

AD-236 Installation Manual

Phase 7

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.



American Dryer Corporation

88 Currant Road

Fall River MA 02720-4781 USA

Telephone: +1 (508) 678-9000 / Fax: +1 (508) 678-9447

e-mail: techsupport@amdry.com

www.amdry.com

Retain This Manual in a Safe Place for Future Reference

This product embodies 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. The manufacturer 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 Phase 7**

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 +1 (508) 678-9447 or telephone your order directly to the ADC Parts Department at +1 (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.

“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.

IMPORTANT

YOU MUST DISCONNECT AND LOCKOUT THE ELECTRIC SUPPLY AND THE GAS SUPPLY OR THE STEAM 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.

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.**

WARNING

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

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).

Table of Contents

SECTION I

| | |
|---------------------------------|----------|
| SAFETY PRECAUTIONS | 2 |
|---------------------------------|----------|

SECTION II

| | |
|-----------------------------|----------|
| SPECIFICATIONS | 4 |
|-----------------------------|----------|

SECTION III

| | |
|--------------------------------------|----------|
| INSTALLATION PROCEDURES | 6 |
|--------------------------------------|----------|

| | |
|---|----|
| A. Unpacking/Setting Up | 6 |
| B. Location Requirements | 7 |
| C. Dryer Enclosure Requirements | 8 |
| D. Fresh Air Supply Requirements | 9 |
| E. Exhaust Requirements | 10 |
| F. Electrical Information | 13 |
| G. Gas Information | 17 |
| H. Preparation for Operation/Start-Up | 22 |
| I. Preoperational Instructions | 22 |
| J. Shutdown Instructions | 24 |

SECTION IV

| | |
|--|-----------|
| SERVICE/PARTS INFORMATION | 25 |
|--|-----------|

| | |
|------------------|----|
| A. Service | 25 |
| B. Parts | 25 |

SECTION V

| | |
|-----------------------------------|-----------|
| WARRANTY INFORMATION | 26 |
|-----------------------------------|-----------|

| | |
|-----------------------------------|----|
| A. Returning Warranty Cards | 26 |
| B. Warranty | 26 |
| C. Returning Warranty Parts | 26 |

SECTION VI

| | |
|----------------------------------|-----------|
| ROUTINE MAINTENANCE | 28 |
|----------------------------------|-----------|

| | |
|----------------------|----|
| A. Cleaning | 28 |
| B. Adjustments | 29 |
| C. Lubrication | 29 |

SECTION VII

| | |
|-------------------------------------|-----------|
| DATA LABEL INFORMATION | 30 |
|-------------------------------------|-----------|

SECTION VIII

| | |
|---|-----------|
| PROCEDURE FOR FUNCTIONAL CHECK OF REPLACEMENT COMPONENTS | 31 |
|---|-----------|

SECTION I

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. 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.
3. 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.
4. Installation and service **must be** performed by a qualified installer, service agency, or gas supplier.
5. Dryer(s) **must be** exhausted to the outdoors.
6. 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, 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.

7. 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.

8. 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 electrically ground the dryer will VOID THE WARRANTY.

9. **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.

10. This dryer is not to be used in the presence of dry cleaning solvents or fumes.
11. 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.

12. **READ AND FOLLOW ALL CAUTION AND DIRECTION LABELS ATTACHED TO THE DRYER.**
13. For safety, proper operation, and optimum performances, the dryer **must not be** operated with a load less than sixty-six percent (66%), 20 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).

SECTION II

SPECIFICATIONS

| | | | |
|--------------------------------------|--------------------------------------|-------------------------------|-----------------------|
| MAXIMUM CAPACITY (TOTAL DRY WEIGHT)* | | 60 lbs | 27.2 kg |
| TUMBLER DIAMETER | | 27-1/4" | 69.22 cm |
| TUMBLER DEPTH | | 30" | 76.2 cm |
| TUMBLER VOLUME (PER TUMBLER) | | 10.1 cu ft | 0.286 cu m |
| TUMBLER MOTOR (PER TUMBLER) | | 1/2 hp | 0.373 kW |
| DOOR OPENING DIAMETER (PER TUMBLER) | | 21-1/2" | 54.61 cm |
| EXHAUST CONNECTION (DIAMETER) | | 8" | 20.32 cm |
| DRYERS PER 20'/40' CONTAINER | | 11 / 23 | |
| DRYERS PER 48'/53' TRUCK | | 28 / 30 | |
| Gas | VOLTAGE AVAILABLE | 120-240v 1ø,3ø 2, 3w 50/60 Hz | |
| | APPROX. NET WEIGHT | 850 lbs | 385.5 kg |
| | APPROX. SHIPPING WEIGHT | 900 lbs | 408.2 kg |
| | HEAT INPUT (TOTAL FOR BOTH TUMBLERS) | 160,000 Btu/hr | 40,320 kcal/hr |
| | AIRFLOW (PER TUMBLER) | 400 cfm | 11.3 cmm |
| INLET PIPE CONNECTION | | 3/4" M.N.P.T. | |

