

AD-236 Installation Manual

Phase 5 / Gas DSI

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

- 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.

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 à proximité de cet appareil ou de tout autre appareil.
- QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:
 - Ne pas tenter d'allumer d'appareils.
 - Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones se trouvant dans le bâtiment.
 - 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.



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Retain This Manual In A Safe Place For Future Reference

American Dryer Corporation products embody advanced concepts in engineering, design, and safety. If this product is properly maintained, it will provide many years of safe, efficient, and trouble free operation.

ONLY qualified technicians should service this equipment.

OBSERVE ALL SAFETY PRECAUTIONS displayed on the equipment or specified in the installation manual included with the dryer.

The following “**FOR YOUR SAFETY**” caution **must be** posted near the dryer 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.

POUR VOTRE SÉCURITÉ
Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables à proximité de cet appareil ou de tout autre appareil.

We have tried to make this manual as complete as possible and hope you will find it useful. ADC reserves the right to make changes from time to time, without notice or obligation, in prices, specifications, colors, and material, and to change or discontinue models. The illustrations included in this manual may not depict your particular dryer exactly.

Important

For your convenience, log the following information:

DATE OF PURCHASE _____ MODEL NO. **AD-236 (Gas DSI)**

RESELLER'S NAME _____

Serial Number(s) _____

Replacement parts can be obtained from your reseller or the ADC factory. When ordering replacement parts from the factory, you can FAX your order to ADC at (508) 678-9447 or telephone your order directly to the ADC Parts Department at (508) 678-9000. Please specify the dryer model number and serial number in addition to the **description** and **part number**, so that your order is processed accurately and promptly.

These instructions are only valid if the following country code is on the appliance... If this code is not present on the appliance, it is necessary to refer to the technical instructions which will provide the necessary information concerning the modification of the appliance to the condition of use for the country.

In accordance with EN ISO 3166-1, the names of countries shall be represented by the following codes:

GB United Kingdom
IE Ireland

“IMPORTANT NOTE TO PURCHASER”
Information **must be** obtained from your local gas supplier on the instructions to be followed if the user smells gas. These instructions **must be** posted in a prominent location near the dryer.

⚠ WARNING

Proposition 65

Use of this product could expose you to substances from fuel combustion that contain chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.

In the State of Massachusetts, the following installation instructions apply:

- Installations and repairs must be performed by a qualified or licensed contractor, plumber, or gasfitter qualified or licensed by the State of Massachusetts.
- If using a ball valve, it shall be a T-handle type.
- A flexible gas connector, when used, must not exceed 3 feet.

IMPORTANT

YOU MUST DISCONNECT AND LOCKOUT THE ELECTRIC SUPPLY AND THE GAS SUPPLY BEFORE ANY COVERS OR GUARDS ARE REMOVED FROM THE MACHINE TO ALLOW ACCESS FOR CLEANING, ADJUSTING, INSTALLATION, OR TESTING OF ANY EQUIPMENT PER OSHA (Occupational Safety and Health Administration) STANDARDS.

“Caution: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper operation.”

«Attention: Au moment de l'entretien des commandes, étiquetez tous les fils avant de les débrancher. Des erreurs de câblage peuvent entraîner un fonctionnement inadéquat et dangereux.»

CAUTION

DRYERS SHOULD NEVER BE LEFT UNATTENDED WHILE IN OPERATION.

WARNING

**CHILDREN SHOULD NOT BE ALLOWED TO PLAY ON OR NEAR THE DRYER(S).
CHILDREN SHOULD BE SUPERVISED IF NEAR DRYERS IN OPERATION.**

FOR YOUR SAFETY

DO NOT DRY MOP HEADS IN THE DRYER.

DO NOT USE DRYER IN THE PRESENCE OF DRY CLEANING FUMES.

WARNING

UNDER NO CIRCUMSTANCES should the dryer door switches, lint drawer switch, or heat safety circuit ever be disabled.

DO NOT MODIFY THIS APPLIANCE.

The dryer *must never be* operated with any of the back guards, outer tops, or service panels removed. PERSONAL INJURY OR FIRE COULD RESULT.

DRYER MUST NEVER BE OPERATED WITHOUT THE LINT FILTER/SCREEN IN PLACE, EVEN IF AN EXTERNAL LINT COLLECTION SYSTEM IS USED.

If the hi-limit switch trips, a service call is required to investigate the reason and resolve the issue.

IMPORTANT

PLEASE OBSERVE ALL SAFETY PRECAUTIONS displayed on the equipment and/or specified in the installation manual included with the dryer.

Dryer ***must not be*** installed or stored in an area where it **will be** exposed to water or weather.

The wiring diagram for the dryer is located in the front electrical control box area.

IMPORTANT

Dryer *must be* installed in a location/environment, which the ambient temperature remains between 40° F (4.44° C) and 130° F (54.44° C).

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SECTION I

IMPORTANT INFORMATION

A. RECEIVING AND HANDLING

The dryer is shipped in a protective stretch wrap cover with protective cardboard corners and top cover (or optional box) as a means of preventing damage in transit. Upon delivery, the dryer and/or packaging, and wooden skid **should be** visually inspected for shipping damage. If any damage whatsoever is noticed, inspect further before delivering carrier leaves.

Dryers damaged in shipment:

1. **ALL** dryers **should be** inspected upon receipt and before they are signed for.
2. If there is suspected damage or actual damage, the trucker's receipt **should be** so noted.
3. If the dryer is damaged beyond repair, it **should be** refused. Those dryers, which were not damaged in a damaged shipment **should be** accepted, but the number received and the number refused **must be** noted on the receipt.
4. If you determine that the dryer was damaged after the trucker has left your location, you should call the delivering carrier's freight terminal immediately and file a claim. The freight company considers this concealed damage. This type of freight claim is very difficult to get paid and becomes extremely difficult when more than a day or two passes after the freight was delivered. It is your responsibility to file freight claims. Dryer/parts damaged in transit **cannot** be claimed under warranty.
5. Freight claims are the responsibility of the consignee, and **ALL** claims **must be** filed at the receiving end. **ADC** assumes no responsibility for freight claims or damages.
6. If you need assistance in handling the situation, please contact the **ADC** Traffic Manager at (508) 678-9000.

IMPORTANT: The dryer *must be* transported and handled in an upright position at **ALL** times.

B. SAFETY PRECAUTIONS

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.

WARNING: The dryer *must never be* operated with any of the back guards, outer tops, or service panels removed. **PERSONAL INJURY OR FIRE COULD RESULT.**

1. **DO NOT** store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
2. **DO NOT** spray aerosols in the vicinity of this appliance while it is in operation.
3. Purchaser/user should consult the local gas supplier for proper instructions to be followed in the event the user smells gas. The instructions **should be** posted in a prominent location.
4. WHAT TO DO IF YOU SMELL GAS...
 - a. **DO NOT** try to light any appliance.
 - b. **DO NOT** touch any electrical switch.
 - c. **DO NOT** use any phone in your building.
 - d. Clear the room, building, or area of **ALL** occupants.
 - e. Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - f. If you **cannot** reach your gas supplier, call the fire department.
5. Installation and service **must be** performed by a qualified installer, service agency, or gas supplier.
6. Dryer(s) **must be** exhausted to the outdoors.
7. Although **ADC** produces a very versatile dryer, there are some articles that, due to fabric composition or cleaning method, **should not be** dried in it.

WARNING: Dry only water washed fabrics. **DO NOT** dry articles spotted or washed in dry cleaning solvents, a combustible detergent, industrial chemicals, or "all purpose" cleaner. **EXPLOSION COULD RESULT.**

WARNING: **DO NOT** dry rags or articles coated or contaminated with gasoline, kerosene, oil, paint, or wax. **EXPLOSION COULD RESULT.**

WARNING: **DO NOT** dry mop heads. Contamination by wax or flammable solvents will create a fire hazard.

WARNING: **DO NOT** use heat for drying articles that contain plastic, foam, sponge rubber, or similarly textured rubberlike materials. Drying in a heated basket (tumbler) may damage plastics or rubber and may be a fire hazard.

8. The possible presence of residual quantities of aggressive or decomposed chemicals in the load may produce damage to the machine and harmful fumes.
9. A program **should be** established for the inspection and cleaning of lint in the burner area, exhaust ductwork, and area around the back of the dryer. The frequency of inspection and cleaning can best be determined from experience at each location.

WARNING: The collection of lint in the burner area and exhaust ductwork can create a potential fire hazard.

10. For personal safety, the dryer **must be** electrically grounded in accordance with local codes or the National Electrical Code ANSI/NFPA NO. 70-LATEST EDITION, or in Canada, the Canadian Electrical Codes Parts 1 & 2 CSA C22.1-1990 or LATEST EDITION.

NOTE: Failure to do so will VOID THE WARRANTY.

11. UNDER NO CIRCUMSTANCES should the dryer door switches, lint drawer switch, or heat safety circuit ever be disabled.

WARNING: PERSONAL INJURY OR FIRE COULD RESULT.

12. This dryer is not to be used in the presence of dry cleaning solvents or fumes.
13. Remove articles from the dryer as soon as the drying cycle has been completed.

WARNING: Articles left in the dryer after the drying and cooling cycles have been completed can create a fire hazard.

14. **READ AND FOLLOW ALL CAUTION AND DIRECTION LABELS ATTACHED TO THE DRYER.**

15. For safety, proper operation, and optimum performances, the dryer **must not be** operated with a load less than sixty-six percent (66%), 40 lb (18.14 kg) of its rated capacity.

WARNING: YOU MUST DISCONNECT AND LOCKOUT THE ELECTRIC SUPPLY AND THE GAS SUPPLY BEFORE ANY COVERS OR GUARDS ARE REMOVED FROM THE MACHINE TO ALLOW ACCESS FOR CLEANING, ADJUSTING, INSTALLATION, OR TESTING OF ANY EQUIPMENT PER OSHA (Occupational Safety and Health Administration) STANDARDS.

IMPORTANT: Dryer *must be* installed in a location/environment, which the ambient temperature remains between 40° F (4.44° C) and 130° F (54.44° C).

CE ONLY

IMPORTANT: This appliance must only be installed and operated in the country of destination indicated on the dryer's data plate. If the appliance is to be installed and operated in a country other than the one indicated on the data plate, a data plate amendment must be obtained from American Dryer Corporation.

IEC335 applies.

SECTION II

SPECIFICATIONS

A. SPECIFICATIONS

MAXIMUM CAPACITY (DRY WEIGHT) PER POCKET		30 lb	13.6 kg	
TUMBLER DIAMETER		27-1/4"	69.22 cm	
TUMBLER DEPTH		30"	76.2 cm	
TUMBLER VOLUME PER POCKET		10.1 cu ft	286 L	
TUMBLER/DRIVE MOTOR PER POCKET		1/2 hp	0.373 kW	
BLOWER/FAN MOTOR PER POCKET		1/2 hp	0.373 kW	
DOOR OPENING (DIAMETER)		21-1/2"	54.61 cm	
DOOR SILL HEIGHT TOP POCKET / BOTTOM POCKET		51-1/4" / 13-1/2"	130.2 cm / 34.3 cm	
WATER CONNECTION		N / A		
DRYERS PER 20'/40' CONTAINER		11 / 22		
DRYERS PER 48'/53' TRUCK		30 / 33		
GAS	VOLTAGE AVAILABLE		120-240V 1,3ø 2,3w 50/60 Hz	
	APPROXIMATE NET WEIGHT		850 lb 385.5 kg	
	APPROXIMATE SHIPPING WEIGHT		900 lb 408.2 kg	
	AIRFLOW PER POCKET	60 Hz	400 cfm	11.33 cmm
		50 Hz	333 cfm	9.44 cmm
	HEAT INPUT PER POCKET		80,000 Btu/hr	20,160 kcal/hr
	EXHAUST CONNECTION (DIAMETER)		8"	20.32 cm
	COMPRESSED AIR CONNECTION		N / A	
	COMPRESSED AIR VOLUME		N / A	
INLET PIPE CONNECTION		3/4" M.N.P.T.		
ELECTRIC	VOLTAGE AVAILABLE		N / A	
	APPROXIMATE NET WEIGHT			
	APPROXIMATE SHIPPING WEIGHT			
	AIRFLOW PER POCKET			
	EXHAUST CONNECTION (DIAMETER) PER POCKET			
	COMPRESSED AIR CONNECTION			
	COMPRESSED AIR VOLUME			
	OVEN SIZE PER POCKET			
	kW	Btu/hr	kcal/hr	
STEAM	VOLTAGE AVAILABLE		N / A	
	APPROXIMATE NET WEIGHT			
	APPROXIMATE SHIPPING WEIGHT			
	AIRFLOW PER POCKET			
	STEAM CONSUMPTION PER POCKET			
	OPERATING STEAM PRESSURE			
	EXHAUST CONNECTION (DIAMETER) PER POCKET			
	COMPRESSED AIR CONNECTION			
	COMPRESSED AIR VOLUME			
	BOILER HORSEPOWER (NORMAL LOAD) PER POCKET			
	SUPPLY CONNECTION PER POCKET			
	RETURN CONNECTION PER POCKET			

Shaded areas are stated in metric equivalents

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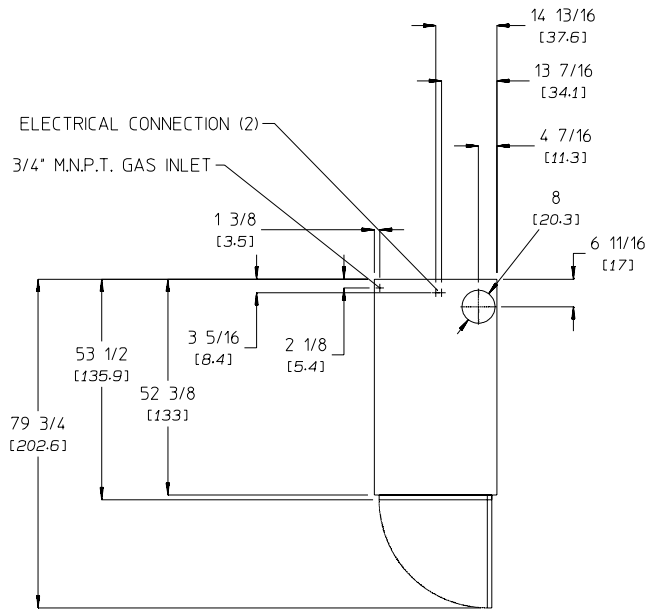
NOTE: ADC reserves the right to make changes in specifications at any time without notice or obligation.

