

OPERATOR'S MANUAL

for

DL2X30CG Series Dryers

The dryer must not be stored or installed where it will be exposed to water and/or weather.

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 vapors and liquids in the vicinity of this or any other appliance.

– WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- 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 your gas supplier, call the fire department.

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

Post the following “**For Your Safety**” caution in a prominent location:

FOR YOUR SAFETY

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

It is important that you read this Manual and retain it for future reference. For service or replacement parts, contact the distributor in your area or the manufacturer.

AVERTISSEMENT. Assurez-vous de bien suivre les instructions données dans cette notice pour réduire au minimum le risque d'incendie ou d'explosion ou pour éviter tout dommage matériel, toute blessure ou la mort.

Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

– QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:

- Ne pas tenter d'allumer d'appareil.
- Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones se trouvant dans le bâtiment où vous vous trouvez.
- Évacuez la pièce, le bâtiment ou la zone.
- Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
- Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.

– L'installation et l'entretien doivent être assurés par un installateur ou un service d'entretien qualifié ou par le fournisseur de gaz.

POUR VOTRE SÉCURITÉ

Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

You, the purchaser, must post in a prominent location instructions to be followed in the event the user smells gas. Consult your local gas supplier for procedure to be followed if the odor of gas is present.

Continental Girbau, Inc.
2500 State Road 44
Oshkosh, Wisconsin 54904

TABLE OF CONTENTS

	Page No.
Warnings about use and operation	2
Installation and Operating Instructions	4, 5, 6
Dryer Shutdown	8
Description of Controls	8
Operating Instructions	9
Changing Programmed Data	9
Options Available	11
Maintenance Notes	11
Servicing Dryer	12
Preventative Maintenance Instructions	12

ILLUSTRATIONS

Figure 1 - Dryer Dimensions	3
Figure 2 - Vertical Clearance Dimensions	5
Figure 3 - Dryer Exhausting	7
Figure 4 - Rear View of Controller	10
Figure 5 - Stack Dryer Control Board	11

WARNINGS ABOUT USE AND OPERATION

KEEP SHIELDS, GUARDS AND COVERS IN PLACE. These safety devices are provided to protect everyone from injury.

It is **ABSOLUTELY ESSENTIAL** that the dryer be grounded to a known earth (zero) ground in accordance with local codes or, in the absence of local codes, with the latest editions of the National Electric Code, ANSI/NFPA 70 or Standard CSA C22.1 Canadian Electrical Code Part 1. This is not only for personal safety, but is necessary for proper operation of the controller. Failure to do so will void the warranty of the controller.

LEAVE THE ELECTRICAL POWER TO THE DRYER ON AT ALL TIMES except when necessary for service or other similar activities. The hourmeter function adds only full hours to its reading. If the power is shut off every night, any fraction of an hour of time that is on the machine at that time will be lost. Turning the power off every night could also have some effect on the long term life of the memory after a number of years. Turning power off occasionally won't affect the unit.

From a safety aspect shutting off the gas supply at night would be better than shutting off the electrical power.

THIS DRYER IS EQUIPPED WITH AN OVER-TEMPERATURE THERMOSTAT located on the end of the burner housing below the gas valve. Should the dryer cease to operate, refer to your "Service Procedure and Parts Data" book for instructions.

CHECK THIS THERMOSTAT WHEN INSTALLING DRYER to assure it is not tripped. Impacts such as rough handling in shipment, may trip the thermostat. It may be reset by inserting a wooden pencil or dowel through the bushing in the cover.

