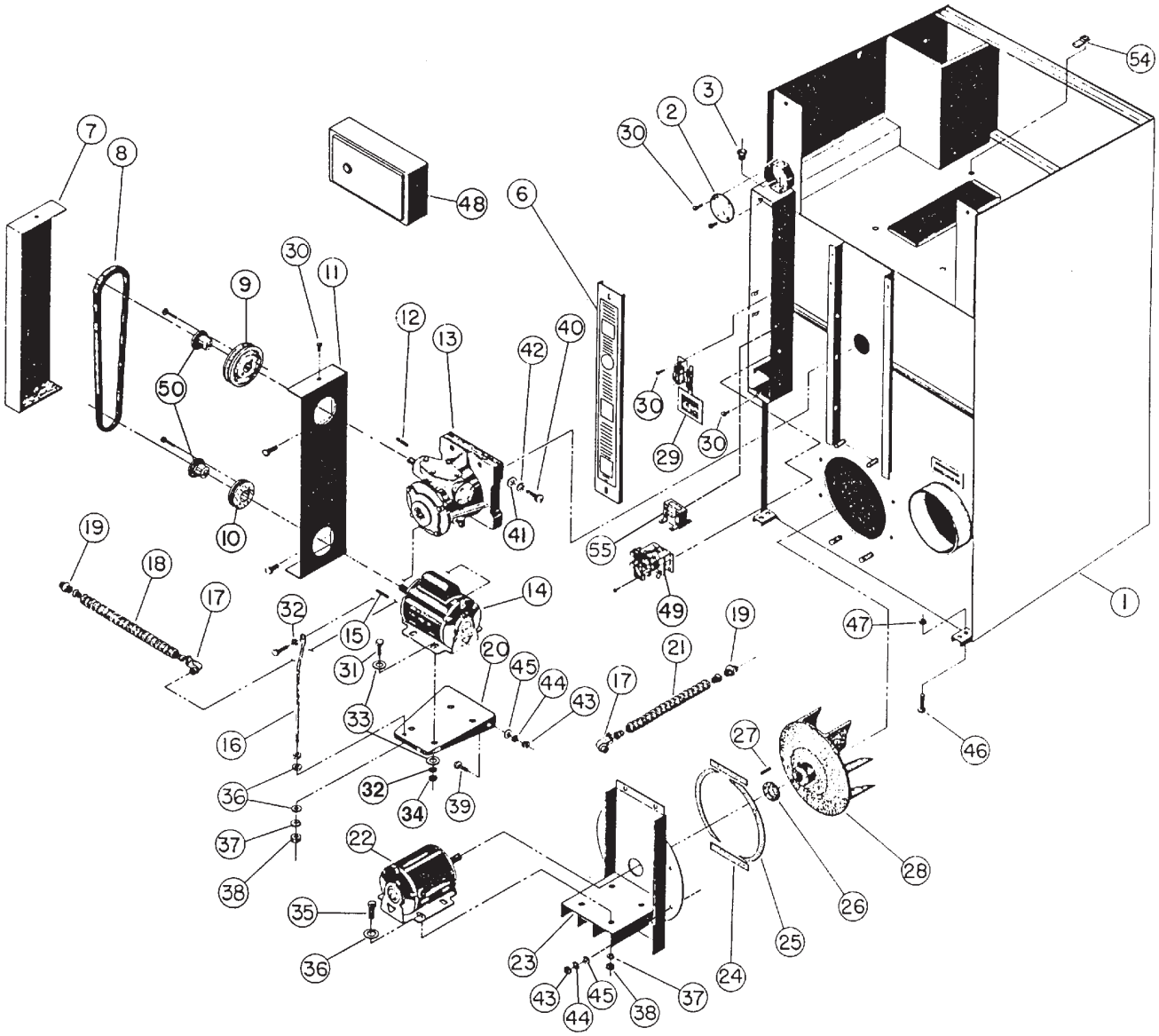


Parts—75 lb. Laundry Dryer—Single Motor Model—Rear View

1	TU13111	Jacket Welded (Gas/Electric)
	TU13112	Jacket Welded (Steam Models ONLY)
2	SB170	Junction Box Cover
3	TU6263	Screw
5	TU8206	Air Switch Assembly (see separate page)
6	TU5890	Control Box Cover
7	TU12576	Carriage Bolt - 3/8" - 16 x 1"
8	VSB134	3/8" Split Lockwasher (Pkg. of 6)
9	TU4787	3/8" Hex Nut (Pkg. of 6)
10	TU12642	Basket Sheave with Set Screws
11	TU10888	V-Belt - 50/60 Hz. AX64
12	TU5217	Idler Sheave - 50/60 Hz.
13	TU12803	Idler Bracket with Grease Fitting (Gas Dryers)
14	TU6725	V-Belt (50 Hz.) - 4L-600
	TU4794	V-Belt (60 Hz.) - 4L-590
15	TU12799	Rear Guard Complete
16	TU4791	Right Angle Connector
17	CFB4200	Cable - 42" Long
18	TU4790	Straight Connector
19	- - - - -	Motor *
20	TU5241	Key
21	TU7603	Motor Sheave, 60 Hz., with Set Screw
	TU12802	Motor Sheave, 50 Hz., with Set Screw
22	TU11064	Motor Mount W/A
23	TU2473	Side Gasket
24	TU2474	Top and Bottom Gasket
25	TU2476	Felt Seal
26	TU4684	Key
27	TU8740	Fan Wheel - 50/60 Hz. with Set Screws
	TU3282	Round Set Screw ONLY (Pkg. of 6)
	F819	Square Set Screw ONLY (Pkg. of 6)
28	TU5439	Hex Head Screw - 5/16" - 18 x 3/4" (Pkg. of 6)
29	VSB130	Cut Washer - 5/16" (Pkg. of 6)
30	TU2814	Split Lockwasher - 5/16" (Pkg. of 6)
31	C249	Hex Nut - 5/16" (Pkg. of 6)
32	RC344	Self Drilling Screw (Pkg. of 6)
33	PT196	Cable Strap
35	TU3247	Retaining Ring
36	TU4787	Hex Nut - 3/8" (Pkg. of 6)
37	VSB134	Lockwasher - 3/8" (Pkg. of 6)
38	TU4937	Jam Nut - 3/8" (Pkg. of 6)
39	TU3211	Leveling Bolt - 3/8" - 16 x 2-1/2"
41	TU11019	Key
42	TU10418	Lubrication Label
43	TU10651	Mechanism Box Cover (Steam Dryer ONLY)
44	TU13463	Relay - 9A, 3 Pole w/Aux.
	TU13516	Relay - 12A, 3 Pole w/Aux.
45	- - - - -	Cast Iron Bearings and Bracket Assembly (See separate page for parts breakdown)
51	TU13480	Transformer - 240V/24V
	TU13515	Transformer - 120V/24V
	TU13514	Transformer - 460V/24V
	TU13642	Transformer - 575V/24V
	TU13643	Transformer - 380-415V/24V
53	TU7184	Bronze Bushing (2 each)
54	TU10418	Idler Pulley Label
56	TU2372	Bushing
57	TU10359	Motor Adapter—3 Ph. Only
58	TU13044	Motor Adapter—1 Ph. Only

* See Motor List Page

Models: L36USD36 ——— Gas (Energy-Saver)
L36URD36 ——— Gas, Steam or Electric

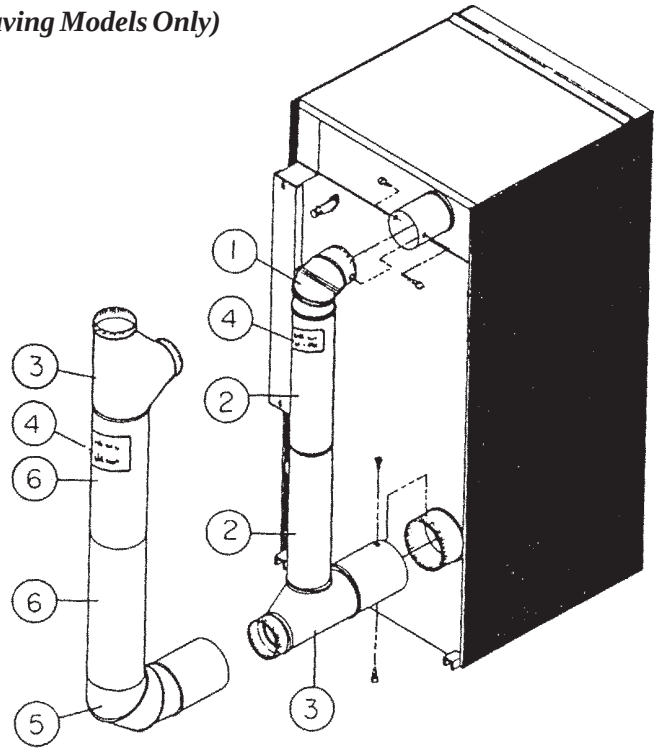


Parts—75 lb. Laundry Dryer—Double Motor Model—Rear View

1	TU13956	Jacket Welded (Gas/Electric)
	TU13957	Jacket Welded (Steam)
2	SB107	Junction Box Cover
3	TU2372	Snap Bushing
6	TU5890	Control Box Cover
7	TU3857	Belt Guard Cover
8	TU2317	V-Belt 4L-380 - 50/60 Hz.
9	TU6722	Gear Sheave (AK-51H) with Set Screw, 60 Hz.
	510101040	Gear Sheave (AK-46H) with Set Screw, 50 Hz.
10	TU7334	Motor Sheave (AK-34H) with Set Screw, 60 Hz.
	510101041	Motor Sheave (AK-39H) with Set Screw, 50 Hz.
11	TU5254	Belt Guard Mounting
12	TU4684	Shaft Key
13	TM100	Small Gear Reducer (see separate page)
14	- - - -	Basket Motor (see Motor List page)
15	TU4684	Key
16	TU8608	Belt Adjusting Rod
17	TU4791	Right Angle Connector
18	CFB1700	1/2” Greenfield Cable
19	TU4790	Straight Connector
20	TU33	Motor Drive Bracket
21	CFB3000	1/2” Greenfield Cable
22	- - - -	Fan Motor (see Motor List page)
23	TU2376	Motor Mount Weldment
24	TU2474	Top and Bottom Gasket
25	TU2473	Side Gasket
26	TU2476	Felt Seal
27	TU4684	Key
28	TU8740	Fan Wheel with Set Screws (50/60 Hz.)
29	TU8206	Air Switch Assembly (See separate page)
30	TU7733	8 x 1/2” Self Drill Screw (Pkg. of 6)
31	RC344	1/4” - 20 x 3/4” Cap Screw
32	TU2846	1/4” Lockwasher (Pkg. of 6)
33	TU2847	1/4” Cut Washer (Pkg. of 6)
34	TU4934	1/4” - 20 Hex Nut (Pkg. of 6)
35	TU5439	5/16” - 18 x 3/4” Cap Screw (Pkg. of 6)
36	VSB130	5/16” Cut Washer (Pkg. of 6)
37	TU2814	5/16” Split Lockwasher (Pkg. of 6)
38	C249	5/16” - 18 Hex Nut (Pkg. of 6)
39	TU3124	3/8” - 16 x 3/4” Cap Screw
40	RC347	1/2” - 13 x 1-1/2” Cap Screw
41	TU1851	1/2” Cut Washer (7/32” Thick)
42	TU2831	1/2” Lockwasher (Pkg. of 6)
43	TU4787	3/8” - 16 Hex Nut (Pkg. of 6)
44	VSB134	3/8” Lockwasher (Pkg. of 6)
45	IB140	3/8” Cut Washer
46	TU3211	3/8” - 16 x 2-1/2” Level. Bolts
47	TU4937	3/8” - 16 x 3/4” Cap Screw (Pkg. of 6)
48	----	Reversing Control Box (see separate page)
49	TU13463	Relay - 9A, 3 Pole w/Aux.
	TU13516	Relay - 12A, 3 Pole w/Aux.
50	TU2833	Bushing (H-5/8) for Sheave
54	TU6760	Clip Nut
55	TU13480	Transformer - 240V/24V
	TU13515	Transformer - 120V/24V
	TU13514	Transformer - 460V/24V
	TU13642	Transformer - 575V/24V
	TU13643	Transformer - 380-415V/24V

