

MAYTAG



Maytag MDG 120 PV Phase 7.2 OPL Service Manual

For Internal Use Only

**RETAIN THESE INSTRUCTIONS IN A SAFE PLACE
FOR FUTURE REFERENCE**

Maytag
One Dependability Square
Newton, Iowa 50208
(641) 787-7000

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 properly licensed 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. 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 on the following pages may not depict your particular dryer exactly.

Important

For your convenience, log the following information:

DATE OF PURCHASE _____ MODEL NO. Maytag MDG 120 PV

DEALER'S NAME _____

Serial Number(s) _____

For replacement parts, contact the dealer from which the dryer was purchased or contact:

MAYTAG
403 West Fourth St. North
Newton, Iowa 50208
(641) 787-7000

“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.

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.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

DO NOT DRY MOP HEADS IN THE DRYER.

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

CAUTION

DRYERS SHOULD NEVER BE LEFT UNATTENDED WHILE IN OPERATION.

WARNING

CHILDREN SHOULD NOT BE ALLOWED TO PLAY ON OR NEAR THE DRYERS.

CHILDREN SHOULD BE SUPERVISED IF NEAR DRYER(S) IN OPERATION.

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 OR SCREEN IN PLACE, EVEN IF AN EXTERNAL LINT COLLECTION SYSTEM IS USED.

IMPORTANT

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

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

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SECTION I

IMPORTANT INFORMATION

A. SAFETY PRECAUTIONS

1. **DO NOT** store or use gasoline or other flammable vapors and liquids in the vicinity of this or any appliance.
2. Purchaser and 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. Dryers **must be** exhausted to the outdoors.
4. Although **Maytag** 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” cleaners.
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 rubber materials. Drying in a heated basket (tumbler) may damage plastics or rubber and may be a fire hazard.

5. A program **should be** established for the inspection and cleaning of the lint in the burner area and exhaust ductwork. The frequency of inspection and cleaning can best be determined from experience at each location.

WARNING: THE COLLECTION OF LINT IN THE BURNER/OVEN AREA AND EXHAUST DUCTWORK CAN CREATE A POTENTIAL FIRE HAZARD.

6. For personal safety, the dryer **must be** electrically grounded in accordance with local codes and/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.
7. **UNDER NO CIRCUMSTANCES** should the dryer door switch or heat circuit safety devices ever be disabled.

WARNING: PERSONAL INJURY OR FIRE COULD RESULT.

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

WARNING: Children **should not be** allowed to play on or near the dryer(s). Children **should be** supervised if near dryer(s) in operation.

SECTION II

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, a **Maytag** 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.

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

DAILY

Clean lint from the lint screen. Inspect and replace if torn.

90 DAYS

Remove lint accumulation from lint chamber thermostats and sensors. Remove lint from the motor air vents and surrounding area.

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

IMPORTANT: Lint accumulation will restrict internal motor airflow, causing overheating and irreparable motor damage. Motor failure due to lint accumulation will VOID THE WARRANTY.

120 DAYS

Remove lint from gas burner area with a dusting brush or vacuum cleaner attachment.

6 MONTHS

Inspect and remove lint accumulation in the customer furnished exhaust ductwork system. Inspect exhaust draft dampers to insure they are not binding. Inspect and remove **ALL** lint accumulation from in and around control box area including coin acceptors. Clean lint accumulation from around basket (tumbler) wrapper area.

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

AS REQUIRED

In the cleaning and care of the cabinet, 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), nonpermanent gas connections, and grounding 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, and check belt alignment. Complete operational check of controls and valves. Complete operational check of **ALL** safety devices (door switches, sail switch, burner and lint chamber thermostats).

NOTE: V-belts ***should be*** replaced in matched pairs.

C. LUBRICATION

The motor bearings, idler bearings and basket (tumbler) bearings are permanently lubricated, and no lubrication is necessary.

SECTION III

INSTALLATION REQUIREMENTS

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. ENCLOSURE, AIR SUPPLY, AND EXHAUST REQUIREMENTS

NOTE: The following information is very brief and general. For a detailed description refer to the installation booklet for OPL dryers.

Bulkheads and partitions around the dryer **should be** made of noncombustible materials. Allowances **should be** made for the opening and closing of the control door and lint door. Also, allowances **should be** made in the rear for ease of maintenance. (Refer to installation manual for recommended distances and minimum allowances required.)

When the dryer is operating, it draws in room air, heats it, passes the air through the basket (tumbler), and exhausts it out 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 on gas dryers may result, and you also could have premature motor failure from overheating. Air supply **must be** given careful consideration to insure proper performance of each dryer.

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.

Exhaust ductwork **should be** designed and installed by a qualified professional. Improperly sized ductwork will create excessive back pressure, which will result in slow drying, increased use of energy, and shutdown of the burner by the airflow (sail) switch.

**CAUTION: IMPROPERLY SIZED, INSTALLED OR MAINTAINED (CLEANED)
EXHAUST DUCTWORK CAN CREATE A POTENTIAL FIRE HAZARD.**

B. 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.

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 and slow drying and can create a safety hazard.

The dryer **must be** connected to the type of gas (natural or L.P.) indicated on the dryer data label. If this information does not agree with the type of gas available, **DO NOT operate the dryer**. Contact the dealer who sold the dryer or contact **Maytag**.

The gas input ratings shown on the dryer data label are for elevations up to 2,000 feet (609.6 meters), unless elevation requirements of over 2,000 feet (609.6 meters) were specified at the time the dryer order was placed with the factory. The adjustment for dryers in the field for elevations over 2,000 feet (609.6 meters) is made by changing the burner orifices. If this adjustment is necessary, contact the dealer who sold you the dryer or contact **Maytag**.

NOTE: Any burner changes **must be** made by a qualified technician.

C. OPERATIONAL SERVICE CHECK PROCEDURE

After performing any service or maintenance function, an operational check **should be** performed to insure that **ALL** components are performing properly.

1. Make a complete operational check of **ALL** the operating controls to assure that the timing is correct, temperature selection switches are functioning, etc.
2. Make a complete operational check of **ALL** safety related circuits, door switch(es), hi-limit thermostat, sail switch, cycling thermostats, etc.
3. 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 both gas valve pressure taps)...

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

4. The dryer **should be** operated through one (1) complete cycle to assure that no future adjustments are necessary and that **ALL** components are functioning properly.
5. For 3-phase (3 ϕ) motor models, check the electric service phase sequence while the dryer is operating. Check to see if the blower wheel is rotating in the proper direction. Looking from the front, the blower wheel should spin in the clockwise (CW) direction. If so, the phasing is correct. If the phasing is incorrect, reverse two (2) leads at connections L1, L2, L3 of power supply to the dryer.

D. PREOPERATIONAL TESTS

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.

1. Turn on electric power to the dryer.
2. Make sure the loading doors are closed and the lint drawer is closed.
3. Make sure “green” power button is in and illuminated.
4. Microprocessor controller (computer) system operational test -- to start the dryer:
 - a. Display will read “READY.”
 - b. Press “D” (preprogrammed) cycle key on the keyboard (touch pad).
5. The dryer will then start (i.e., blower, basket [tumbler] and heat).
6. The light emitting diode (L.E.D.) display will read MANUAL DRYING CYCLE D, 00:00 MIN REMAIN.

NOTE: Press the “UPARROW” to view the basket (tumbler) temperature at any time.

NOTE: The dryer can be stopped at any time by pressing the “STOP/CLEAR” key. If the temperature is above the Cool Down set point when the “STOP/CLEAR” is pressed, the dryer will go into a Cool Down Cycle. If the “STOP/CLEAR” key is pressed again at this point the cycle that was in progress **will be** canceled and returned to the “READY” state. If the temperature is below the Cool Down set point, the cycle that was in progress **will be** canceled, and go to Wrinkle Guard.

7. When the programmed drying time has expired, the Phase 7 OPL microprocessor controller (computer) will proceed into the Cool Down Cycle (Mode).
8. Once the Cool Down Cycle begins at the end of the heat cycle the L.E.D. display will read COOL DOWN TEMP ___/___MINUTE REMAINING. At the end of the heat cycle the dryer will shut off the heat, and continue the fan and basket (tumbler) until the Cool Down Time, or temperature is reached.

9. Once the Cool Down Cycle is completed the Phase 7 OPL microprocessor controller (computer) will proceed into the Wrinkle Guard Cycle. The Audio Alert tone will sound for the amount set in Audio Alert ON Time. The light emitting diode (L.E.D.) display will read “WRINKLE GUARD.” The times are fixed at 2 minutes OFF, 2 minutes ON for a maximum time of 99 minutes. These times are not programmable. During the ON time, the blower (fan) and the basket (tumbler) will start to rotate (without heat for 2 minutes). The Phase 7 OPL microprocessor controller (computer) will repeat this process until the Maximum Wrinkle Guard On Time has expired (99 minutes). The L.E.D. display will then read “CYCLE DONE” and lockout the dryer functions until the doors are opened. It will then return to “READY.”

NOTE: Mechanical functions of the dryer **is not** allowed during the ON time. The blower (fan) **must be** OFF to perform mechanical functions. However the “STOP/CLEAR” key may be pressed at any time to end the Wrinkle Guard Cycle. Mechanical functions of the dryer is allowed during the OFF time.

NOTE: Dryer can be stopped at any time by opening the main door or by pressing the “STOP/CLEAR” key. To restart the dryer, press the “ENTER/START” key or a preprogrammed cycle key (i.e., “E”).

NOTE: Pressing keyboard (touch pad) key “A,” “B,” “C,” “D,” or “F” will also start the dryer. The six (6) preprogrammed drying cycles “A” thru “F” have been stored in the microprocessor controller’s (computer’s) memory. Refer to the Programming Manual supplied with the dryer for these preprogrammed cycles.