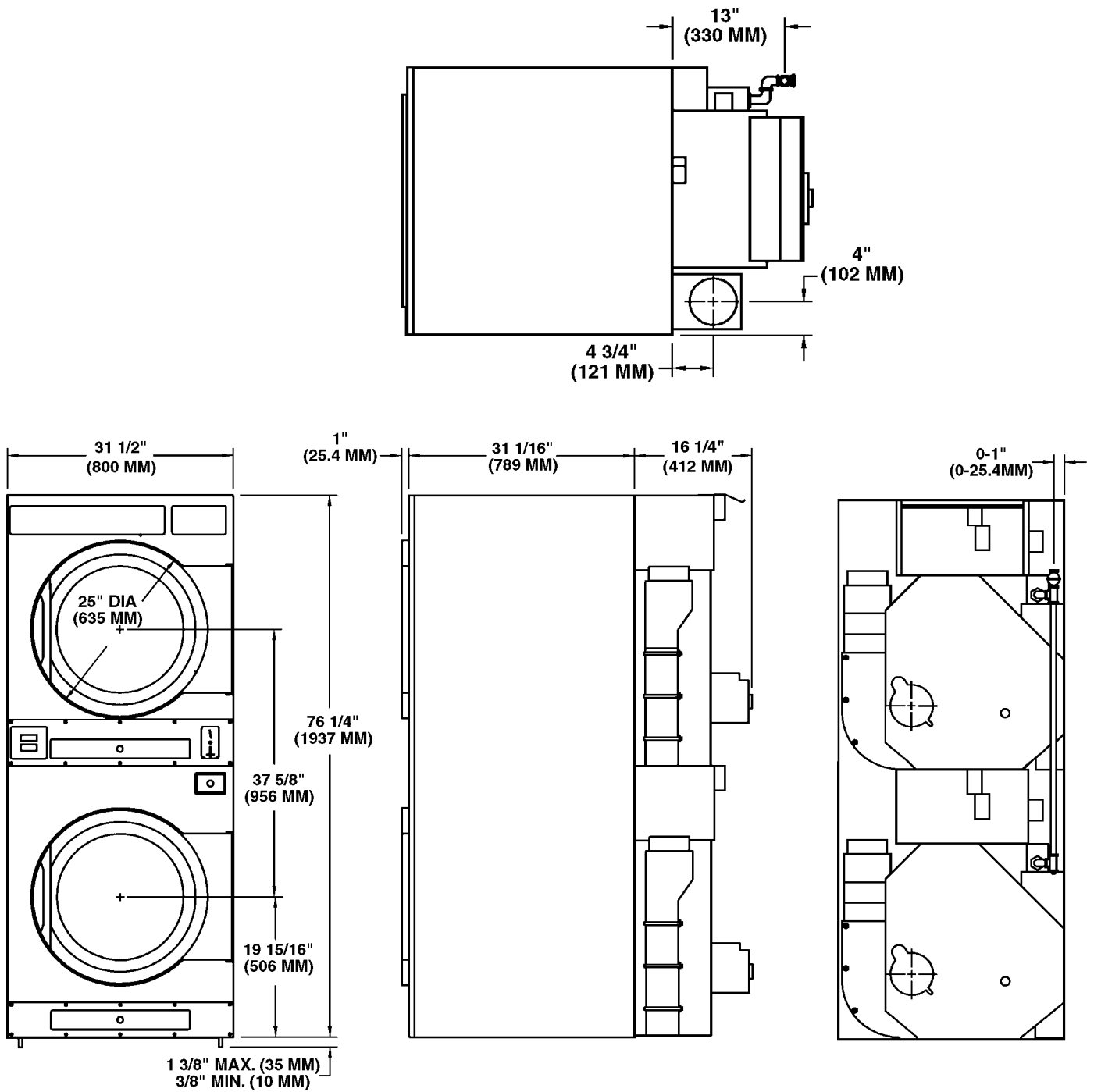


FIGURE 1 - Dryer Dimensions.
inches (MM)

INSTALLATION AND OPERATING INSTRUCTIONS

UNCRATING AND PLACING DRYER

Tools Required: 1/2" hex socket & ratchet driver, wood block 4" or 5" thick, a knife and a groove joint plier which will open to 1 3/8".

1. Remove carton by cutting away back of carton and tearing remaining carton from crate base. Remove and discard inner packing.

2. The crate base is attached to the dryer by (4) cap screws driven upward from below the crate base. Remove crate base from dryer, by tipping dryer sidewise and place block under crate base rail in center of dryer. Using a ratchet and 1/2" hex socket remove and discard (2) crating bolts from side which is raised. Remove block from under crate base. Repeat for other side.

3. Install leveling legs. Using a walking motion, move dryer sideways about 6" off crate base. Tip dryer up and place block under edge of dryer. Thread two leveling legs about two-thirds into the T-nuts on the base from which the crating bolts were removed. Remove block from under dryer.

With a walking motion move dryer completely off crate base. Discard crate base.

Tip dryer sidewise, as previously done, and place block under edge of dryer on raised side. Thread leveling legs into nuts as was done for the first side.

Slide unit into position where it will be installed. Adjust leveling legs, using the groove joint plier, to level and align dryer with adjacent units.

DRYER INSTALLATION

1. CODE OF CONFORMITY. All commercial dryer installations must conform with local codes or, in the absence of local codes, with the Nation Fuel Gas Code ANSI Z223.1A. Canadian installations must comply with current Standard CAN/CGA-B149 (.1 or .2) Installation Code for Gas Burning Appliances or Equipment, and local codes if applicable. The appliance, when installed, must be electrically grounded in accordance with the National Electric Code, ANSI/NFPA No. 70-1990, or, when installed in Canada, with Standard CSA C22.1 Canadian Electrical Code Part 1.