SPECIFICATIONS

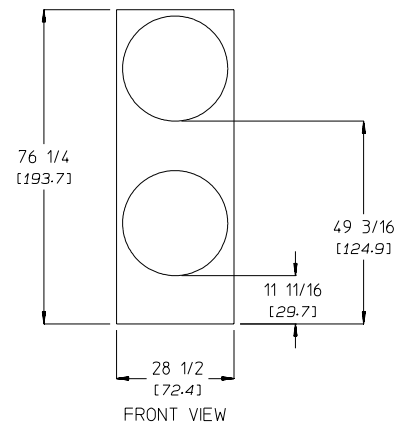
ADG-236 (GAS)

DRYER NOTES:

- ° DUCTWORK SIZE VARIES WITH INSTALLATION CONDITIONS.
- ° EXHAUST STATIC PRESSURE MUST BE NO LESS THAN 0 AND MUST NOT EXCEED 0.3" (0.74 MB) WATER COLUMN.



PLAN VIEW



FRONT VIEW

NOTE: ADC reserves the right to make changes in specifications at any time without notice or obligation.

SECTION III

INSTALLATION PROCEDURES

Installation **should be** performed by competent technicians in accordance with local and state codes. In the absence of these codes, the installation **must conform** to applicable American National Standards: ANSI Z223.1-LATEST EDITION (National Fuel Gas Code) or ANSI/NFPA NO. 70-LATEST EDITION (National Electrical Code) or in Canada, the installation **must conform** to applicable Canadian Standards: CAN/CGA-B149.1-M91 (Natural Gas) or CAN/CGA-B149.2-M91 (Liquid Propane [L.P.] Gas) or LATEST EDITION (for General Installation and Gas Plumbing) or Canadian Electrical Codes Parts 1 & 2 CSA C22.1-1990 or LATEST EDITION (for Electrical Connections).

A. UNPACKING/SETTING UP

Remove protective shipping material (i.e., plastic wrap and/or optional shipping box) from dryer.

NOTE: The access keys for the service doors are included in the information packet shipped in the basket (tumbler). These keys **should be** removed and put in a safe place, yet made accessible because they **will be** needed throughout various phases in the installation of the dryer.

Dryers are shipped with a coin box and coin box faceplate ONLY. The coin box lock is not included and **must be** purchased elsewhere or the lock can be ordered as a parts order from the **ADC** Parts Department at (508) 678-9000.

The dryer can be moved to its final location while still attached to the skid or with the skid removed. To unskid the dryer, locate and remove the four (4) bolts securing the base of the dryer to the wooden skid. Two (2) are at the rear of the base and two (2) are located in the front. Once the bolts are removed, slide the dryer off of the skid.

With the skid removed, to make it easier to slide the dryer into its final position, slightly lower **ALL** the leveling legs so that the dryer will slide on the legs instead of the base frame. The dryer is equipped with four (4) leveling legs, one (1) at each corner of the dryer base. The hex head adjustment bolts for the two (2) front leveling legs are located directly behind the lower access door and the rear two (2) adjustments are directly behind the lower rear back (guard) panel.

B. LOCATION REQUIREMENTS

Before installing the dryer, be sure the location conforms to local codes and ordinances. In the absence of such codes or ordinances the location **must conform** with the National Fuel Gas Code ANSI.Z223.1 LATEST EDITION, or in Canada, the installation **must conform** to applicable Canadian Standards: CAN/CGA-B149.1-M91 (Natural Gas) or CAN/CGA-B149.2-M91 (Liquid Propane [L.P.] Gas) or LATEST EDITION (for General Installation and Gas Plumbing).

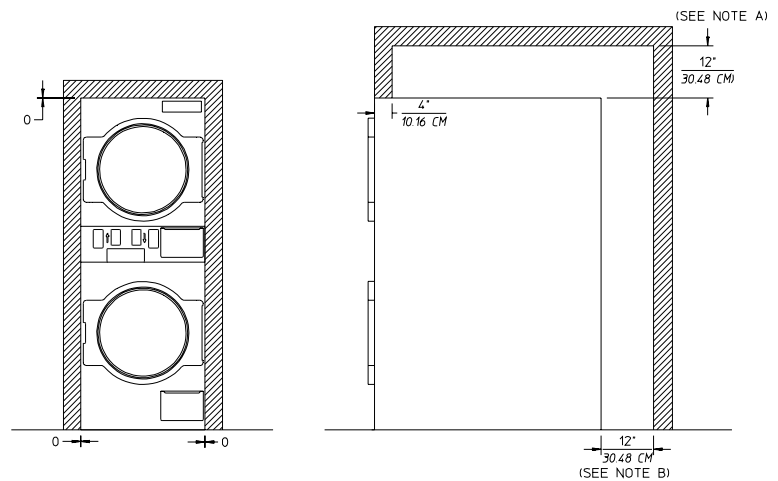
1. The dryer **must be** installed on a sound level floor capable of supporting its weight. Carpeting **must be** removed from the floor area that the dryer is to rest on.

IMPORTANT: “The dryer **must be** installed on noncombustible floors only.”

2. The dryer **must not be** installed or stored in an area where it will be exposed to water and/or weather.
3. The dryer is for use in noncombustible locations.
4. Provisions for adequate air supply **must be** provided as noted in this manual (refer to **Fresh Air Supply Requirements** in **Section D**).

5. Clearance provisions **must be** made from combustible construction as noted in this manual (refer to **Dryer Enclosure Requirements** in **Section C**). Even though a 12-inch (30.48 cm) clearance is acceptable, it is recommended that the rear of the dryer be positioned approximately 2 feet (0.61 meters) away from the nearest obstruction (i.e., wall) for ease of installation, maintenance, and service. (Refer to the **illustration** at right.)

CLEARANCES SHOWN ARE MINIMUM DIMENSIONS TO NEAREST COMBUSTIBLE MATERIALS.



NOTES:

- MAN4654
- A. MINIMUM OF 12" (30.48 CM) CLEARANCE IS ACCEPTABLE FOR EASE OF INSTALLATION AND SERVICE (POWER CONNECTIONS). AT LEAST 18" (45.72 CM) IS RECOMMENDED.
 - B. MINIMUM OF 12" (30.48 CM) CLEARANCE IS ACCEPTABLE FOR EASE OF INSTALLATION, MAINTENANCE AND SERVICE. AT LEAST 24" (61 CM) IS RECOMMENDED.

6. Provisions **must be** made for adequate clearances for servicing and for operation as noted in this manual (refer to **Dryer Enclosure Requirements** in **Section C**).
7. Dryer **must be** exhausted to the outdoors as noted in this manual (refer to **Exhaust Requirements** in **Section E**).
8. Dryer **must be** located in an area where correct exhaust venting can be achieved as noted in this manual (refer to **Exhaust Requirements** in **Section E**).

IMPORTANT: Dryer *should be* located where a minimum amount of exhaust duct **will be** necessary.

9. The dryer **must be** installed with a proper exhaust duct connection to the outside.

10. The dryer **must be** installed with provisions for adequate combustion and make-up air supply.

CAUTION: This dryer produces combustible lint and **must be** exhausted to the outdoors. Every 6 months, inspect the exhaust ducting and remove any lint build up.

IMPORTANT: Dryer **must be** installed in a location/environment, which the ambient temperature remains between 40° F (4.44° C) and 130° F (54.44° C).

C. DRYER ENCLOSURE REQUIREMENTS

Bulkheads and partitions **must be** made of noncombustible materials and **must be** located a minimum of 12-inches (30.48 cm) above the dryer outer top, except along the front of the dryer which may be partially closed in if desired.

NOTE: Allowances **must be** made for opening the control door.

Dryers may be positioned sidewall to sidewall. However, a 1/16” (1.5875 mm) minimum allowance **must be** made for the opening and closing of the control door and the lint door. It is suggested that the dryer be positioned about 2 feet (0.61 meters) away from the nearest obstruction, for ease of installation, maintenance, and service (to be measured from the back guard). Refer to the **illustration** on the previous page for details.

NOTE: Air considerations are important for proper and efficient operation.

IMPORTANT: Even though a minimum of only 12-inches (30.48 cm) is required, 18-inches (45.72 cm) or more is suggested. The additional clearance is advantageous for ease of installation and service.

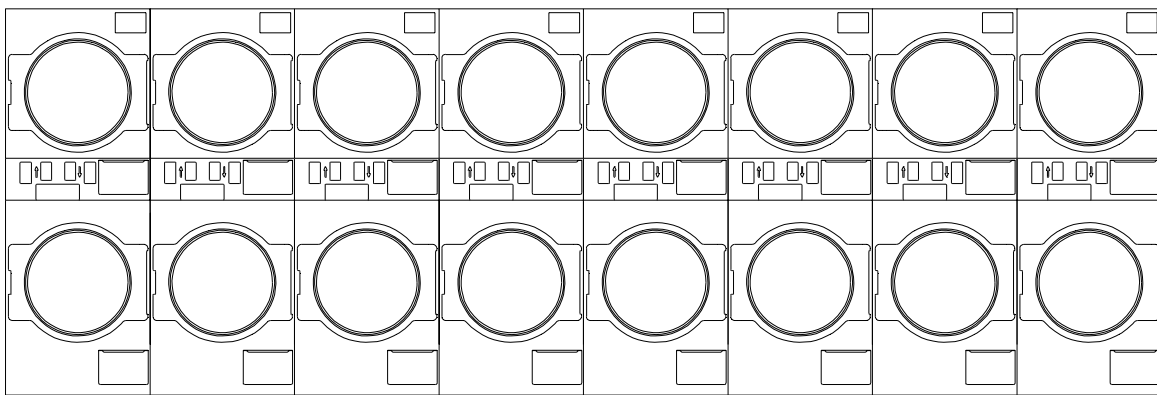
IMPORTANT: When fire sprinkler systems are located above the dryers, a minimum of 18-inches (45.72 cm) above the dryer console (module) is required. Dryers may be positioned sidewall to sidewall, however, a 1/16” (1.5875 mm) minimum allowance is required between dryers (or wall) for ease of installation and maintenance. Allowances **must be** made for the opening and closing of the control door and the lint door.

D. FRESH AIR SUPPLY REQUIREMENTS

This appliance may only be installed in a room that meets the appropriate ventilation requirements specified in the national installation regulations.

When the dryer is operating, it draws in room air, heats it, passes this air through the basket (tumbler), and exhausts it out of the building. Therefore, the room air **must be** continually replenished from the outdoors. If the make-up air is inadequate, drying time and drying efficiency will be adversely affected. Ignition problems and sail switch “fluttering” problems may result, as well as premature motor failure from overheating.