Shaded areas are stated in metric equivalents

5/21/04

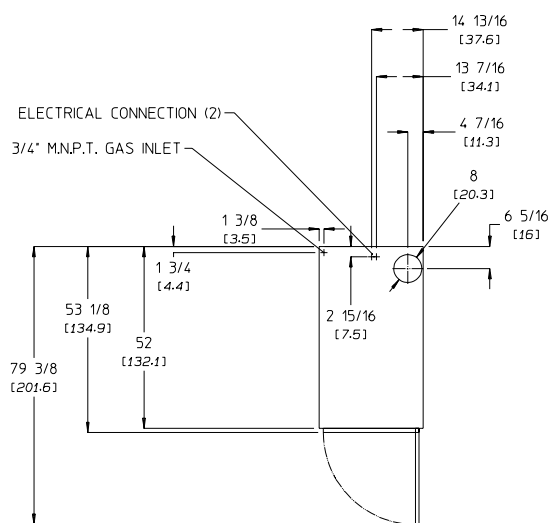
* 30 lb each per pocket/tumbler.

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

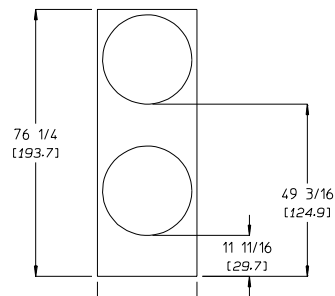
Specifications

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

EV 6/17/04

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.

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).
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. The dryer **must be** installed with a proper exhaust duct connection to the outside as noted in this manual (refer to **Exhaust Requirements** in Section E).
8. The 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: The dryer *should be* located where a minimum amount of exhaust duct will be necessary.

9. The dryer **must be** installed with adequate clearance for air openings into the combustion chamber.

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: The 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. 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).

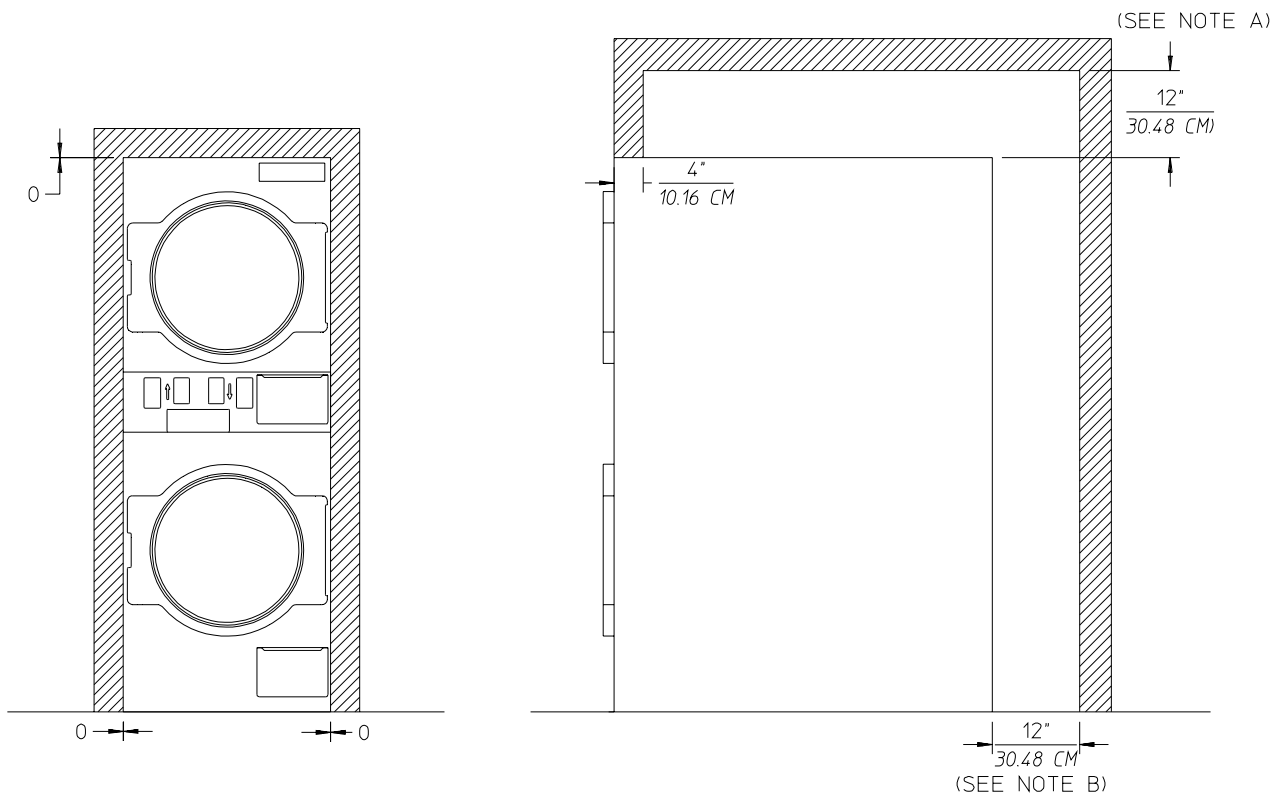
NOTE: Allowances **must be** made for opening the control door.