2. INSTALLATION CLEARANCES: This unit may be installed at the following alcove clearance. (millimeters)

- I. Left Side 0"
- II. Right Side 0"
- III. Back 18" (457) (Certified for 6" clearance; however, 18" (457) clearance is necessary behind the motors to allow servicing and maintenance.)
- IV. Front 48" (1220) (to allow use of dryer)
- V. Top Refer to figure labeled "Vertical Clearance Dimensions".
AB. Certification allows 0" clearance at the top 4" (102) back from the front.
However, a 1/4" (6) clearance should be allowed in case the dryer needs moving.
C. A 10" (254) clearance is required from top at all other points.
- VI. Floor This unit may be installed upon a combustible floor.

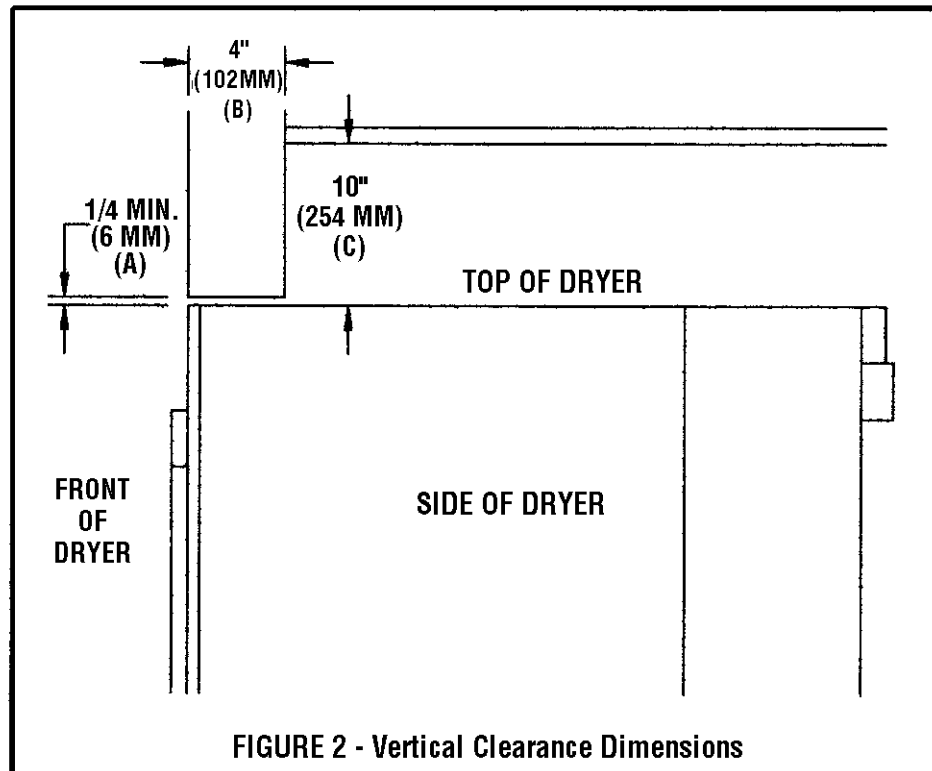
Do not obstruct the flow of combustion and ventilation air.

Maintain minimum of 1" (25) clearance between duct and combustible material.

Refer to the label attached to the Belt Guard on the rear of the dryer for other installation information and start-up instructions.

3. MAKE-UP AIR. Adequate make-up air (440CFM/DRUM, 880CFM/DRYER) must be supplied to replace air exhausted by dryers on all types of installations. Provide a minimum of 1 1/2 square feet make-up air opening to outside for each dryer. This is a net requirement of effective area. Screens, grills or louvers which will restrict the flow of air must be considered. Consult the supplier to determine the free area equivalent for the grill being used.

The source of make-up air should be located sufficiently away from the dryers to allow an even air flow to the air intakes of all dryers. Multiple openings should be provided.



NOTE: The following considerations must be observed for gas dryer installations where dry cleaners are installed. The sources of all make-up air and room ventilation air movement to all dryers must be located away from any dry cleaners. This is necessary so that solvent vapors will not be drawn into the dryer inlet ducts. Dry cleaner solvent vapors will decompose in contact with open flame such as the gas flame present in clothes dryers. The decomposition products are highly corrosive and will cause damage to the dryer(s) ducts and clothes loads.

4. **ELECTRICAL REQUIREMENTS.** The electrical power requirements necessary to operate the unit satisfactorily are listed on the serial plate located on the back panel of each dryer. The electrical connection should be made to the pigtail leads in the outlet box (or terminal board, if supplied) on the rear of the unit, using #10 AWG wire. It is absolutely necessary that the dryer be grounded to a known ground.

Individual 30 Amp circuit breakers for each stacked dryer are required. The wiring diagram is located on the belt guard on the back of the dryer.

5. **GAS REQUIREMENTS.** The complete gas requirements necessary to operate the dryer satisfactorily are listed on the serial plate located on the back panel of the dryer.