10. Check to insure that the basket (tumbler) starts in the clockwise (CW) direction. Additionally, check the direction of the blower motor to insure that it rotates in the counterclockwise (CCW) direction as viewed from the left side of the dryer. If it does, the phasing is correct. If the phasing is incorrect, reverse two (2) of the leads at L1, L2, or L3 of the power supply connections made to the dryer.

IMPORTANT: Dryer blower motor and impellor/fan shaft as viewed from the left side of the dryer must turn in the counterclockwise (CCW) direction, otherwise the dryer efficiency **will be** drastically reduced, and premature component failure can result.

11. Heat Circuit Operational Test

- 1) When the dryer is first started (during initial start-up), the burners have a tendency not to ignite on the first attempt. This is because the gas supply piping is filled with air, so the dryer may have to be stopped and restarted several times for this air to be purged from the lines.
- 2) The dryer has two (2) burner boxes and each burner has its own Direct Spark Ignition (DSI) module and Spark Ignition/Flame-Probe Assembly. If ignition is not established after first attempt, the heat circuit DSI module will lockout until it is manually reset. To reset the DSI system, open and close the loading doors and restart the dryer (press “ENTER/START” key).

If one (1) burner lights and the other does not, then the system will shut both burners off and the burner fault code will be displayed showing which of the two (2) burner failed to ignite.

NOTE: During the purging period, verify that **ALL** gas shutoff valves are open.

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

NOTE: Water column pressure requirements (measured at both gas valve pressure taps)...

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

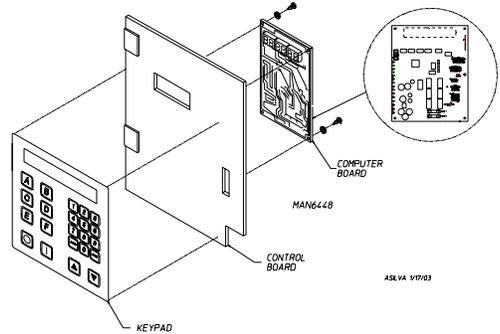
IMPORTANT: There is no regulator provided in an L.P. dryer. The water column pressure **must be** regulated at the source (L.P. tank), or an external regulator **must be** added to each dryer.

SECTION IV

DESCRIPTION OF PARTS

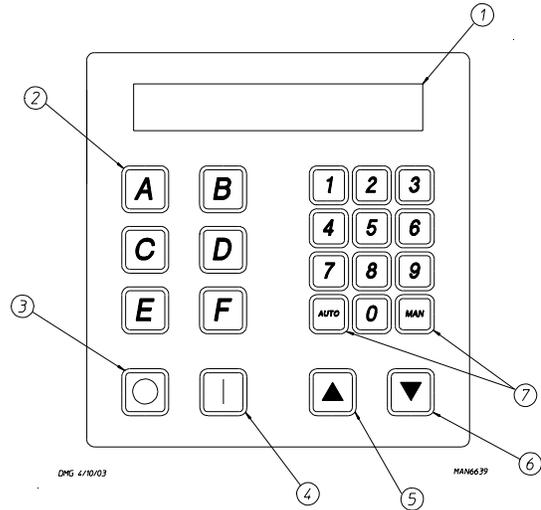
A. CONTROL PANEL (MICROPROCESSOR)

Removing the control door will reveal the control panel assembly. Opening the control panel will allow access to the major components, which include the computer board, and keyboard (touch pad). The keyboard (touch pad) inputs to the computer what temperature and program has been selected. The computer controls the entire operation of the dryer. It accepts inputs and gives outputs to various parts throughout the dryer.

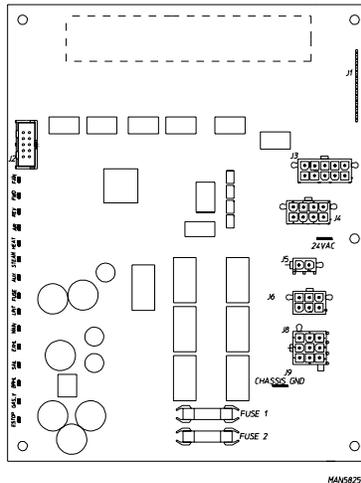


B. KEYBOARD (TOUCH PAD) LAYOUT

1. Dot Matrix Display
2. A-F Preprogrammed Cycles
3. Stop/Pause Button
4. Start Button
5. Increment Button
6. Decrement Button
7. One time auto (Dryness level) and manual (timed) Cycle

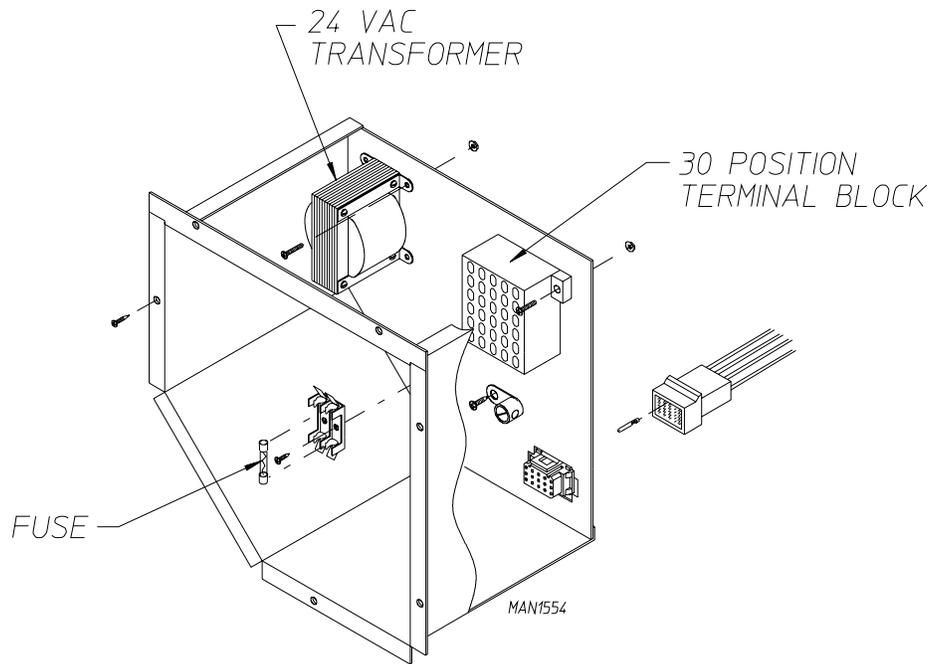


NOTE: Fuse 1 is for computer power rated at 1/2-amp. If fuse blows, it is a computer board fault.
 Fuse 2 is for 24V control power rated at 5-amp. If fuse blows, it is a 24V control fault.



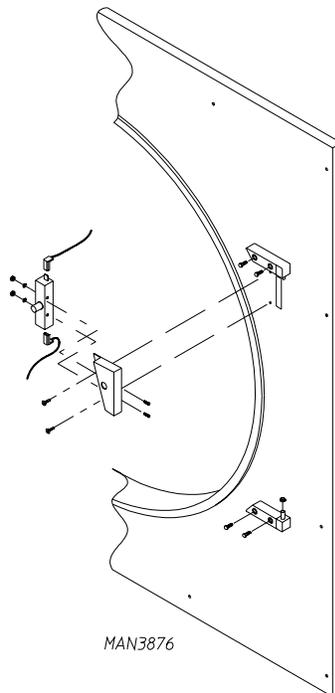
C. CONTROL BOX (COMPUTER CONTROLS)

The computer control box is made up of several computer harnesses. These harnesses provide input and output voltages to various devices throughout the dryer.



D. MAIN DOOR SWITCH

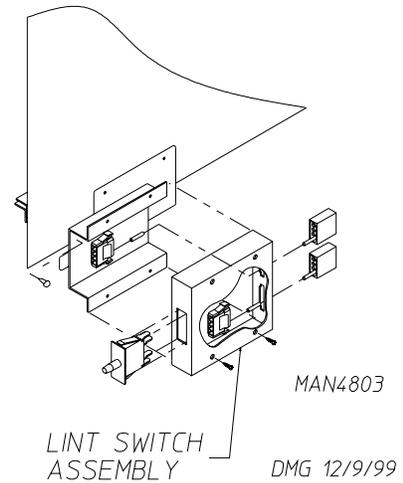
The main door switch is located behind the main door on the right hand side. When the main door is opened, the switch will also open, preventing the dryer from operating. The main door switch is a safety device and **should never be** disabled.



CURRENT PRODUCTION

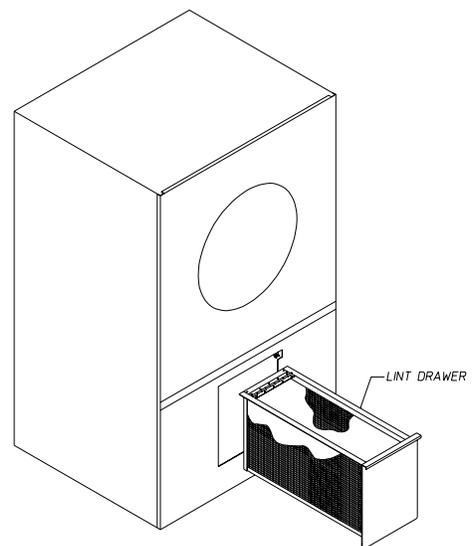
E. LINT DRAWER SWITCH

The lint drawer switch is located in the lint compartment and attached to the side of the lint drawer track. The lint drawer switch insures that the dryer will operate only when the lint drawer is completely closed. This is a safety device and **should never be** disabled.