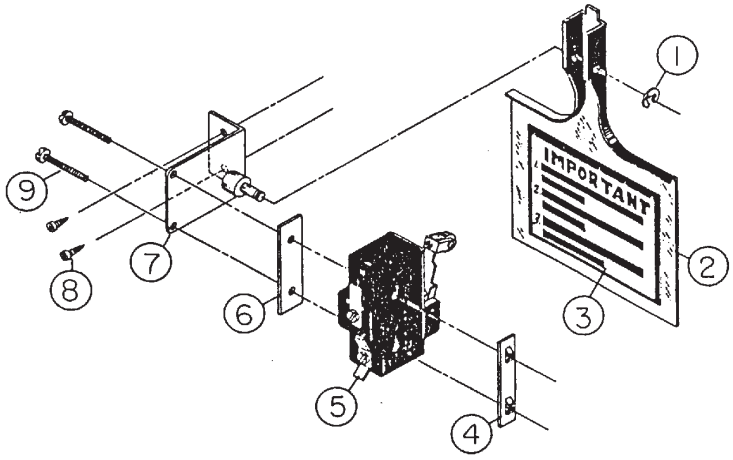
Duct Work Parts
(Energy-Saving Models Only)

1	TU8053	Duct Elbow
2	TU8055	Duct Long
3	TU8052	Duct Tee
4	TU9161	Installation Label
5	TU7375	Extended Elbow
6	TU8177	Duct Short

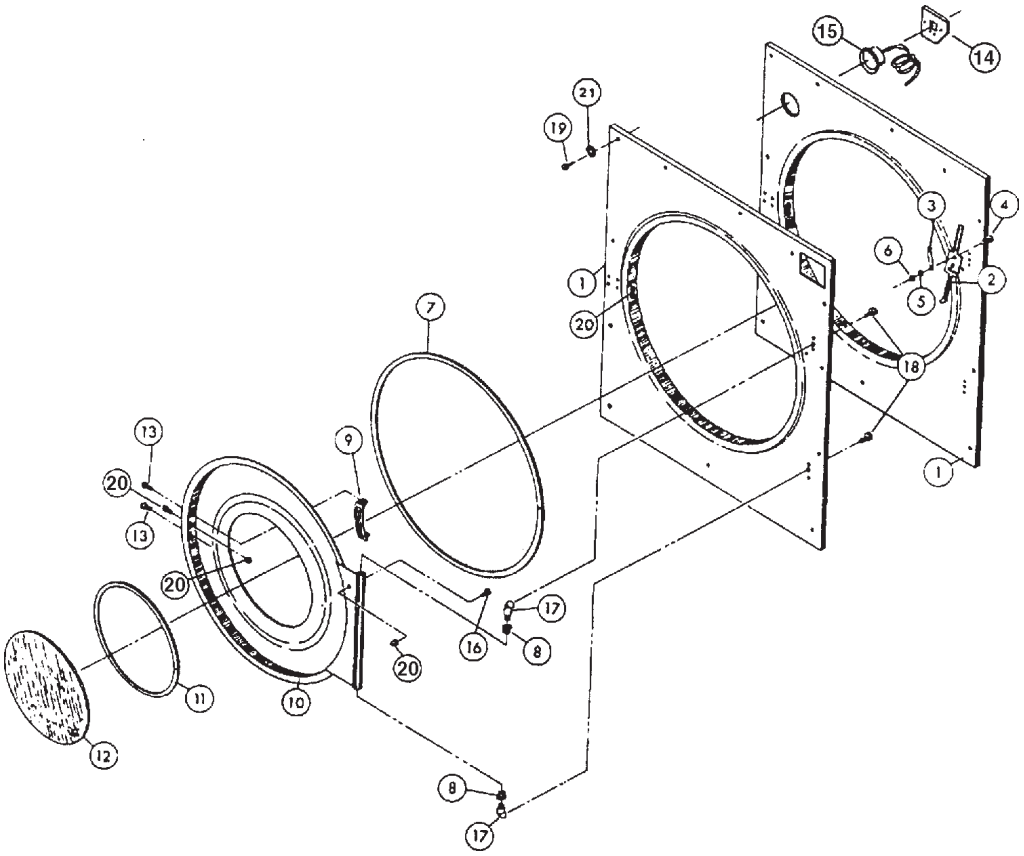


Air Switch Assembly
TU8206

1	F888	"E" Ring
2	TU2463	Actuator Arm
3	TU3476	Air Switch Decal
4	TU1771	#6 Tinnerman Nut
5	TU8155	Air Switch
6	TU1770	Insulator
7	TU8171	Air Switch Bracket
8	TU7733	#8 - 18 x 1/2" Self Drilling Screw
9	TU3219	#6 x 1" Round Head S.M.S.

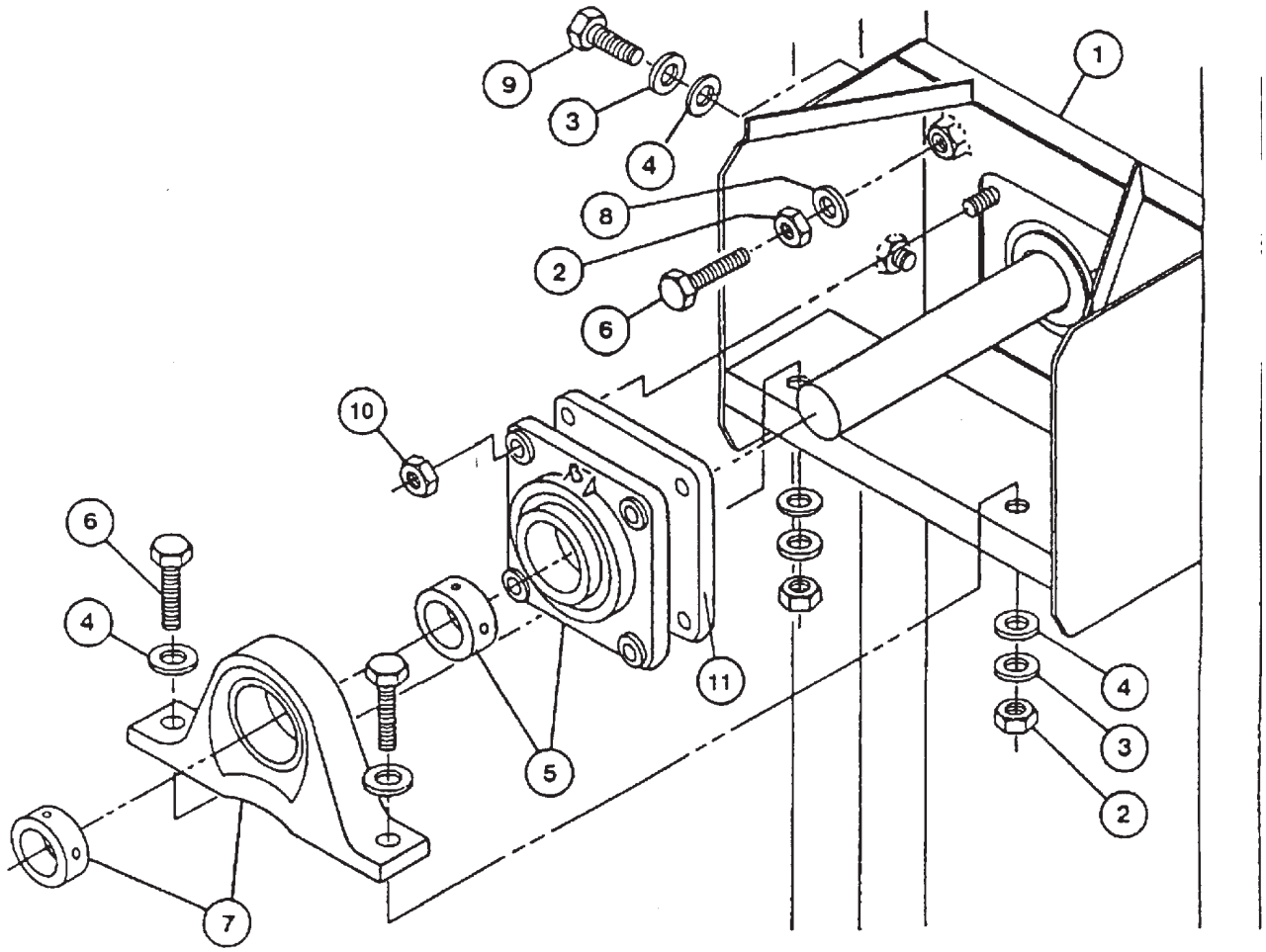


TU6056 Front Panel and Door Assembly (Time and Temperature) (Specify Color)
TU13989 Front Panel and Door Assembly (Time and Temperature) with Thermometer

