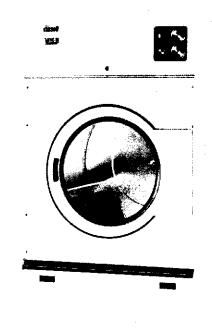


OWNER'S MANUAL 50 lb. WMC LAUNDRY DRYER

With manual double timer control system

Technical specifications
Installation instructions
Operating instructions
Maintenance



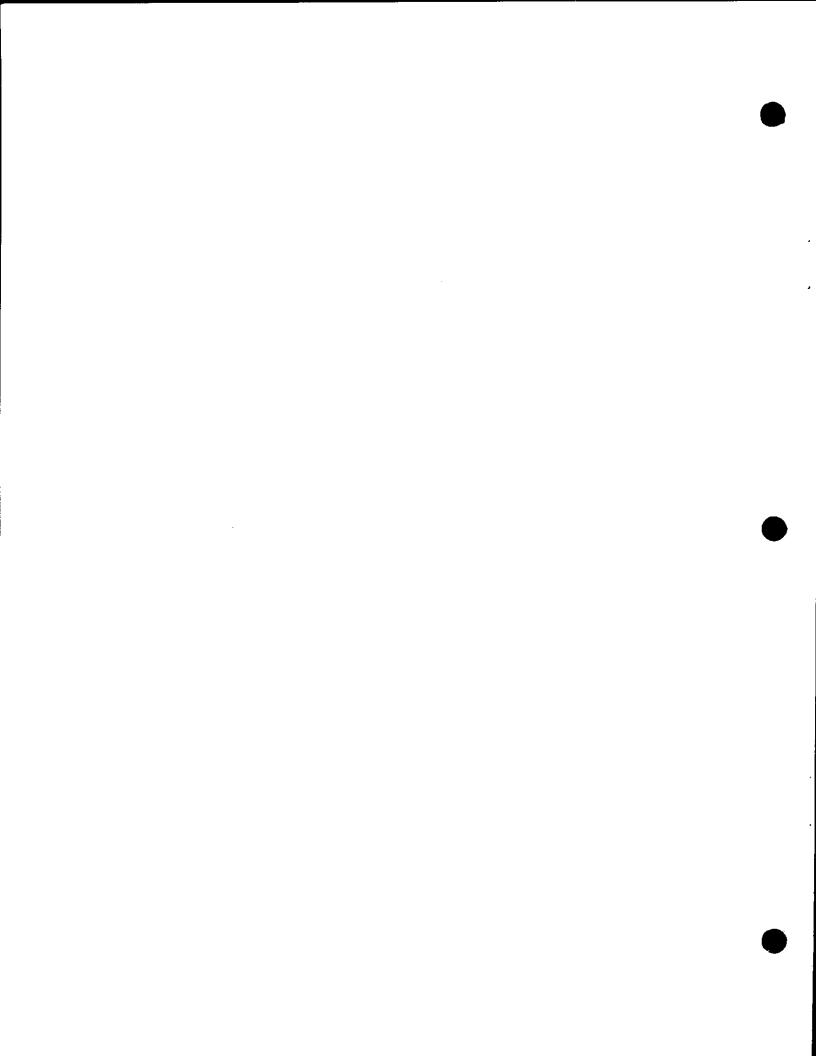


Cissell Manufacturing Co.

831 So. First St. - P.O.B. 32270 - Louisville, Ky. - 40232-2270 Tel: (502) 587-1292 - Fax: (502) 585-2333 -

Sales Fax: (502) 585-3625 - Service/Parts Fax: (502) 681-1275

D0651



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..

CISSELL DRYER WARRANTY

The Cissell Manufacturing Company (Cissell) 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 non-durable 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 Cissell equipment for which the two (2) year warranty period has expired, or for all new repair or replacement parts for equipment other than Cissell equipment, the warranty period is limited to ninety (90) days from date of sale. The warranty period on each new replacement part furnished by Cissell 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 Cissell, the warranty is limited to that provided by the respective manufacturer.

Cissell's total liability arising out of the manufacture and sale of new equipment and parts, whether under the warranty or caused by Cissell's negligence or otherwise, shall be limited to Cissell repairing or replacing, at its option, any defective equipment or part returned f.o.b. Cissell's factory, transportation prepaid, within the applicable warranty period and found by Cissell to have been defective, and in no event shall Cissell 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 Cissell 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 Cissell 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 Cissell; operated or repaired with other than genuine Cissell replacement parts; damaged by fire, flood, vandalism, or such other causes beyond the control of Cissell; 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 Cissell for repair or replacement without prior written authorization from Cissell. Charges for unauthorized repairs will not be accepted or paid by Cissell.

CISSELL 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. CISSELL 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 Cissell equipment or part was purchased. If the Distributor cannot be reached, contact Cissell.

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.



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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	Descr	ription	Symbol
	NOTE!	Rotation in two directions Rotation dans les deux sens Drehbewigung in zwei Richtungen	
NEE SEE	Hot! Do Not Touch Heiß! Nicht Beruhren Haute temperature! Ne pas toucher Caliente! no tocar	Movimiento rotativo en los dos sentidos Direction of rotation Sens de mouvement continu De rotation Drehbewegung in Pfeilrichtung movimiento	
4	dangerous voltage tension dangereuse Gefährliche elektrische Spannung tension peligrosa	Giratorio o rotatorio en el sentido de la flecha End of Cycle	
	On Marche Ein Conectado	Caution Attention	$\overline{\wedge}$
	Off Arrêt Aus Desconectado	Achtung Atencion; precaucion	<u> </u>
	Start Demarrage Start Arranque de un movimiento		
<u> </u>	Emission of heat in general Emission de chaleur en general Warmeabgabe allgemein Emisión de calor		
***	Cooling Refroidissement Kühlen Enfriamiento		

Unpacking/General Installation (All Dryers)

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.

GENERAL INSTALLATION (ALL DRYERS)

The construction of Cissell dryers permits installation sideby-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 combustable material is 0" ceiling clearance, 0" rear clearance, and 0" side clearance.

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.

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 curculation. 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.

GENERAL INFORMATION

The Cissell Dryer is so designed that when an operator opens the dryer door, the basket and exhaust fan stop. You can expect fast drying from a Cissell Laundry Dryer. Hot, dry air is properly and effectively moved through the basket and exhausted through a lint trap to the atmosphere. The Cissell Dryer comes equipped with an inclined self-cleaning lint screen. In this system, lint accumulates on the underside of the screen until a 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.

B

IMPORTANT

Provide adequate clearance for air openings into the combustion chamber.

CISSELL "COOL-DOWN" CYCLE

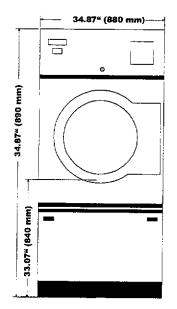
Permanent press, durable press and other modern day fabrics require the care that your Cissell Laundry Dryers now provide. At the end of the drying cycle, a timed "Cool-Down" control automatically takes over and continues the rotation of the fan and basket without heat until the garment load reaches a safe cool temperature. This function is performed at the end of each drying cycle and continues for two minutes.