F. LINT DRAWER

The lint drawer is a pullout type and is located at the bottom of the dryer in the lint compartment. Simply grab the lint drawer handle, slide out the drawer, brush off the lint, and slide the drawer back in. The lint screen **must be** kept clean in order for the dryer to operate properly and efficiently.

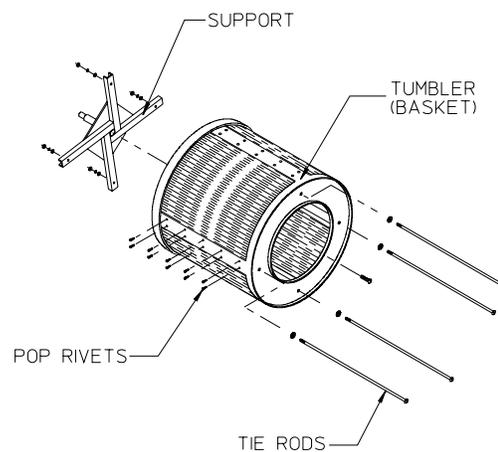


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G. BASKET (TUMBLER)

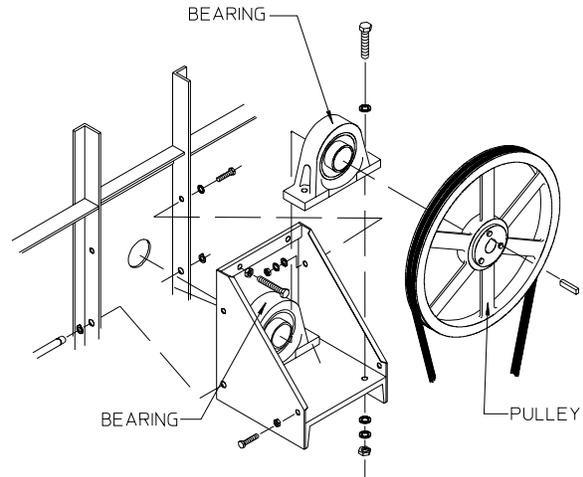
The basket (tumbler) consists of four (4) ribs and a perforated basket (tumbler) along with a front and back, which are screwed together as an assembly. The basket (tumbler) also consists of tie rods, which support the basket (tumbler) from front to back. The basket (tumbler) support is used to mate the basket (tumbler) to the drive system in the rear.



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H. BASKET (TUMBLER) BEARING AND PULLEY ARRANGEMENT

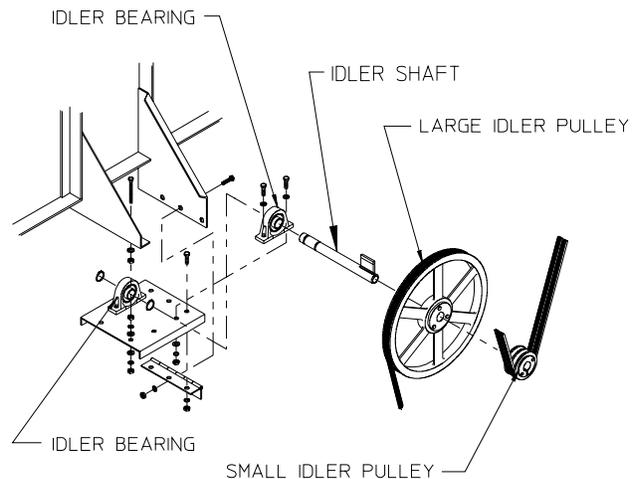
(Viewing from the rear of the dryer)
The basket (tumbler) bearing and pulley arrangement is located (viewing from the rear of the dryer) approximately at the upper center of the dryer. The arrangement consists of a pulley, and two (2) bearings, which serve to drive, adjust, and support the basket (tumbler).



MAN0536

I. IDLER ASSEMBLY

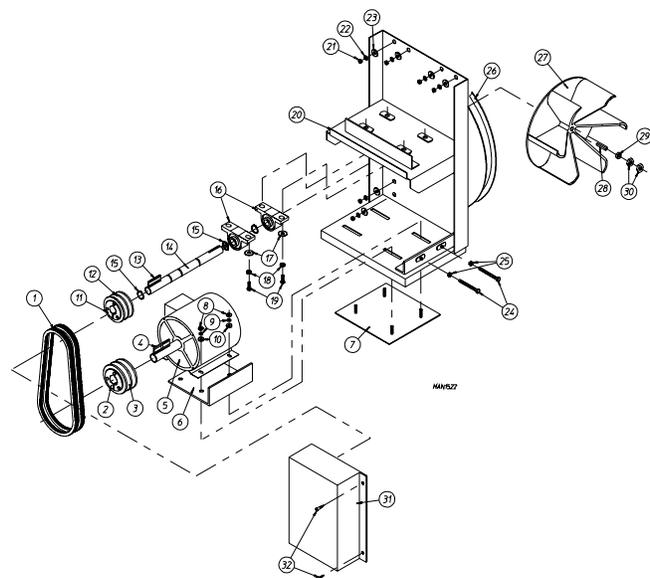
(Viewing from the rear of the dryer)
The idler assembly is located approximately on the lower center of the dryer. The idler assembly consists of two (2) idler pulleys, (small and large). The idler's main purpose is to reduce the speed and increase torque provided to the basket (tumbler) bearing. Also, at the idler assembly, belt tension can be adjusted.



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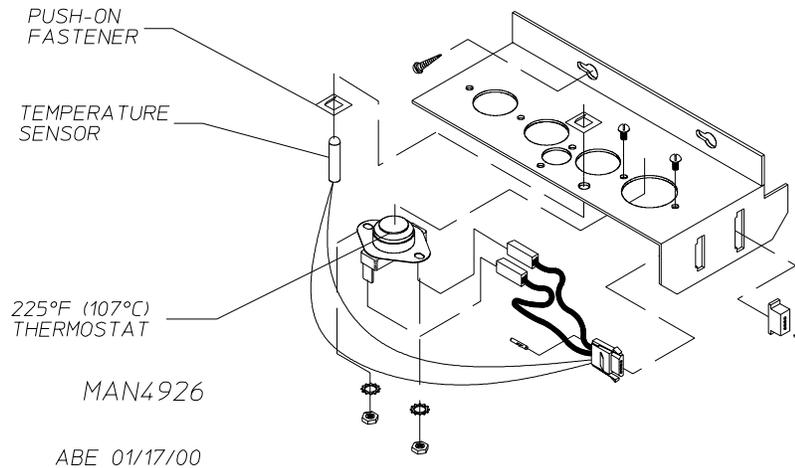
J. BLOWER MOTOR AND IMPELLOR

The impellor on the dryer is shaft driven. The blower motor drives the shaft on which the impellor is mounted. This enables the impellor to run at a higher RPM, thereby producing a higher airflow (cfm).



K. TEMPERATURE SENSOR (COMPUTER CONTROLS)

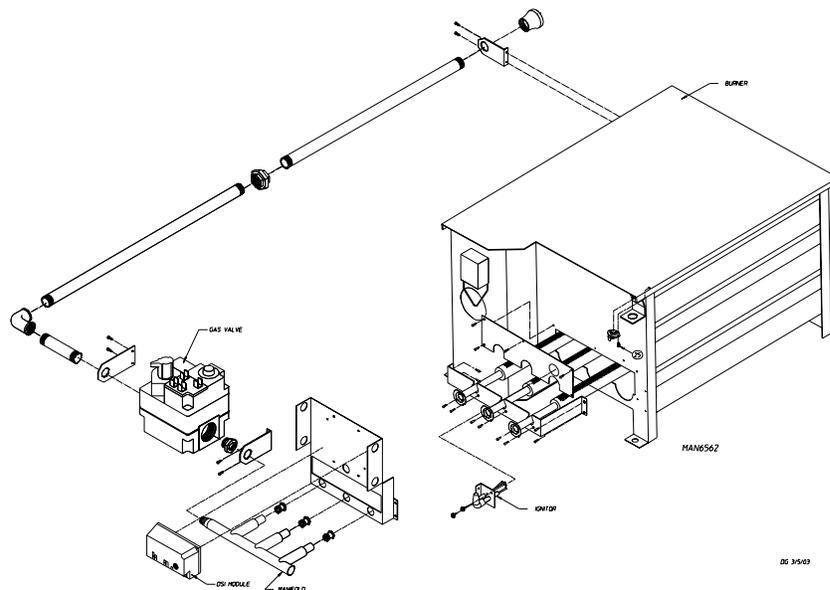
The temperature sensor used, is a transducer that converts heat into microamps that the computer board then uses to calculate the temperature.



MICROPROCESSOR SENSOR BRACKET ASSEMBLY

L. GAS BURNER

Gas dryers are equipped with a gas burner located behind the control door. The gas burner assembly consists of the burner tubes, orifices (the orifices have a hole in them to allow gas to flow through, the hole size varies with different elevations, and different BTUs), gas valve (which can be set up for natural gas or liquid propane [L.P.] gas), spark ignitor/flame-probe assembly, sail switch, and hi-limit thermostat. (Refer to **How to Use a Monometer** in Section M) for proper gas pressure readings on a gas burner.