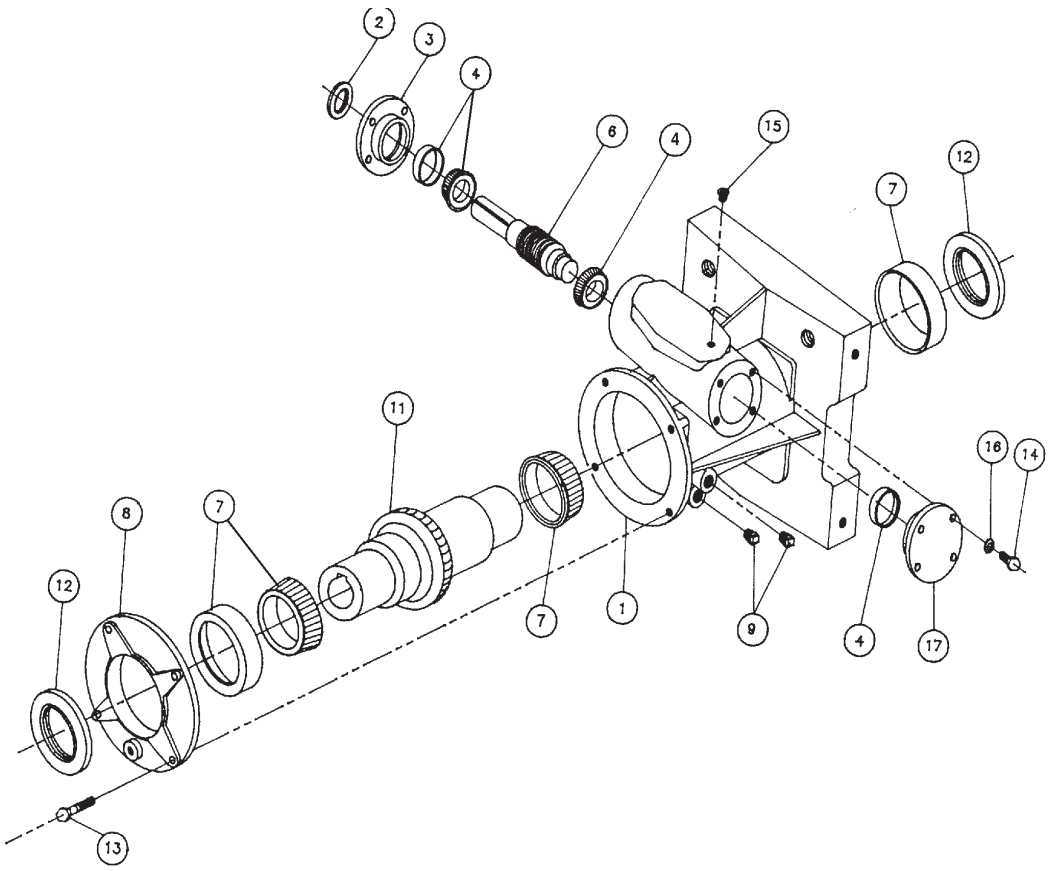


1	TU10785	Front Panel (for Time and Temp.) (Specify Color)
	TU10787	Front Panel (for Thermometer) (Specify Color)
2	TU2194	Door Switch Actuator
3	TU2105	Actuator Spring
4	M262	#8 - 32 Truss Head Screw
5	FB187	#8 Split Lockwasher
6	TU3266	#8 - 32 Hex Nut
7	TU5288	Basket Door Seal
8	PIF172	Delrin Bearing
9	TU2874	Basket Door Handle
10	TU5859	Basket Door (Specify Color)
11	TU1692	Rubber Gasket
12	TU217	Door Glass
13	TU3215	#10 - 32 x 3/8” Taptite Screw
14	TU3163	Catch Pin
15	TU4840	#10 - 32 Hex Crown Nut
16	TU4839	#10 - 32 x 3/8” Machine Screw
17	TU2236	Hinge Posts
18	TU2836	5/16” - 18 x 1/2” Hex Head Cap Screw
19	TU2878	#10 x 5/8” Sheet Metal Screw
20	TU7456	Door Catch Asm. (w/rivets)
21	M271	#8 Internal Tooth Lockwasher
22	TU3593	Thermometer (Optional)
	TU3816	Lens Repl. (Texas Gage ONLY)
	TU8475	Lens Repl. (Marshaltown Inst. ONLY)
	TU11193	Lens Repl. (Weiss)
	TU13213	Lens Repl. (Weiss)
23	TU6766	Thermometer Mtg. Plate

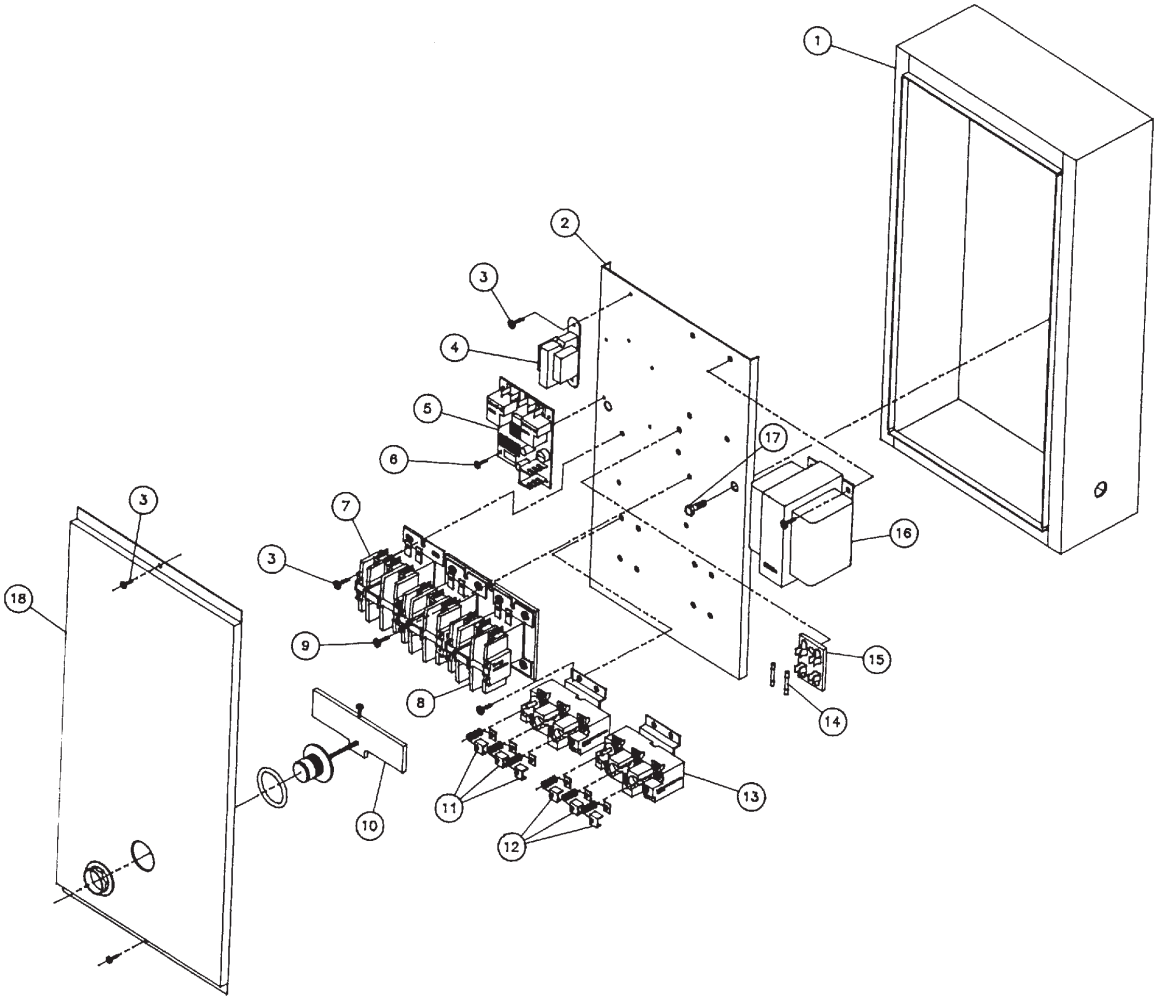
TU4827—Actuator Assembly consists of Ref. No.s 2, 3, 4, 5, & 6
TU5857—Basket Door Assembly consists of (Specify Color) Ref. No's. 7, 8, 9, 10, 11, 12, 13, 14, 15, & 16



1	TU13147	Bearing Support Bracket
2	OP233	1/2” Hex Nut (pkg 6)
3	TU2831	1/2” Lockwasher (pkg 6)
4	TU2883	1/2” Flat Washer
5	TU13335	Flange Bearing with Collar
6	TU2195	1/2” - 13 x 1-3/4” Cap Screw (pkg 6)
7	TU13334	Pillow Block Bearing with Collar
8	OP251	1/2” I.T. Lockwasher (pkg 6)
9	RC347	1/2” - 13 x 1-1/4” Cap Screw (pkg 6)
10	TU13372	Jam Nut 1/2” - 13 w/Nylon
11	TU11852	Spacer - Bearing

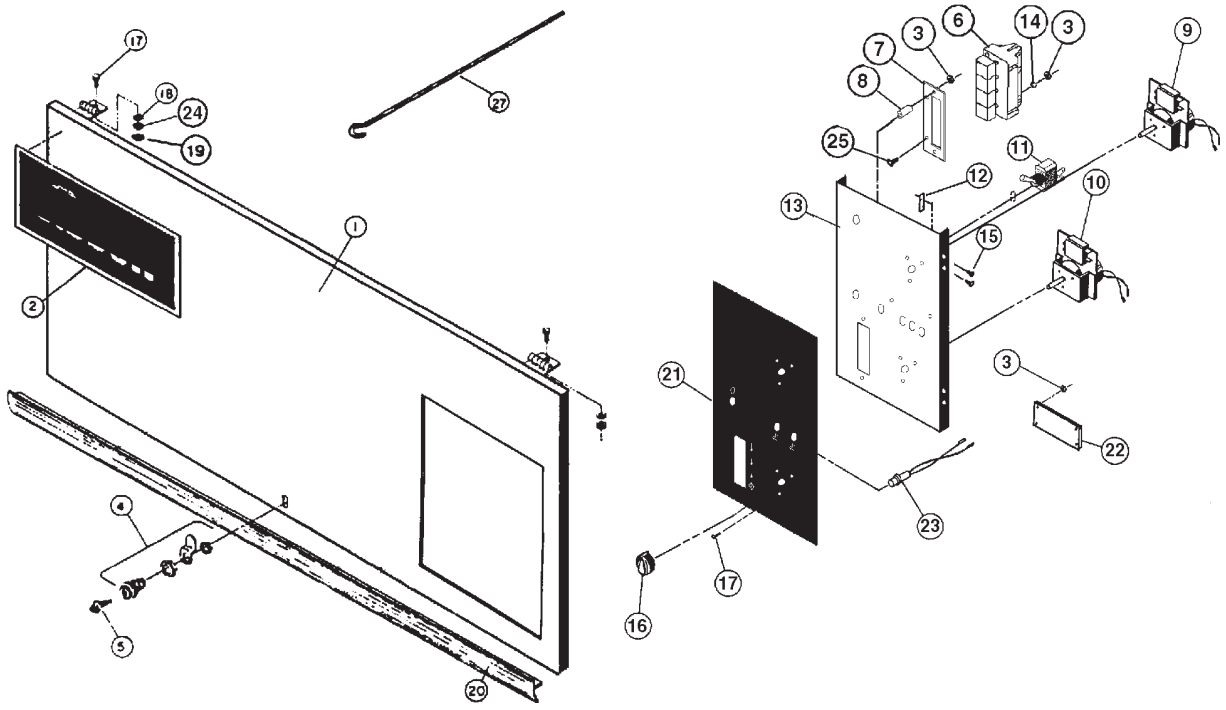


			Quantity
1	TM103	Housing	1
2	TM104	Small Seal	1
3	TM105	Small Open End Cap	1
4	TM107	Small Bearing Cup	2
6	TM101	Worm 1-1/2” x 7-1/8”	1
7	TM110	Large Bearing Cup	2
8	TM112	Large End Cap	1
9	TM115	1/4” Pipe Plug	1
11	TM102	Worm Gear	1
12	TM120	Oil Seal	2
13	TU2623	Cap Screw 3/8” - 16 x 1-1/2”	4
14	TU2839	Cap Screw 1/4” - 20 x 7/8”	8
15	TM119	Vent Plug 1/4” NPT	1
16	RC349	1/4” Internal Tooth Lockwasher	8
17	TM118	Small Closed End Cap	1