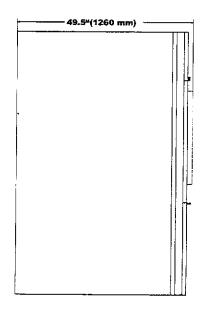
REPLACEMENT PARTS

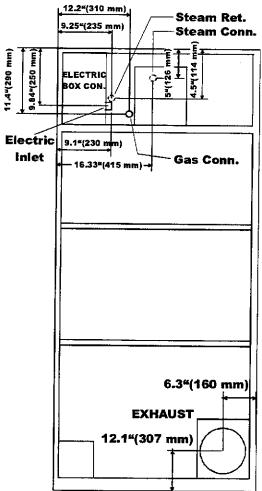
Replacement parts for this dryer are available from your distributor or by contracting the factory at the address or phone number printed on the cover page of this manual.

ONLY CISSELL PARTS SHOULD BE USED.

er Dimensions ·	Standard Go	is, Steam and	Electric He
Specifications	U.S. Measure	Metric Measure	
Capacity (Dry Linen)	50 lbs.	22.7 kg	
Basket			
Diameter	33 inches	840 mm	
Depth	32 inches	815 mm	
Volume	15.8 ft ³	.450 m³	
Cabinet			
Height	75.25 inches	1910 mm	
Width	34.87 inches	890 mm	
Depth	50.39 inches	1280 mm	
Door Opening	J J J J J J J J J J J J J J J J J J J		
Diameter	22.62 inches	575 mm	
Loading height	31.5 inches	800 mm	
Temperature	31.5 menes	000 11111	
Minimum	100° F	38° C	
Maximum	185° F	85° C	
	185 1	85 C	
Motor	1/2 11 D	0.37 kW	
Non-reversing	1/2 H.P.	0.37 kW	
Reversing - Drum	1/2 H.P.	0.37 kW	
Fan	1/3 H.P.	0.25 KW	····
Exhaust			
Flow Rate	700 CFM	1190 m³/h	
Diameter	8 inches	195-200 mm	
Electric Conn E		Non-Reversing	Reversing
208 V	50/60 - 3PH	89 A	90.2 A
240 V	50/60 - 3PH	78 A	79.2 A
380/415 V	50 - 3PH	43 / 47 A	44.1 A /48.1 A
480 V	60 - 3PH	42 A	43.1 A
Electric Conn Ste	am, Gas Dryers	Non-Reversing	Reversing
120/208-240 V	50 / 60 - 1 PH	9 A / 5 A	11.1 A / 5.1 A
208/240 V	50 / 60 - 3 PH	2.2 / 2.0 A	3.3 / 3.0 A
480 V	60 - 3 PH	1.2 A	2.3 A
380/415 V	50 - 3 PH	1.1 A / 1.2 A	2.2 A / 2.3 A
Power			<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>
Electric			
	30 KW	30kW	
Gas	30 KW 125,000 Bm/h	30kW 31,500 kcal/h	
Gas Steam		<u></u> -	
	125,000 Btu/h	31,500 kcal/h	
Steam	125,000 Btu/h	31,500 kcal/h	
Steam Steam	125,000 Btu/h 5.6 B.H.P	31,500 kcal/h 47,800 kcal/h	
Steam Connection Inlet	125,000 Btu/h 5.6 B.H.P 3/4"	31,500 kcal/h 47,800 kcal/h DN20	
Steam Steam connection Inlet Outlet	125,000 Btu/h 5.6 B.H.P 3/4"	31,500 kcal/h 47,800 kcal/h DN20	
Steam Connection Inlet Outlet Gas Connection	125,000 Btu/h 5.6 B.H.P 3/4" 1/2"	31,500 kcal/h 47,800 kcal/h DN20 DN15	
Steam Steam connection Inlet Outlet Gas Connection Gas Connection	125,000 Btu/h 5.6 B.H.P 3/4" 1/2"	31,500 kcal/h 47,800 kcal/h DN20 DN15 DN15	
Steam Steam connection Inlet Outlet Gas Connection Gas Connection Gas Pressure Shipping	125,000 Btu/h 5.6 B.H.P 3/4" 1/2"	31,500 kcal/h 47,800 kcal/h DN20 DN15 DN15	
Steam Steam connection Inlet Outlet Gas Connection Gas Connection Gas Pressure Shipping Dimensions	125,000 Btu/h 5.6 B.H.P 3/4" 1/2" 1/2" 5" - 12" 81.5 X 37 X	31,500 kcal/h 47,800 kcal/h DN20 DN15 DN15 12-30 mb	
Steam Steam connection Inlet Outlet Gas Connection Gas Connection Gas Pressure Shipping Dimensions (H xW x D)	125,000 Btu/h 5.6 B.H.P 3/4" 1/2" 1/2" 5" - 12" 81.5 X 37 X	31,500 kcal/h 47,800 kcal/h DN20 DN15 DN15 12-30 mb	





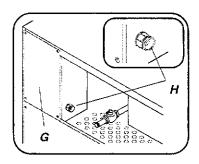


Electric connection

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. In all cases, the grounding method must comply with local electrical code requirements; or in the absence of local codes, with the National Electrical Code as ANSI/NFPA No. 70—Latest Edition.

See wiring diagram furnished with dryer. Do not change wiring without consulting the 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.)

All panels must be in position before operation of dryer.



The connection needs to be made in the wiring box at the back. Remove the coverplate (G) in order to reach the connection clamps.

The connection cable needs to be brought in through the swivel (H) on the side of the wiring box.



It is necessary to *ground* the dryer for your personal safety and to ensure a good operation.

115 and 208-240 V - 1 ph

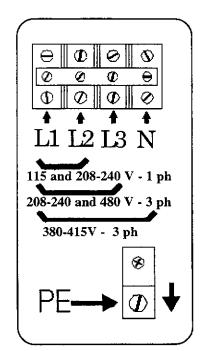
The mains wires (L1) and (L2) should be connected to the 2 left clamps and the yellow/green grounding wire (PE) should be connected to the grounding clamp.

208-240 and 480 V - 3 ph

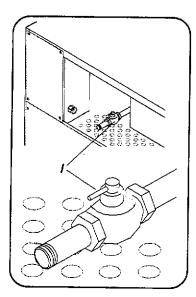
The 3 mains wires (L1), (L2) and (L3) should be connected to the 3 left clamps and the yellow/green grounding wire (PE) should be connected to the grounding clamp.

380-415V - 3 ph

The 3 mains wires (L1), (L2) and (L3) should be connected to the 3 left clamps, the blue neutral (N) should be connected to the right clamp and the yellow/green grounding wire (PE) should be connected to the grounding clamp.



Gas connection



The gas supply pipe should be connected to the gas tap (1), which is on the right next to the wiring box on the back.

It is very important to have the connections done by a qualified technician, in order to make sure that the installation is effected in accordance with the prevailing standards and instructions.

The dryer should be connected to the type of gas, which is indicated on the serial plate.

The use of too small gas pipes can result in unsufficient gas supply, which can lead to a bad heating-up and a poor drying quality.

When the dryer is used in combination with a weighing platform, the gas supply pipe has to be made of flexible material to allow the weighing system to keep moving freely.



Test all clutches and connections for possible leaks by means of a soap solution, but never with a flame.