Air supply (make-up air) **must be** given careful consideration to assure proper performance of each dryer. An unrestricted source of 800 cfm (cubic feet per minute) (22.66 cmm [cubic meters per minute]) is necessary for each dryer. As a general rule, an unrestricted air entrance from the outdoors (atmosphere) of a minimum of 1-1/2 square feet (0.41 square meters) is required for each dryer. The area **must be** enlarged if louvers or registers cover the openings. The dryer **must be** installed with provisions for adequate combustion and make-up air supply.



MAN4655

TYPICAL INSTALLATION SHOWING MAKE-UP AIR OPENINGS

To compensate for the use of registers or louvers used over the openings, this make-up air **must be** increased by approximately thirty-three percent (33%). Make-up air openings **should not be** located in an area directly near where exhaust vents exit the building.

It is not necessary to have a separate make-up air opening for each dryer. Common make-up air openings are acceptable. However, they **must be** set up in such a manner that the make-up air is distributed equally to **ALL** the dryers.

EXAMPLE: For a bank of eight (8) dryers, a total make-up air opening of 12 square feet (1.12 square meters) is required. Two (2) unrestricted openings measuring 2 feet by 3 feet (6 square feet) (0.61 meters by 0.92 meters [0.56 square meters]) are acceptable.

Allowances **must be** made for remote or constricting passageways or where dryers are located at excessive altitudes or predominantly low pressure areas.

IMPORTANT: Make-up air **must be** provided from a source free of dry cleaning solvent fumes. Make-up air that is contaminated by dry cleaning solvent fumes will result in irreparable damage to the motors and other dryer components.

NOTE: Component failure due to dry cleaning solvent fumes will **VOID THE WARRANTY**.

E. EXHAUST REQUIREMENTS

Exhaust ductwork **should be** designed and installed by a qualified professional. Improperly sized ductwork will create excessive back pressure which results in slow drying, increased use of energy, overheating of the dryer, and shut down of the burner by the airflow (sail) switches, burner hi-limits, or basket (tumbler) hi-limit thermostats. The dryer **must be** installed with a proper exhaust duct connection to the outside.

The design of the flue system shall be such that any condensate formed when operating the appliance from cold shall either be retained and subsequently re-evaporated or discharged.

CAUTION: This dryer produces combustible lint and **must be** exhausted to the outdoors.

CAUTION: IMPROPERLY SIZED OR INSTALLED EXHAUST DUCTWORK CAN CREATE A POTENTIAL FIRE HAZARD.

The ductwork **should be** laid out in such a way that the ductwork travels as directly as possible to the outdoors with as few turns as possible. When single dryer venting is used, the length of ductwork from the dryer to the outside exhaust outlet **must not exceed** 20 feet (6.1 meters). In the case of multiple (common) dryer venting, the distance from the last dryer to the outside exhaust outlet **must not exceed** 20 feet (6.1 meters). The shape of the ductwork is not critical so long as the minimum cross-sectional area is provided.

1. Single Dryer Venting

Where possible, it is suggested to provide a separate exhaust duct for each dryer. The exhaust ductwork **should be** laid out in such a way that the ductwork travels as directly as possible to the outdoors with as few turns as possible. It is suggested that the use of 90° turns be avoided; use 30° and/or 45° bends instead. The radius of the elbows **should preferably be** 1-1/2 times the diameter of the duct. The shape of the ductwork is not critical so long as the minimum cross-sectional area is provided.

IMPORTANT: Exhaust back pressure measured by a manometer/magnehelic in the exhaust duct **must be** no less than 0 and **must not exceed** 0.3 in WC (0.74 mb) with both baskets (tumblers) operating.

NOTE: It is recommended that exhaust or booster fans not be used in the exhaust ductwork system except where necessary to maintain exhaust back pressure (in the exhaust duct) between zero and 0.3 inch water column with both baskets (tumblers) operating. Where employed, booster fans must not activate the dryer airflow proving switch (sail switch) when the dryer **is not** in operation.

It is suggested that the ductwork from each dryer **must not exceed** 20 feet (6.1 meters) with no more than two (2) elbows. If the ductwork exceeds 20 feet (6.1 meters) or has numerous elbows, the cross-sectional area of the ductwork **must be** increased in proportion to the length or number of elbows in it.

IMPORTANT: For extended ductwork runs, the cross-sectional area of the ductwork can only be increased to an extent. Maximum proportional ductwork runs **cannot** exceed 20 feet (6.1 meters) more than the original limitations of 20 feet (6.1 meters) with two (2) elbows. When the ductwork approaches the maximum limits as noted in this manual, a professional heating, venting, and air conditioning (HVAC) firm **should be** consulted for proper venting information.

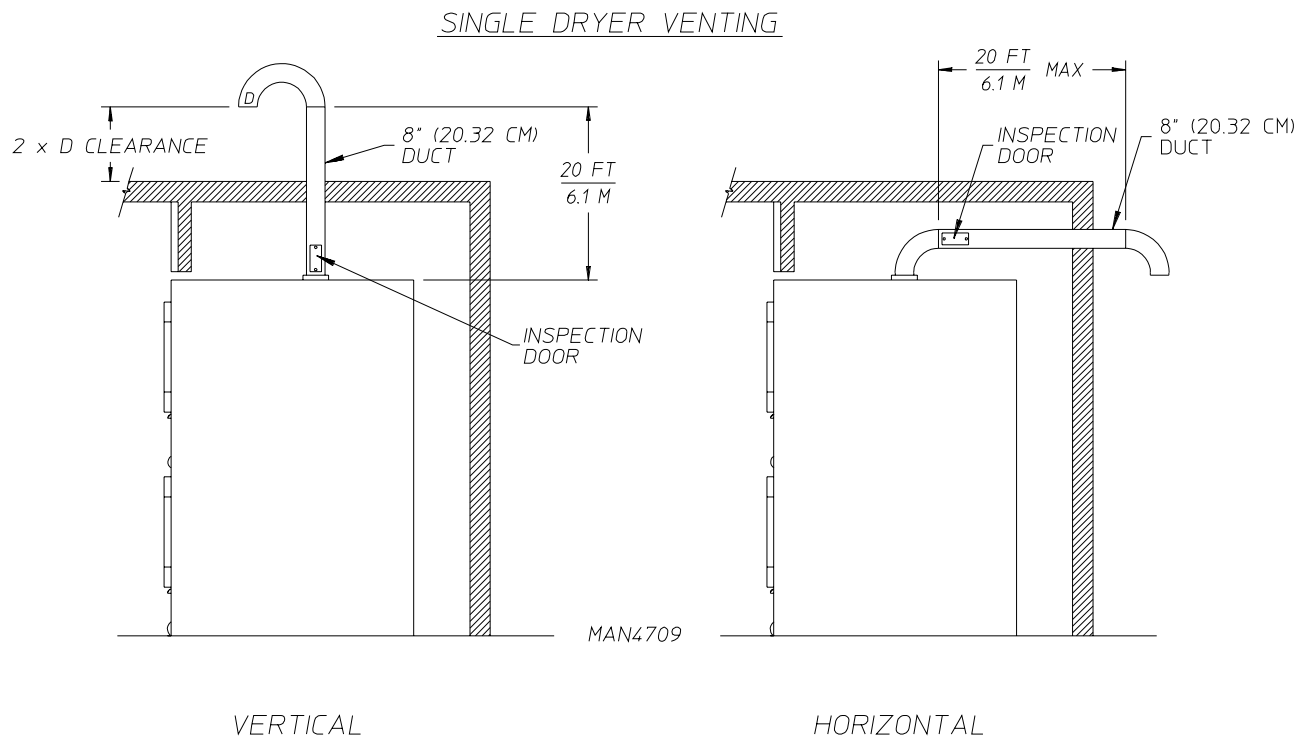
NOTE: As per the National Fuel Gas Code, “Exhaust ducts for Type 2 clothes dryers shall be constructed of sheet metal or other noncombustible material. Such ducts shall be equivalent in strength and corrosion resistance to ducts made of galvanized sheet steel not less than 0.0195 inches (26 gauge [0.50 mm]) thick.”

ALL ductwork **should be** smooth inside with no projections from sheet metal screws or other obstructions, which will collect lint. When adding ducts, the duct to be added should overlap the duct to which it is to be connected. **ALL** ductwork joints **must be** taped to prevent moisture and lint from escaping into the building. Inspection doors **should be** installed at strategic points in the exhaust ductwork for periodic inspection and cleaning of lint from the ductwork.

NOTE: When the exhaust ductwork passes through a wall, ceiling, or roof made of combustible materials, the opening **must be** 2-inches (5.08 cm) larger than the duct (all the way around). The duct **must be** centered within this opening.

a. Outside Ductwork Protection

- 1) To protect the outside end of the horizontal ductwork from the weather, a 90° elbow bent downward **should be** installed where the exhaust exits the building. If the ductwork travels vertically up through the roof, it **should be** protected from the weather by using a 180° turn to point the opening downward. In either case, allow at least twice the diameter of the duct between the duct opening and the nearest obstruction.



IMPORTANT: DO NOT use screens, louvers, or caps on the outside opening of the exhaust ductwork.

2. Multiple Dryer (Common) Venting

If it is not feasible to provide a separate exhaust duct for each dryer, ducts from individual dryers may be channeled into a “common main duct.” The individual ducts should enter the bottom or the side of the main duct at an angle not more than 45° in the direction of the airflow. The main duct **should be** tapered with the diameter increasing before each individual 8-inch (20.32 cm) duct is added.

IMPORTANT: No more than eight (8) dryers **should be** connected to one (1) main common duct (refer to the **illustration** on the following page).

The main duct may be any shape so long as the minimum cross-sectional area is provided. The **illustration** on the following page shows the minimum cross-sectional area for multiple dryer venting. These figures **must be** increased in proportion as the result of whatever changes or additions are made to this ductwork run. Two (2) examples are if ductwork length from last dryer to where duct exits the building exceeds limits noted (20 feet [6.1 meters]) or, if ductwork runs from last dryer to where duct exits the building has more than two (2) elbows (including outside protection).

NOTE: Refer to the **illustration** on the following page for examples of multiple dryer (common) venting.

IMPORTANT: For extended ductwork runs, the cross-sectional area of the ductwork can only be increased to an extent. Maximum proportional ductwork runs **cannot** exceed 20 feet (6.1 meters) more than the original limitations of 20 feet (6.1 meters) with one (1) elbow. When the ductwork approaches the maximum limits as noted in this manual, a professional heating, venting, and air conditioning (HVAC) firm **should be** consulted for proper venting information.

IMPORTANT: Exhaust back pressure measured by a manometer/magnehelic in the exhaust duct **must be** no less than 0 and **must not exceed** 0.3 in WC (0.74 mb) with both baskets (tumblers) operating.

NOTE: **It is recommended** that exhaust or booster fans not be used in the exhaust ductwork system except where necessary to maintain exhaust back pressure (in the exhaust duct) between zero and 0.3 inch water column with both baskets (tumblers) operating. Where employed, booster fans must not activate the dryer airflow proving switch (sail switch) when the dryer **is not** in operation.

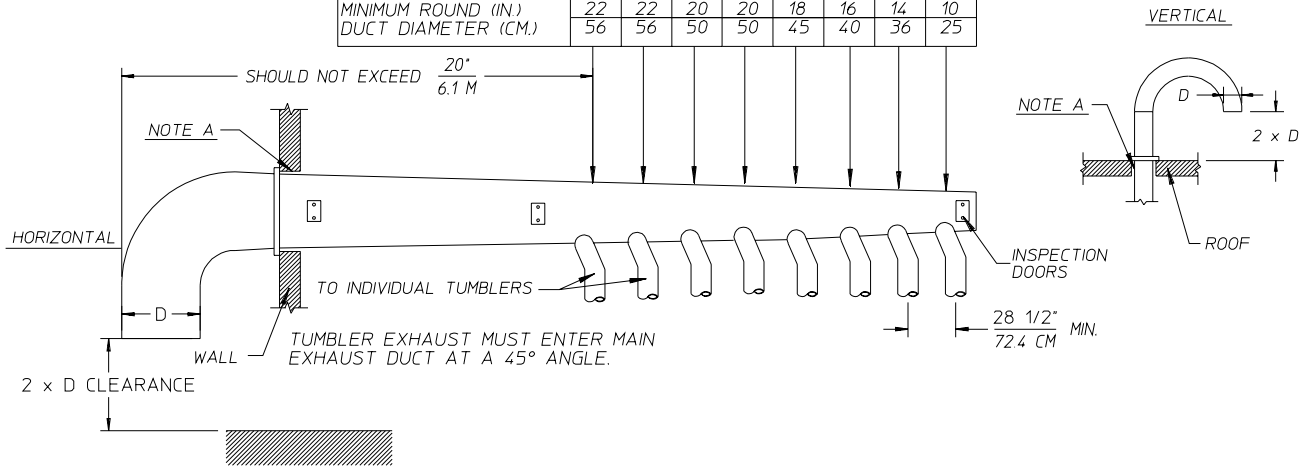
The ductwork **should be** smooth inside with no projections from sheet metal screws or other obstructions, which will collect lint. When adding ducts, the duct to be added should overlap the duct to which it is to be connected. **ALL** ductwork joints **must be** taped to prevent moisture and lint from escaping into the building. Inspection doors **should be** installed at strategic points in the exhaust ductwork for periodic inspection and cleaning of lint from the ductwork.