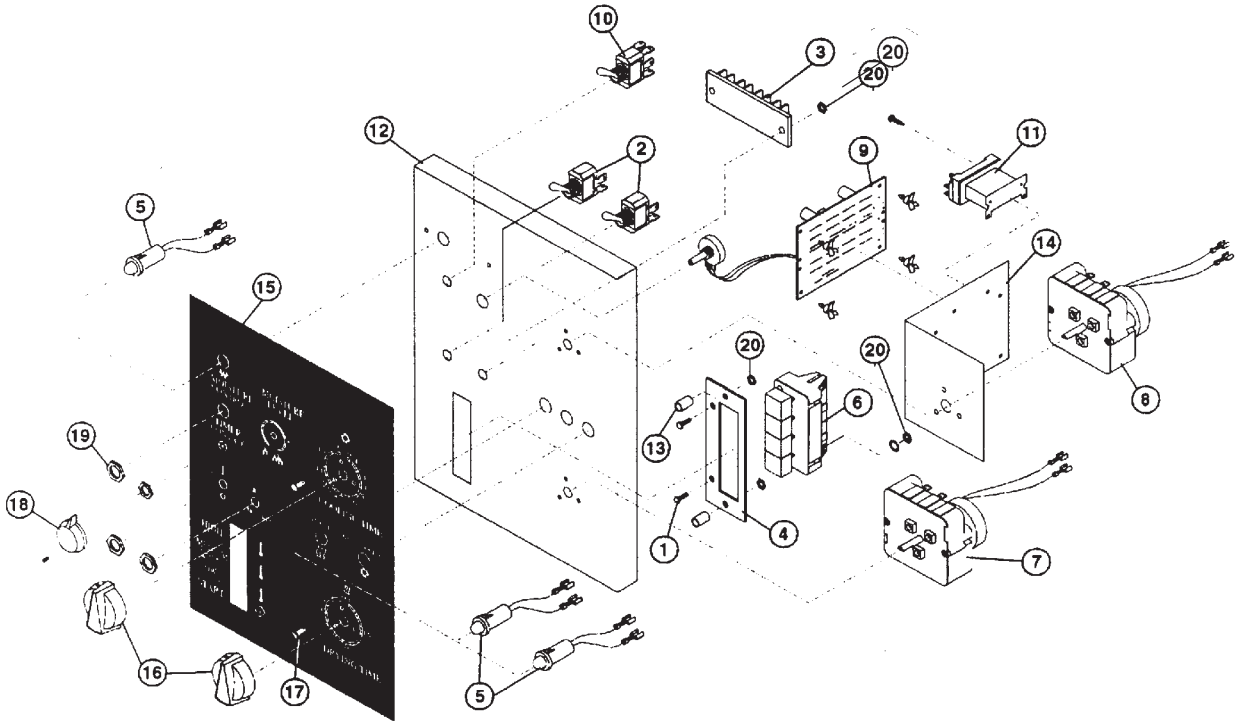


1	TU9374	Reversing Control Box W/A
2	TU13700	Control Panel Plate
3	RC344	1/4” - 20 x 3/4” Hex Head Screw
4	TU7733	#8 - 18 x 1/2” Self Drill Screw (Pkg 6)
5	TU13480	Transformer, 240V/24V
	TU13514	Transformer, 460V/24V
	TU13642	Transformer, 575V/24V
	TU13643	Transformer, 380-415V/24V
6	TU13516	Contactor, 24V
7	TU13526	Contactor Assembly, 24V
8	TU2793	#8 - 18 x 3/4” Self Drill Screw (Pkg 6)
9	TU13554	Overload, Adj. (1.0 - 1.6 A)
10	TU13703	Reset Button Kit
11	TU12874	Timer, Solid State Reversing
12	TU6834	Box Cover Plate
13	F540	#6 x 5/8” Phillips Head Screw

Control Panel and Access Door—Double Timer Model

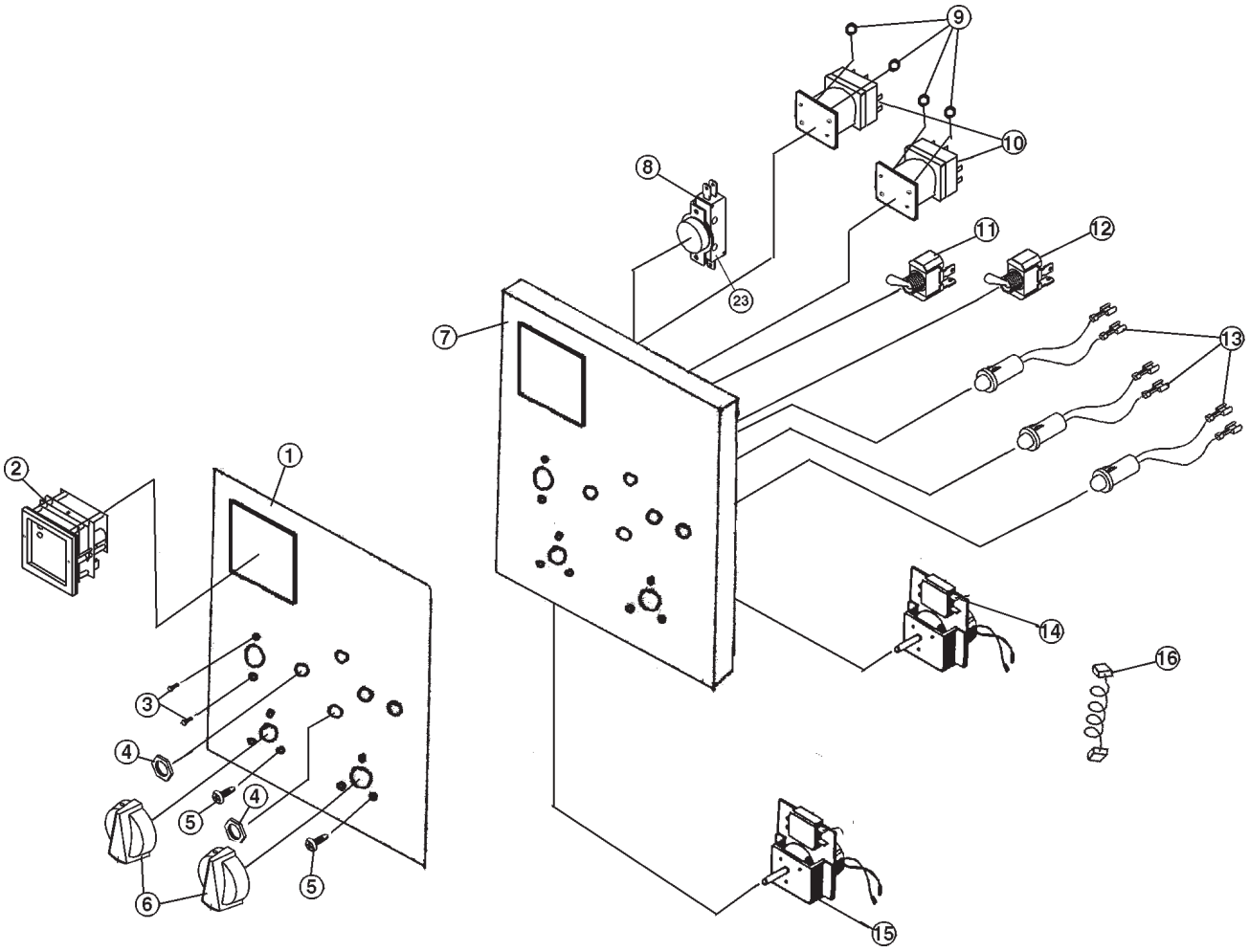


1	TU13940	Access Door W/A (Specify Color)	14	M271	#8 Int. Tooth Lockwasher
2	CG104	Nameplate	15	TU9524	#6 x 5/16” Screw
3	TU3400	Nut	16	TU2555	Timer Knob
4	TU4822	Lock #3186	17	TU3479	10 - 32 x 7/16” Truss Head Screw
5	TU2844	Key JWC2	18	P104	1/4” Cut Washer
6	TU11510	Push Button Switch	19	TU2842	#10 - 32 Hex Nut
7	TUT191A	Push Button Switch Plate	20	TU7983	Upper Front Trim
8	TU13942	Spacer	21	TU13814	Control Panel Nameplate (N/Rev.)
9	TU12933	Timer, 24V, 0-60 Seconds		TU13816	Control Panel Nameplate (Rev.)
10	TU12932	Timer, 24V, 0-15 Seconds	22	TU8629	Terminal Board
11	FG147	Toggle Switch	23	TUT316	Pilot Light - 24V
12	TU1771	Twin Nut	24	FB187	#10 Lockwasher
13	TU13856	Control Panel Plate Asm.	25	SV136	#6-32 x 15/16” Truss Head Screw