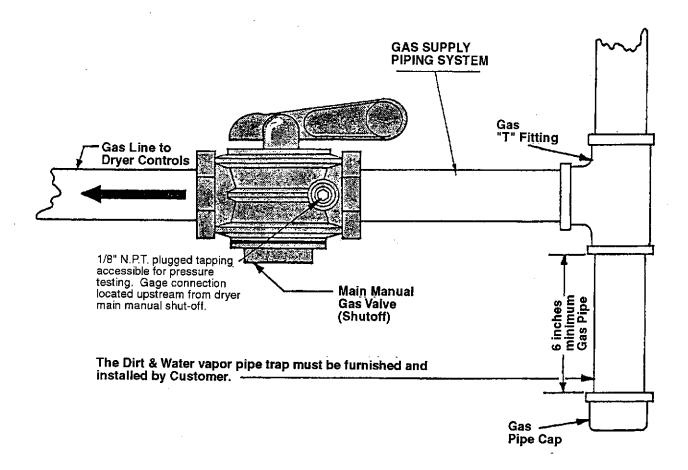
It is important to work with the right gas pressure (see technical remarks) in order to obtain a good ignition, heating and consequently a good operation in general.

After the gas supply has been connected, the gas tap in the dryer should beturned on (clockwise).

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.

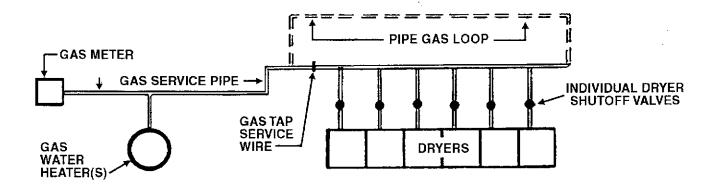
The dryer must be isolated from the gas supply piping system by closing it's individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 PSIG.

GAS SERVICE INSTALLATION INSTRUCTIONS

The size of the gas service pipe is dependant 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!

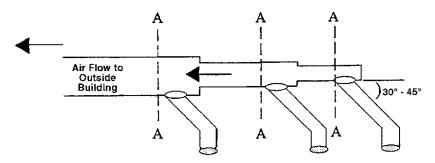
GAS PRESSURE REGULATOR FOR LIQUIFIED PETROLEUM GASES A Gas Pressure Regulator for Liquified Petroleum Gases is not furnished on Cissell Gas Heated Clothes Dryers. This regulator is normally furnished by the installer. In accordance with American Gas Association (AGA) standards, a gas pressure regulator, 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	TOTAL KCAL	GAS PIPE SIZE FOR 1000 BTU (250 KCAL) NATURAL GAS AT 7" (17.8 CM) W.C. PRESSURE								
multiplying by .6)	HOUR	In figuring total length of pipe, make allowance for tees and elbown (25 ft.) (50 ft.) (75 ft.) (100 ft.) (125 ft.) (150								
		7,62 m	15,24 m	22,86 m	30,48 m	38,1 m	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	11	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				
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			
4,000,000	1000000	3	3 1/2	3 1/2	4	4	4			

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

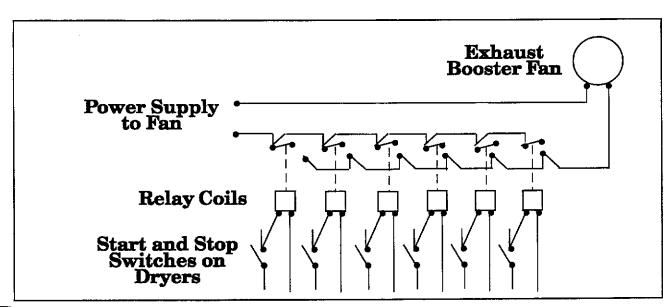


DRYER EXHAUSTS

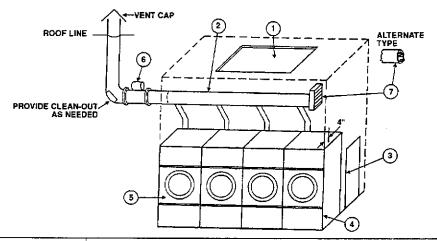
Area of section "A-A" must be equal to the sum of dryer exhaust pipes entering multiple exhaust pipe. (See chart below.)

No. of Dryers
Duct Diameter
(in inches)
(in CM)

1	WN	IC5	0																					
ſ	İ	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	8	12	14	16	18	20	22	23	24	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
ı	20	30	25	41	46	51	56	58	61	66	68	71	73	76	78	81	84	86	89	91	94	97	99	100



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.)

- 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.

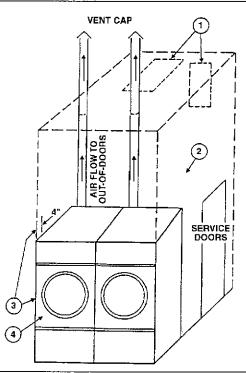
CAUTION: Never install hot water heaters or other gas appliances in the same room as dryers. Never install cooling exhaust fans in the same room as dryers.

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.

- 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).



Exhaust and Venting

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 m²) 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 m²)opening for make-up air.

2. Use barometric shutters in the inlet air opening to control air when dryers are not running.

OTHER RECOMMENDATIONS

TROUBLESHOOTING

Other Recommendations

To assure compliance, consult local building code requirements.

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. <u>Fire and explosion</u> 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.
- 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 shut-down 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.
- 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 light-weight 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.



Direct-Spark Ignition Operation

DIRECT SPARK IGNITION OPERATION

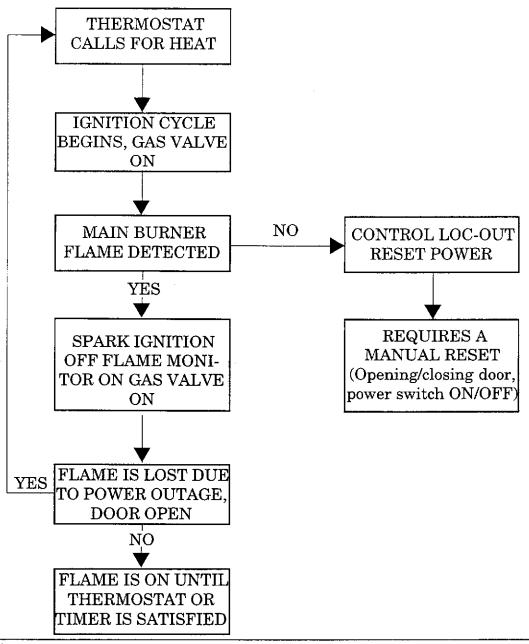
NOTE: All WMC dryer manufactured by Cissell Mfg. Co. are equipped with the DSI (Direct Spark Ignition) modules. These are designed to increase dryer efficiency and to reduce dryer operating costs. The main burner is directly ignited from a spark electrode. A burning flame provides an electrical path for a small amount of sensing current to allow gas valve operation. If the main burner flame extinguishes for amy reason (aside from the thermostatic control) sensing current will shut down the gas valve and the spark ignition circuit.