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. Refer to the **illustration** below for details.

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

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.

CLEARANCES SHOWN ARE MINIMUM DIMENSIONS TO NEAREST COMBUSTIBLE MATERIALS.



NOTES:

- 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, MAINTANCE AND SERVICE, AT LEAST 24" (61 CM) IS RECOMMENDED.

MAN4654

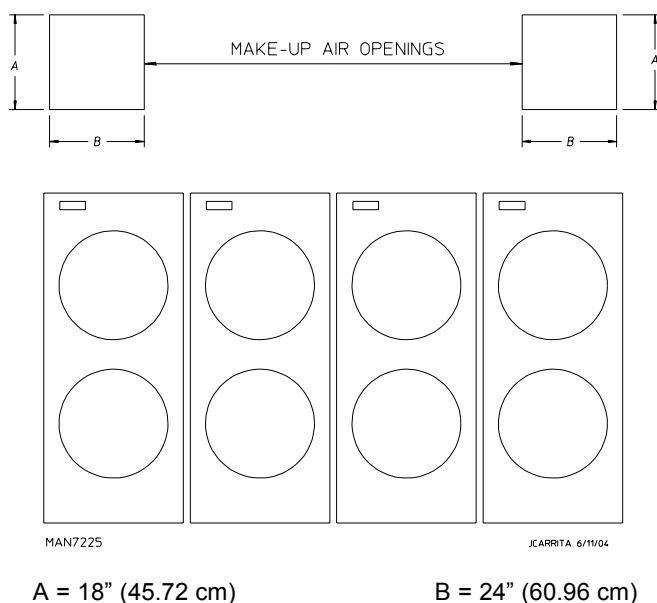
D. FRESH AIR SUPPLY REQUIREMENTS

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 ensure proper performance of each dryer. An unrestricted source of 800 cfm (22.66 cmm) 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.

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 four (4) dryers, a total make-up air opening of 6 square feet (0.55 square meters) is required. Two (2) unrestricted openings measuring 18-inches by 24-inches (45.72 cm by 60.96 cm) 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.

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.

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 as long as the minimum cross-sectional area is provided.

IMPORTANT: Exhaust back pressure measured by a manometer in the exhaust duct ***must be*** no less than 0 and ***must not exceed*** 0.3 inches (0.74 mb) of water column (W.C.).

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. When the ductwork approaches the maximum limits as noted in this manual, a professional heating, ventilating, and air-conditioning (HVAC) firm ***should be*** consulted for proper venting information.

IMPORTANT: **It is recommended** that exhaust or booster fans not be used in the exhaust ductwork system.

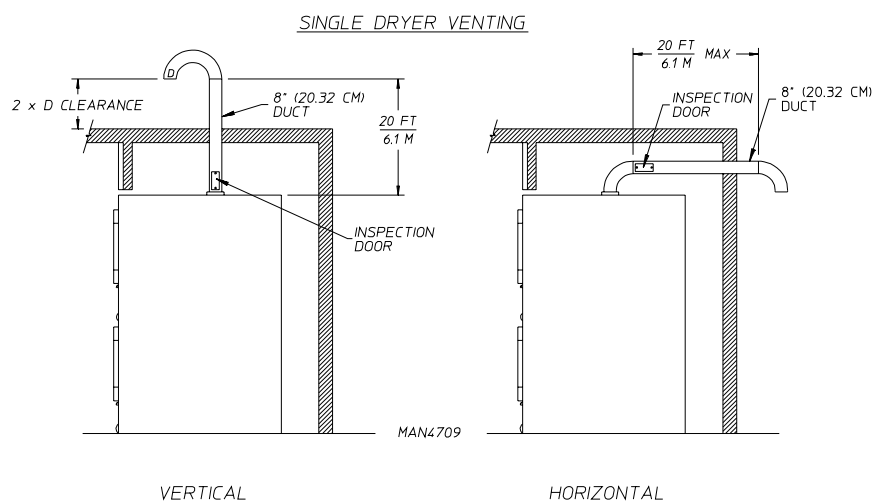
NOTE: As per the National Fuel Gas Code, "Exhaust ducts for Type 2 clothes dryers shall be constructed of sheet metal or other noncombustible material. Such ducts shall be equivalent in strength and corrosion resistance to ducts made of galvanized sheet steel not less than 0.0195 inches (26 gauge [0.5 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.

Outside Ductwork Protection

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 as 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 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 one (1) elbow (including outside protection).