NOTE: When the exhaust ductwork passes through a wall, ceiling, or roof made of combustible materials, the opening **must be** 2-inches (5.08 cm) larger than the duct (all the way around). The duct **must be** centered within this opening.

To protect the outside end of the horizontal ductwork from the weather, a 90° elbow bent downward **should be** installed where the exhaust exits the building. If the exhaust ductwork travels vertically up through the roof, it **should be** protected from the weather by using a 180° turn to point the opening downward. In either case, allow at least twice the diameter of the duct between the duct opening and nearest obstruction.

MULTIPLE DRYER VENTING
WITH 8" (20.32 CM) DIAMETER EXHAUST CONNECTIONS AT COMMON DUCT

NO. OF DRYERS	8	7	6	5	4	3	2	1
MINIMUM CROSS (SQ.IN.) SECTION AREA (SQ.CM.)	380 2451	380 2451	315 2032	315 2032	255 1655	200 1290	155 1000	80 516
MINIMUM ROUND (IN.) DUCT DIAMETER (CM.)	22 56	22 56	20 50	20 50	18 45	16 40	14 36	10 25



IMPORTANT: NO MORE THAN 8 DRYERS CAN BE CONNECTED TO ONE COMMON DUCT (VENT).

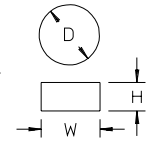
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FORMULAS TO CALCULATE DUCTING CROSS SECTIONAL AREA

CROSS SECTIONAL AREA OF A ROUND DUCT = .785 (19.939 mm) x D² WHERE D = DIAMETER OF THE DUCT.

CROSS SECTIONAL AREA OF A RECTANGULAR DUCT = W x H WHERE W = WIDTH AND H = HEIGHT.



NOTE A: OPENING MUST BE TWO (2) INCHES (5.08 CM) LARGER THAN DUCT (ALL THE WAY AROUND). THE DUCT MUST BE CENTERED WITHIN THIS OPENING.

F. ELECTRICAL INFORMATION

1. Electrical Requirements

It is your responsibility to have **ALL** electrical connections made by a properly licensed and competent electrician to assure that the electrical installation is adequate and conforms to local and state regulations or codes. In the absence of such codes, **ALL** electrical connections, materials, and workmanship **must conform** to the applicable requirements of the National Electrical Code ANSI/NFPA NO. 70-LATEST EDITION, or in Canada, the Canadian Electrical Codes Parts 1 & 2 CSA C22.1-1990 or LATEST EDITION.

IMPORTANT: Failure to comply with these codes or ordinances, or the requirements stipulated in this manual, can result in personal injury or component failure.

NOTE: Component failure due to improper installation will **VOID THE WARRANTY**.

A separate circuit servicing each dryer **must be** provided. The dryer **must be** connected with copper wire only. **DO NOT use aluminum wire, which could cause a fire hazard.**

NOTE: The use of aluminum wire will **VOID THE WARRANTY**.

2. Grounding

A ground (earth) connection **must be** provided and installed in accordance with state and local codes. In the absence of these codes, grounding **must conform** to applicable requirements of the National Electrical Code ANSI/NFPA NO. 70-LATEST EDITION, or in Canada, the Canadian Electrical Codes Parts 1 & 2 CSA C22.1-1990 or LATEST EDITION. The ground connection may be to a proven earth ground at the location service panel.

For added personal safety, when possible, it is suggested that a separate ground wire (sized per local codes) be connected from the ground connection of the dryer to a grounded cold water pipe. **DO NOT ground to a gas pipe or hot water pipe.** The grounded cold water pipe must have metal to metal connection **ALL** the way to electrical ground. If there are any nonmetallic interruptions, such as, a meter, pump, plastic, rubber, or other insulating connectors, they **must be** jumped out with no. 4 copper wire and securely clamped to bare metal at both ends.

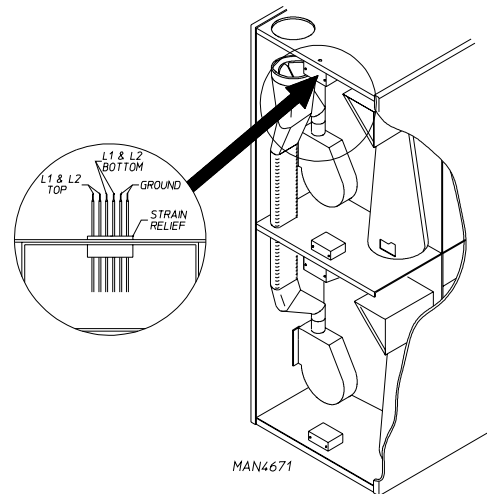
IMPORTANT: For personal safety and proper operation, the dryer **must be** grounded.

3. Electrical Connections

A wire diagram is located on the inside of the control (service) box for connection data.

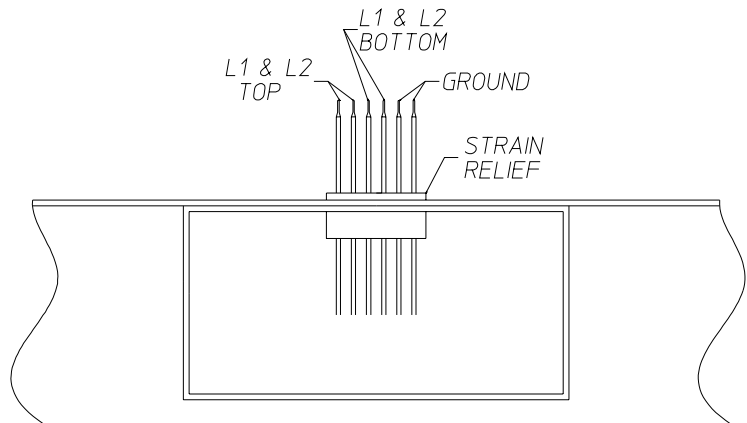
a. Single-Phase (1 ϕ) Hookup

The electrical input connections on **ALL** single-phase (1 ϕ) dryers are made into the junction box located at the upper rear of the dryer. A separate circuit servicing each dryer basket (tumbler) **must be** provided.



SINGLE-PHASE (1Ø) ELECTRICAL CONNECTION LEADS		
Black + Positive	White - Neutral	Green Ground
or L2		

Providing local codes permit, power to the dryer can be made by use of a flexible U.L. listed power cord or pigtail (wire size **must conform** to the rating of the dryer), or the dryer can be hard wired directly to the service breaker panel. In both cases, a strain relief **must be** installed where the wiring enters the dryer.



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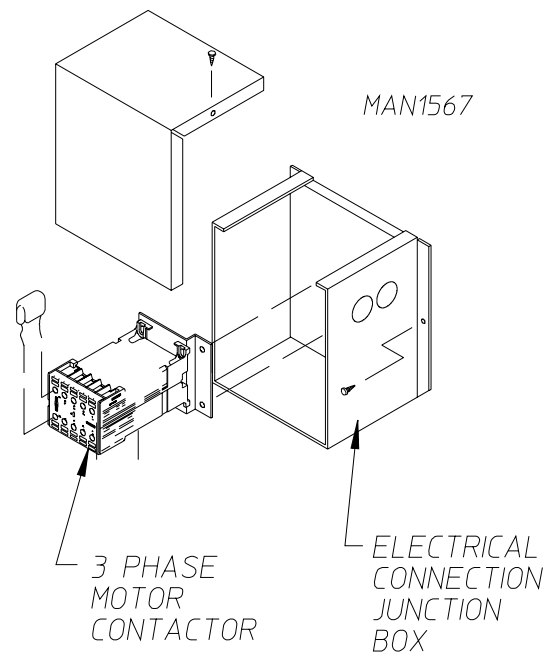
4. 3-Phase (3Ø) Wiring Connections

The only electrical input connections to the dryer are the 3-phase (3Ø) power leads (L1, L2, L3, and sometimes Neutral) and ground. Single-phase (1Ø) power for the control circuit and for any single-phase (1Ø) motor (if present) is done internally to the dryer. No single-phase (1Ø) input connection is required on a 3-phase (3Ø) dryer.

a. 3-Phase (3Ø) Hookup

For gas dryers manufactured for operation at 3-phase (3Ø), the electrical input connections are made at the 3-phase (3Ø) motor contactor located in the junction box at the rear of the dryer. To gain access to the contactor, the junction box cover **must be** removed.

Providing local codes permit, power to the dryer can be made by use of a flexible U.L. listed power cord or pigtail (wire size **must conform** to the rating of the dryer), or the dryer can be hard wired directly to the service breaker panel. In both cases, a strain relief **must be** installed where the wiring enters the dryer.



5. Electrical Service Specifications

GAS					
ELECTRICAL SERVICE SPECIFICATIONS (PER DRYER)					
<p>IMPORTANT: 208 VAC AND 230/240 VAC ARE NOT THE SAME. When ordering, specify exact voltage.</p> <p>NOTES: A. When fuses are used they must be dual element, time delay, current limiting, class RK1 or RK5 ONLY. Calculate/determine correct fuse value, by applying either local and/or National Electrical Codes to listed appliance amp draw data.</p> <p>B. Circuit breakers are thermal-magnetic (industrial) motor curve type ONLY. For others, calculate/verify correct breaker size according to appliance amp draw rating and type of breaker used.</p> <p>C. Circuit breakers for 3-phase (3ϕ) dryers must be 3-pole type.</p>					
SERVICE VOLTAGE	PHASE	WIRE SERVICE	APPROX. AMP DRAW		CIRCUIT BREAKER
			60 Hz	50 Hz	
120	1 ϕ	2	8.7	—	15
208	1 ϕ	2	5.2	—	15
240	1 ϕ	2	4.8	4.7	15
208	3 ϕ	3	3	—	15
240	3 ϕ	3	3.2	—	15

Check your national and local codes for breaker and wire sizes

8/28/14

IMPORTANT: The dryer *must be* connected to the electric supply shown on the data label that is affixed to the left sidewall area behind the middle access (control) door. In the case of 208 VAC or 240 VAC, the supply voltage must match the electric service specifications of the data label **exactly**.

IMPORTANT: The wire size *must be* properly sized to handle the related current.

WARNING: **208 VAC AND 240 VAC ARE NOT THE SAME.** Any damage done to dryer components due to improper voltage connections will automatically **VOID THE WARRANTY**.

NOTE: ADC reserves the right to make changes in specifications at any time without notice or obligation.

G. GAS INFORMATION

It is your responsibility to have **ALL** plumbing connections made by a qualified professional to assure that the gas plumbing installation is adequate and conforms to local and state regulations or codes. In the absence of such codes, **ALL** plumbing connections, materials, and workmanship **must conform** to the applicable requirements of the National Fuel Gas Code ANSI Z223.1-LATEST EDITION, or in Canada, the Canadian Installation Codes CAN/CGA-B149.1-M91 (Natural Gas) or CAN/CGA-B149.2-M91 (Liquid Propane [L.P.] Gas) or LATEST EDITION.

In Australia, the fuel gas code is AS/NZS5601, local authority, gas, electricity, and any other relevant statutory regulations.

IMPORTANT: Failure to comply with these codes or ordinances, and/or the requirements stipulated in this manual, can result in personal injury and improper operation of the dryer.

The dryer and its individual shutoff valves **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 (3.5 kPa). The dryer **must be** isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure test of the gas supply system at test pressures equal to or less than 1/2 psig (3.5 kPa).

IMPORTANT: Failure to isolate or disconnect the dryer from supply as noted could cause irreparable damage to the gas valve, which will VOID THE WARRANTY

WARNING: FIRE OR EXPLOSION COULD RESULT.

1. Gas Supply

The gas dryer installation **must meet** the American National Standard...National Fuel Gas Code ANSI Z223.1-LATEST EDITION, or in Canada, the Canadian Installation Codes CAN/CGA-B149.1-M91 (Natural Gas) or CAN/CGA-B149.2-M91 (L.P. Gas) or LATEST EDITION, as well as local codes and ordinances and **must be** done by a qualified professional.

NOTE: Undersized gas piping will result in ignition problems, slow drying, increased use of energy, and can create a safety hazard.

The dryer **must be** connected to the type of heat/gas indicated on the dryer label affixed to the left sidewall area behind the middle access (control) door. If this information does not agree with the type of gas available, **DO NOT operate the dryer**. Contact the reseller who sold the dryer or contact the **ADC** factory.