M. USING A MANOMETER

HOW TO USE A MANOMETER

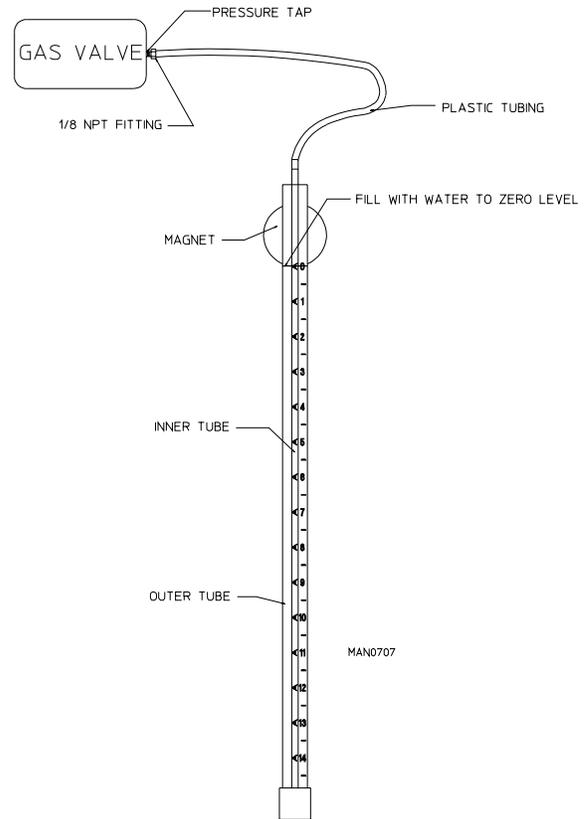
1. With dryer in nonoperating mode, remove plug on the gas valve pressure tap.
2. Install 1/8" N.P.T. fitting supplied with the manometer.
3. Attach plastic tubing to pressure tap fitting.
4. Attach manometer to dryer using magnet.

NOTE: Place manometer in a position so that readings can be taken at eye level.

5. Fill manometer as shown in illustration to the zero level.
6. Start dryer. With burner on take a reading.
 - a. Read water level at the inner tube. Readings **should be** taken at eye level.
 - b. Correct readings **should be:**

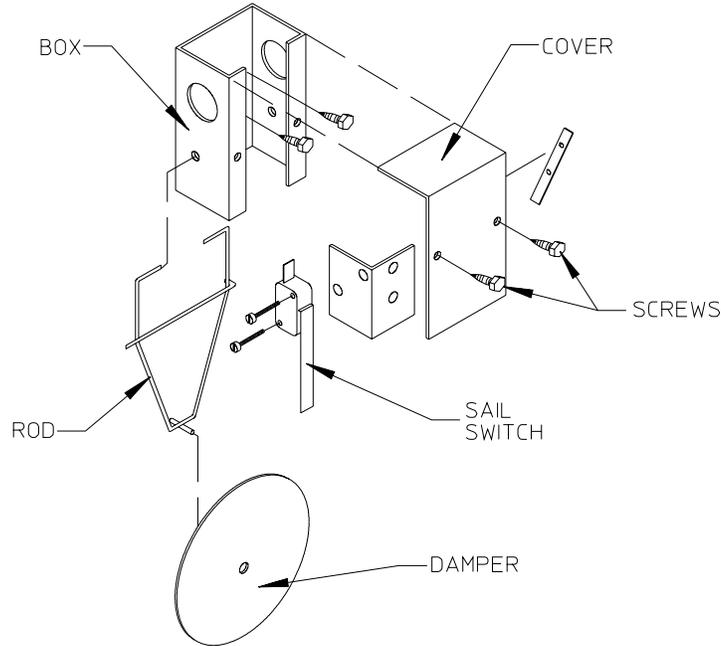
Natural Gas 3.5 Inches (8.7 mb) Water Column (W.C.).
Liquid Propane (L.P.) Gas 10.5 Inches (26.1 mb) Water Column (W.C.).

7. If water column pressure is incorrect, refer to **TO TEST AND ADJUST GAS (WATER COLUMN [W.C.] PRESSURE** on **page 26**.
8. Reverse procedure for removing manometer.



N. SAIL SWITCH

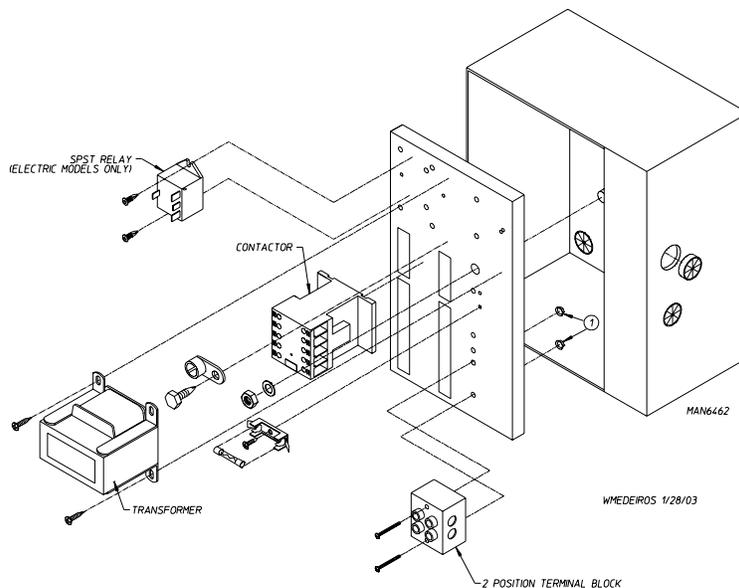
The sail switch consists of a round damper plate on a lever arm, which acts like an actuator for a microswitch. When the air blower comes on, it draws air through the burner. This creates a negative pressure inside the burner box, and this negative pressure pulls in the round damper, which activates the sail switch. If there is improper airflow, the damper will not pull in, preventing the burner from coming on. Improper airflow can be caused by improperly designed exhaust ducting, where the duct run is too long or has too many sharp bends on it. It can also be caused by a lack of make-up air. Sail switch is located in the back of the gas burner.



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O. MOTOR CONTACTOR (3Ø MOTOR)

The motor contactor used on a 3-phase (3Ø) dryer is located in the rear of the dryer, in the electrical panel box. Its purpose is to transfer the higher voltage to the motor, when the contactor coil voltage has been achieved.

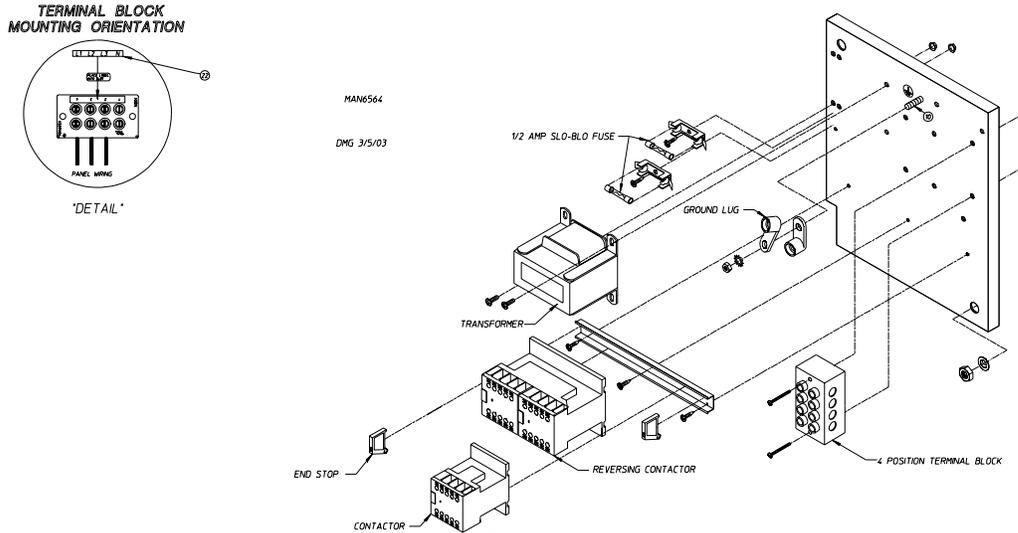


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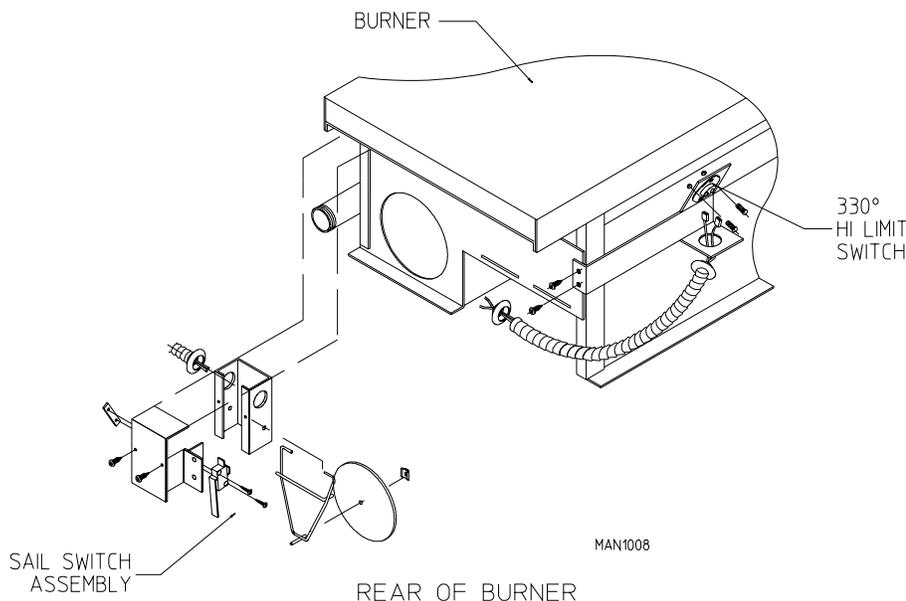
P. REVERSING RELAY PANEL

This panel is located in the back of the dryer at the lower left hand corner. On this panel is an arc suppressor (A.S.) board, which filters out “noise” that might go to the coils of the contactors. Also, mounted on this panel are the drive and blower/fan contactors. The 2-pole circuit breaker is used to protect L1 and L3 on 460-480 VAC dryers only. The transformer is stepping down the incoming voltage to 24 VAC, to supply the voltage to the computer and controls.