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

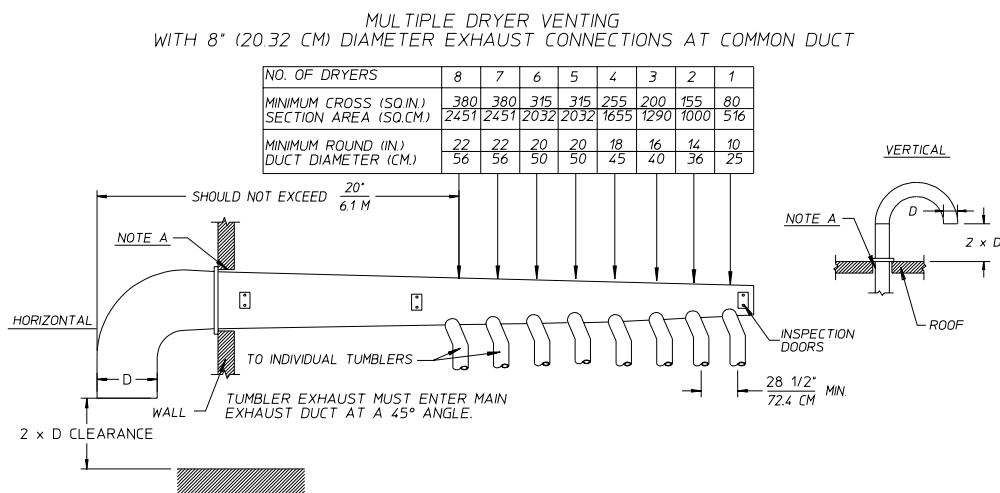
IMPORTANT: For extended ductwork runs, the cross-sectional area of the ductwork can only be increased to an extent. When the ductwork approaches the maximum limits as noted in this manual, a professional heating, ventilating, and air-conditioning (HVAC) firm **should be** consulted for proper venting information.

IMPORTANT: Exhaust back pressure measured by a manometer at the dryer exhaust duct area **must be** no less than 0 and **must not exceed** 0.3 inches (0.74 mb) of water column (W.C.) when both baskets (tumblers) are operating.

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.



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

GS 03/25/00

MAN5156

| FORMULAS TO CALCULATE DUCTING CROSS SECTIONAL AREA | |
|--|--|
| CROSS SECTIONAL AREA OF A ROUND DUCT = .785 (19.939 mm) × D ² WHERE D = DIAMETER OF THE DUCT. | |
| CROSS SECTIONAL AREA OF A RECTANGULAR DUCT = W × 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

ALL electrical connections must be made by a properly licensed and competent electrician. This is to ensure 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, and/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.

Each pocket **should be** connected to an independently protected branch circuit. The dryer **must be** connected with copper wire only. ***DO NOT use aluminum wire, it could create a fire hazard.*** The copper conductor wire/cable **must be** of proper ampacity and insulation in accordance with electric codes for making **ALL** service connections.

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

IMPORTANT: A separate protected circuit ***must be*** provided to each pocket.

NOTE: An individual ground circuit must be provided to each dryer, do not daisy chain.

IMPORTANT: The dryer ***must be*** connected to the electric supply shown on the data label. 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: Component failure due to improper voltage application will VOID THE WARRANTY.

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

2. Electrical Service Specifications

| GAS MODELS | | | | | |
|--|-------|--------------|------------------|-------|-----------------|
| ELECTRICAL SERVICE SPECIFICATIONS (PER POCKET) | | | | | |
| IMPORTANT: 208 VAC AND 240 VAC ARE NOT THE SAME . When ordering, specify exact voltage . | | | | | |
| 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. 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. C. Circuit breakers for 3-phase (3Ø) dryers must be 3-pole type. | | | | | |
| SERVICE VOLTAGE | PHASE | WIRE SERVICE | APPROX. AMP DRAW | | CIRCUIT BREAKER |
| | | | 60 Hz | 50 Hz | |
| 120 | 1Ø | 2 | 8.7 | — | 15 |
| 208 | 1Ø | 2 | 5.2 | — | 15 |
| 240 | 1Ø | 2 | 4.8 | 4.7 | 15 |
| 208 | 3Ø | 3 | 3.0 | — | 15 |
| 240 | 3Ø | 3 | 3.2 | — | 15 |

7/11/08

3. 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 installation **must conform** to applicable Canada Standards: 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 the 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.

Provisions are made for ground connection in each dryer at the electrical service connection area.

4. Electrical Connections

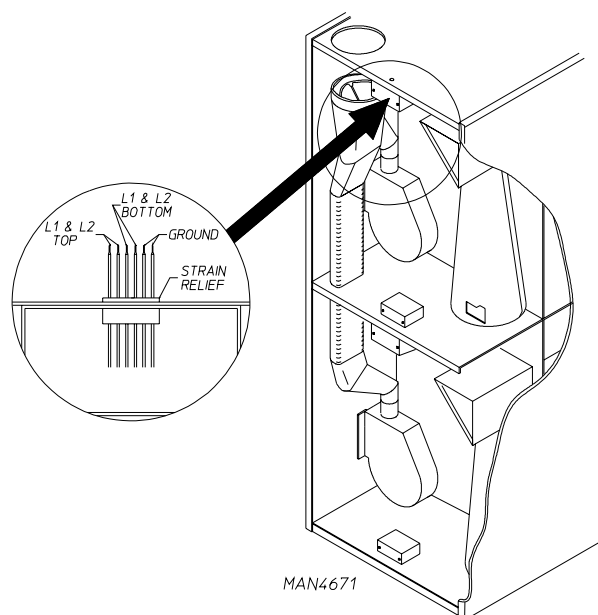
A wiring diagram is located inside the control box for connection data.