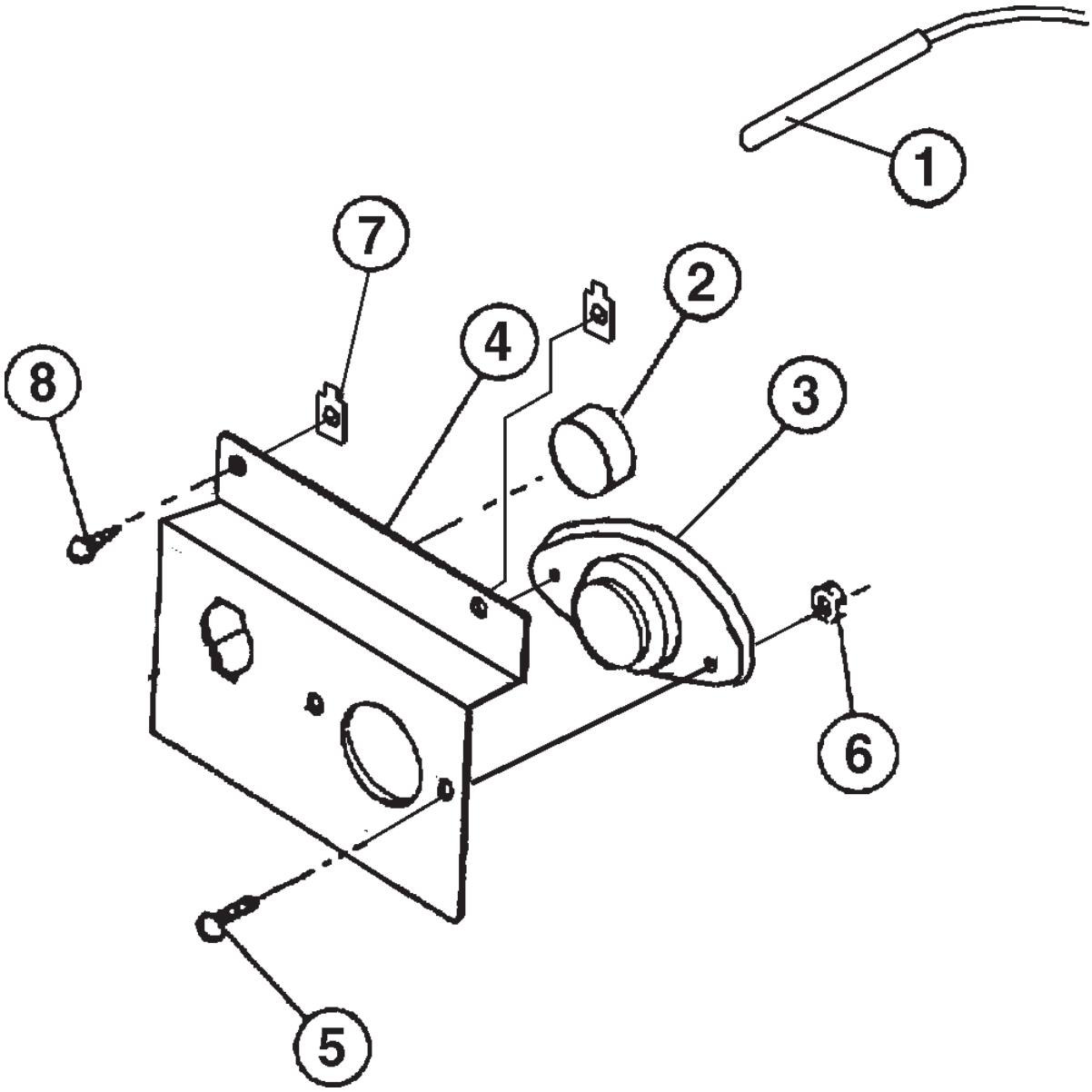


1	SV136	#6 - 32 x 15/16” Machine Screw
2	FG147	Toggle Switch
3	FG325	Terminal Block
4	TUT191A	Push Button Switch Plate
5	TUT316	24V LED Light
6	TU11510	Push Button Switch
7	TU12932	Timer, 0-60 Min.
8	TU12933	Timer, 0-15 Min.
9	TU13229	24V Humidity Based Controller
10	TU13345	Switch
11	TU13646	Relay
12	TU13856	Control Panel
13	TU13942	Spacer
14	TU13961	Mounting Bracket
15	TU13964	Nameplate (N/R)
	TU13965	Nameplate (Rev.)
16	TU2555	Timer Knob
17	TU7733	#8 - 18 x 1/2” Self-Drill Screw (Pkg of 6)
18	PT118	Knob
19	TU3805	15/32” Hex Lock Nut
20	TU3400	#6 - 32 Hex Nut (Pkg of 6)
21	M271	#8 Int. Tooth Lockwasher (Pkg of 6)

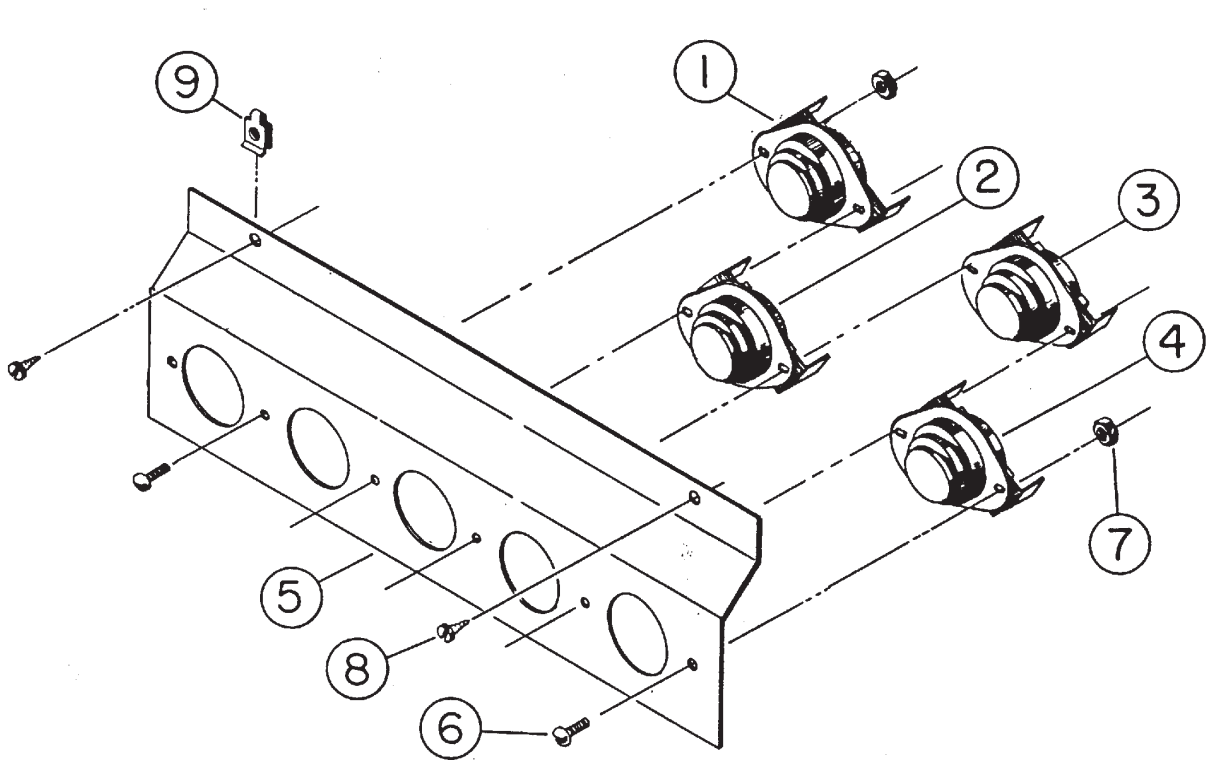
TU13635 - Non-Reversing
TU13800 - Reversing



1	TU13732	Nameplate, Modulating Valve
2	TU13505	Modulating Valve Controller
3	ET208	#6 - 32 x 1/4” Screw - 2 each
4	TU3805	15/32” Hex Lock Nut - 2 each
5	TU7733	#8 Self-Drill Screw - 6 each
6	TU2555	Timer Knob - 2 each
7	TU13403	Mod. Valve Mounting Plate
8	TU9028	Push Button Switch
9	TU3400	#6 - 32 Hex Nut - 4 each
10	TU13646	24V Relay - 2 each
11	FG147	5 PST Toggle Switch
12	TU13345	DPDT Toggle Switch
13	TUT313	LED Light - 3 each
14	TU12933	15 min. Cooling Timer
15	TU12932	60 min. Heating Timer
16	TU13737	Modulating Valve Cable

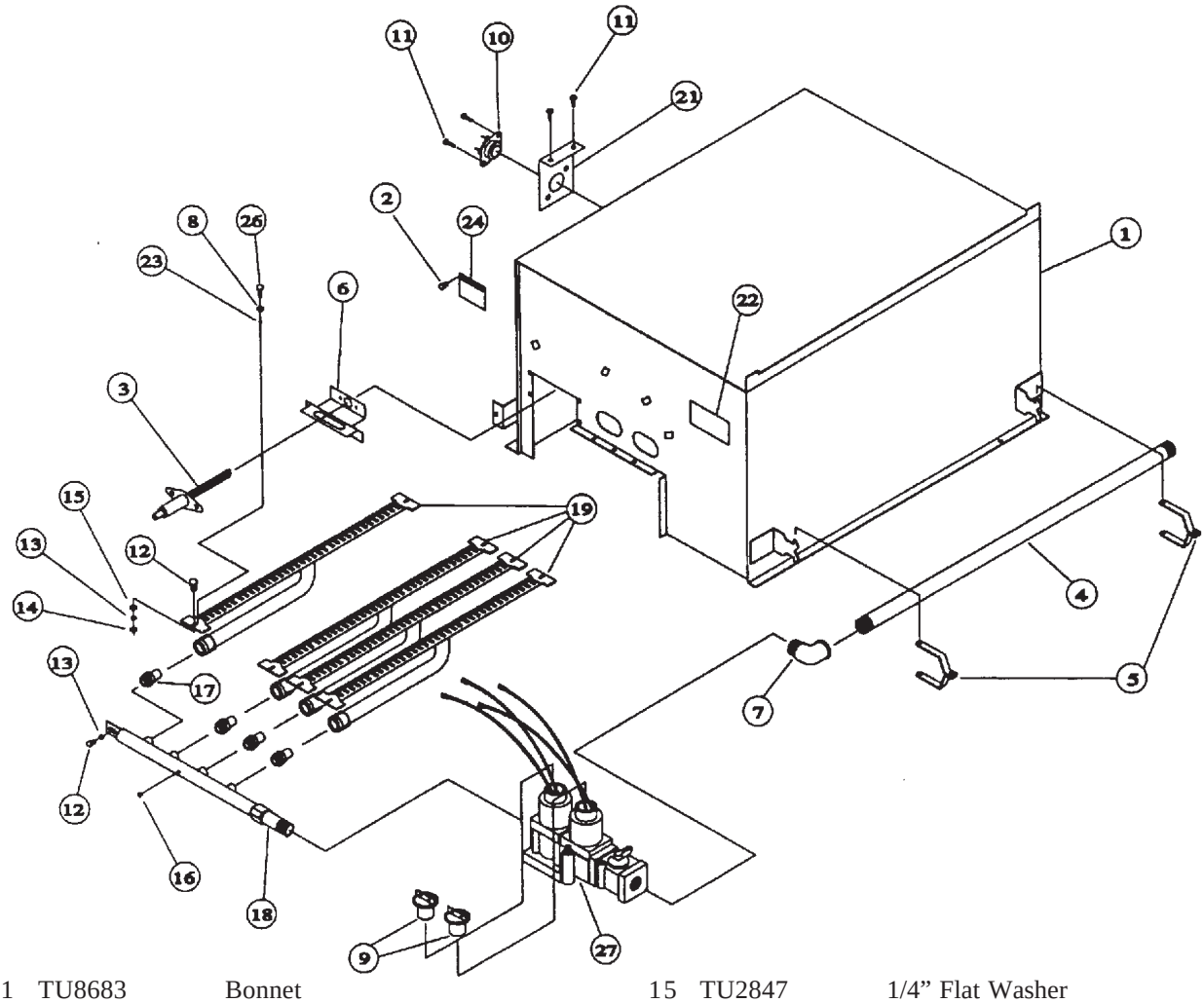


1	TU13357	Modulating Valve Thermistor
2	TU13705	3/16” Rubber Grommet
3	TU13738	205° High Limit Thermostat
4	TU13696	Thermistor Mounting Bracket
5	TU3624	#6 - 32 x 1/4” Round Head Screw - 2 each
6	TU3400	#6 - 32 Hex Nut - 2 each
7	TU6067	Tinnerman Clip - 2 each
8	TU2878	#10 x 5/8” Sheet Metal Screw - 2 each