Q. HI-LIMIT THERMOSTAT

The hi-limit thermostat is another safety device that is used on gas models. The hi-limit is located in the gas burner area. The hi-limit switch cuts off the heat if the temperature exceeds 330° F (165° C) in the gas burner area. The only way this device would shut off the heat, is when the airflow changes to the extent of making the flame brush against it.

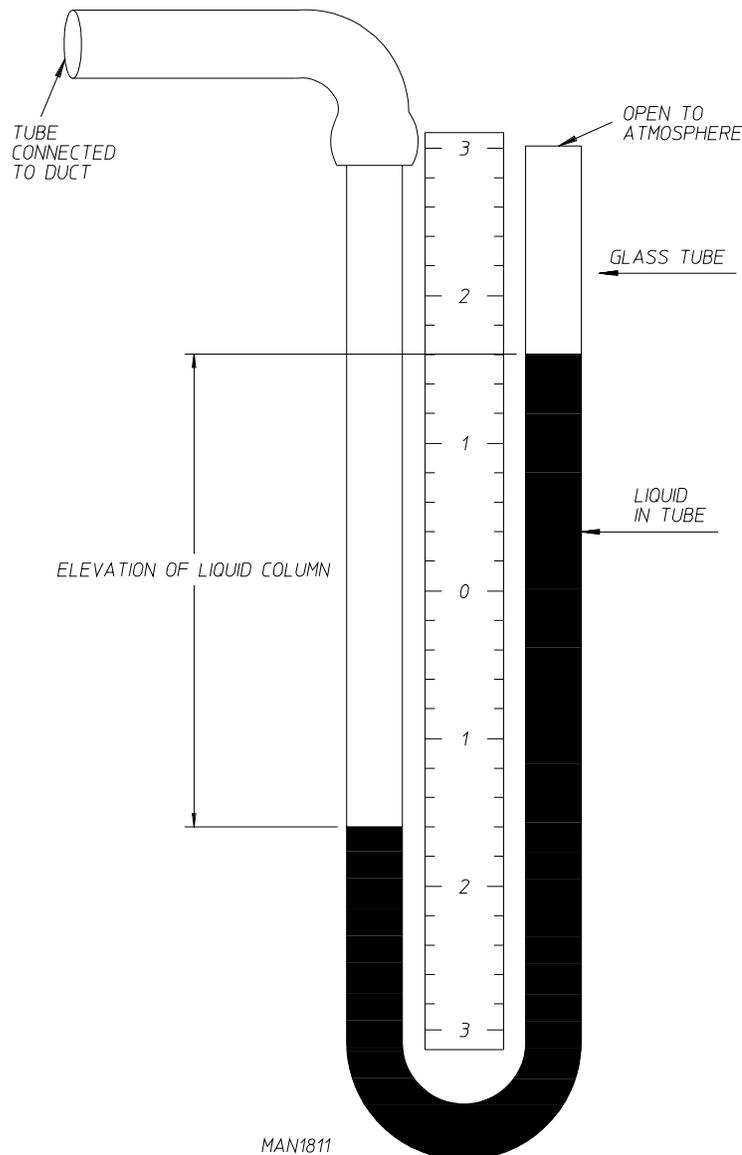


R. STATIC PRESSURE

The pressure of the air in sheet metal ducts is of great importance for safe and efficient operation of the dryer. The air pressures, as small as they are, have a large influence upon the performance of the dryer. There are three (3) pressures present within a duct. The velocity pressure, which is the pressure due to the moving stream of air, the static pressure, which is the outward push of the air against the walls of the duct, and the total pressure, which is the sum of the static and velocity pressures. Only the total and static pressures can be measured. The velocity pressure is then calculated from the difference between the two (2). The static pressure is the most influential and determining factor in the design of a dryer duct system. **Maytag** recommends that the dryer exhaust duct static pressure not exceed 0.3 inches (0.74 mb) of water column (W.C.).

Gauges used to measure such small air pressures utilize the elevation of a column of water. This form of gauge is called a manometer. One (1) form of this gauge is known as a U-tube and is shown in **Illustration #1**. When one (1) end of the tube is connected to the duct, the static (outward) pressure within the duct forces the water column to be depressed in one (1) leg of the U-tube and up in the other. The elevation of the water column in **Illustration #1** is 3.2 inches (8 mb).

Illus. #1

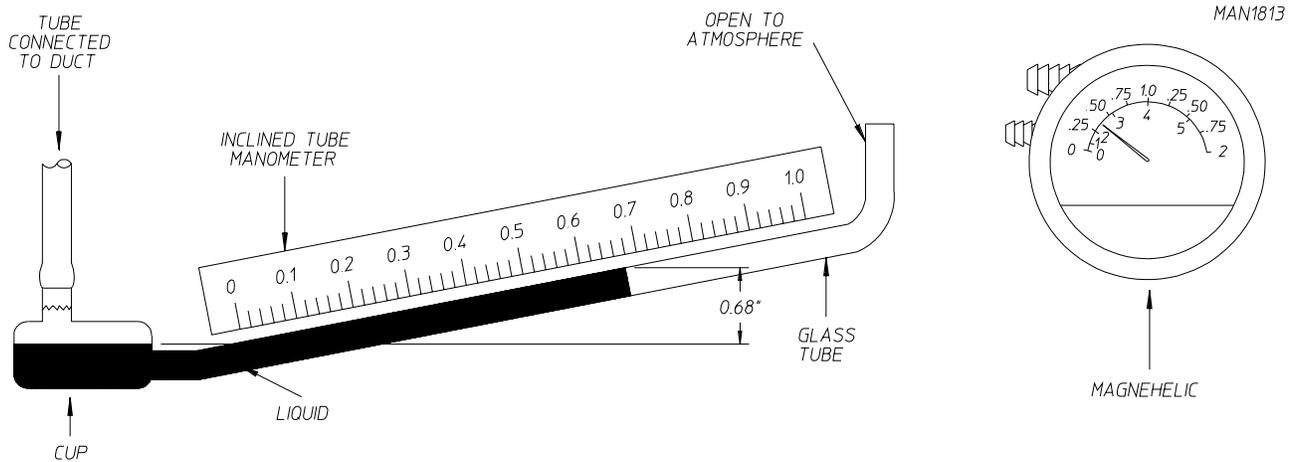


MAN1811

S. USING A MAGNEHELIC

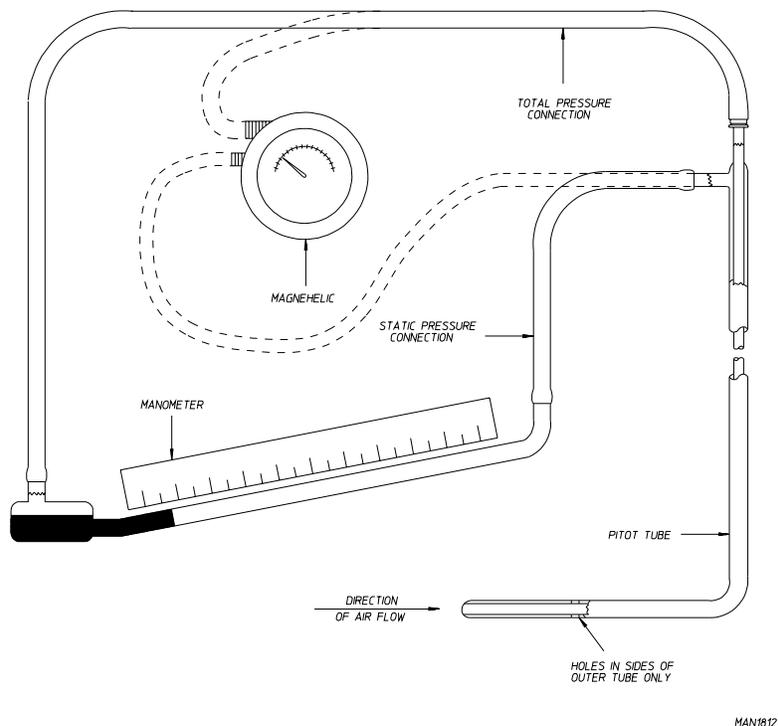
When measuring such small air pressures, the U-tube is often not accurate enough. Such small differences in pressure are most often measured by an inclined tube manometer or a Magnehelic pressure gauge as shown in **Illustration #2**.