- 1. Once flame is established, the spark shuts off, and the main burner flame is then electronically monitored by means of a sensing spark probe which is located over the burner. The gas valve remains energized (open).
- 2. If no flame is detected within the first 11 seconds the DSI will go into a safety "lock-out". The gas valve is energized.
- 3. If recovery from a safety lockout requires one of the following:
 - A. Opening the main door thus interrupting power to the DSI module and allowing dryer diagnostic trouble shooting.
 - B. Disconnecting the entire dryer from a power source using a circuit breaker of a switch.
- 4. By closing the main door the ignition circuit will be restored for another trial of the ignition circuit.
- 5. Once the thermostatic control has been satisfied by reaching a pre-set temperature or the drying timer has been timed out, the ignition circuit will be de-energized thus extinguishing the flames.
- 6. The dryer will continue to run in a cool-down mode without heat. This process will cool the load to the touch and help to eliminate wrinkling.
- 7. The cool down time is pre-set on some models and manually set on other dryer models. The cool-down cycle prevents fabric wrinkles by allowing clothes to reach room ambient temperature while still in a continuous levitation state until clothes are ready to be folded or pressed.

DIRECT SPARK IGNITION OPERATION FLOW CHART

The DSI module is powered by a 24 volt AC supplied by a stem-down transformer in series with eight safety interlocks:

- A. Timer Switching Device (1)
- B. Main Door and Lint Door Switches (2)
- C. Sail Switch (1)
- D. Under Basket and Burner Housing Thermal Safety Switches (2)
- E. Variable Thermostat (1)
- F. Push to Start Switch (1)





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

GENERAL MAINTENANCE (continued)

- 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.

OPERATING INSTRUCTION - DOUBLE TIMER

OPERATING INSTRUCTIONS - DOUBLE TIMER MODELS

- 1. After loading the dryer with water washed clothes, close the loading door.
- 2. Turn the 60 minute drying (heat) timer to the desired time.
- 3. Turn the 60 minute cooling (air) to the desired time.
- 4. Select the temperature desired: Low, Medium, or High.

HIGH HEAT

175° F exhaust temperature, heavy fabrics and hard to dry, such as cottons, towels, denim, etc..

PERMANENT PRESS (medium)

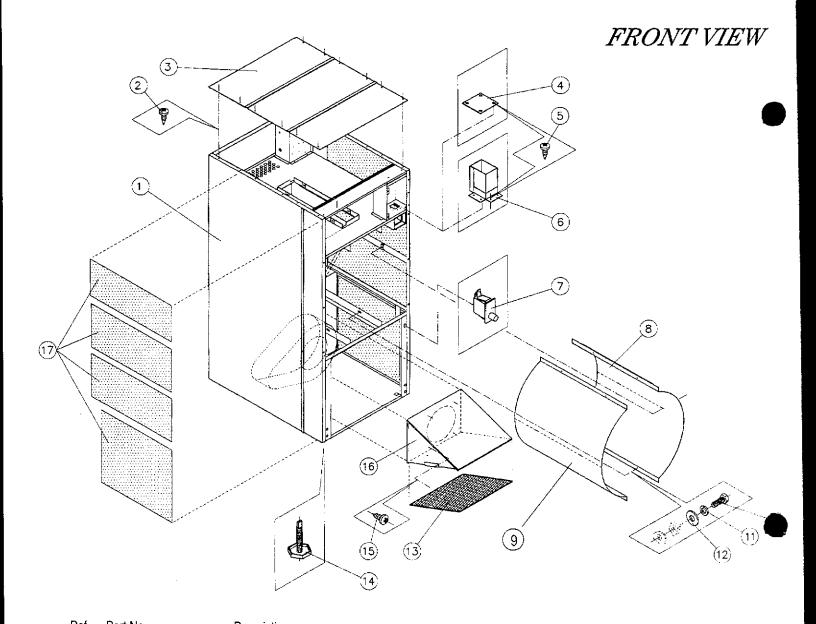
155° F exhaust temperature, synthetic blends, including a mixed wash load.

LOW HEAT

135°F exhaust temperature, delicate, sheer fabrics.

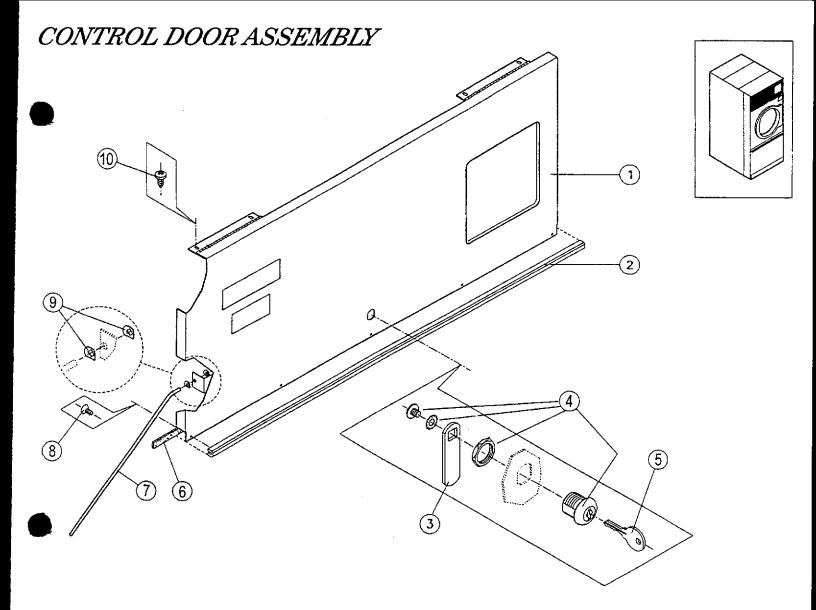
- 5. Press the "push to start" button to start the drying cycle. The heat or drying light will stay on until the drying cycle is completed
- 6. At the end of the drying cycle, the cool down cycle will automatically count down until all time runs out. The cool down light will stay on until the end of the cycle.
- 7. Drying cycle will not start unless a few minutes of the cool-down cycle are set on the cool-down timer.
- 8. To shut the dryer off at any time during the cycles by opening the door.





Ref. No.	Part No.	Description			
1 1	CSA50037WH CSA-50050WH	Jacket fas/electric (white) Jacket steam (white)	Ref. No.	Part No.	Description
2 3 4 5 6 7 8 9	TU7733 CA-12073-0 CSA-11546-0 TU7733 CSA-01435-0 EA-00650-0 CA-12070-0 CA-12070-0 CA-13083-0	Screw self drilling 8-18 X 1/2" Top panel Cover plate (non-coin models) Screw self drilling 8-18 X 1/2" Coin chute w/a Microswitch door Right sweepsheet Left sweepsheet (gas & elec) Left sweepsheet (steam)	10 11 12 13 13 14 15	CB36 TU2846 TU2847 CA-10567-0 CA-13033 TU3211 TU7733 CSA-01528-0	Screw -hex 1/4-20 X 1/2" Lockwasher 1/4" medium Washer 1/4" Lint frame LintScreen Leveling bolt Screw self drilling 8-18 X 1/2" Support filter
		,,	17	CSA-01425-0	Insulation side WMC complete -used on gas models only-