IMPORTANT: Any burner changes or conversions **must be** made by a qualified professional.

The input ratings shown on the dryer data label are for elevations up to 2,000 feet (610 meters), unless elevation requirements of over 2,000 feet (610 meters) were specified at the time the dryer order was placed with the factory. The adjustment or conversion of dryers in the field for elevations over 2,000 feet (610 meters) is made by changing each burner orifice. If this conversion is necessary, contact the reseller who sold the dryer or contact the **ADC** factory.

IMPORTANT: THIS GAS DRYER **IS NOT** PROVIDED WITH AN INTERNAL GAS SUPPLY SHUTOFF AND AN EXTERNAL GAS SUPPLY SHUTOFF **MUST BE** PROVIDED.

2. Technical Gas Data

a. Gas Specifications

For Australia, refer to data plate.

TYPE OF GAS				
NATURAL			LIQUID PROPANE	
Manifold Pressure*	3.5 inches W.C.	8.7 mb	10.5 inches W.C.	26.1 mb
In-Line Pressure	6.0 - 12.0 inches W.C.	14.92 - 29.9 mb	11.0 inches W.C.	27.4 mb

Shaded areas are stated in metric equivalents

* Measured at gas valve pressure tap when the gas valve is on.

b. Gas Connections:

- Inlet connection ----- 3/4" N.P.T.
- Inlet supply size ----- 3/4" N.P.T. (minimum)
- Btu/hr input (per dryer) ----- 160,000 (40,320 kcal/hr)
- Btu/hr input (per pocket) ----- 80,000 (20,160 kcal/hr)

1) Natural Gas

Regulation is controlled by the dryer's gas valve's internal regulator. Incoming supply pressure **must be** consistent between a minimum of 6.0 inches (14.92 mb) and a maximum of 12.0 inches (29.9 mb) water column (W.C.) pressure.

2) Liquid Propane (L.P.) Gas

Dryers made for use with L.P. gas have the gas valve's internal pressure regulator blocked open so that the gas pressure **must be** regulated upstream of the dryer. The pressure measured at each gas valve pressure tap **must be** a consistent 10.5 inches (26.1 mb) water column. There is no regulator or regulation provided in an L.P. dryer. The water column pressure **must be** regulated at the source (L.P. tank) or an external regulator **must be** added to each dryer.

			TYPE OF GAS						Liquid Propane Conversion Kit Part Number***
ADC MODEL NUMBER	BTU Per Hour Rating**	kcal/hr Rating	Natural			Liquid Propane			
			Qty.**	D.M.S.*	Part Number	Qty.**	D.M.S.*	Part Number	
ADG-236	80,000	20,160	1	#18	140829	1	#38	140814	882396

Shaded area is stated in metric equivalent

* Drill Measurement Size (D.M.S.) equivalents are as follows:

Natural Gas #18 = 0.1695" (4.3053 mm).

Liquid Propane Gas #38 = 0.1015" (2.5781 mm).

** Per pocket/basket (tumbler).

*** Includes parts for both baskets (tumblers).

3. Piping Connections

ALL components/materials **must conform** to National Fuel Gas Code Specifications ANSI Z223.1-LATEST EDITION, or in Canada, CAN/CGA-B149.1-M91 (Natural Gas) or CAN/CGA-B149.2-M91 (Liquid Propane [L.P.] Gas) or LATEST EDITION (for General Installation and Gas Plumbing), as well as local codes and ordinances and **must be** done by a qualified professional. It is important that gas pressure regulators meet applicable pressure requirements, and that gas meters be rated for the total amount of **ALL** the appliance BTUs being supplied.

Installer within Australia – refer to AS/NZS5601.1 for guidance on gas supply pipe sizing required for this appliance installation.

The dryer is provided with a 3/4" N.P.T. inlet pipe connection located at the upper right hand corner (when viewed from the rear) of the dryer. The minimum pipe size (supply line) to the dryer is 3/4" N.P.T. For ease of servicing, the gas supply line of each dryer must have its own shutoff valve.

The size of the main gas supply line (header) will vary depending on the distance this line travels from the gas meter or in the case of L.P. gas, the supply tank, the number of tees, other gas operated appliances on the supply line, etc. Specific information regarding supply line size **should be** determined by the gas supplier.

NOTE: Undersized gas supply piping can create a low or inconsistent pressure, which will result in erratic operation of the burner ignition system.

Consistent gas pressure is essential at **ALL** gas connections. It is recommended that a 3/4-inch (19.05 mm) pipe loop be installed in the supply line servicing the bank of dryers. An in-line pressure regulator **must be** installed in the gas supply line (header) if (natural) gas line pressure exceeds 12.0 inches (29.9 mb) water column (W.C.) pressure. (Refer to the **illustrations** on the following page for details.)

IMPORTANT: Water column pressure of 3.5 inches (8.7 mb) for natural gas dryers and 10.5 inches (26.1 mb) for L.P. gas is required at the gas valve pressure tap of each dryer for proper and safe operation.

An 1/8" N.P.T. plugged tap, accessible for a test gauge connection, **must be** installed in the main gas supply line immediately upstream of each dryer.

IMPORTANT: Pipe joint compounds that resist the action of natural gas and L.P. gas **must be** used.

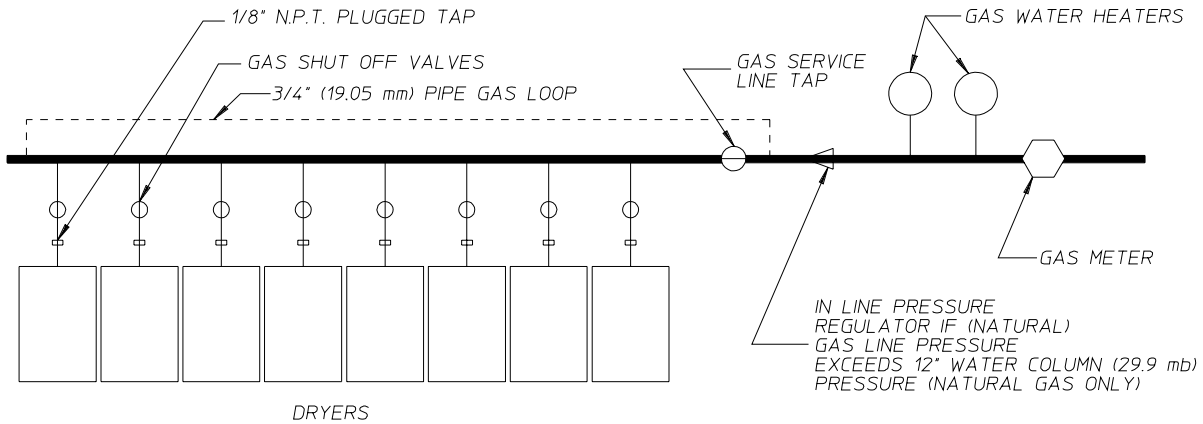
IMPORTANT: Test **ALL** connections for leaks by brushing on a soapy water solution (liquid detergent works well).

WARNING: NEVER TEST FOR LEAKS WITH A FLAME!!!

IMPORTANT: 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 (3.5 kPa).

NOTE: The dryer *must be* isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure test of the gas supply system at test pressures equal to or less than 1/2 psig (3.5 kPa).

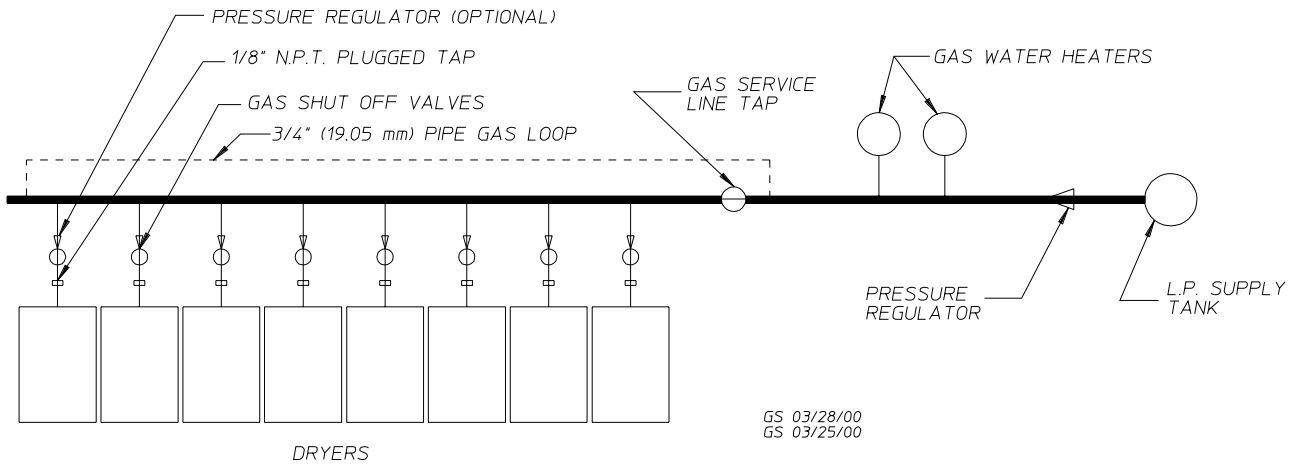
TYPICAL NATURAL GAS INSTALLATION



IN LINE PRESSURE
REGULATOR IF (NATURAL)
GAS LINE PRESSURE
EXCEEDS 12" WATER COLUMN (29.9 mb)
PRESSURE (NATURAL GAS ONLY)

MAN5155

TYPICAL L.P. GAS INSTALLATION



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H. PREPARATION FOR OPERATION/START-UP

The following items **should be** checked before attempting to operate the dryer:

1. Read **ALL** “**CAUTION,**” “**WARNING,**” and “**DIRECTION**” labels attached to the dryer.
2. Check incoming supply voltage to be sure that it is the same as indicated on the dryer data label affixed to the left sidewall area behind the middle access (control) door. In the case of 208 VAC OR 240 VAC **THE SUPPLY VOLTAGE MUST MATCH THE ELECTRIC SERVICE EXACTLY.**
3. Check to assure that the dryer is connected to the type of heat/gas indicated on the dryer data label.
4. The sail switch damper assemblies are installed and pre-adjusted at the factory prior to shipping. However, each sail switch adjustment **must be** checked to assure that this important safety control is functioning.
5. Be sure that **ALL** gas shutoff valves are in the open position.
6. Be sure **ALL** back panels (guards) and electric box covers have been replaced.
7. Check **ALL** service doors to assure that they are closed and secured in place.
8. Be sure the lint drawer is securely in place.
9. Rotate the basket (tumbler/drum) by hand to be sure it moves freely.
10. Check bolts, nuts, screws, terminals, and fittings for security.
11. Check basket (tumbler) bearing setscrews to insure they are **ALL** tight.
12. Rotate the baskets/tumblers (both top and bottom) by hand to make sure they both move freely.

I. PREOPERATIONAL TEST

ALL dryers are thoroughly tested and inspected before leaving the factory. However, a preoperational test **should be** performed before the dryer is publicly used. It is possible that adjustments have changed in transit or due to marginal location (installation) conditions. Installer must instruct the user on how to correctly operate the dryer before leaving.

1. Turn on electric power to the dryer.

Open **ALL** gas shutoff valves.

a. Coin Models Only

- 1) The light emitting diode (L.E.D.) display(s) will flash back and forth between “FILL” and the amount needed to start the dryer (i.e., “25”), meaning that the dryer is available and 25¢ is required to start it.
- 2) Insert the proper number of coins into coin acceptor. Once the correct amount needed to start the dryer has been inserted, the L.E.D. display(s) will read “PUSH.”

- 3) Start the dryer by pressing the desired setting (i.e., “LO” [low] selection for upper basket [tumbler]). The light emitting diode (L.E.D.) display(s) will now read the selection (setting) made and the amount of time vended (i.e., “LO 10”).

NOTE: The dryer can be stopped at any time by opening the main door. To restart dryer, shut the main door and press the desired setting.

- 4) Open the main door to stop the dryer, and change selection to “PERM PRESS” setting. Repeat this procedure, but change the selection (setting) to “HI” (high). This will also confirm that setting key circuits and door switch circuits are functioning properly.
- 5) Repeat above procedure for the other basket (tumbler).

b. OPL (Non-Coin) Models Only

- 1) The L.E.D. display(s) will read “FILL” meaning that the dryer is available.
- 2) Start the dryer by pressing the “E” on the keypad. The L.E.D. display will quickly show “Ld 30,” “LC 04,” and “F 180.” The dryer will start and the L.E.D. display will show “dr 30.”