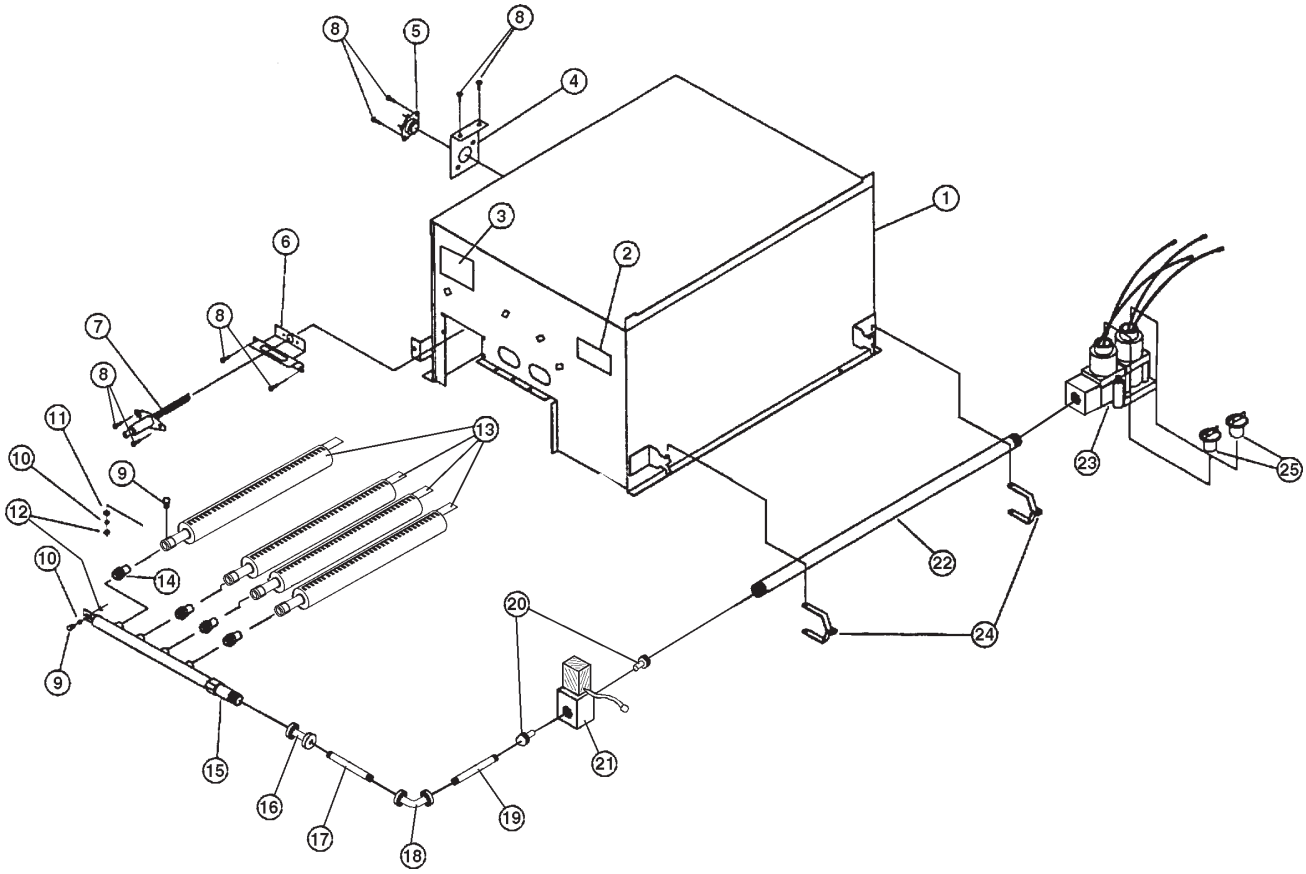
1	TU3240	Safety High Limit Thermostat
2	TU3240	185°F Thermostat
3	TU5150	150°F Thermostat
4	TU7244	135°F Thermostat
5	TU5143	Mounting Bracket
6	TU3624	#6-32 x 1/4” Round Head Screw (6 each)
7	TU3400	#6-32 Hex Nut
8	TU7733	#8 x 1/2” Self Drill Screw
9	TU6067	#8 Speed Clip (2 each)

GAS BONNET - TU13676 (Natural Gas)
GAS BONNET - TU13717 (LP Gas)



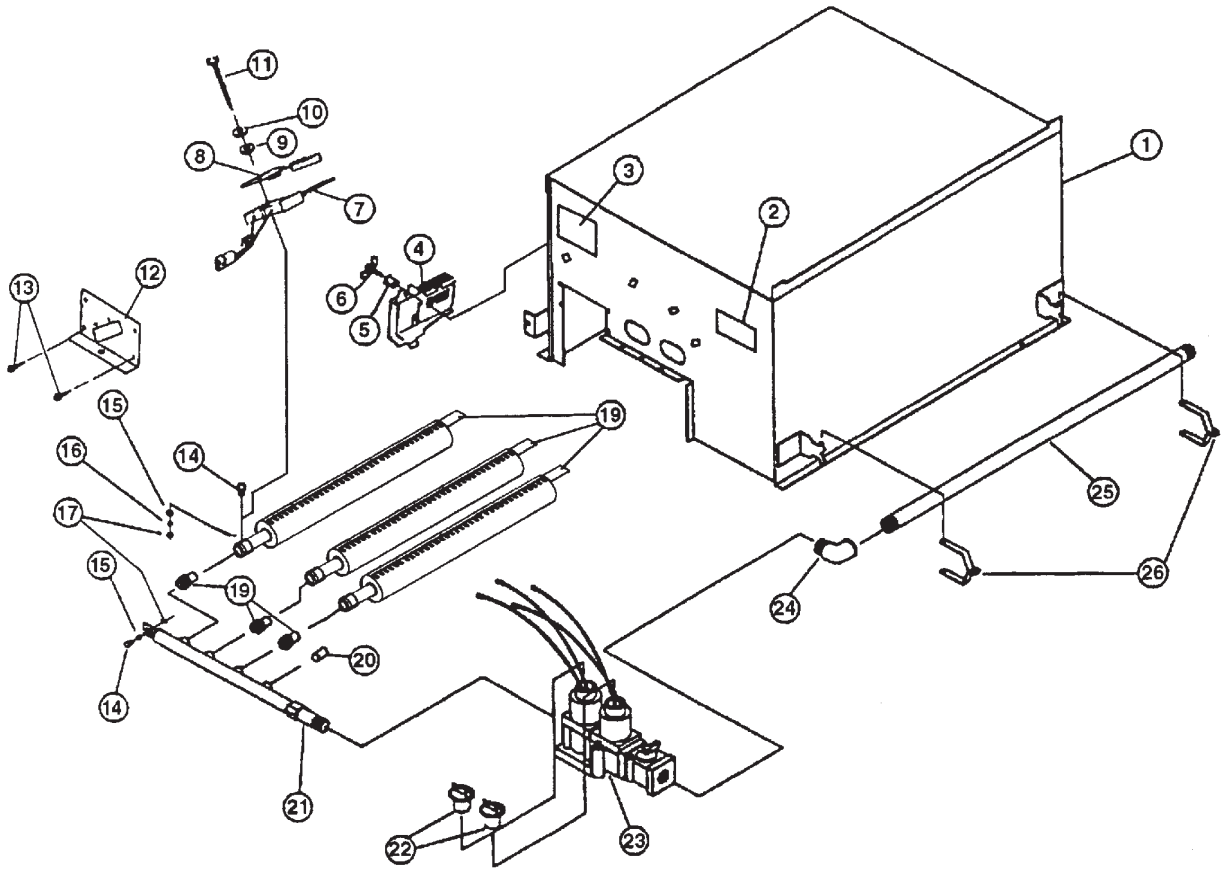
1	TU8683	Bonnet	15	TU2847	1/4” Flat Washer
2	TU7733	#8 - 18 x 1/2” Self Drill Screw (Pkg. of 6)	16	TU2224	1/8” Pipe Plug
			17	TU3539	Gas Burner Orifice (Specify Size)
3	TU13628	Electrode Spark Igniter			
4	TU13212	1/2” Pipe Nipple 24”	18	TU8288	Manifold Assembly
5	TU2226	Manifold Mounting Bracket	19	TU7840	Burner
6	TU13826	Electrode Spark Mounting Bracket	21	TU13695	Bonnet Thermostat Bracket
			22	-----	Gas Rating Plate
7	OP291	1/2” Elbow (Street)	23	P104	1/4” Cut Washer Brass
8	M271	Lockwasher	24	TU8645	Installation Instructions
9	C1365	Connector T & B	26	TU3416	#8 x 1-1/4” Sheet Metal Scr.
10	TU13678	Thermostat, Man. Reset 300°	27	TU13523	1/2” Combination Gas Valve (Natural Gas)
11	TU7733	#8 Self Drill Scr. (Pkg. of 6)			
12	CB36	1/2” - 20 x 1/2” Hex Head Screw		TU13513	1/2” Combination Gas Valve (LP Gas)
13	TU2846	1/4” Split Lockwasher			
14	TU4934	1/4” - 20 Hex Nut			

GAS BONNET - TU13644 (Natural Gas)
GAS BONNET - TU13840 (LP Gas)