The inlet gas connection to the unit is 1/2 inch pipe thread. However, the size of the piping to supply the dryer should be determined by reference to the National Fuel Gas Code ANSI Z223.1A and consultation with the local gas supplier.

A joint compound resistant to the action of liquefied petroleum gases should be employed in making pipe connections.

A 1/8 inch NPT plugged tapping, accessible for test gage connection, must be installed immediately upstream of the gas supply connection to the dryer.

A drip tee is provided in the unit gas piping to catch dirt and other foreign articles.

All pipe connections should be checked for leakage with soap solution. Never check with an open flame.

For altitudes above 2,000 feet (610m) it is necessary to derate the BTU input. Contact your local distributor for instructions.

L.P. gas conversion kits are available for this dryer. Contact your local distributor.

CAUTION: The dryer and its 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 its 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.

6. **EXHAUST INSTALLATION.** (Refer to Figure 3 at the end of section 6.) Exhausting of the dryer(s) should be planned and constructed so that no air restrictions occur. Any restriction due to pipe size or type of installation can cause slow drying time, excessive heat, and lint in the room.

From an operational standpoint, incorrect or inadequate exhausting can cause a cycling of the high limit thermostat which shuts off the main burners and results in inefficient drying.

Individual exhausting of the dryers is recommended. All heat, moisture, and lint should be exhausted outside by attaching a pipe of the proper diameter to the dryer adapter collars and extending it out through an outside wall. This pipe must be very smooth on the inside, as rough surfaces tend to collect lint which will eventually clog the duct and prevent the dryer from exhausting properly. All elbows must be smooth on the inside. All joints must be made so the exhaust end of one pipe is inside the next one downstream. The addition of an exhaust pipe tends to reduce the amount of air the blower can exhaust. This does not affect the dryer operation if held within practical limits. For the most efficient operation, it is recommended that no more than 14 (4.25m) feet of straight 6" diameter pipe with two right angle elbows be used for each cylinder.

Maintain minimum of 1" (25) clearance between duct and combustible material.

If the exhaust pipe passes through a wall, a metal sleeve of slightly larger diameter should be set in the wall and the exhaust pipe passed through this sleeve. This practice is required by some local codes and is recommended in all cases to protect the wall.

This type of installation should have a means provided to prevent rain and high winds from entering the exhaust when the dryer is not in use. A hood with a hinged damper can be used for this purpose. Another method would be to point the outlet end of the pipe downward to prevent entrance of wind and rain. In either case, the outlet should be kept clear, by at least 24" (610) of any objects which would cause air restriction.

Never install a protective screen over the exhaust outlet.