Illus. #2



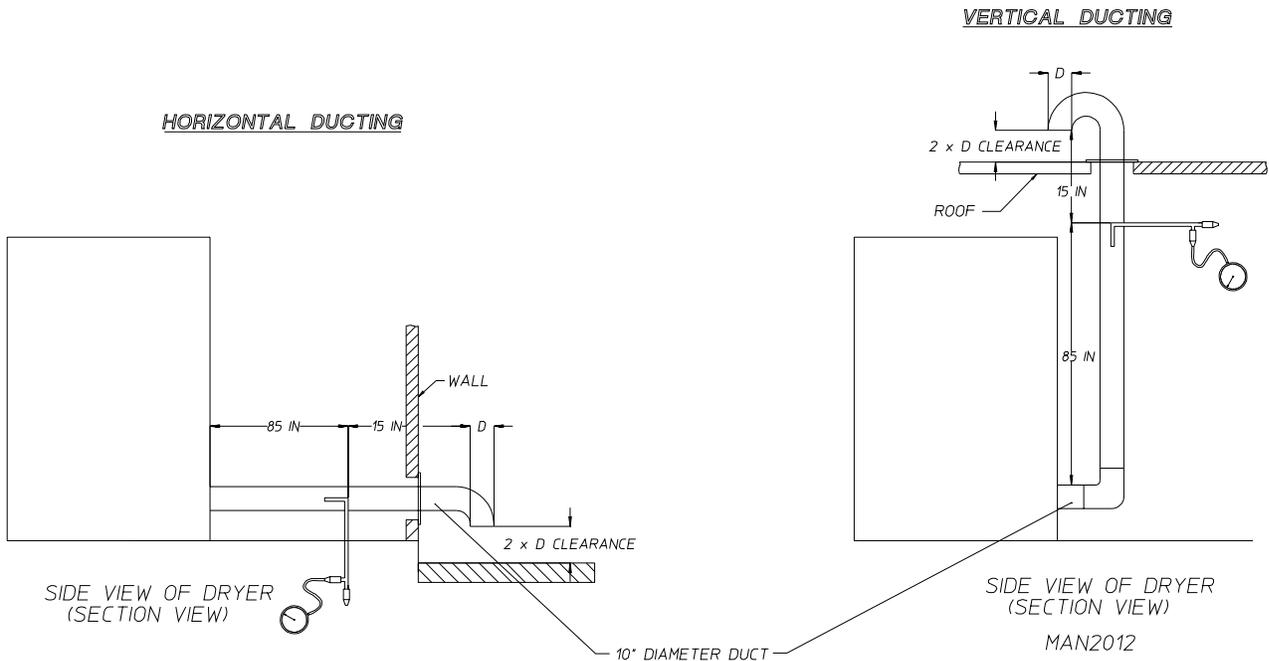
For convenience and accuracy, an instrument known as a Pitot tube is used with the gauge. The Pitot tube, as shown in **Illustration #3**, consists of two (2) tubes - one (1) within the other. The inner tube measures the total pressure alone, while the outer tube measures the static pressure alone.

Illus. #3



To obtain the most accurate static pressure readings of a dryer, the following guidelines **should be** conformed to. The reading **should be** taken in a straight section of duct, a minimum of ten (10) times the diameter of the duct (i.e. 10" [25.4 cm] diameter duct, a straight section 100" [254 cm] in length). The reading **should be** taken a minimum of 8-1/2 times the diameter upstream of the dryer or nearest elbow, and 1-1/2 times the diameter downstream of the Pitot tube. The following is an example showing the proper location to take a static pressure reading.

SINGLE DRYER VENTING



In designing a dryer exhaust duct system, it is not necessary to compute the friction loss of the ductwork. The friction loss (static pressure) is predetermined to not exceed 0.3 inches (0.74 mb) of water column (W.C.). This maximum allowable static pressure is the same for **ALL** dryers and is calculated to provide maximum dryer efficiency. It is necessary to determine the total equivalent length of the duct system. The total equivalent length of the duct system is the actual length of the duct added to the equivalent length of **ALL** the fittings. The equivalent length of a fitting, is the length of straight duct of the same size as the fitting in which the friction losses are equal. Equivalent lengths **must be** determined for **ALL** elbows, as well as, any entries which may be incorporated into a common duct system for multiple dryers. The total equivalent length is then used with the total cfm (cubic feet per minute) exhaust rating of the dryer(s) to calculate the minimum round duct diameter. When designing a single common duct system for multiple dryers, each individual dryer exhaust duct enters the main common duct.

SECTION V

SERVICING

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.

WARNING: PERSONAL INJURY COULD RESULT.

The information provided in this section **should not be** misconstrued as a device for use by untrained persons making repairs. Service work **should be** performed by competent technicians in accordance with local, state, and federal codes. When contacting the factory for assistance, always have the dryer **model number** and **serial number** available.

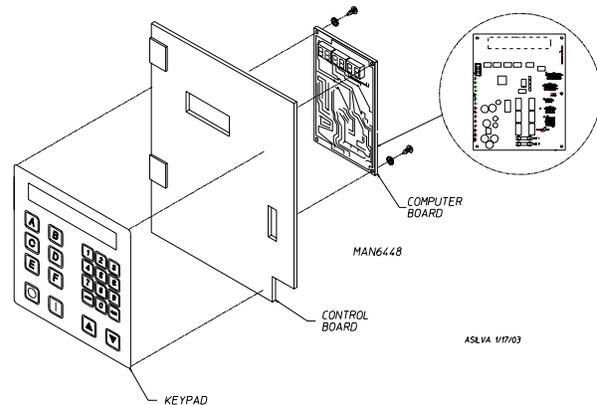
CAUTION: Observe **ALL** safety precautions displayed on the dryer or specified in this manual before and while making repairs.

Before considering replacement, make sure that **ALL** connectors are in place and making proper contact. Check input voltages and temperature sensor. After replacing any parts, or performing adjustments or service, run through a complete cycle.

A. CONTROLS (COMPUTER)

TO REPLACE CONTROL PANEL ASSEMBLY

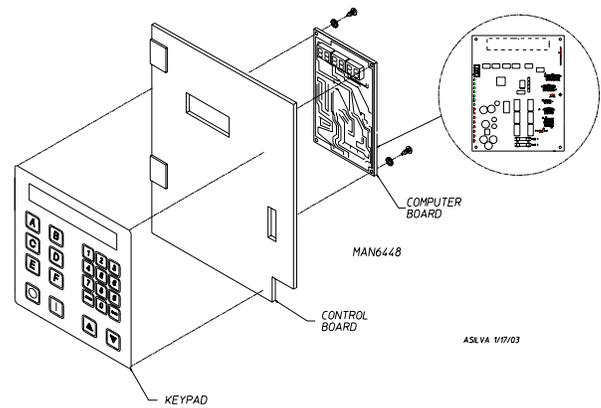
1. Disconnect power to the dryer.
2. Disconnect the J3, J4, J5, J6, and J8 harnesses from rear of the computer by squeezing the top locking tabs and pulling the connector straight back.
3. Disconnect the green ground wire from the computer.
4. To remove control panel assembly from the control box, gently tap the bottom of the control panel upward and lift off the hinges.
5. Install new control panel assembly by reversing the procedure.
6. Be sure to check or reset programs.



NOTE: Use caution when handling microprocessor controller. It can be easily damaged by static electricity.

TO REPLACE COMPUTER

1. Discontinue power to the dryer.
2. Disconnect the J3, J4, J5, J6, and J8 harnesses from the rear of the computer by squeezing the top locking tab and pulling the connector straight back.
3. Disconnect the green ground wire from the computer.
4. Disconnect the keyboard (touch pad) ribbon from the computer.
5. Remove the two (2) screws securing the computer to the control panel and remove computer from the panel, by pulling upwards on the corners.
6. Install the new computer by reversing this procedure.
7. Be sure to check or reset programs.



NOTE: Use caution when handling microprocessor controller. It can be easily damaged by static electricity.

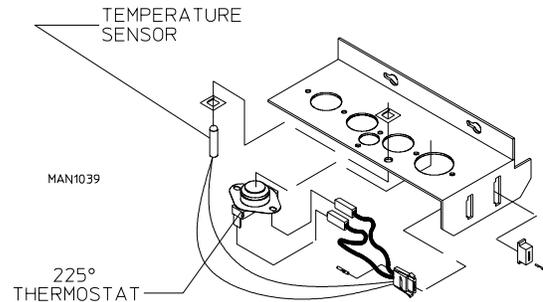
TO REPLACE KEYBOARD (TOUCH PAD)

Refer to the **illustration above**.

1. Discontinue power to the dryer.
2. Swing the control panel open and unplug keyboard (touch pad) ribbon from the computer board.
3. Peel the keyboard (touch pad) from the front of the control panel, taking care to avoid scratching the panel.
4. Clean any adhesive residue from the panel.
5. Peel the paper off the backing of the new keyboard (touch pad).
6. Align the display window on the keyboard (touch pad), with the cutout in the control panel and press in place.
7. Connect keyboard (touch pad) ribbon to the board and reconnect power to the dryer.
8. Test for operation by pressing each selection (A through F).

TO REPLACE COMPUTER TEMPERATURE SENSOR PROBE

1. Discontinue power to the dryer.
2. Remove microprocessor sensor bracket assembly from the dryer.
 - a. Disconnect sensor bracket harness connector.
 - b. Loosen the two (2) Phillips head screws securing the bracket assembly to the dryer and remove the bracket from the dryer.



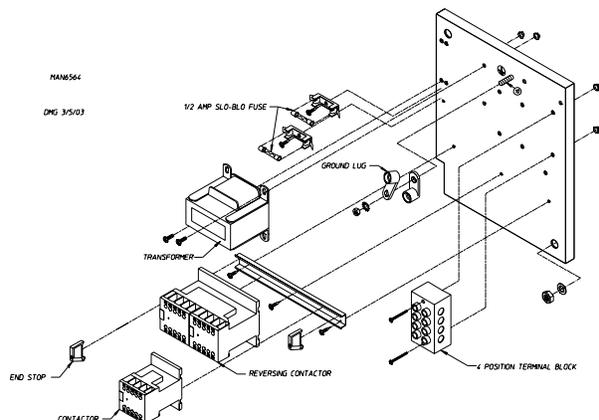
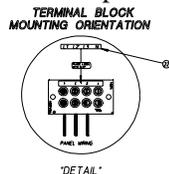
NOTE: DO NOT remove screws.

3. Disassemble the sensor probe from the bracket assembly by removing the top push on fastener securing the probe to the bracket. Use a small screwdriver to slowly pry the fastener off.
4. Disconnect the two (2) orange wires from the high heat 225° F (107° C) temperature thermostat. Remove modular bracket connector, wires, and probe from the bracket assembly.
5. Install new sensor probe assembly by reversing the procedure.
6. Reestablish power to dryer.

NOTE: If, when power is reestablished the computer display reads “dSFL,” check for loose connection on the wiring.