If local codes permit, power to the dryer can be made by the use of a flexible U.L. listed power cord/pigtail (wire size **must conform** to rating of 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.

IMPORTANT: A separate protected circuit **must be** provided to each pocket.

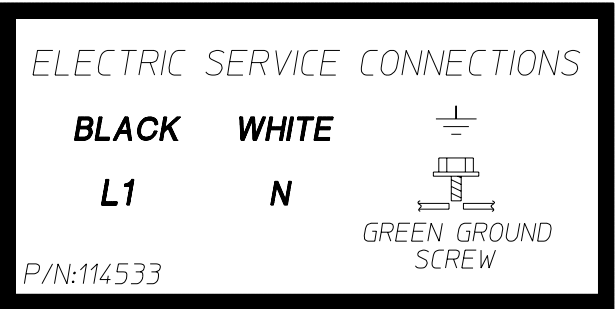
Single-Phase (1Ø) Hookup

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



| Single-Phase Electrical Lead Connections | | |
|--|---------------------------------------|----------------------|
| Black + Positive | White or Red + Neutral or L2 | Green + Ground |

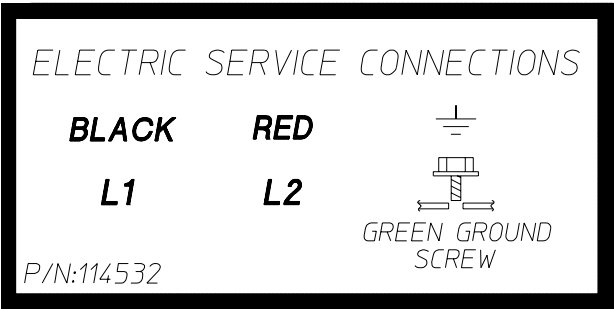
FOR 110V APPLICATIONS



MAN6886

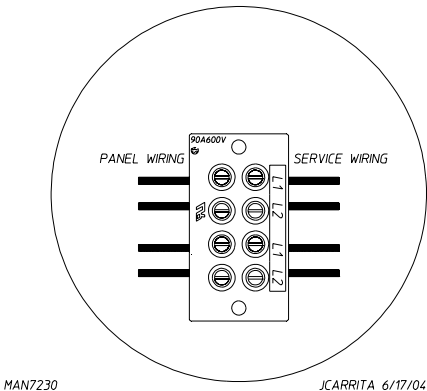
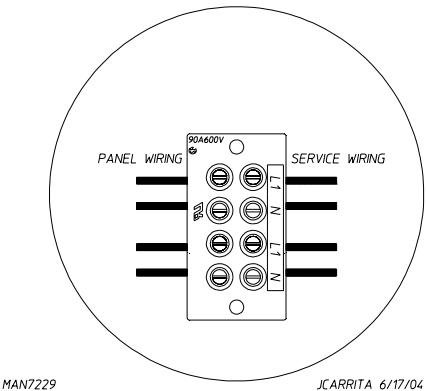
SGAGNON 9/15/03

FOR 208-230/240V APPLICATIONS



MAN6887

SGAGNON 9/15/03



A ground lug is provided in the rear electrical box to connect your service ground.

5. 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 circuits is done internally to the dryer. No single-phase (1Ø) input connection is required on a 3-phase (3Ø) dryer.

3-Phase (3Ø) Hookup

For gas dryers manufactured for operation at 3-phase (3Ø), the electrical input connections are made at the terminal blocks located in the top electrical box at the rear of the dryer.



MG 1/21/04

MAN7074

G. GAS INFORMATION

It is your responsibility to have **ALL** plumbing connections made by a qualified professional to ensure 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.

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 DUE TO FAILURE OF ISOLATING OR DISCONNECTING THE GAS SUPPLY AS NOTED.

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. 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 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 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

| 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" M.P.T.
 Inlet supply size ----- 3/4" Pipe (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** |
|-----------------|----------------|-------------|---------|----------|----------------|---------|----------|---|
| Btu/hr Rating** | kcal/hr Rating | Natural | | | Liquid Propane | | | |
| | | Qty.** | D.M.S.* | Part No. | Qty.** | D.M.S.* | Part No. | |
| 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 Btu being supplied.

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". 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.