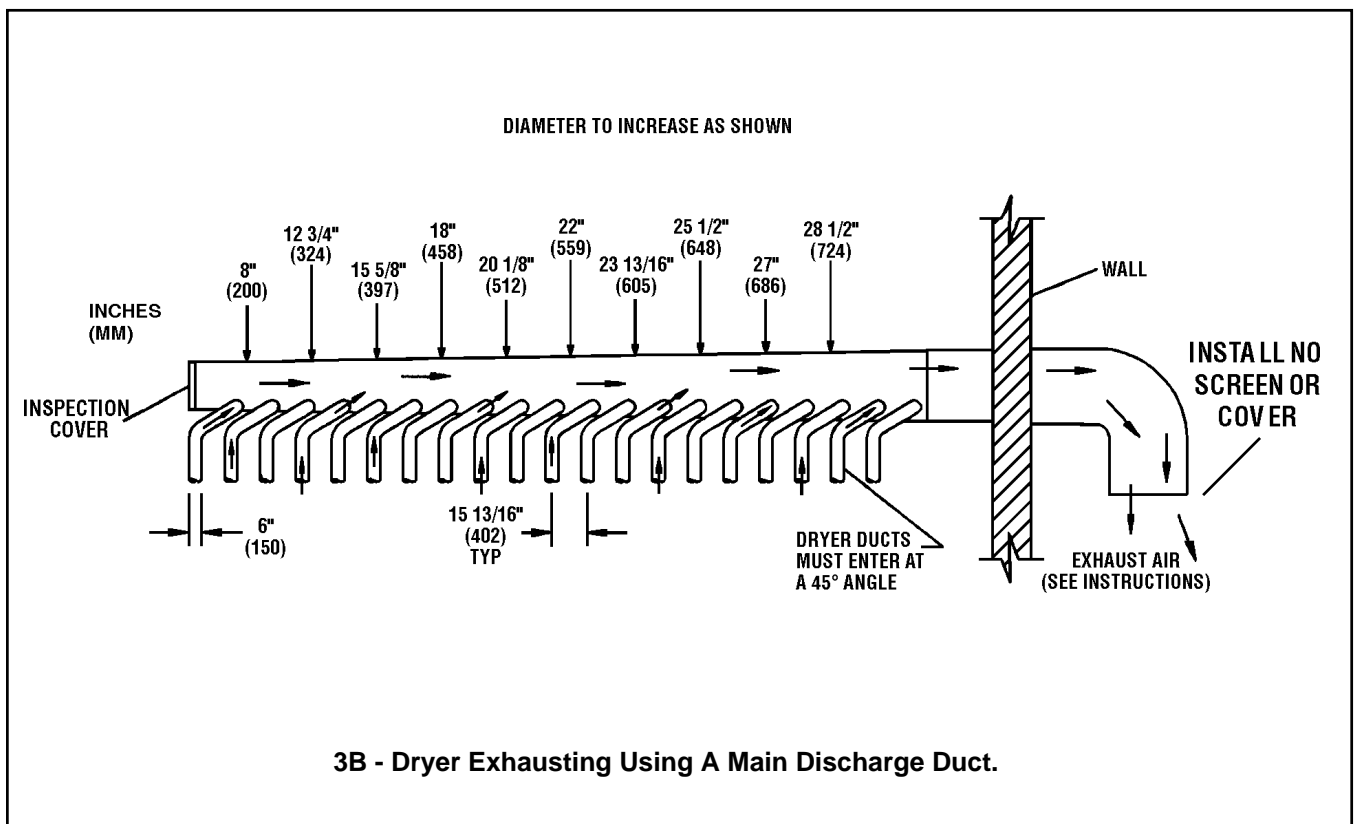
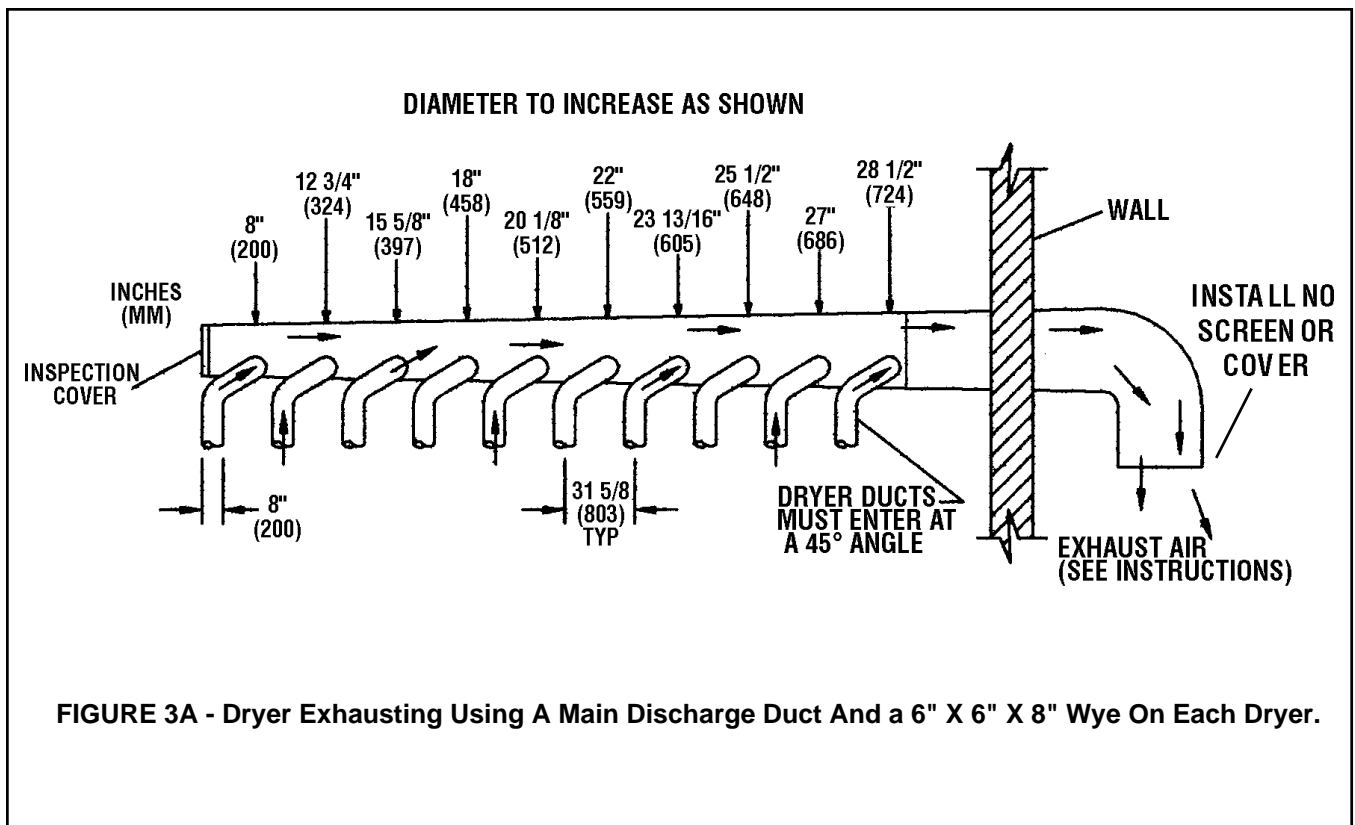
When exhausting a dryer straight up through a roof, the overall length of the duct has the same limits as exhausting through a wall. A rain cap must be placed on top of the exhaust and must be of such a type as to be free from clogging. The type using a cone shaped "roof" over the pipe is suitable for this application.