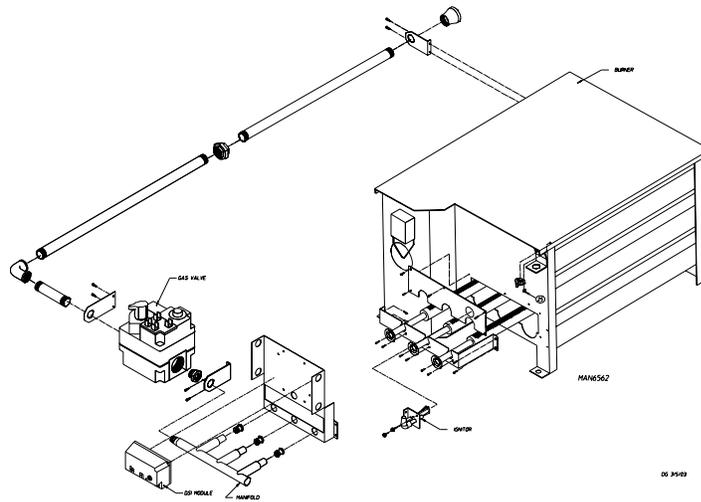
TO REPLACE MOTOR CONTACTOR 3-POLE, 24 VAC

1. Discontinue power to the dryer.
2. Remove **ALL** wires from contactor (**NOTE:** make sure each wire is marked with location removed from).
3. Press down firmly on the contactor and shift towards the right, then pull contactor off of the mounting rail.
4. To replace the new contactor place the contactor on the mounting rail and press down firmly.
5. Replace wires to designated locations as previously marked from **Step #2**.
6. Reestablish power to the dryer.



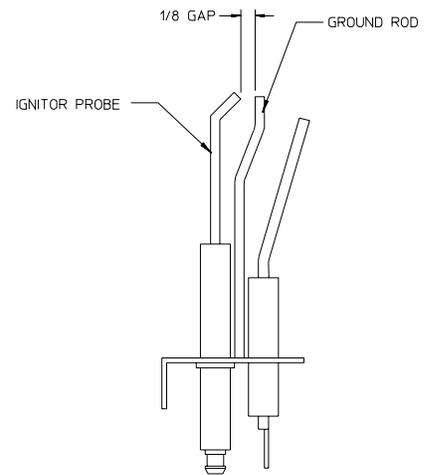
B. BURNER CONTROLS

The illustration below is typical of **ALL** gas burners, but they are not ALL exactly alike. Your particular gas burner may have some differences.



TO REPLACE SPARK IGNITOR

1. Discontinue power to the dryer.
2. Disconnect high voltage (HV) connector and flame-probe connection from ignitor.
3. Disassemble ignitor from burner by removing the two (2) self-tapping screws.
4. Reverse procedure for installing the new ignitor probe.



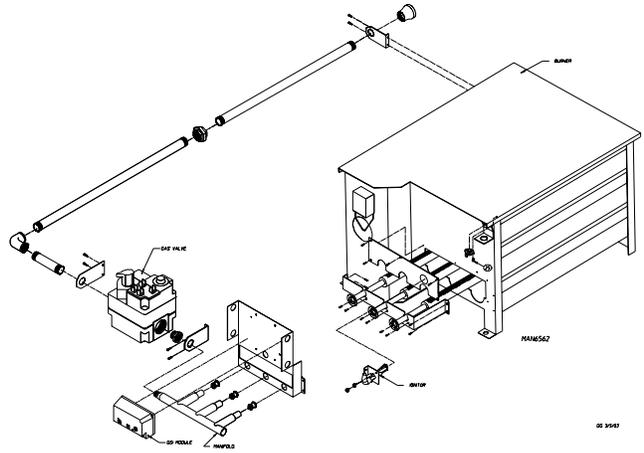
MAN0667

NOTE: Before reestablishing power to the dryer, visually check the following: (refer to the illustration).

5. The flame-probe, ignitor probe, and ground rod are **ALL** on the same line of axis.
6. There **should be** a 1/8" gap (+/- 1/32") between the ignitor probe and ground rod.
7. **DO NOT** wrap the red high voltage (HV) wire and flame-probe wire together. (Improper operation may result.) They may run along side each other.

TO REPLACE GAS VALVE

1. Discontinue power to the dryer.
2. Close **ALL** shutoff valve in the gas supply line.
3. Disconnect the gas valve wiring.
4. Break union connection before gas valve.
5. Loosen and remove two (2) screws securing pipe bracket to the burner.
6. Remove gas valve/manifold assembly from the dryer.
7. Remove manifold from outlet of the gas valve.
8. Remove union tailpiece from valve.
9. Reverse procedure for installing the new gas valve.



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

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

TO REPLACE MAIN BURNER ORIFICES

1. Refer to “TO REPLACE GAS VALVE” and follow *Step #1 through #6*.
2. Unscrew main burner orifices and replace with suitable replacement.

NOTE: Use extreme care when removing and replacing orifices. THESE ORIFICES ARE MADE OF BRASS, WHICH IS EASILY DAMAGED.

3. Reverse the removal procedure for reinstalling.

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

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

TO TEST AND ADJUST GAS (WATER COLUMN [W.C.] PRESSURE

There are two (2) types of devices commonly used to measure water column pressure. They are spring/mechanical type gauges and manometers. The spring/mechanical type gauge is not recommended because it is easily damaged and not always accurate. A manometer is simply a glass or transparent plastic tube with a scale in inches, which when filled with water and pressure is applied, the water in the tube rises, showing the exact water column pressure.

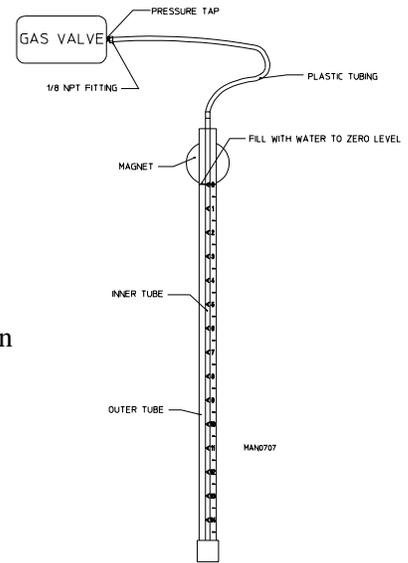
NOTE: Manometers are available from the factory by ordering Part No. 122804.

1. To test gas water column (W.C.) pressure.

- a. Connect water column test gauge connection to gas valve pressure tap (1/8" N.P.T.). This pressure tap is located on the outlet (downstream) side of the valve.
- b. Start the dryer. With burner on, the correct water column reading in inches would be:

Natural Gas 3.5 Inches (8.7 mb) Water Column
Liquid Propane (L.P.) Gas 10.5 Inches (26.1 mb) Water Column

2. To adjust water column pressure for natural gas dryers, remove vent cap. Turn the slotted adjustment screw located on top of the valve next to the terminals. Turn clockwise (CW) to increase manifold pressure and counterclockwise (CCW) to decrease. For L.P. gas dryers there is no regulator on valve.



NOTE: If correct water column pressure **cannot** be achieved, problem may be due to an undersized gas supply line, a faulty or underrated gas meter, etc.

TO CONVERT FROM NATURAL TO LIQUID PROPANE (L.P.) GAS

1. Discontinue power to the dryer.
2. Close **ALL** shutoff valves in dryer gas supply line.
3. Disconnect the gas valve wiring.

NOTE: Identify location of each wire for correct reinstallation.

4. Break union connection (nut) between union shutoff and gas valve.
5. Loosen and remove screws from bracket holding the gas valve/manifold assembly to burner box.
6. Remove gas valve/manifold assembly from the dryer.
7. Unscrew main burner orifices and replace with L.P. orifices supplied.
8. To convert gas valve for use with L.P. gas, refer to instructions included in L.P. Conversion Kit.
9. Reverse procedure for reinstalling valve manifold assembly to the dryer.

IMPORTANT: External regulator must provide constant gas pressure 10.5 inches (26.1 mb) water column (W.C.) to the dryer.

10. Open **ALL** shutoff valves and test for leaks.

IMPORTANT: *DO NOT* test for leaks with an open flame. Use soapy water solution or product intended for that purpose.

11. Operate dryer through one (1) complete cycle to insure proper operation.

IMPORTANT: Conversion *should be* performed by competent technicians in accordance with local and state codes. Improper assembly or adjustments can cause hazardous condition.

NOTE: 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.

12. Call **Maytag** for L.P. conversion kits or the proper orifices for natural or L.P. gas.

NOTE: Use extreme care when removing and replacing orifices. THESE ORIFICES ARE MADE OF BRASS, WHICH IS EASILY DAMAGED.

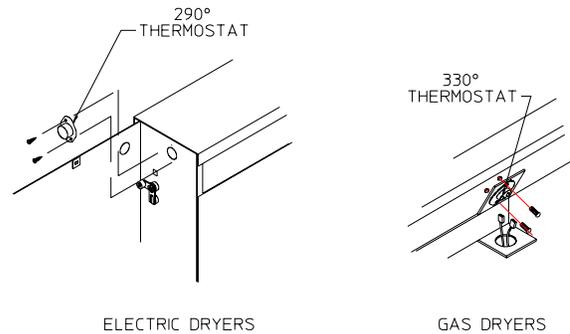
C. THERMOSTATS AND TEMPERATURE SENSOR

TO REPLACE BURNER HI-LIMIT THERMOSTAT

This thermostat is an important safety device serving as an added protection against failure of the air sail switch to open in the event of motor failure or reduced airflow condition.

IMPORTANT: UNDER NO CIRCUMSTANCES should heat circuit safety devices ever be disabled.