NOTE: The dryer can be stopped at any time by opening the main door. To restart dryer, shut the main door and press “ENTER/START.”

- 3) Repeat above procedure for the other basket (tumbler).

2. Heat Circuit Operational Test

- a. When a gas dryer is first started (during initial start-up), it has a tendency not to ignite on the first ignition attempt. This is because the gas supply piping is filled with air, so it may take a few minutes for the air to be purged from the lines.

NOTE: During the purging period, check to be sure that **ALL** gas shutoff valves are open.

NOTE: Gas dryers are equipped with a Direct Spark Ignition (DSI) system, which has internal diagnostics. If ignition **is not** established after the first attempt, the heat circuit in the DSI module will LOCKOUT until it is manually reset. To reset the DSI system, open and close the main door and restart the dryer.

- b. Once ignition is established, a gas pressure test **should be** taken at the gas valve pressure tap of each dryer to assure that the water column (W.C.) pressure is correct and consistent.

NOTE: Water column pressure requirements (measured at the pressure tap of the gas valve body):

Natural Gas ----- 3.5 inches (8.7 mb) water column.
Liquid Propane (L.P.) Gas ----- 10.5 inches (26.1 mb) water column.

IMPORTANT: There is no regulator provided in an L.P. dryer. The water column pressure **must be** regulated at the source (L.P. tank) or an external regulator **must be** added to each dryer.

3. Make a complete operational check of **ALL** the operating controls to ensure that the timing is correct and that the temperatures are set properly.
4. Make a complete operational check of **ALL** safety-related circuits (i.e., door switches, hi-limit thermostats, sail switches, and basket [tumbler] safety thermostats, etc.).

NOTE: The sail switch can be checked for proper operation by opening the control door while the dryer is running and the heating unit (burner) is active (on). The heating unit(s) should shut off within a few seconds. If not, make the necessary adjustments.

5. Each basket (tumbler) **should be** operated through one (1) complete cycle to assure that no further adjustments are necessary and that **ALL** components are functioning properly.

BASKET (TUMBLER) COATING

The basket (tumbler) is treated with a protective coating. We suggest dampening old garments or cloth material with a solution of water and nonflammable mild detergent and tumbling them in the basket (tumbler) to remove this coating.

6. Computer Programs and Selections

Each microprocessor controller (computer) has been preprogrammed by the factory with the most commonly used program (parameter) selections. If microprocessor controller (computer) program changes are required, refer to the computer programming manual, which was shipped with the dryer.

7. On models manufactured for 3-phase (3 ϕ) electrical input voltage, check the electrical service phase sequence. While the dryer is operating, check to see if the baskets (tumblers) are rotating in the clockwise (CW) direction (when viewed from the front of the dryer). If the baskets (tumblers) rotate counterclockwise (CCW), the phasing is incorrect. Reverse the two (2) leads at connection L1, L2, or L3 of the power supply of the dryer.

J. SHUTDOWN INSTRUCTIONS

If the dryer is to be shutdown (taken out of service) for a period of time, the following **must be** performed:

1. Discontinue power to the dryer either at the external disconnect switch or the circuit breaker.
2. Discontinue the heat supply:
 - a. **GAS MODELS...discontinue the gas supply.**
 - 1) **SHUT OFF external gas supply shutoff valve (for both the top basket [tumbler] and the bottom basket [tumbler] where the independent supply line for each basket [tumbler] is used).**
 - 2) **SHUT OFF internal gas supply shutoff valve located in the gas valve burner area (for both the top basket [tumbler] and the bottom basket [tumbler]).**

SECTION IV

OPERATING INSTRUCTIONS

A. STARTING THE DRYER

The dryer is available for use when the applicable (top or bottom basket [tumbler]) microprocessor controller (computer) light emitting diode (L.E.D.) display reads the amount needed to start the dryer (i.e., “25”). Once the load has been put into the dryer and the main door is closed, start the dryer as follows:

1. Insert the proper number of coins into the coin acceptor. Once the correct “Amount To Start” has been inserted, the L.E.D. display will read “PUSH.”
2. Determine fabric setting (heat selection) - Setting/selecting “HI TEMP” is the high temperature range, “PERM PRESS” is the medium temperature range, and “LO TEMP” is the low temperature range.

Once the fabric temperature setting (heat selection) has been determined, start the dryer by pressing that setting key.

3. The dryer will now start, and the L.E.D. display will read the setting and the time vended (i.e., “LO 10”).
4. The cycle time will count down until the drying and cooling cycles are completed.
5. Upon completion of the drying and cooling cycles, the dryer will shut off, the tone (buzzer) will sound for 5-seconds, and the L.E.D. display will read “donE.”

NOTE: If the Anti-Wrinkle program is active, the L.E.D. display will remain reading “donE,” and the microprocessor controller (computer) will proceed through the Anti-Wrinkle program until the maximum “Active Guard Time” has expired or until the main door is opened, whichever comes first.

NOTE: If the Anti-Wrinkle program **is not** active or in use, the L.E.D. display will read “donE” until the main door is opened, at which time the L.E.D. display will read “FILL” and/or the “Amount To Start.”

a. Notes

- 1) The dryer basket (tumbler) can be stopped at any time by opening the main door. To restart dryer, shut the main door and press desired setting.

SECTION V

SERVICE/PARTS INFORMATION

A. SERVICE

1. Service **must be** performed by a qualified trained technician, service agency, or gas supplier. If service is required, contact the reseller from whom the **ADC** equipment was purchased. If the reseller **cannot** be contacted or is unknown, contact the **ADC** Service Department for a reseller in your area.

NOTE: When contacting the **ADC** Service Department, be sure to give them the correct **model number** and **serial number** so that your inquiry is handled in an expeditious manner.

B. PARTS

1. Replacement parts **should be** purchased from the reseller from whom the **ADC** equipment was purchased. If the reseller **cannot** be contacted or is unknown, contact the **ADC** Parts Department for a reseller in your area. Parts may also be purchased directly from the factory by calling the **ADC** Parts Department at (508) 678-9000 or you may FAX in your order at (508) 678-9447.

NOTE: When ordering replacement parts from the **ADC** reseller or the **ADC** factory be sure to give them the correct **model number** and **serial number** so that your parts order can be processed in an expeditious manner.

SECTION VI

WARRANTY INFORMATION

A. RETURNING WARRANTY CARDS

1. Before any dryer leaves the **ADC** factory test area, a warranty card is placed on the back side of the main door glass. These warranty cards are intended to serve the customer where we record the individual installation date and warranty information to better serve you should you file a warranty claim.
 - a. If a warranty card did not come with your dryer, contact the **ADC** Warranty Department or the **ADC** Service Department at (508) 678-9000.

IMPORTANT: A separate warranty card *must be* completed and returned for each individual dryer.

NOTE: Be sure to include the installation date when returning the warranty card(s).

B. WARRANTY

For a copy of the **ADC** commercial warranty covering your particular dryer(s), contact the **ADC** reseller from whom you purchased the equipment and request a dryer warranty form. If the reseller **cannot** be contacted or is unknown, warranty information can be obtained from the factory by contacting the **ADC** Warranty Department at (508) 678-9000.

NOTE: Whenever contacting the **ADC** factory for warranty information, be sure to have the dryer's **model number** and **serial number** available so that your inquiry can be handled in an expeditious manner.

C. RETURNING WARRANTY PARTS

ALL dryer or parts warranty claims or inquires **should be** addressed to the **ADC** Warranty Parts Department. To expedite processing, the following procedures **must be** followed:

1. No parts are to be returned to **ADC** without prior written authorization ("Return Material Authorization" [R.M.A.]) from the factory.

NOTE: An R.M.A. is valid for only thirty (30) days from date of issue.

- a. The R.M.A. issued by the factory, as well as any other correspondence pertaining to the returned part(s), **must be** included inside the package with the failed merchandise.

2. Each part **must be** tagged with the following information:
 - a. **Model number** and **serial number** of the dryer from which part was removed.
 - b. Nature of failure (be specific).
 - c. Date of dryer installation.
 - d. Date of part failure.
 - e. Specify whether the part(s) being returned is for a replacement, a credit, or a refund.

NOTE: If a part is marked for a credit or a refund, the invoice number covering the purchase of the replacement part **must be** provided.

NOTE: Warranty tags (ADC Part No. 450064) are available at “no charge” from ADC upon request.

3. The company returning the part(s) must clearly note the complete company name and address on the outside of the package.
4. **ALL** returns **must be** properly packaged to insure that they are not damaged in transit. *Damage claims are the responsibility of the shipper.*

IMPORTANT: No replacements, credits, or refunds **will be** issued for merchandise damaged in transit.

5. **ALL** returns **should be** shipped to the ADC factory in such a manner that they are insured and a proof of delivery can be obtained by the sender.
6. **Shipping charges are not the responsibility of ADC. ALL returns should be “prepaid” to the factory. Any “C.O.D.” or “COLLECT” returns will not be accepted.**

IMPORTANT: No replacements, credits, or refunds **will be** issued if the claim **cannot** be processed due to insufficient information. The party filing the claim **will be** notified in writing, either by “FAX” or “CERTIFIED MAIL - Return Receipt Requested,” as to the information necessary to process claim. If reply **is not** received by the ADC Warranty Department within thirty (30) days from the FAX/letter date, then no replacements, credits, or refunds **will be** issued, and the merchandise **will be** discarded.

SECTION VII

ROUTINE MAINTENANCE

A. CLEANING

A program and/or schedule **should be** established for periodic inspection, cleaning, and removal of lint from various areas of the dryer, as well as throughout the ductwork system. The frequency of cleaning can best be determined from experience at each location. Maximum operating efficiency is dependent upon proper air circulation. The accumulation of lint can restrict this airflow. If the guidelines in this section are met, an ADC dryer will provide many years of efficient, trouble free, and most importantly, safe operation.

WARNING: LINT FROM MOST FABRICS IS HIGHLY COMBUSTIBLE. THE ACCUMULATION OF LINT CAN CREATE A POTENTIAL FIRE HAZARD.

WARNING: KEEP DRYER AREA CLEAR AND FREE FROM COMBUSTIBLE MATERIALS, GASOLINE, AND OTHER FLAMMABLE VAPORS AND LIQUIDS.

NOTE: Suggested time intervals shown are for average usage, which is considered six (6) to eight (8) operational (running) hours per day.

IMPORTANT: Dryer produces combustible lint and *must be* exhausted to the outdoors. Every 6 months, inspect the exhaust ducting and remove any lint build up.

SUGGESTED CLEANING SCHEDULE

EVERY THIRD OR FOURTH LOAD

Clean the lint screen every third or fourth load. A clogged lint screen will cause poor dryer performance. The lint screen is located behind the lint door in the base of the dryer. Open the lint door, brush the lint off of the lint screen, and remove the lint. Inspect the lint screen and replace if torn.

NOTE: The frequency of cleaning the lint screens can best be determined from experience at each location.

WEEKLY

Clean lint accumulation from the lint chamber, thermostat, and microprocessor temperature sensor (sensor bracket) area.

WARNING: TO AVOID HAZARD OF ELECTRICAL SHOCK, DISCONTINUE ELECTRICAL POWER SUPPLY TO THE DRYER.

90 DAYS

1. Remove lint from around basket (tumbler), drive motors, and surrounding areas.
2. Remove lint from gas valve burner area with a dusting brush or vacuum cleaner attachment.
3. Clean any lint accumulation in and around both the blower and drive motor casing openings.

NOTE: To prevent damage, avoid cleaning or touching the direct spark ignitor assembly.

EVERY 6 MONTHS

Inspect and remove lint accumulation in customer furnished exhaust ductwork system and from dryer's internal exhaust ducting.

NOTE: THE ACCUMULATION OF LINT IN THE EXHAUST DUCTWORK CAN CREATE A POTENTIAL FIRE HAZARD.

NOTE: DO NOT OBSTRUCT THE FLOW OF COMBUSTION AND VENTILATION AIR. CHECK CUSTOMER FURNISHED BACK DRAFT DAMPERS IN THE EXHAUST DUCTWORK. INSPECT AND REMOVE ANY LINT ACCUMULATION, WHICH CAN CAUSE THE DAMPER TO OR STICK.

NOTE: A back draft damper that is sticking partially closed can result in slow drying and shut down of heat circuit safety switches or thermostats.

NOTE: When cleaning the dryer cabinet(s), avoid using harsh abrasives. A product intended for the cleaning of appliances is recommended.