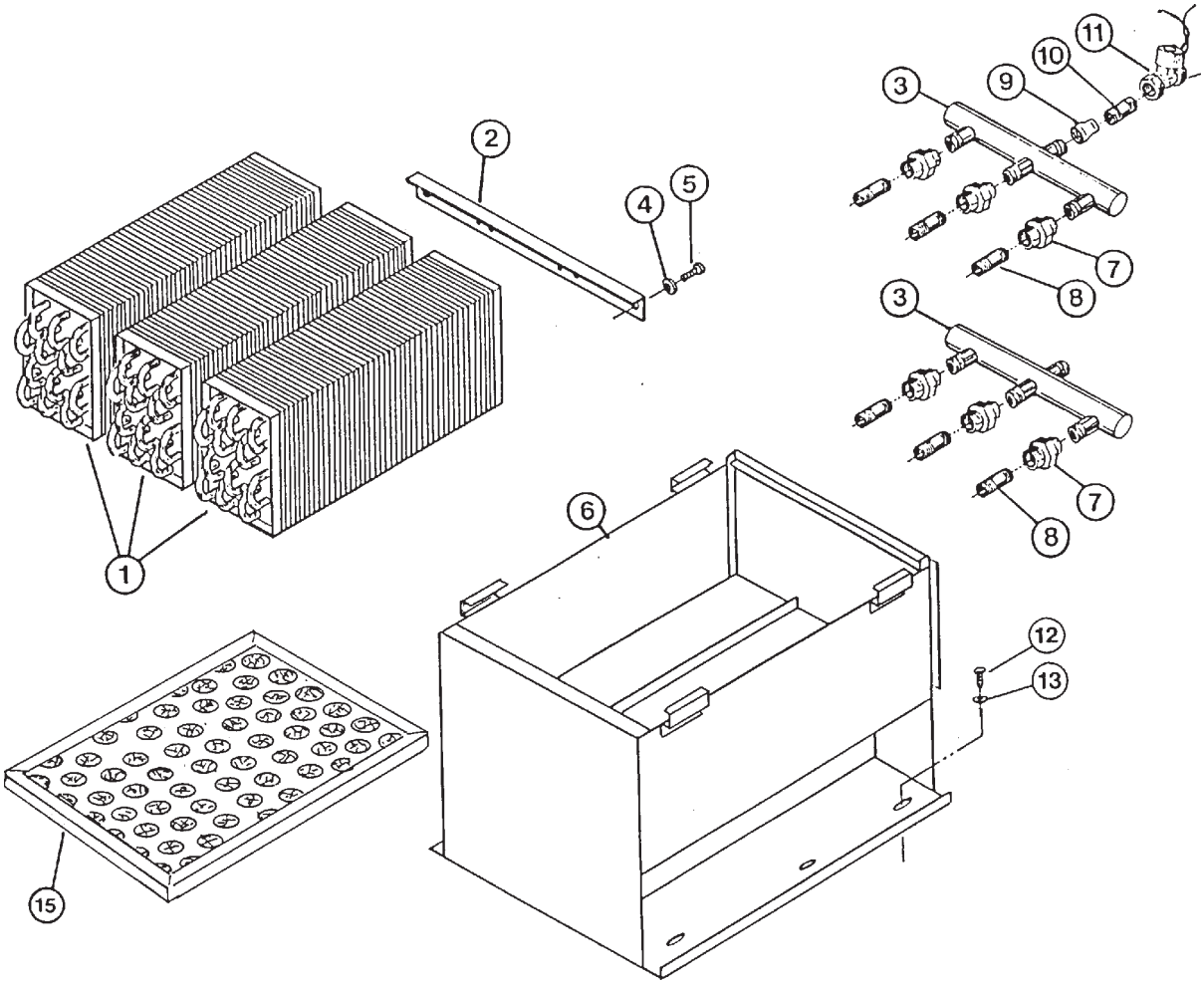


1	TU13709	Bonnet
2	TU8645	Label, Installation Instr.
3	TU13914	Label, Ignition Instructions
4	TU13695	Bonnet Thermostat Bracket
5	TU13678	Thermostat, Man. Reset 300°
6	TU13647	Electrode Spark Mounting Bracket
7	TU13628	Electrode Spark Igniter
8	TU7733	#8 Self-Drill Screw (Pkg. of 6) - 8 each
9	CB36	1/2” - 20 x 1/2” Hex Head Screw - 5 each
10	TU2846	1/4” Split Lockwasher - 5 each
11	TU2847	1/4” Flat Washer - 4 each
12	TU4934	1/4” - 20 Hex Nut - 5 each
13	TU13502	SR Burner - 4 each
14	TU3539	Gas Burner Orifice (Specify Size) - 4 each
15	TU8288	Manifold Assembly
16	SC505	1/2” Pipe Coupling
17	TU4651	1/2” Pipe Nipple 6”
18	390501053	1/2” Elbow - 90°
19	TU13211	1/2” Pipe Nipple 5-1/2”
20	OP267	3/4” x 1/2” Steel Bushing - 2 each
21	TU13506	24V Modulating Valve
22	TU13821	1/2” Pipe Nipple 19”
23	TU13513	1/2” Combustion Gas Valve (LP Gas)
	TU13523	1/2” Combustion Gas Valve (Natural Gas)
24	TU2226	Manifold Mounting Bracket - 2 each

GAS BONNET - TU13501 (Natural Gas)
GAS BONNET - TU13586 (LP Gas)



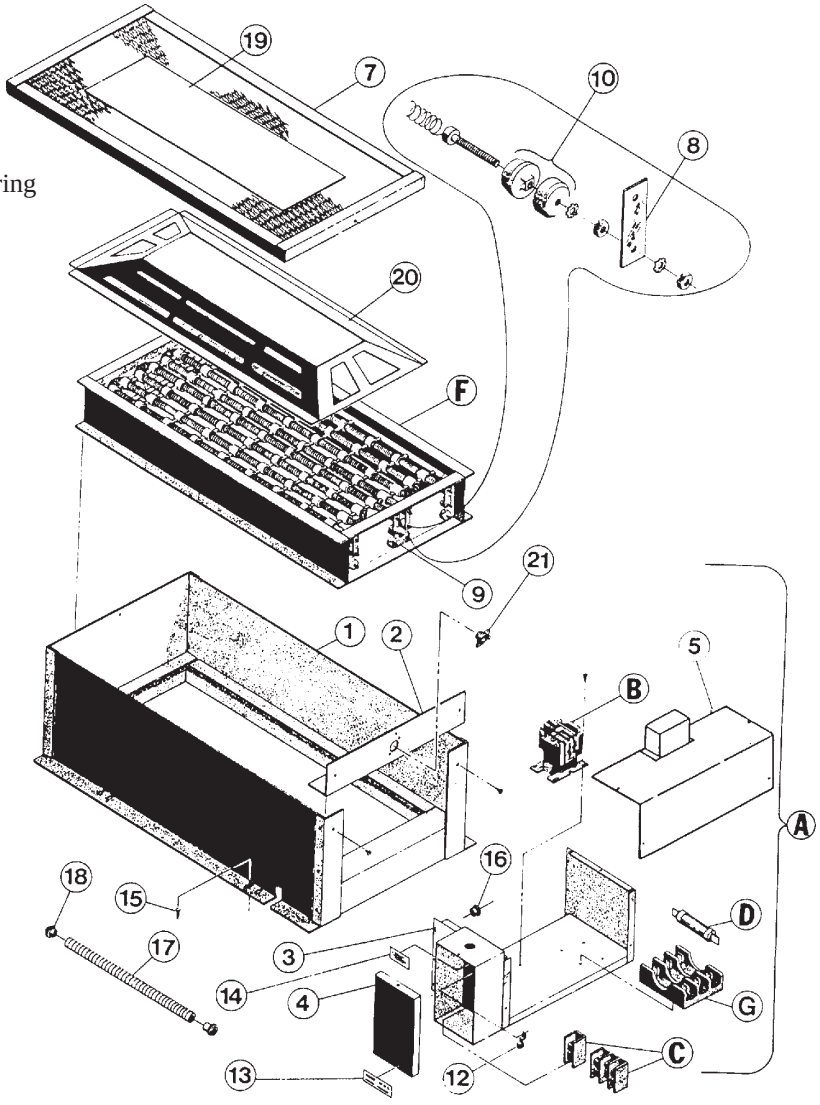
1	TU13500	Bonnet	16	TU2846	1/4” Split Lockwasher - 4 each
2	TU8645	Label, Installation Instr.	17	TU4934	1/4” - 20 Hex Nut - 4 each
3	TU8613	Label, Ignition Instructions	18	TU13502	SR Burner - 3 each
4	TU8598	Radiant Sensor	19	TU3539	Gas Burner Orifice (Specify Size)
5	TU10286	Spacer			
6	TU10292	Wing Nut	20	TU10946	Orifice Plug
7	TU8596	Norton Igniter	21	TU8288	Manifold Assembly
8	TU9540	Heat Shield	22	C1365	Connector T & B - 2 each
9	P104	1/4” Cut Washer	23	TU13187	1/2” Combination Gas Valve (Natural Gas)
10	M271	Brass Lockwasher		TU13373	1/2” Combustion Gas Valve (LP Gas)
11	TU3416	#8 x 1-1/4” Screw			
12	TU8690	Norton Igniter Plate	24	OP291	1/2” Elbow (Street)
13	TU7733	#8 - 18 x 1/2” Self-Drill Screw - 2 each	25	TU13212	1/2” Pipe Nipple 24”
			26	TU2226	Manifold Mounting Bracket - 2 each
14	CB36	1/2” - 20 x 1/2” Hex Head Screw - 4 each			
15	TU2847	1/4” Flat Washer - 3 each			



TU13690 (24V)

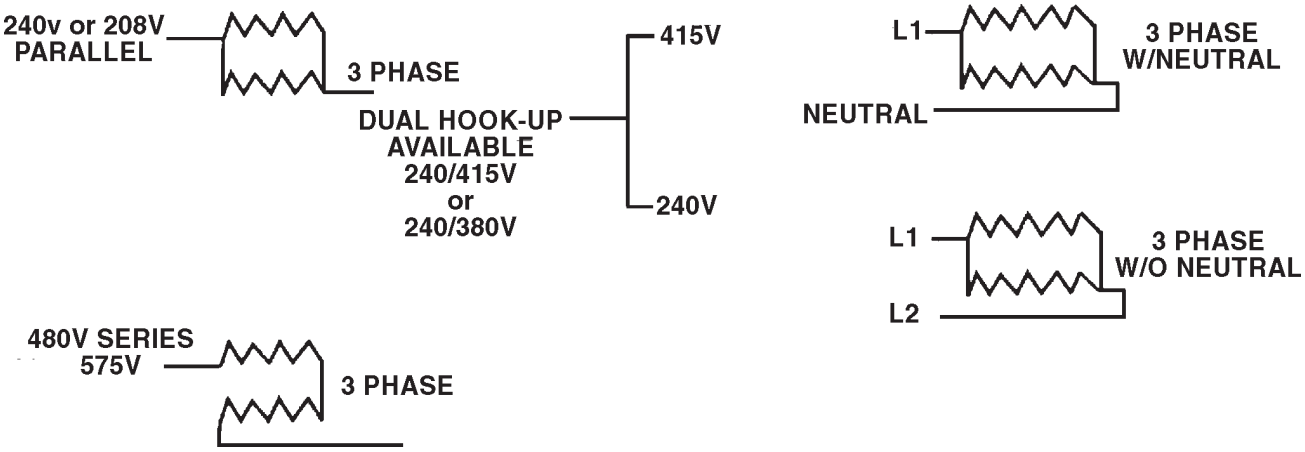
1	TU3172	Steam Coil (6 Coil)
2	TU6683	Coil Holder
3	TU6679	Manifold
4	TU2846	1/4” Lockwasher (Pkg. of 6)
5	CB36	1/4” - 20 x 1/2” Screw
6	TU10929	Bonnet Weldment
7	TU4600	3/4” Union
8	TU4607	Nipple - 3/4” x 2-1/2”
9	TU2735	Reducer - 3/4” x 1”
10	TU4608	Nipple - 3/4” x 2”
11	TU13517	Solenoid Valve (24V, 60Hz.)
12	RC344	1/4” - 20 x 3/4” Screw
13	TU2847	1/4” Cut Washer
15	TU9953	Air Filter (not part of assembly)