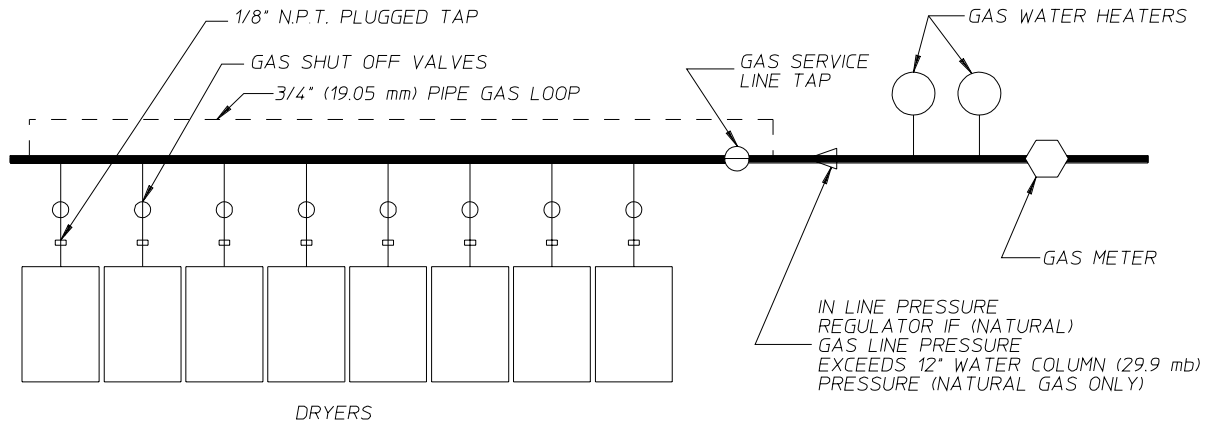
IMPORTANT: Test **ALL** connections for leaks by brushing on a soapy water solution (liquid detergent works well).

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).

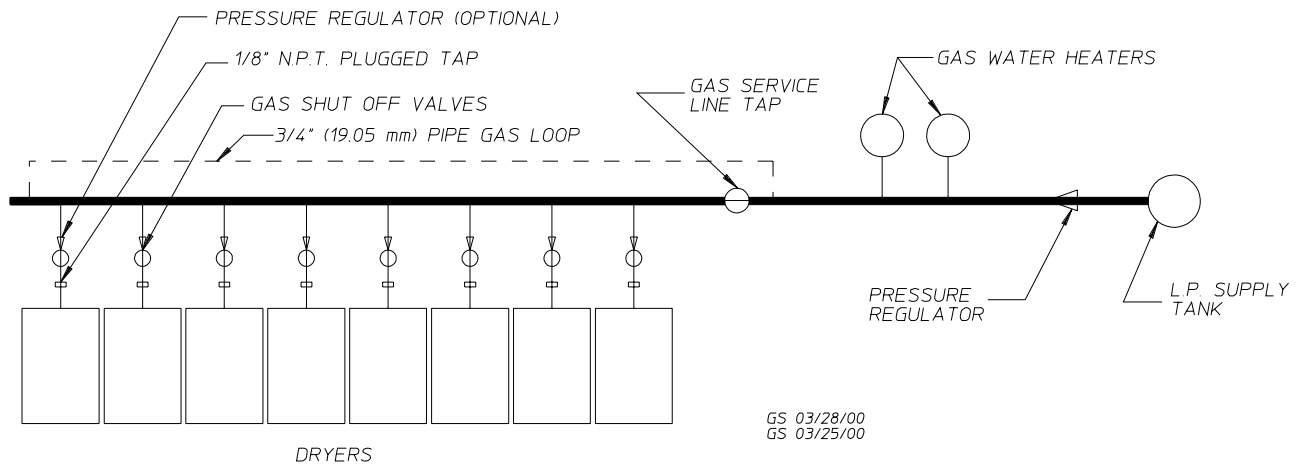
NOTE: The dryer **must be** isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure test of the gas supply system at test pressures equal to or less than 1/2 psig (3.5 kPa).

TYPICAL NATURAL GAS INSTALLATION



MAN5155

TYPICAL L.P. GAS INSTALLATION



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. In the case of 208 VAC OR 230/240 VAC ***THE SUPPLY VOLTAGE MUST MATCH THE ELECTRIC SERVICE EXACTLY.***
3. Check to ensure 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 ensure 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 ensure that they are closed and secured in place.
8. Be sure the lint drawers are securely in place.
9. Rotate the baskets/tumblers (both top and bottom) by hand to make sure they both move freely.
10. Check bolts, nuts, screws, terminals, and fittings for security.
11. Check basket (tumbler) bearing setscrews to ensure they are **ALL** tight.

I. PREOPERATIONAL INSTRUCTIONS

1. Coin Mode
 - a. When the microprocessor controller (computer) is in the ready state, the liquid crystal display (L.C.D.) screen will display “READY, INSERT AMOUNT TO START” or “READY, INSERT \$XX.XX TO START”.
 - b. Insert coin(s). Once the correct AMOUNT TO START has been inserted, the L.C.D. will display “SELECT TEMPERATURE”.
 - c. Select temperature by pressing “HI”, “MED”, or “LO”. The cycle will start and the L.C.D. will display the Dry Cycle selected and the remaining time.
 - d. The dryer will continue through the drying and cooling cycles, until the vended time has expired.
 - e. In Coin Mode, if more time is desired the customer will have to insert more credit. The dryer can be stopped by pressing the “PAUSE” key or opening the main door. Press either “HI”, “MED”, or “LOW” key after pressing the “PAUSE” key or closing the main door to restart the dryer.

NOTE: To stop dryer, open main door or press the pause key. Continuation of the cycle will resume only after the door has been closed and any of the three (3) temperature selection is pressed.