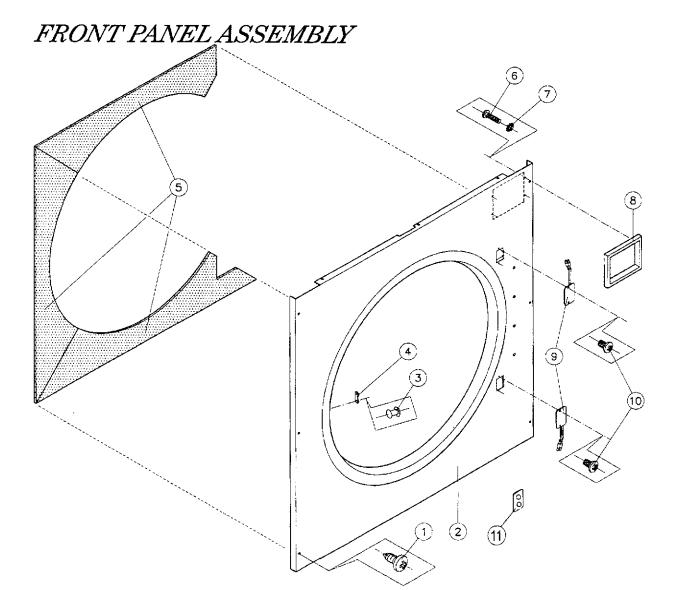
CSA-01423WH

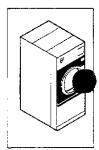
Complete control door assy.

Note:

Door rod assy, is not part of above complete assy.

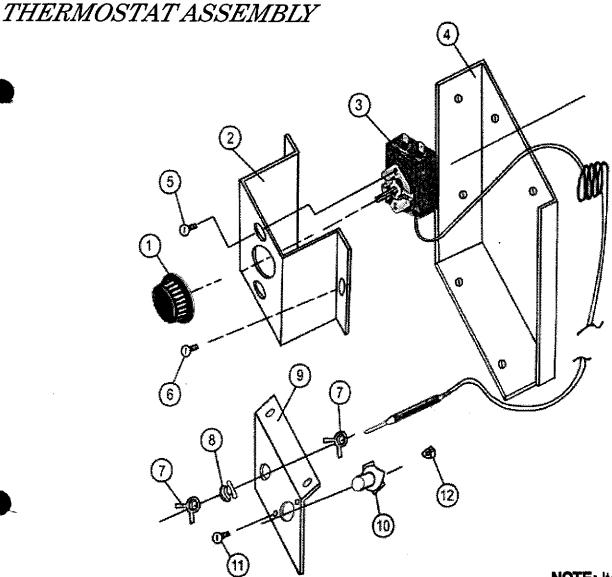
Ref. No.	Part No.	Description
1	CSA-01424WH	Control door assy.
2	CA-00857-0	Trim - Control door
3	CA-11941-0	Cam lock-Control door
4	CA-00121-0	Lock - Control door
5	CA-00119-0	Key - Control door
6	CA-13098-0	Gasket
7	CA-10085-0	Support rod
8	SB-00951-0	Screw -Phillips #8 X 7/16 flat hd.
9	SB-00971-0	Tinnerman push- on fastener
10	TU7733	Screw self drilling 8-18*1/2*





Ref. No.	Part No.	Description
1	SB-00915-0	Screw self drilling #10-16 X 5/8
2	CSA-01566WH	Front panel, welded assyCoin
2	CSA-01565WH	Front panel, welded assy-OPL
3	TU3213	Pop Rivet PVD doorlocker
4	TU2876	Latch strap
5	CA-00676	Insulation
6	SB-00924-0	Screw 4-40*3/8 taptite
7	SB-00938-0	Washer 4 external tooth
8	CA-00699-0	Bezel - Coin box
9	ESA-00862-0	Reed switch assy.
10	SB-009775-0	Screw 6-32*1/4 phillips
11	EA-00827-0	Mounting plate - Reed switch

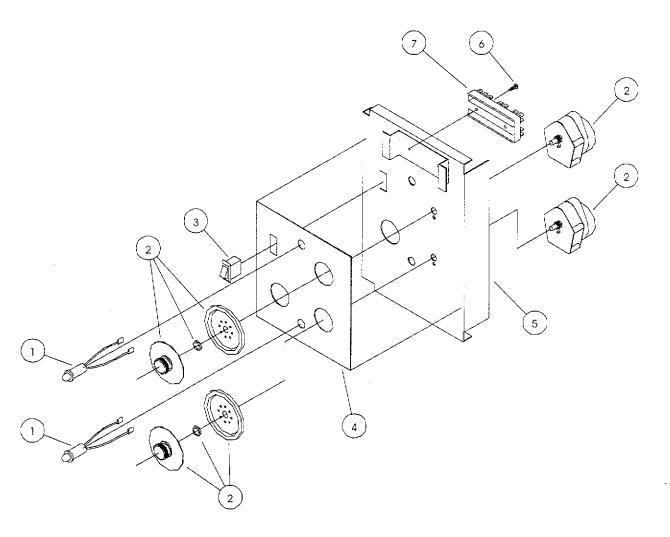




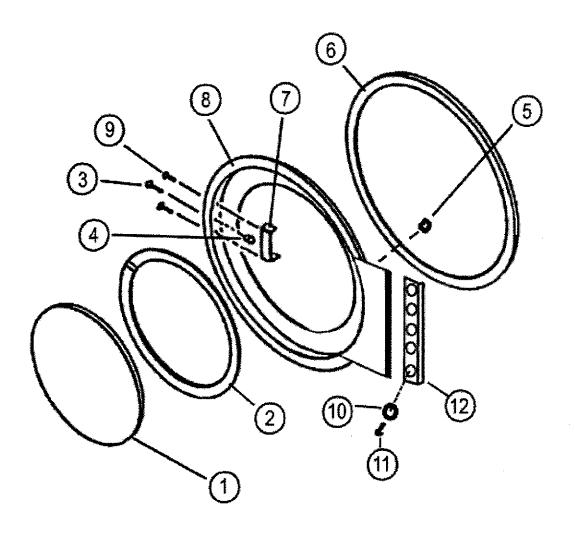
Ref. Part No. Description No. EA-00607-0 Thermostat knob 1 2 CA-13213-0 Thermostat bracket EA-00606-0 Thermostat CA-13215-0 Thermostat bracket adapter 5 TU3624 Screw 6 - 32 X 1/4" TU7733 Screw - self drilling 8 - 18 X 1/2" 6 EA-00434-0 Clip - 3/8" spring 8 EA-00608 - 0 Grommet / rubber CA-13214-0 Plate 10 EA-00594-0 Thermostat - HI-Limit Screw 8-32 X 1/2" 11 SB-00828-0 12 TU3266 Nut-brass 8-32

NOTE: Items 1 thru 6 mounted in front wire box. Items 7 thru 12 are mounted under the basket