1	TU3103	Bonnet Weldment
2	TU3102	Hold Down Plate
3	TU9402	Control Box W/A
4	TU9398	Terminal Box W/A
5	TU12456	Top Cover
7	TU3104	Air Inlet Cover
8	TU3767	Contact Strap (4 each)
9	TU3768	Contact Strap (1 each)
10	TU3253	Insulators (pkg. of 6)
12	TU7738	Grounding Lug
13	TU9254	High Voltage Label (415V Only)
14	TU9258	Grounding Label
15	RC344	1/4” - 20 x 3/4” Screw
16	TU5958	Bushing
17	CFB0750	Cable 7 1/2” Long
18	TU4790	Straight Connector
19	TU10496	Cover
20	TU10411	Air Baffle
21	TU7244	135° Thermostat
A	See next page	Control Box Less Wiring
B	See next page	Contactor
C	See next page	Terminal Block
D	See next page	Fuse
E	See next page	Bonnet W/Elements
F	See next page	Heater Elements
G	See next page	Fuse Holder



	A	B	C	D	E	F	G	H	I
Complete Bonnet Assembly	**Control Box Less Wiring**	**Contactor (24V Coil)**	**Terminal Block**	**Heater Fuse Block**	**Heater Fuses**	**Bonnet with Elements**	**Heater Elements**	**Motor Fuse Block**	**Motor Fuses**
TU13748	TU13773 208V 3PH	TU13520 30/45 AMP 2 required	TU9143	TU11096 2 required	TU7224 40 AMPS 6 required	TU9333 40KW 208V 3PH	HE10610 40KW 208V	TU8201	TU819710 10 AMPS 3 required
TU13749	TU13774 240V 3PH	TU13520 30/45 AMP 2 required	TU9143	TU11096 2 required	TU7224 40 AMPS 6 required	TU9336 40KW 240V 3PH	HE10810 40KW 240V	TU8201	TU819710 10 AMPS 3 required
TU13934	TU13775 200-220V/ 346-380V 3PH	TU13520 30/45 AMP 2 required	TU9143* TU9142**	TU11096 2 required	TU7224 40 AMPS 6 required	TU9336 40KW 240V 3PH	HE10810 40KW 240V	TU8200	TU819908 8 AMPS 3 required
TU13750	TU13775 240/415V 3PH	TU13520 30/45 AMP 2 required	TU9143* TU9142**	TU11096 2 required	TU7224 40 AMPS 6 required	TU9336 40KW 240 or 415V 3PH	HE10810 40KW 240V	TU8200	TU819908 8 AMPS 3 required
TU13751	TU13776 480V 3PH	TU13520 30/45 AMP 1 required	TU9143	TU9141	TU7072 40 AMPS 3 required	TU9336 40KW 480V 3PH	HE10810 40KW, 240V Used for 40KW, 480V	TU8200	TU819908 8 AMPS 3 required
TU14021	TU14020 208V 3PH	TU13521 45/80 AMP 1 required	TU9143	TU11096 1 required	TU7074 60 AMPS 3 required	TU7589 30KW 208V 3PH	HE10810 240V, 40KW Used for 208V 30KW	TU8201	TU819710 10 AMPS 3 required
TU14174	TU14173 575V 3PH	TU13520 30/45 AMP 1 required	TU8745	TU9141	TU7071 35 AMPS 3 required	TU14172 40KW 575V 3PH	HE11160 287V, 40KW Used for 575V 40KW	TU8200	TU819908 8 AMPS 3 required

*** 3 Pole**
**** 1 Pole (Neutral)**



WIRE SIZE OF POWER SUPPLY FOR ELECTRIC HEATING CIRCUIT
Double Motor Model

Rated Heater Input	Total Connected Amperes at Rated Voltage	HZ.	Minimum Size Power Wire*	Minimum Conduit Trade Size	Branch Circuit Maximum Fuse Size
40KW @ 208V/3Ph**	121.7 Amps	60	1 AWG	1 1/2”	125
40KW @ 208V/3Ph	116.5 Amps	60	1 AWG	1 1/2”	125
40KW @ 240V/3Ph**	106.7 Amps	60	2 AWG	1 1/4”	110
40KW @ 240V/3Ph	101.5 Amps	60	2 AWG	1 1/4”	110
40KW @ 480V/3Ph	52.7 Amps	60	6 AWG	1”	60
40KW @ 240V-415V/3Ph	102/59 Amps	60	2/6 AWG	1 1/4” / 1 1/4”	110/60
40KW @ 575V 3Ph	45.7 Amps	60	6 AWG	1 1/4”	50
30KW @ 240V/1Ph	133 Amps	60	0 AWG	1 1/2”	150

WIRE SIZE OF POWER SUPPLY FOR ELECTRIC HEATING CIRCUIT
Single Motor Model

Rated Heater Input	Total Connected Amperes at Rated Voltage	HZ.	Minimum Size Power Wire*	Minimum Conduit Trade Size	Branch Circuit Maximum Fuse Size
40KW @ 208V/3Ph**	121.7 Amps	60	1 AWG	1 1/2”	125
40KW @ 208V/3Ph	116.5 Amps	60	1 AWG	1 1/2”	125
40KW @ 240V/3Ph**	106.7 Amps	60	2 AWG	1 1/4”	110
40KW @ 240V/3Ph	101.5 Amps	60	2 AWG	1 1/4”	110
40KW @ 480V/3Ph	52.7 Amps	60	6 AWG	1”	60
40KW @ 240V-415V/3Ph	102/59 Amps	60	2/6 AWG	1 1/4” / 1 1/4”	110/60
40KW @ 575V 3Ph	45.7 Amps	60	6 AWG	1 1/4”	50
30KW @ 240V/1Ph	133 Amps	60	0 AWG	1 1/2”	150

CAUTION: THIS MACHINE HAS ONE POWER SUPPLY CONNECTION POINT. ***Disconnect power before servicing dryer.***

*** Based on:**

1. 75°C Copper Conductors
2. Ampacity of first Breaker/Disconnect/Fused Disconnect of not more than 125% of the connected load.
3. Wiring length from Breaker/Fused Disconnect/Disconnect less than 100 LF.

**** Single Phase Motor**

Table for Ordering Overload Heaters for Overload Relays

ORDERING OVERLOAD HEATERS FOR OVERLOAD RELAYS

Properly sized Overload Heaters provide motor protection to the dryer. Improper heater size may allow the motor to be damaged, or could cause nuisance tripping.

Heater sizes are listed on the Overload Heater Table on page 63. To use the table, refer to the Motor Rating Plate and locate the Full Load Amps (FLA), the Service Factor (SF), and the Ambient Temperature (Amb.).

Example

Motor Rating Plate shows FLA = 3.8, SF = 1.15, and 60 Deg. C Amb.

From the table, heater size is H-25. Order part number **"TU267900—H25"**.

CAUTION

Overload Relays do not provide protection from short circuits. Short circuit protection is provided by a device such as a breaker or wall disconnect.

Overload Heater Table

Motor Full Load Amps (FLA)

Heater Size	SF = 1.00		SF = 1.15		SF GREATER Than 1.15
	40 Deg. C Amb.	60 Deg. C Amb. or more	40 Deg. C Amb.	60 Deg. C Amb. or more	40 Deg. C Amb. or More
H-6	.69 - .76	.55 - .60	.62 - .68	.50 - .54	.69 - .74 .75 - .83
H-7	.77 - .82	.61 - .66	.69 - .74	.55 - .59	.84 - .93
H-8	.83 - .92	.67 - .74	.75 - .83	.60 - .66	.94 - 1.02
H-9	.93 - 1.03	.75 - .83	.84 - .93	.67 - .74	1.03 - 1.16
H-10	1.03 - 1.13	.84 - .91	.94 - 1.02	.75 - .81	1.17 - 1.31
H-11	1.14 - 1.29	.92 - 1.03	1.03 - 1.16	.82 - .93	1.32 - 1.45
H-12	1.30 - 1.46	1.04 - 1.16	1.17 - 1.31	.94 - 1.05	1.46 - 1.63
H-13	1.47 - 1.61	1.17 - 1.29	1.32 - 1.45	1.06 - 1.16	1.64 - 1.80
H-14	1.62 - 1.81	1.30 - 1.45	1.46 - 1.63	1.17 - 1.30	1.81 - 1.96
H-15	1.82 - 2.00	1.46 - 1.60	1.64 - 1.80	1.31 - 1.44	1.97 - 2.22
H-16	2.01 - 2.18	1.61 - 1.74	1.81 - 1.96	1.45 - 1.57	2.23 - 2.43
H-17	2.19 - 2.47	1.75 - 1.97	1.97 - 2.22	1.58 - 1.77	2.44 - 2.55
H-18	2.48 - 2.70	1.98 - 2.16	2.23 - 2.43	1.78 - 1.94	2.56 - 2.81
H-19	2.71 - 2.83	2.17 - 2.27	2.44 - 2.55	1.95 - 2.04	2.82 - 2.99
H-20	2.84 - 3.12	2.28 - 2.50	2.56 - 2.81	2.05 - 2.25	3.00 - 3.43
H-21	3.13 - 3.32	2.51 - 2.66	2.82 - 2.99	2.26 - 2.39	3.44 - 3.90
H-22	3.33 - 3.81	2.67 - 3.05	3.00 - 3.43	2.40 - 2.74	3.91 - 4.28
H-23	3.82 - 4.33	3.06 - 3.49	3.44 - 3.90	2.75 - 3.12	4.29 - 4.86
H-24	4.34 - 4.76	3.48 - 3.80	3.91 - 4.28	3.13 - 3.42	4.87 - 5.45
H-25	4.77 - 5.40	3.81 - 4.32	4.29 - 4.86	3.43 - 3.89	5.46 - 6.13
H-26	5.41 - 6.06	4.33 - 4.84	4.87 - 5.45	3.90 - 4.36	6.14 - 6.79
H-27	6.07 - 6.81	4.85 - 5.45	5.46 - 6.13	4.37 - 4.90	6.80 - 7.72
H-28	6.82 - 7.55	5.46 - 6.03	6.14 - 6.79	4.91 - 5.43	7.73 - 8.48
H-29	7.56 - 8.58	6.04 - 6.86	6.80 - 7.72	5.44 - 6.17	8.49 - 9.65
H-30	8.59 - 9.42	6.87 - 7.54	7.73 - 8.48	6.18 - 6.78	9.66 - 10.70
H-31	9.43 - 10.72	7.55 - 8.58	8.49 - 9.65	6.79 - 7.72	10.80 - 12.30
H-32	10.72 - 11.99	8.59 - 9.59	9.66 - 10.70	7.73 - 8.63	