- f. Upon completion of the drying and cooling cycles, the tone (buzzer) will sound and the dryer will go into the Wrinkle Guard Mode for 99 minutes, or until the main door has been opened.

IMPORTANT: For more detailed information regarding the microprocessor controller (computer) on your dryer, refer to the microprocessor user's manual included with the dryer.

2. Free Mode

- a. When the controller is in the ready state and no cycle is in progress, the L.C.D. screen will display "SELECT TEMPERATURE".
- b. Select temperature by pressing "HI", "MED", OR "LO". The cycle will start and the controller will display the Dry Cycle selected and the remaining time.
- c. The dryer will continue through the drying and cooling cycles, until the drying time has expired.
- d. In Free Mode, if more or less time is desired in a cycle press and hold either the "HI" or "LO" key for 3-seconds. The control will now display the remaining time in the cycle. Pressing the "HI" key will increase the number of minutes remaining. Pressing the "LO" key will decrease the number of minutes remaining. The dryer can be stopped by pressing the "PAUSE" key or opening the main door. Press either "HI", "MED", or "LOW" key after pressing the "PAUSE" key or closing the main door to restart the dryer.

3. 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 three (3) attempts, 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 ensure 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.

4. Make a complete operational check of **ALL** the operating controls to ensure that the timing is correct and that the temperatures are set properly.
5. 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: To check for proper sail switch operation, open the main door and while holding main door switch plunger in, start the dryer. The dryer should start but the heat circuit *should not be* activated (on). If the heat (burner) does activate, shut the dryer off and make the necessary adjustments.

6. Each basket (tumbler) **should be** operated through one (1) complete cycle to ensure 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.

7. 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.

8. 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:

GAS MODELS - discontinue the gas supply.

SHUT OFF external gas supply shutoff valve.

SECTION IV

SERVICE/PARTS INFORMATION

A. SERVICE

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

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 V

WARRANTY INFORMATION

A. RETURNING WARRANTY CARDS

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.

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 inquiries **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.

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 P/N 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 ensure 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 ensured 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 VI

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 buildup.

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. Open the lint drawer, 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 the 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 BACK DRAFT DAMPERS IN THE EXHAUST DUCTWORK. INSPECT AND REMOVE ANY LINT ACCUMULATION, WHICH CAN CAUSE THE BACK DRAFT DAMPER TO BIND 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

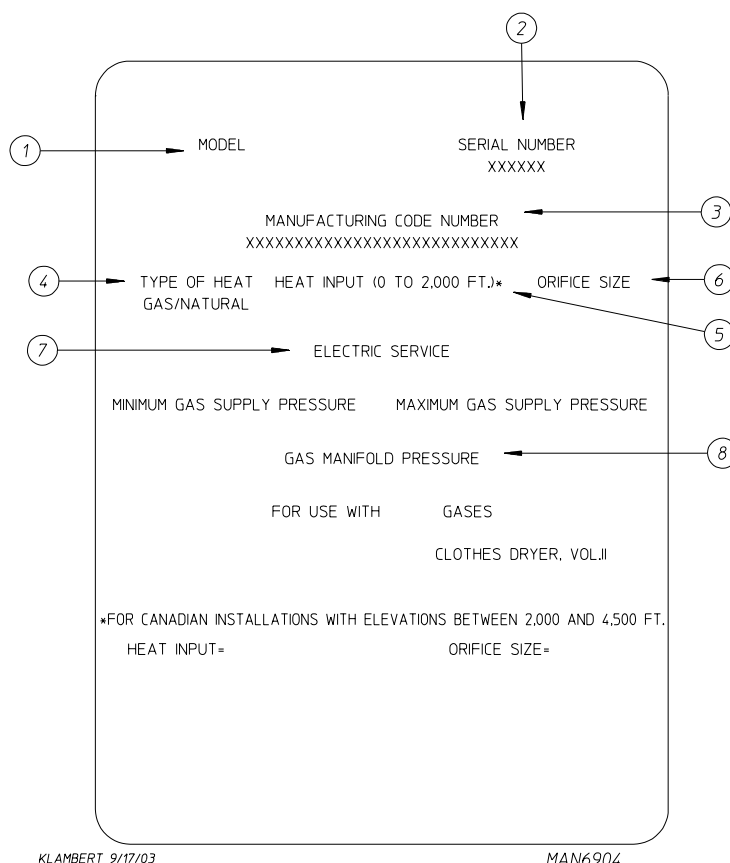
Inspect bolts, nuts, screws, setscrews, grounding connections, and nonpermanent gas connections (unions, shutoff valves, and orifices). Motor and drive belts **should be** examined. Cracked or seriously frayed belts **should be** replaced. Tighten loose V-belts when necessary. Complete operational check of controls and valves. Complete operational check of **ALL** safety devices (door switches, lint drawer switch, sail switch, 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 #2 grease 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 P/N 882159 (includes two [2] fittings).

SECTION VII

DATA LABEL INFORMATION



When contacting **American Dryer Corporation**, certain information is required to ensure proper service/parts information from **ADC**. This information is on the data label that is located on the left sidewall area behind the middle access (control) door. When contacting **ADC** please have the **model number** as well as the **serial number** readily available.