WIRE BOXASSEMBLY

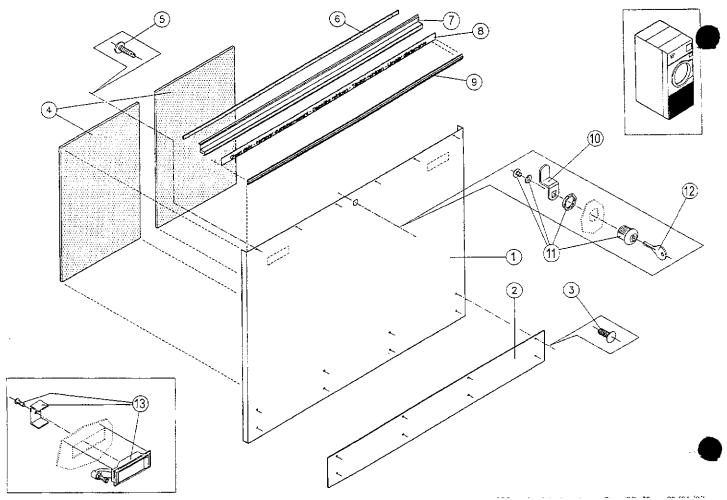


Ref. No.	Part No.	Description
	CSA-01608WH	Wire box door assy complete
1	TUT316	Light LED 24V
2	EA-11614-0	Timer-manual 24V - 60 min. complete
3	EA-00619-0	Switch - start
4	CA-13170-0	Overlay- dual timer non-rev
5	CSA-01608WH	Wire box door assy.
6	SB-00865-0	Screw-self drilling #6-20 X 12"
7	EA-00210-0	Terminal block
8	ESA-00967-0	Wire harness (not shown)
9	SB-00868-0	Bushing 7/8"



Ref. No.	Part No.	Description
	MSD-00864WH	Complete door assy (consists of items 1 thru 9 only)
1	MD-00362-0	Door Glass - clear
2	MD-00354-0	Gasket - door glass - straight
3	TU3163	Catch Pin
4	TU4840	Crown nut
5	MD-00337-0	Magnet - read switch
6	MD-00338-0	Gasket - door rim
7	TU2874	Basket door handle
3	MSD-00858-WH	Basket door
9	TU3215	Screw #10 - 32 X 3/8"
10	SB-00852 - 0	Washer 1/4" external starluck
11	SB-00921-0	Screw 1/4"-20 round head
12	MD-00348-0	Hinge spacer

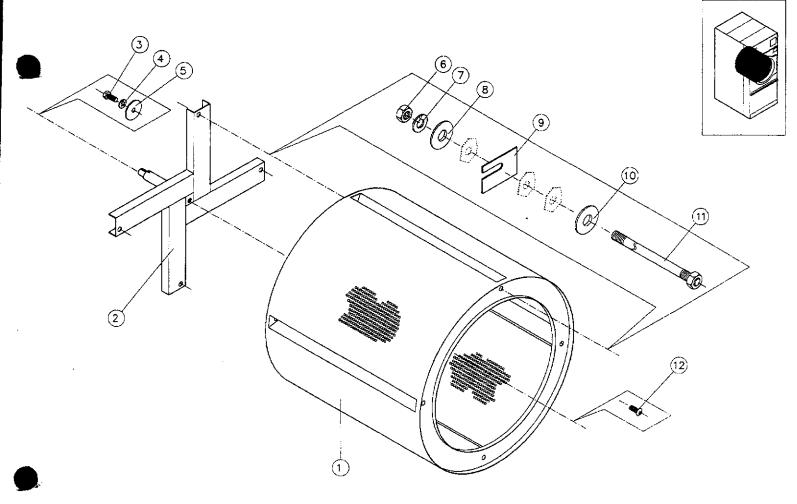
LINT DOOR ASSEMBLY



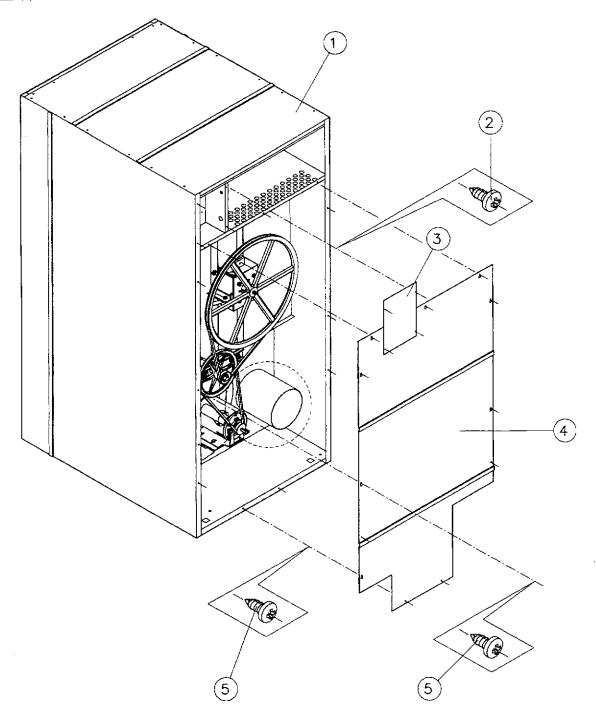
For OPL models only.

Ref. No.	Part No.	Description
	CSA-01430WH	Complete Asm - WMC50 OPL
	CSA-01428WH	Complete Asm - WMC50 Coin
1	CSA-01099WH	Lint door w/latch holes(white) OPL
1	CSA-01429WH	Lint door w/lock holes(white) Coin
2	CSA-00838-0	Kickplate
3	SB-00949-0	Fastener plastic kickplate
4	CA-12029-0	Insulation lower frontpanel WMC50
5	SB-00915-0	Screw self drilling #10-16 X 5/8
6	TU2853	Gasket
7	CA-00647-0	Handle lint door
8	CA-00841-0	Label (not part of assy.)
9	CA-00655-0	Trim-rubrail-specify 35" long
10	CA-11359-0	Cam lock
11	CA-00121-0	Lock
12	CA-00119-0	Key
13	CA-00123-0	Latch - trigger

BASKET & SPIDER ASSEMBLY

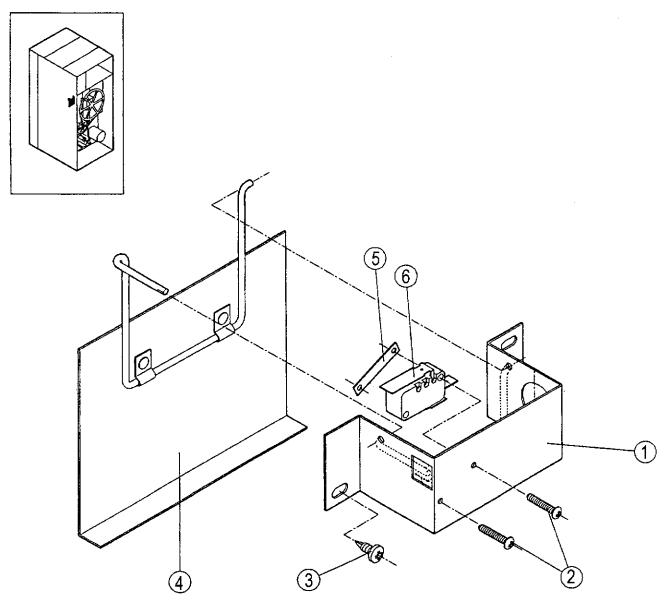


Ref.	Part No.	Description
	CSA-01541-0	Basket & Spyder Asm.WMC50 - S.S.
	CSA-01632-0	Basket & Spyder Asm.WMC50 - Galv.
1	CSA-01540-0	Stainless steel basket assy.
1	CSA-01631-0	Galvanized basket assy.
2	CSA-00822-0	Spider assy.
3	TU5439	Screw-cap 5/16-18 X 3/4"
4	TU2814	Lock washer 5/16*
5	SB-00843-0	Washer fender 3/8" X 1 1/2"
6	SB-00906-0	Nut 5/16" - 18 stover
7	TU2814	Lock washer 5/16"
9	TU7006	Shim
10	CA-13208	Basket rib support
11	DA-11249-0	Tie rod
12	SB-009650-0	Screw-button cap 5/16 - 18