Exhausting the dryer into a chimney or under a building is not permitted. In either case there is a danger of lint build-up which can be highly combustible.

Installation of several dryers, where a main discharge duct is necessary, will need the following considerations for installation (see fig. 3). Individual 6" ducts from the drums or exhausts which have been combined into an 8" duct for each dryer should enter the main discharge duct at a 45 degree angle in the direction of discharge air flow.

NOTE: Never install the individual ducts at a right angle into the main discharge duct. The individual ducts from the dryers can enter at the sides or bottom of the main discharge duct. Figure 3 indicates the various round main duct diameters to use with the individual dryer ducts. The main duct can be rectangular or round, provided adequate air flow is maintained. For each individual cylinder, the total exhausting (main discharge duct plus duct outlet from the dryer) should not exceed the equivalent of 14 feet (4.25m) and two elbows. The diameter of the main discharge duct at the last dryer must be maintained to exhaust end.

NOTE: A small diameter duct will restrict air flow; a large diameter duct will reduce air velocity— both contributing to lint build up. An inspection door should be provided for periodic clean-out of the main duct.



7. DRYER IGNITION (SOLID STATE IGNITION). The solid state ignition system lights the main burner gas by spark. The gas is ignited and burns only when the gas-valve relay (in the electronic controller) calls for heat. The procedure for first-time starting of a dryer is as follows.

A. First, review and comply with the "Warnings About Use and Operation" found on the inside front cover of this manual. Be sure the electrical power supply is connected correctly. The white wire is to be connected to the white wire (common) in the junction box and the black wire to the black wire (power leg). The dryer MUST be properly grounded.

B. Make sure all gas supply lines are purged of air. Close the main gas shut-off valve and wait for five minutes before turning the valve back on.

C. Turn on the main electrical power switch. The dryer may be started by following the "Operating Instructions" found later in this manual.

D. Natural gas and liquefied petroleum gas fired dryers both operate in the same manner. When the gas-valve relay contacts are closed (indicating a demand for heat), the solid state ignition control will automatically supply energy to the redundant gas valve. Spark will continue until a flame is detected by the sensing probe, but not longer than 10 seconds. If the gas fails to ignite within 10 seconds, the gas valve closes and the system will "lock out". No further attempts at ignition will be performed automatically. It is then necessary to interrupt electrical power to the ignition system before making another attempt at igniting the burners. This can be done by opening the dryer door and allowing the dryer to come to a stop for 15 seconds, then closing the door and pushing the "Start" button. The dryer will then repeat the ignition trial cycle.

8. MAIN BURNER ADJUSTMENT. The primary air shutter of each main burner must be properly adjusted for the correct air-gas ratio. Loosen the shutter locking screws. Adjust the shutter by closing it sufficiently to give a blue flame with a yellow tip. Next open the shutter until the yellow tips are at a minimum. After adjustment, securely lock each shutter in position by tightening the shutter locking screws.

DRYER SHUTDOWN

To render the dryer inoperative, turn off the main gas shut-off valve and disconnect electrical power to the dryer.

DESCRIPTION OF CONTROLS

Both drums are controlled by the electronic controller at the left midpoint of the dryer. With the exception of acknowledging deposited coins the controller is two-in-one with the upper display and lights dedicated to the upper drum and the lower display and lights dedicated to the lower drum.

The green light to the left of the displays flashes to acknowledge money deposited.

Each individual display shows vend price when its drum (upper or lower) is idle. Purchased time is shown after a drum (upper or lower) is selected.

These displays flash at the end of cycle when time has expired, until the door is opened.

At the top and bottom are red lights indicating the drying program selected by the user.

The drying temperature will be displayed when a drum is in use if two switches are pressed at the same time, the start switch and the switch for the temperature which has been selected.

All programmed data is protected from power interruptions of any length and the customer's individual cycle is protected up to 3 seconds. This is done without batteries.