B. ADJUSTMENTS

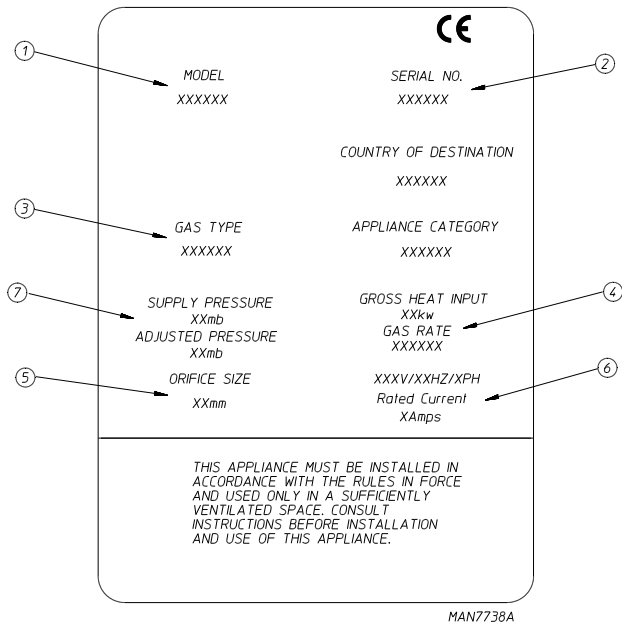
7 DAYS AFTER INSTALLATION AND EVERY 6 MONTHS THEREAFTER

Inspect bolts, nuts, screws, (bearing setscrews), grounding connections, and nonpermanent gas connections (unions, shutoff valves, and orifices). Motor and drive belts **should be** examined. Cracked or seriously frayed belts **should be** replaced. Tighten loose V-belts when necessary. Complete operational check of controls and valves. Complete operational check of **ALL** safety devices (door switches, lint drawer switch, sail switch, burner, and hi-limit thermostats).

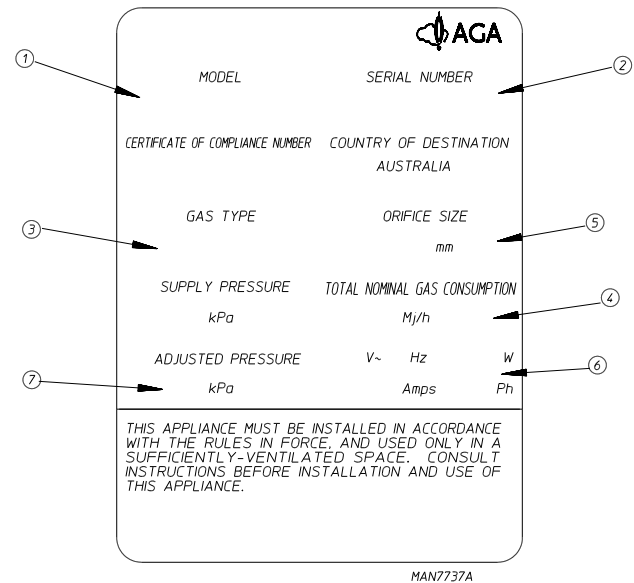
C. LUBRICATION

The motor bearings, idler bearings, and under normal/most conditions the basket (tumbler) bearings are permanently lubricated. It is physically possible to relubricate the basket (tumbler) bearings if you choose to do so even though this practice is not necessary. Use Shell Alvania grease NLGI grade 2 or its equivalent. The basket (tumbler) bearings used in the dryer **DO NOT** have a grease fitting. Provisions are made in the bearing housing for the addition of a grease fitting, which can be obtained elsewhere, or from **ADC** by ordering kit Part No. 882159 which includes two (2) fittings.

CE LABEL



AGA LABEL



THE DATA LABEL

1. **Model Number** – This describes the style of dryer and type of heat (gas, electric, or steam).
2. **Serial Number** – Allows the manufacturer to gather information on your particular dryer.
3. **Type of Heat** – This describes the type of heat for your particular dryer, gas (either natural gas or L.P. gas), electric, or steam.
4. **Heat Input** (For Gas Dryers) – This describes the heat input in British thermal units per hour (Btu/hr) or kilowatts (kW).
5. **Orifice Size** (For Gas Dryers) – Gives the number drill size used.
6. **Electric Service** – This describes the voltage and current rating for a particular model.
7. **Gas Manifold Pressure** (For Gas Dryers) – This describes the manifold pressure taken at the gas valve tap.

SECTION IX

TROUBLESHOOTING

WARNING: YOU MUST DISCONNECT AND LOCKOUT THE ELECTRIC SUPPLY AND THE GAS SUPPLY BEFORE ANY COVERS OR GUARDS ARE REMOVED FROM THE MACHINE TO ALLOW ACCESS FOR CLEANING, ADJUSTING, INSTALLATION, OR TESTING OF ANY EQUIPMENT PER OSHA (Occupational Safety and Health Administration) STANDARDS.

The information provided will help isolate the most probable component(s) associated with the difficulty described. The experienced technician realizes, however, that a loose connection or broken/shorted wire may be at fault where electrical components are concerned...not necessarily the suspect component itself. Electrical parts **should always be** checked for failure before being returned to the factory.

IMPORTANT: When replacing blown fuses, the replacement *must be* of the exact rating as the fuse being replaced. The information provided *should not be* misconstrued as a handbook for use by an untrained person in making repairs.

WARNING: ALL SERVICE AND TROUBLESHOOTING SHOULD BE PERFORMED BY A QUALIFIED PROFESSIONAL OR SERVICE AGENCY.

WARNING: WHILE MAKING REPAIRS, OBSERVE ALL SAFETY PRECAUTIONS DISPLAYED ON THE DRYER OR SPECIFIED IN THIS MANUAL.

A. No light emitting diode (L.E.D.) display...

1. Service panel fuse blown or tripped breaker.
2. Blown control circuit fuse (1/2-Amp [Slo-Blo] Fuse).
3. Failed microprocessor controller (computer).

B. Basket (tumbler) motor does not start, microprocessor controller (computer) shows drying cycle in progress and L.E.D. motor indicator dot is on...

1. Microprocessor controller (computer) indicator is on...
 - a. Failed motor contactor/relay.
 - b. Failed motor.
2. Microprocessor controller (computer) indicator is off (and the L.E.D. display does not read “door”)...
 - a. Failed microprocessor controller (computer).

C. The dryer will not stop, even with no cycle (light emitting diode [L.E.D.] display reads “FILL”) in progress...

1. Failed motor contactor/relay.

D. The dryer operates for a few minutes, and with the microprocessor controller (computer) motor L.E.D. indicator dot on the motor stops, and then after a period of time restarts on its own...

1. Motor is overheating and tripping out on its internal overload...
 - a. Motor air vents clogged with lint.
 - b. Low voltage to motor.

E. The dryer operates for a few minutes and then stops...microprocessor controller (computer) L.E.D. display continues to read cycle in progress, indicator dots are off and dryer can be restarted by pressing selection key...

1. Intermittent connection in main door circuit.

F. Microprocessor controller (computer) L.E.D. display reads “dSFL”...

1. L.E.D. display consistently reads “dSFL” and will not clear...
 - a. Microprocessor controller (computer) 1/8-Amp (Slo-Blo) fuse is blown.
 - b. Failed microprocessor controller (computer) temperature sensor.
 - c. Broken wire and/or termination in sensor harness somewhere between the sensor bracket and the microprocessor controller (computer).
 - d. Failed microprocessor controller (computer).
2. L.E.D. display reads “dSFL” for a short period of time (30-seconds or less) and then returns to the normal “FILL” mode...

NOTE: Once the microprocessor controller (computer) detects a problem, it updates every 30-seconds so that if a problem was a loose connection in this circuit which corrected itself, the “dSFL” display condition would automatically be cancelled.

- a. Loose wire and/or termination in sensor harness somewhere between the sensor bracket and the microprocessor controller (computer).
- b. Failed microprocessor controller (computer) temperature sensor.

G. Microprocessor controller (computer) light emitting diode (L.E.D.) display reads “Hot”...

The “Hot” display condition indicates a possible overheating condition. The microprocessor controller (computer) monitors the temperature in the dryer at **ALL** times. If the microprocessor detects that the temperature in the dryer has exceeded 220° F (104° C), it will disable **ALL** of the dryer outputs (shut the dryer down), the buzzer (tone) will sound for approximately 5-seconds, and the L.E.D. display will read “Hot.” The L.E.D. display will continue to read “Hot” until the temperature has dropped to 220° F (104° C) or lower and the microprocessor controller (computer) is manually reset by closing and opening the Program Switch (PS).

Possible reasons for overheating...

1. Restriction in location exhaust ductwork...
 - a. Dryer exhaust damper stuck in closed position.
 - b. Undersized exhaust ductwork.
2. Insufficient make-up air.

H. Microprocessor controller (computer) L.E.D. display reads “SEFL”...

The “SEFL” display condition indicates a rotational sensor circuit failure which means that there is a fault somewhere in the basket (tumbler) rotation detection circuit...or...the microprocessor controller (computer) program related to this circuit (PL01) is set incorrectly in the active mode (“SEn”) where the dryer is not equipped with the optional rotation sensor and **should be** set in the nonactive mode (“nSEN”).

If the dryer is equipped with the optional rotational sensor and for whatever reason the microprocessor controller (computer) detects that the basket (tumbler) is not turning, it will disable **ALL** of the dryer outputs (shut the dryer down), and the L.E.D. display will read “SEFL.” The L.E.D. display will continue to read “SEFL” until the microprocessor is manually reset by closing and opening the Program Switch (PS).

Possible causes:

1. Loose/slipping (out of proper adjustment) basket (tumbler) and/or idler belt.
2. Broken basket (tumbler) and/or idler belt.
3. Failed motor (refer to **Item B on page 35** and **Item D on page 36**).
4. Failure in the rotational sensor circuit...
 - a. Failed rotational sensor.
 - b. Loose connection or break between the rotation sensor and the microprocessor controller (computer).

I. Microprocessor controller (computer) will not accept any, or only accept certain keypad entries...

1. Failed keypad label assembly.
2. Failed microprocessor controller (computer).

J. Microprocessor controller (computer) locks up and the light emitting diode (L.E.D.) display reads erroneous message(s) or only partial segments...

1. Transient power voltage (spikes)...disconnect power to the dryer, wait 1 minute (**NOTE**: for dryer models with the optional battery backup...disconnect battery), then reestablish power to the dryer. If the problem is still evident, proceed to **Item J2 thru Item J4** below.
2. Failed keypad label assembly.
3. Improper grounding of the dryer or the microprocessor controller (computer) ground connections to the panel or the dryer are not proper.
4. Failed microprocessor controller (computer).

K. Dryer stops during a cycle and the microprocessor controller (computer) L.E.D. display returns to “FILL” ...

If the dryer is equipped with optional battery backup...

1. Refer to **Item J1, Item J3, or Item J4** above.

If the dryer is not equipped with optional battery backup...

1. Loose connection somewhere in the power source to the dryer.
2. Loose connection in main power circuit to the microprocessor controller (computer).
3. Improper grounding of the dryer or the microprocessor controller (computer) ground connections to the panel or the dryer are not proper.
4. Failed microprocessor controller (computer).

L. Heating unit is not operating (no heat)...basket (tumbler) is turning, microprocessor controller (computer) heat indicator dot is on but “HEAT” output L.E.D. is not...

1. Failed microprocessor controller (computer).

M. Gas heating unit is not operating (no heat)...both microprocessor controller (computer) heat indicator dot and “HEAT” indicator are on...but no spark at burner area when the dryer is first started...

1. Fault in sail switch circuit...
 - a. Sail switch is out of adjustment or has failed.
 - b. Sail switch damper is not closing or is fluttering...
 - 1) Lint drawer/screen is dirty or clogged.
 - 2) Restriction in exhaust ductwork.
2. Fault in burner hi-limit circuit or tripped manual reset hi-limit thermostat.
3. Fault in basket (tumbler) hi-limit circuit or tripped manual reset hi-limit thermostat.
4. Failed Direct Spark Ignition (DSI) module (burner control).
5. Failed DSI ignitor and/or flame-probe assembly.

N. No heat...ignitor sparks but there is no flame at burner...

1. DSI ignitor probe is out of adjustment...
 - a. Reposition ignitor assembly closer to the burner ribbon area. Also check to make sure ribbon in burner is flush **ALL** around the top of the burner tube (ribbon should not stick up at any area).
 - b. Check gap between ignitor assembly and top of the burner...gap **must be** set 1/8” ± 1/32” (3.175 mm ± 0.79248 mm).
2. Failed ignitor flame-probe assembly or problem with wiring connections to the assembly.
3. No gas (check shutoff valves) or insufficient (low water column [W.C.] pressure) gas supply.
4. Failed DSI module.
5. Failed gas valve.