Ref. No.	Part No.	Description
1	CA-12073-0	Top panel
2	TU7733	Screw self drilling 8-18*1/2"
3	CA-11936-0	Cover plate
4	CA-12016-0	Backpanel
5	TU7733	Screw self drilling 8-18*1/2"

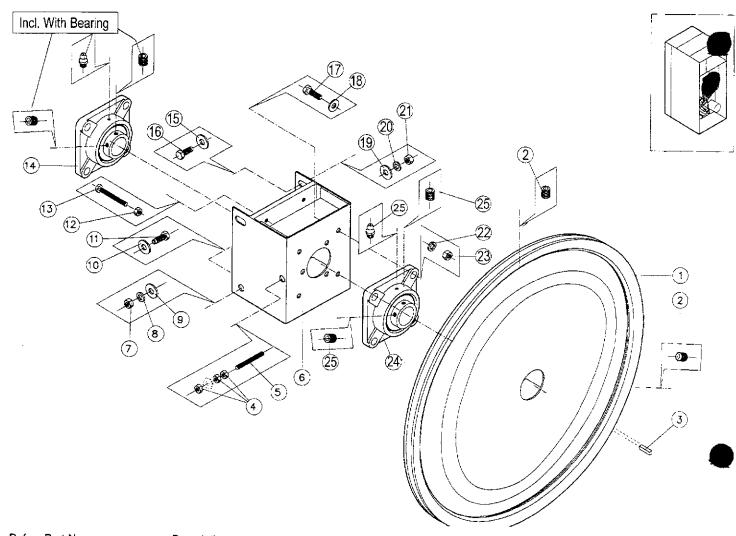




Ref.	Part No.	Description	Description	
	CSA-01334-0	Sail switch assy, complete		
1	CA-11854-0	Bracket sailswitch		
2	SB-00955-0	Screw phillips #4 X 3/4*		
3	TU7733	Screw self drilling 8-18*1/2"		
4	CSA-01669-0	Sailswitch plate and rod assy.		
5	SB-00954-0	Clip-twin-Tinnerman		
6	EA-00618-0	Microswitch		

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BASKET BEARINGS, SUPPORT, AND SHEAVE

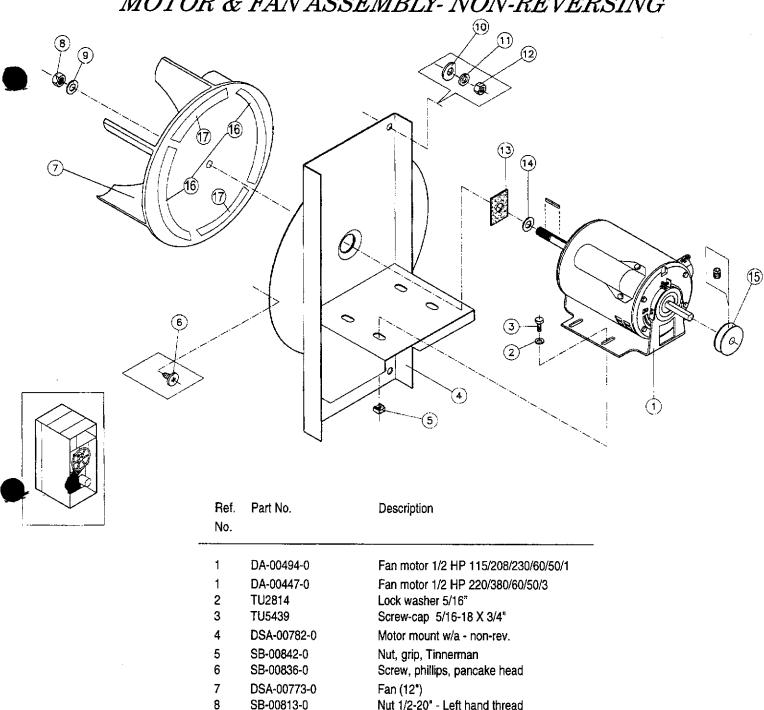


Ref. No.	Part No.	Description
1	DA-11912-0	Pulley - basket
2		Part of pulley
3	DA-11914-0	Key
4	C249	Hex nut 5/16-18"
5	SB-00876-0	Stud - 5/16 - 18"
6	DSA-00728-0	Bearing box assy.
7	TU4787	Hex nut 3/8-16"
8	VSB134	Lock Washer 3/8*
9	IB140	Washer 3/8"
10	IB140	Washer 3/8"
11	lB139	Screw 3/8-16*1-1/4"
12	C249	Hex nut 5/16-18"
13	SB-00935-0	Screw cap 5/16 - 18 X 3
14	DA-00421-0	Bearing flange 1 3/8"

Ref. No.	Part No.	Description
15	IB140	Washer 3/8"
16	IB139	Screw 3/8-16*1-1/4"
17	IB139	Screw 3/8-16*1-1/4"
18	IB140	Washer 3/8"
19	IB140	Washer 3/8"
20	VSB134	Lock Washer 3/8"
21	TU4787	Hex nut 3/8-16"
22	VSB134	Lock Washer 3/8"
23	TU4787	Hex nut 3/8-16"
24	DA-00421-0	Bearing - flange 1 3/8"
25		Part of bearing

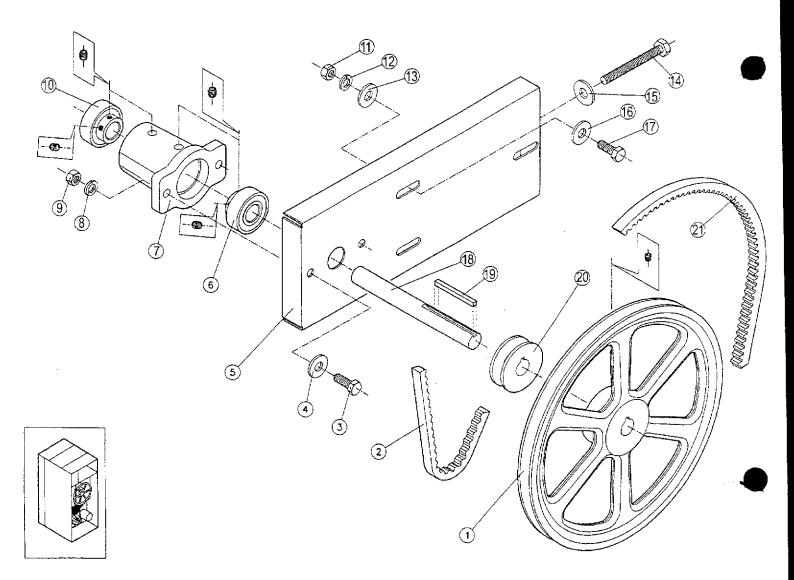


MOTOR & FAN ASSEMBLY- NON-REVERSING



1	DA-00494-0	Fan motor 1/2 HP 115/208/230/60/50/1
1	DA-00447-0	Fan motor 1/2 HP 220/380/60/50/3
2	TU2814	Lock washer 5/16"
3	TU5439	Screw-cap 5/16-18 X 3/4"
4	DSA-00782-0	Motor mount w/a - non-rev.
5	SB-00842-0	Nut, grip, Tinnerman
6	SB-00836-0	Screw, phillips, pancake head
7	DSA-00773-0	Fan (12*)
8	SB-00813-0	Nut 1/2-20" - Left hand thread
9	SB-00847-0	Washer -1" O.D. X .505 i.D.
10	IB140	Washer cut 3/8"
11	VSB134	Washer lock 3/8"
12	TU4787	Hex nut 3/8-16"
13	DA-00460-0	Seal, acoustical
14	SB-00847-0	Washer -1" O.D. X .505 I.D.
15	DA-00510-0	Sheave, 60 cycle, 1/2" bore
15	DA-00511-0	Sheave, 50 cycle, 1/2" bore
16	TU2473	Gasket - curved (2 req'd)
17	TU2474	Gasket - straight (2 req'd)