OPERATING INSTRUCTIONS

1. Load clothes into either the upper or lower drum (or both). Close the door(s) completely.
2. Deposit coin or coins equal to or greater than the displayed vend price. Upon deposit of the first coin, the green light will flash on and off. This light will continue to flash, while additional money may be deposited, until either the upper drum or lower drum is selected.
3. Select drying temperature by pressing the appropriate switch for the drum to be used. This will put out the green flashing light, turn on the red light showing the selected temperature and display the amount of time purchased.
4. Press start switch to start drum.

ON RUNNING DRYER

-Opening the door will stop the drum. The drum will restart, if time has not expired, upon closing the door and pressing the start switch.

-Selected temperature may be changed at any time.

-Running time may be extended by depositing money and pressing the temperature or start switch for the correct drum. Unless time has expired, the controller will accept coins whether or not the original vend price is equaled.

If time has run out the dryer must be restarted as it was at the beginning of drying the load which requires meeting or exceeding the vend price.

CHANGING PROGRAMMED DATA

All operating parameters (vend price, temperature, cool-down times) are adjustable. Hours run and money count information can be displayed and these registers are resettable to zero. There are seventeen programming steps. These seventeen steps are:

<u>STEP</u>	<u>DESCRIPTION</u>	<u>RANGE</u>	<u>PROGRAMMING INCREMENTS</u>	<u>ORIGINAL SETTING</u>
00	Lower Drum Hour Meter	0-9999 Hours	----	0
01	Upper Drum Hour Meter	0-9999 Hours	----	0
02	Left Coin Audit	0-9999 Coins	----	0
03	Right Coin Audit	0-9999 Coins	----	0
04	Hot Dry Temperature (Regular)	150-190°F/63-87°C	5°F/3°C	175°F/78°C
05	Medium Dry Temperature (Permanent Press)	120-170°F/45-75°C	5°F/3°C	150°F/63°C
06	Warm Dry Temperature (Delicates)	110-150°F/39-63°C	5°F/3°C	125°F/48°C
07	Left Coin Value	0-100 cents	5¢	10¢
08	Right Coin Value	0-100 cents	5¢	25¢
09	Vend Price	0-100 cents	5¢	25¢
10	Time Per Coin	0-99:55	5 sec.	3:20
11	Time Per Right Coin	0-99:55 Min:Sec	5 Sec.	10:00
12	Free Vend Time	0-99:55 Min:Sec	5 Sec.	10:00
13	Hot Dry Cool Down Time	0-10:00 Min:Sec	5 Sec	2:00
14	Medium Dry Cool Down Time	0-10:00 Min:Sec	5 Sec	2:00
15	Warm Dry Cool Down Time	0-10:00 Min:Sec	5 Sec	2:00
16	Temperature Scale	°F - °C		°F

The controller is put into the programming mode by opening both dryer doors and actuation of a switch on the controller circuit board and remains in this mode until one of these actions occur:

1. The switch is actuated again.
2. The seventeenth step is completed and the step switch is pushed following the seventeenth step.
3. Programming is stopped for about one minute.
4. The dryer doors are closed.

Four of the membrane switches on the front of the controller become programming switches and both displays become programming aids.

1. The lower hot switch will advance the controller through the seventeen steps which can be observed or altered.
2. The upper start switch will increase values, the lower start switch will decrease values.
3. The lower perm press switch will restore the value for the program step being displayed to the original value before it was altered. Also this will return the registers for hours and money to zero if pressed in the appropriate programming step. (Steps 00 through 03.)

TO CHANGE PROGRAMMED VALUES OR ZERO REGISTERS

1. Open both the upper and lower loading doors.
2. Unlock the control tray, carefully slide the control tray assembly forward about three inches. Press the program switch. (See fig. 4 "Rear View of Controller") Reinstall and lock the controller. The controller is now in the program mode at the "00" step, displaying the hours run by the lower drum. (Refer to the table defining the steps.)

This value displayed can be reset to "0" or observed and left as is. Pressing the lower hot switch will advance the controller through the fifteen remaining steps allowing observation or alteration.

Note that on any program change or reset it is necessary to advance to the next step by pressing the lower hot switch to enter the revision. Otherwise the value will remain as it was before the alteration.