O. No heat...ignitor sparks, burner goes on and off right away...

1. DSI flame sensor (probe) is out of adjustment...reposition closer to the flame area.
2. Failed DSI flame sensor probe.
3. Sail switch is fluttering...
 - a. Lint drawer/screen is dirty or clogged.
 - b. Restriction in exhaust ductwork.
4. Insufficient make-up air.
5. Failed DSI module.

P. Dryer operates, but is taking too long to dry...

1. Exhaust ductwork run is too long or is undersized...back pressure **must be** no less than 0 and **cannot** exceed 0.3 inches (0.74 mb) water column.
2. Low and/or inconsistent gas pressure.
3. Insufficient make-up air.
4. Poor air/gas mixture at burner...yellow or poor flame pattern...adjust gas burner air adjustment shutters.
5. Lint drawer/screen is not being cleaned out on a regular basis or often enough.
6. Extractors (washers) are not performing properly.
7. Sail switch is fluttering...restriction in exhaust ductwork.
8. Failed microprocessor temperature sensor...temperature calibration is inaccurate.
9. Failed microprocessor controller (computer)...temperature calibration is inaccurate.
10. Lint accumulation in location exhaust system.

Q. Condensation on main door glass...

1. Too long, undersized, or improperly installed ductwork.
2. Exhaust back draft damper is stuck closed or partially closed.
3. Restriction in exhaust ductwork.

R. Dryer is making scraping noise at basket (tumbler) area...

1. Check for object(s) caught in the basket (tumbler) wrapper area.
2. Basket (tumbler) is out of proper alignment...
 - a. Check both the vertical alignment and lateral alignment.
 - b. Check gap between the front panel and the basket (tumbler)...setscrews may have come loose and basket (tumbler) walked forwards or backwards.
3. Loose or broken basket (tumbler) tie rod.
4. Broken basket (tumbler) support.

S. Excessive noise and/or vibration...

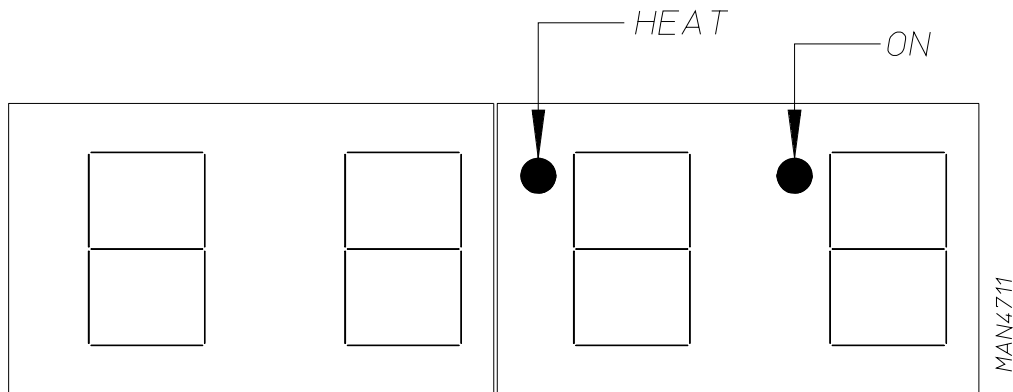
1. Dryer is not leveled properly.
2. Impellor (fan) is out of balance or broken.
3. Loose basket (tumbler) tie rod.
4. Basket (tumbler) is out of adjustment or adjustment bolts (hardware) are loose.
5. Loose motor or motor mount assembly.

SECTION X

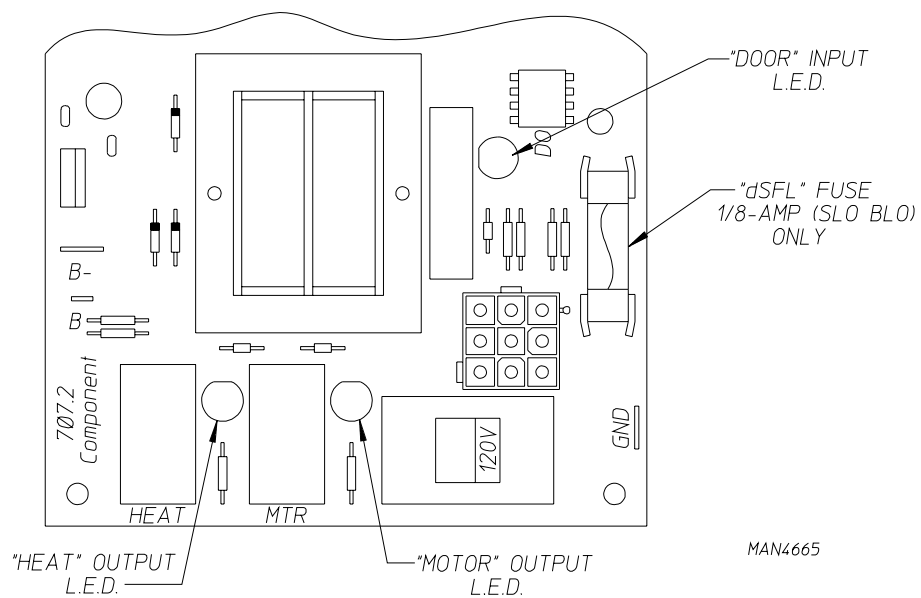
PROCEDURE FOR FUNCTIONAL CHECK OF REPLACEMENT COMPONENTS

1. Microprocessor Controller (Computer) Board

- a. Upon completing installation of the replacement microprocessor controller (computer) board, reestablish power to the dryer.
- b. Start the drying cycle.
- c. Verify that the motors and the heat indicator dots, in the microprocessor controller (computer) light emitting diode (L.E.D.) display are on. (Refer to the **illustration below.**)



- d. Verify that motors, heat, and door indicator lights on the back side of the microprocessor controller (computer) board are lit. (Refer to the **illustration below.**)



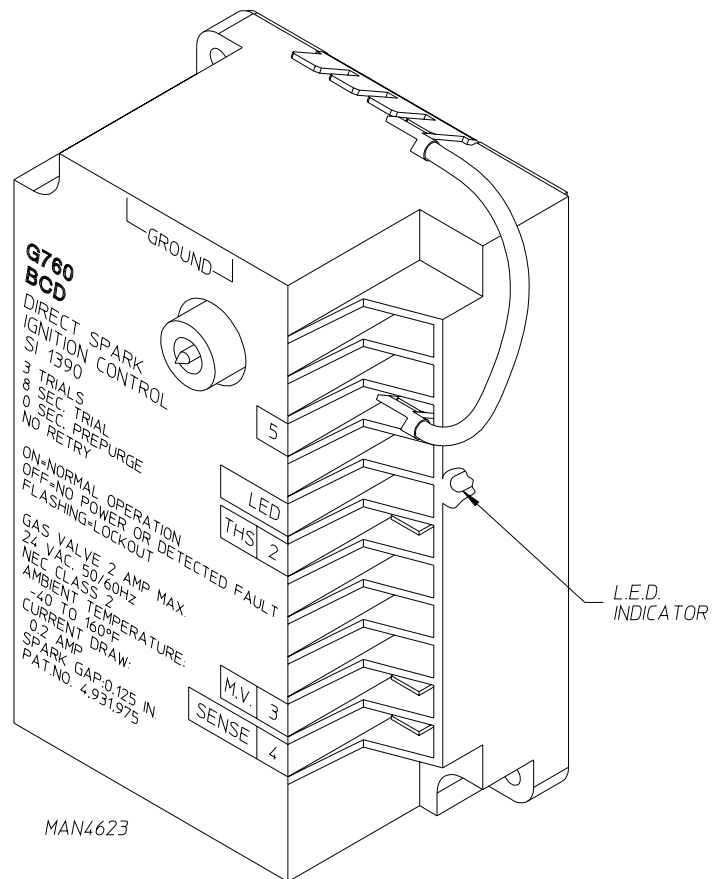
- e. Open main door. The dryer must stop and **ALL** output indicator lights on the back side of the microprocessor controller (computer) board must go out.
 - f. Try to restart the dryer with the main door open.
 - g. The microprocessor controller (computer) board's light emitting diode (L.E.D.) display must read "DOOR."
 - h. Close the main door and restart the dryer.
 - i. Functional check of microprocessor controller (computer) board is complete.
2. For Models With Johnson Controls Direct Spark Ignition (DSI) Module (G760)

Theory Of Operation:

Start the drying cycle. When the gas burner ignites within the chosen trial for ignition time (6-seconds), the flame sensor detects gas burner flame and signals the DSI module to keep the gas valve open...as long as there is a call for heat. The DSI module will "LOCKOUT" if the gas burner flame is not sensed at the end of the trial for ignition period. The trial for ignition period will be repeated for a total of three (3) retries/trials (the initial try and two [2] more retries/trials). If the flame is not sensed at the end of the third retry/trial (inter-purge period of 30-seconds) the DSI module will "LOCKOUT" (L.E.D. flashes).

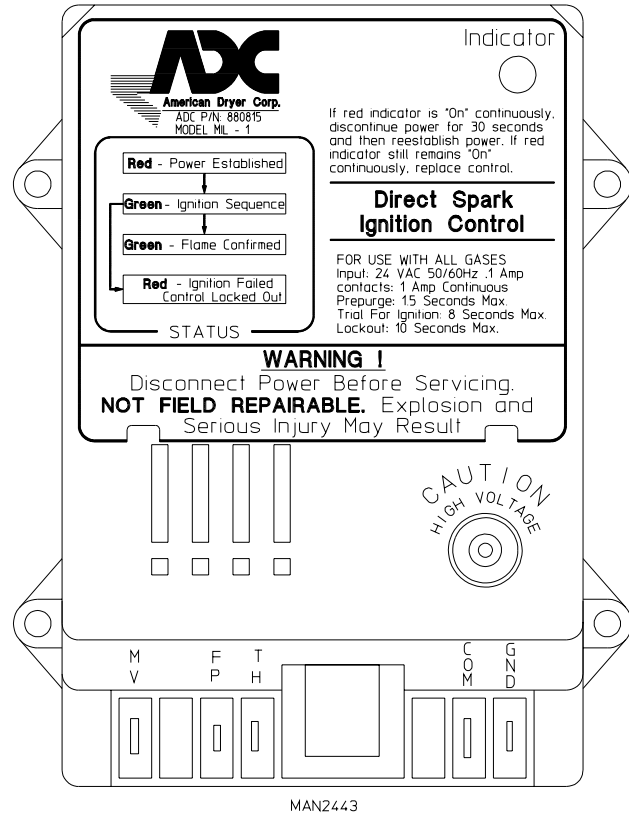
A steady L.E.D. indicator indicates normal operation.

No L.E.D. indicator indicates a power or an internal failure has occurred.



3. For Direct Spark Ignition (DSI) System Models Manufactured With ADC Module Part No. 882627

- a. Upon completing installation of the replacement DSI module, reestablish power to the dryer.
- b. Starting the drying cycle.
- c. The ignition DSI module's light emitting diode (L.E.D.) indicator will light "red" for up to approximately 1.5-seconds (prepurge time).
- d. The module's indicator light will then turn "green." The gas valve will be energized and the ignitor probe will spark for approximately 8-seconds. The burner flame **should now be** established.
- e. With the burner flame on, remove the flame sensor wire from the FS terminal of the DSI module.
- f. The burner flame must shut off and the ignition module must lockout with the DSI module's indicator light "red."



- g. Stop the drying cycle, with the flame sensor wire still removed, restart the drying cycle.
- h. The ignition module must proceed through the prepurge, with the indicator light "red," the ignition trial time of approximately 8-seconds, with the indicator light "green," and then proceed to lockout with the indicator light "red."
- i. Functional check of the DSI module is complete.
 - 1) Replace the flame sensor wire from the FS terminal to the DSI module.

SECTION XI

BURNER/BASKET (TUMBLER) HI-LIMIT

MANUAL RESET INSTRUCTIONS

Both the top and bottom basket (tumbler) of this dryer is equipped/manufactured with a manual reset burner hi-limit and manual reset basket (tumbler)/lint chamber hi-limit thermostat. If either manual reset hi-limit thermostat is open prior to the start of the drying cycle, or during the drying cycle, the dryer will not recognize the open (tripped) state of the applicable basket (tumbler)/hi-limit thermostat and will start or continue through the drying cycle with no heat. The applicable open/tripped manual reset hi-limit **must be** reset manually. This hi-temperature condition may be caused due to a restricted exhaust, poor airflow, or improper burner operation. The burner manual reset hi-limit is located at the gas/valve manifold left burner chamber area. The basket (tumbler) manual reset hi-limit is located in the (right) lint chamber area.

IMPORTANT

This dryer is equipped with a burner hi-limit and tumbler/lint chamber hi-limit thermostat which must be reset manually.

WARNING: Discontinue power to dryer before attempting to reset hi-limit.

ADC P/N:114093