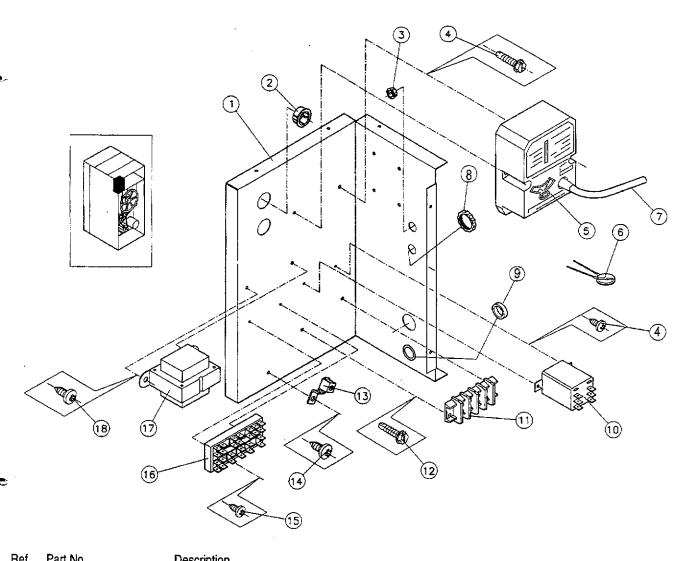
IDLER ASSEMBLY



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1 2 2 3 4 5 6 7 8 9	DA11904-0 DA-00917-0 DA-00497-0 FB124 VSB130 CA-12059-0 DA-00518-0 DA-00517-0 TU2814 C249 DA-00518-0	Idler pulley 11" Basket belt - non-reversing - AX70 Basket belt -reversing - AX71 Screw 5/16-18*1" Washer 5/16" Idler adjusting plate Bearing Housing - idler bearing Lock washer 5/16" Hex Nut 5/16-18" Bearing	11 12 13 14 15 16 17 18 19 20 21	C249 TU2814 VSB130 SB-00935-0 VSB130 VSB130 TU5439 DA-11711-0 TUD0187 DA-11901-0 DA-00494-0 DA-00523-0	Hex Nut 5/16-18" Lock Washer 5/16" Washer 5/16* Screw 5/16*-18 X 3" Washer 5/16* Washer 5/16' Screw 5/16-18*1* Idler shaft Key 3/16 square 2-1/2" V-belt pulley Belt - motor to idler pulley AX50 Non-reversing Belt - motor to idler pulley AX6 Reversing

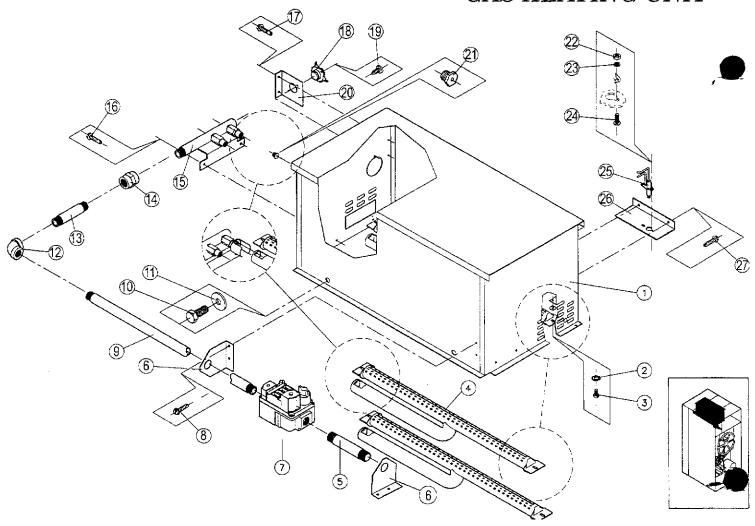


REAR CONTROL PANEL ASSEMBLY



Het. No.	Рап No.	Description			
-	ESA-00966-0	Wire box assy, rear, gas - 115V - 2 timer			
	ESA-00974-0	Wire box assy, rear, gas - 208/240V - 2 timer			
1	CA-11935-0	Rear wiring box			
2	SB-00868-0	Bushing, insulating 7/8"	Ref.	Part No.	Description
3	SB-00867-0	Bushing, insulating 1/2"	No.		•
4	TU7733	Screw self drilling 8-18 X 1/2"			
5	GA-00765-0	Ignitor ram III DSI	11	EA-00467-0	Terminal block
6	EA-00651-0	Varistor/relay/motor	12	TU7733	Screw self drilling 8-18 X 1/2"
7	GA-00803-0	High voltage lead/ram	13	TU7738	Ground lug
8	TU2490	Plug button	14	TU7733	Screw self drilling 8-18 X 1/2"
9	EA-00680-0	Knock-out plug	15	SB-00865-0	Screw self drilling 6 - 20 X 1/2
10	EA-11618-0	Motor relay- 3 pole -30amp - 24V	16	EA-00210-0	Terminal block
		motor total o polo ocamp 2	17	EA-00646-0	Transformer 24V
			18	TU7733	Screw self drilling 8-18 X 1/2"

GAS HEATING UNIT



Ref. Part No. No.	Description	Ref. No.	Part No.	Description
GSA-0778-0 GSA-0778-0 GSA-00255-0 TU11613-0 SB-00831-0 GSA-00756-0 OP308 CA11878-0 GA-00770-0 TU7733 TU7358 TU7358 TU5439 TU5439 VSB130 S90501053 OP308	Lock washer 10 external tooth Screw 10-32*3/8"	14 15 16 17 18 19 20 21 22 23 24 25 26 27	OP314 GSA-00508-0 TU7733 TU7733 EA-00245-0 TU7733 CA11028-0 GA-00761-0 TU3266 AT368 M262 GA-11003-0 GA-10457-0 TU7733	Union (gas pipe) Manifold assy. Screw self drilling 8-18X1/2" Screw self drilling 8-18X1/2" Thermostat HI LIMIT -330° Screw self drilling 8-18 X 1/2" Bracket thermostat Gas orifce (specify size) Hex nut-brass 8-32" Lock washer #8 Screw mach.truss head 8/32X3/8" Gas ignition electrode Bracket Screw self drilling 8-18 X 1/2"