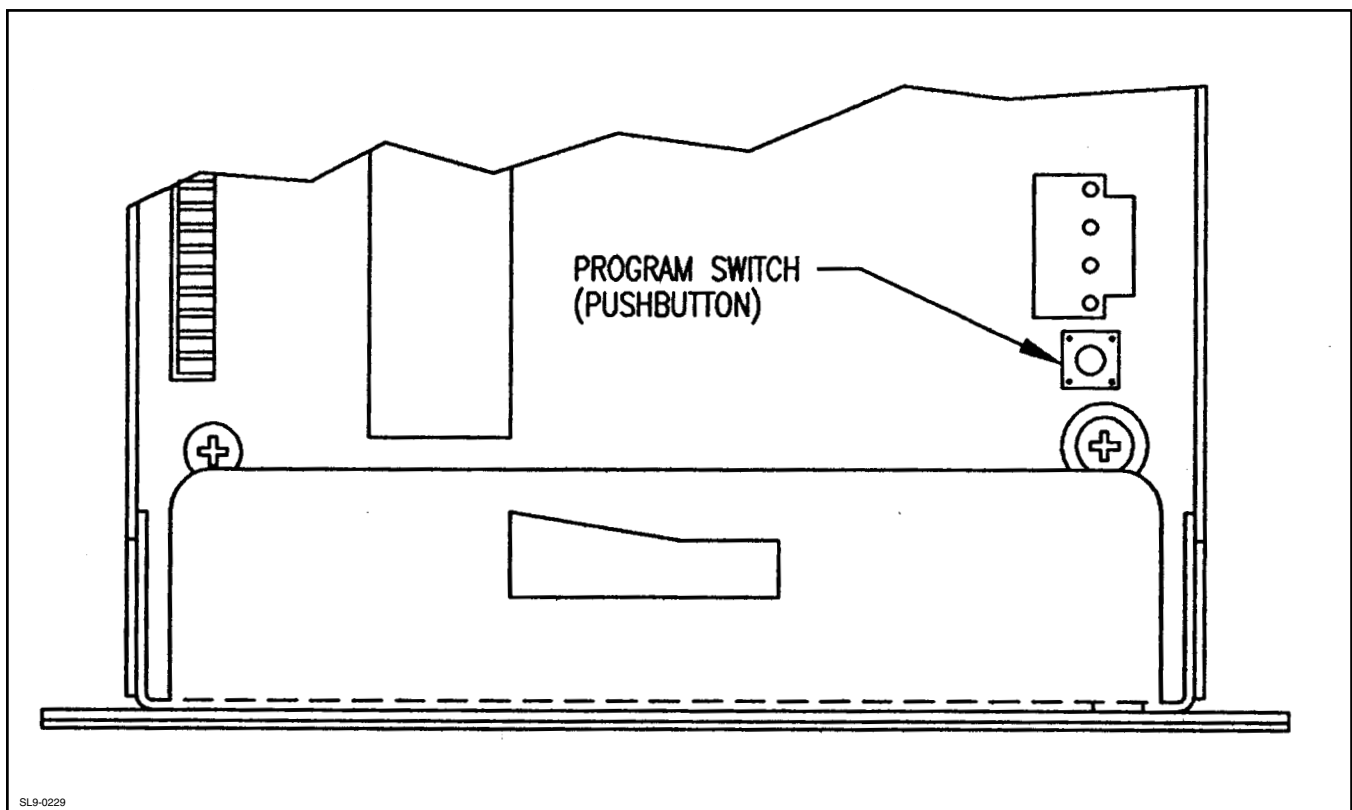


FIGURE 4 - Top View Of Controller.

SERVICING DRYER

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

ATTENTION. Lors des opérations d'entretien des commandes, étiqueter tous les fils avant de les déconnecter. Toute erreur de câblage peut être une source de danger et de panne.

DRYER PREVENTIVE MAINTENANCE (PM) REQUIREMENTS MAKE SURE ALL POWER IS DISCONNECTED BEFORE SERVICING MACHINE

DAILY

1. Clean lint screen using a soft brush if necessary. Check lint screen for rips or tears and replace if damaged.

MONTHLY

1. Clean lint from motor end bells and dryer controls area.
2. Clean lint from lint screen compartment.
3. Clean lint accumulation from top and all areas above, around and below burners and burner housing. **Failure to keep this section of dryer free from lint can create a fire hazard.**

SEMI-ANNUALLY

1. Check V-belts for cracks, wear, fraying, or looseness.
2. Inspect all fasteners (screws, bolts, nuts, etc.) and tighten any that are loose.
3. Clean all lint accumulation from inside of front panel.
4. Place a few drops of light oil on top and bottom pivots of the door hinge.
5. Inspect door glass gasket for excessive wear.
6. Clean lint accumulation from the burner primary air ports.
7. Check intermediate drive pulley bushings for excessive wear.

ANNUALLY

1. Remove, inspect and clean main burner orifices of obstructions or dirt.
2. Grease intermediate drive pulley bearing at zirk grease fitting.
3. Inspect and remove any lint accumulation in the exhaust ducts. Inspect all ducting from the dryer exhaust connection to the exit wall or roof.
4. Check tumbler shaft retaining nut for 125 Ft. pound torque.