1. **MODEL NUMBER** – Describes the size of the dryer and the type of heat (gas, electric, or steam).
2. **SERIAL NUMBER** – Allows the manufacturer to gather information on your particular dryer.
3. **MANUFACTURING CODE NUMBER** – The number issued by the manufacturer, which describes **ALL** possible options on your particular model.
4. **TYPE OF HEAT** – This describes the type of heat for your particular dryer, gas (either natural gas or liquid propane [L.P.] gas), electric, or steam.
5. **HEAT INPUT** (for GAS DRYERS) – This describes the heat input in British Thermal Units per Hour (Btu/hr).
6. **ORIFICE SIZE** (for GAS DRYERS) – Gives the number drill size used.
7. **ELECTRIC SERVICE** – This describes the electric service for your particular model.
8. **GAS MANIFOLD PRESSURE** (for GAS DRYERS) – This describes the manifold pressure taken at the gas valve tap.

SECTION VIII

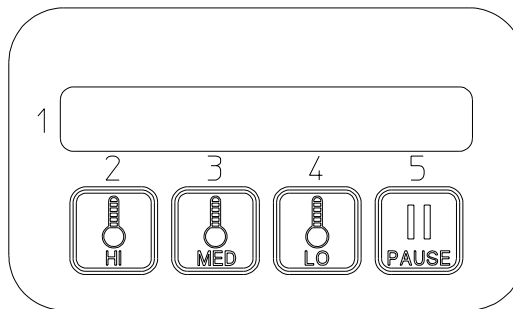
PROCEDURE FOR FUNCTIONAL CHECK

OF REPLACEMENT COMPONENTS

1. Microprocessor Controller (Computer) Board

Phase 7 Coin/Non-Coin Models

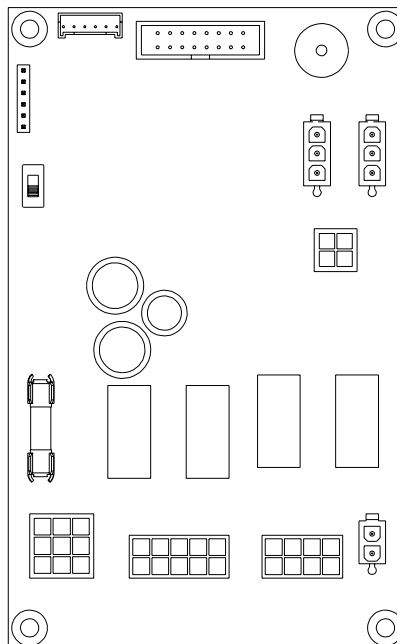
- Upon completing installation of the replacement microprocessor controller (computer) board, reestablish power to the dryer.
- Start the drying cycle by pressing any temperature selection keys (HI, MED, or LO).



JM 9/17/03

MAN6873

- Verify that the applicable indicator lights on the microprocessor controller (computer) board are lit. (Refer to the **illustration below.**)



MAN6875

JM 9/11/03

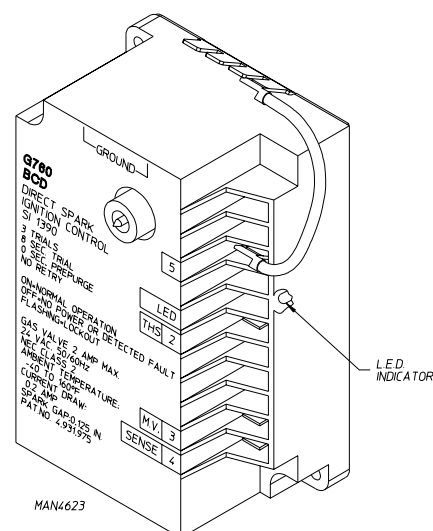
2. For Models with Direct Spark Ignition (DSI) Module (Type I)

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” (light emitting diode [L.E.D.] diagnostic indicator flashes).

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

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



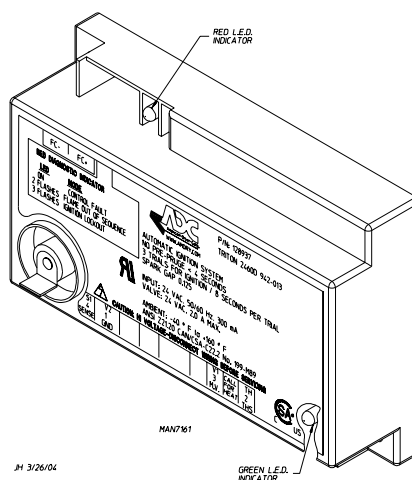
3. For Models with DSI Module (Type II)

Theory of Operation:

Start the drying cycle. When the gas burner ignites within the chosen trial for ignition time (8-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” (a red L.E.D. diagnostic indicator will flash).

An unlit red L.E.D. diagnostic indicator indicates normal operation.

A lit green L.E.D. diagnostic indicator indicates dryer controller is calling for heat and that **ALL** interlocks have been satisfied.



[illegible]