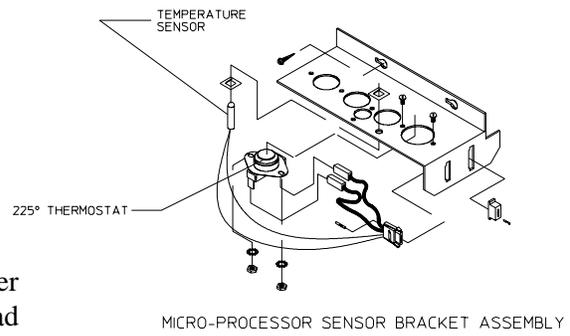
1. Discontinue power to the dryer.
2. Disconnect wires from burner hi-limit thermostat.
3. Remove screw, washer, and nut securing thermostat to the bracket. Remove thermostat.
4. Reverse procedure for installing new thermostat.



MAN0671

TO REPLACE THE TEMPERATURE SENSOR OR BASKET (TUMBLER) HI-LIMIT THERMOSTAT (MICROPROCESSOR MODELS)

1. Basket (Tumbler) Hi-Limit Thermostat
 - a. Discontinue power to the dryer.
 - b. Open and remove the lint door.
 - c. Locate temperature sensor bracket assembly under the basket (tumbler). Loosen the two (2) Phillips head screws. Disconnect the connector.
 - d. Slide bracket toward rear of the dryer and remove the bracket assembly from the dryer.
 - e. At this point, you have access to remove either the high heat protector or the temperature sensor.
 - f. To remove basket (tumbler) hi-limit thermostat, remove the two (2) screws, washers, and nuts holding the thermostat in place.
 - g. Remove the thermostat.
 - h. Reverse procedure for installation of the new thermostat.



MAN1019

2. Temperature Sensor (Microprocessor Models)

- a. Discontinue power to the dryer.
- b. Open and remove the lint door.
- c. Disconnect sensor bracket harness connector.
- d. Loosen the two (2) Phillips head screws securing bracket assembly to dryer and remove by sliding bracket towards the rear of the dryer.
- e. Disassemble sensor probe from bracket assembly by removing the top push on fastener securing the probe to the basket (tumbler).
- f. Disconnect the two (2) orange wires from the high heat temperature thermostat. Remove the 4-position connector, wires, and probe from the bracket assembly.
- g. Install the new probe assembly (Part No. 880251) by reversing procedure.

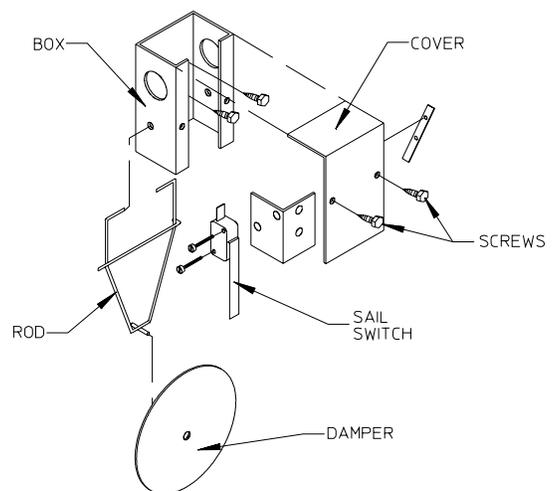
D. SAIL SWITCH ASSEMBLY

The sail switch is a heat circuit safety device, which controls the heat circuit only. When the dryer is operating and there is proper airflow, the sail switch damper pulls in and closes the sail switch. If an improper airflow occurs, the sail switch damper will release, and the circuit will open.

IMPORTANT: UNDER NO CIRCUMSTANCES should heat circuit safety devices ever be disabled.

TO REPLACE SAIL SWITCH

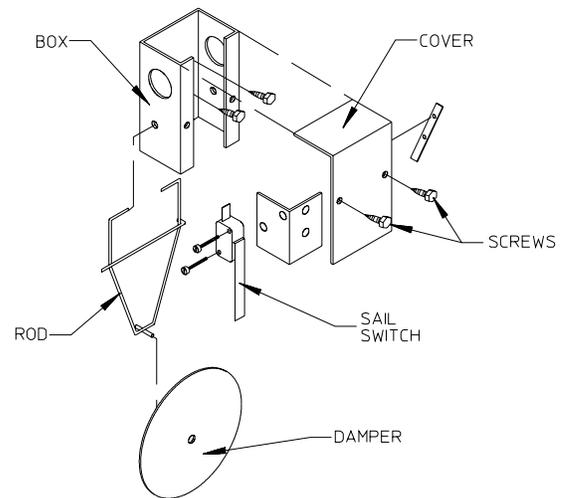
1. Discontinue power to the dryer.
2. Remove the two (2) screws, which mount the sail switch box.
3. Disconnect the two (2) wires from the switch.
4. Disassemble sail switch from mounting bracket by removing the two (2) screws securing the switch in place.
5. Reverse this procedure for installing the new sail switch. Adjust sail switch as described in the next section.



MAN0569

TO ADJUST SAIL SWITCH

1. Operate the installed dryer normally to verify that the heat system is fully operational.
2. Open the main dryer door.
3. Manually depress the door switch actuator.
4. While continuing to depress the door switch actuator, and with the door open, start the dryer.
5. If the heat system is not activated in 15-seconds, the sail switch is properly adjusted.
6. If the heat system is activated, the sail switch is improperly adjusted and **must be** readjusted by bending the actuator arm of the sail switch toward the front of the dryer. If the actuator arm is bent too far toward the front of the dryer, the dryer may not have heat when needed. After any adjustments of the sail switch, the above procedure **must be** repeated to verify proper operation.



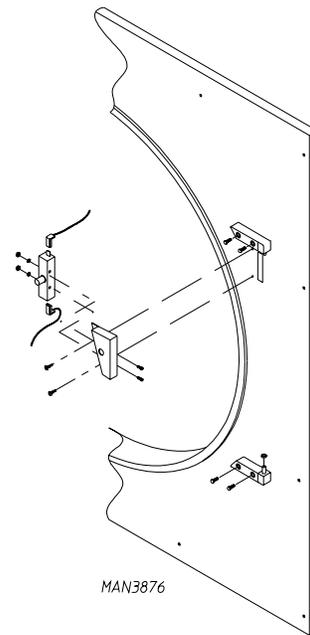
MAN0569

CAUTION: *DO NOT* disable this switch by taping or screwing sail switch damper to burner.
Personal injury or fire could result.

E. FRONT PANEL AND MAIN DOOR ASSEMBLIES

TO REPLACE MAIN DOOR SWITCH

1. Discontinue power to the dryer.
2. Open the main door.
3. Remove the two (2) Phillips head screws holding the main door switch cover in place.
4. Remove the two (2) nuts and washers securing the switch to the door hinge, and take the switch off the two (2) clinch studs on the hinge.
5. Disconnect the two (2) wires on the door switch. Connect the new door switch to those two (2) wires.
6. Reverse this procedure for installing the new door switch.



CURRENT PRODUCTION

IMPORTANT: UNDER NO CIRCUMSTANCES should the door switch circuit be disabled.

TO REPLACE MAIN DOOR ASSEMBLY

1. Remove screws holding main door to main door hinge.
2. Reverse this procedure for reinstalling the new main door assembly.

TO INSTALL NEW MAIN DOOR GLASS

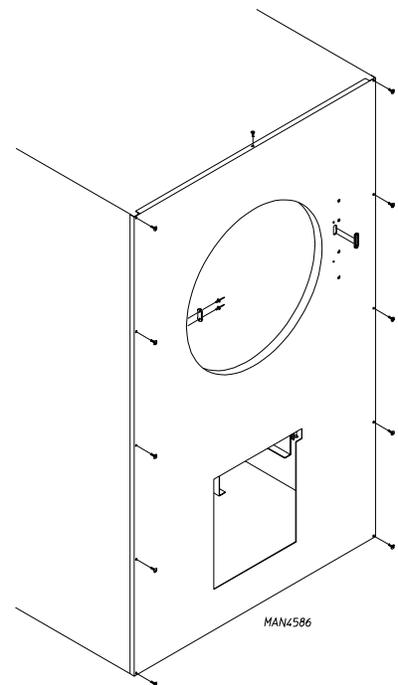
1. Remove main door assembly from the dryer (follow main door removal procedure).
2. Lay main door on a flat surface with front of door face down.
3. Remove glass and clean **ALL** old sealant off main door. This area **must be** completely cleaned for correct bonding.
4. Apply narrow bead of door glass of silicone **ALL** around main door area where glass will rest.
5. Install glass onto door/adhesive and slightly press glass in place.

IMPORTANT: *DO NOT* press hard or silicone thickness between the glass and door **will be** reduced resulting in poor bonding.

6. The door assembly **should now be** put in an area where it **will not be** disturbed for at least 24 hours. Depending on the conditions, the curing time of the adhesive is 24 to 36 hours.
7. After 24 hour curing period, install main door on dryer by reversing **Step #1**.

TO REPLACE FRONT PANEL

1. Discontinue power to the dryer.
2. Follow procedure to replace main door assembly above.
3. Open control (service) door.
4. Remove the lint drawer.



5. Remove the screws securing the front panel to the dryer.
6. Gently remove the top right hand corner of the front panel assembly from the dryer.
7. Disconnect the main door switch harness at the connector.

IMPORTANT: When removing front panel assembly, be careful not to damage main door switch wires disconnected in *Step #2*.

8. Reverse this procedure for installing the new front panel.

TO REPLACE MAIN DOOR HINGE

1. Discontinue power to the dryer.
2. Follow procedure for removal of the main door assembly.
3. Follow procedure for removal of the front panel assembly.
4. Disassemble hinge from the front panel by removing the nuts located on the back side of the front panel, which hold the hinge to the front panel.

IMPORTANT: When removing the hinge assembly from front panel, be careful you *DO NOT* damage the main door switch wires.

5. Remove the main door switch assembly.
6. Reassemble by reversing the removal procedure.

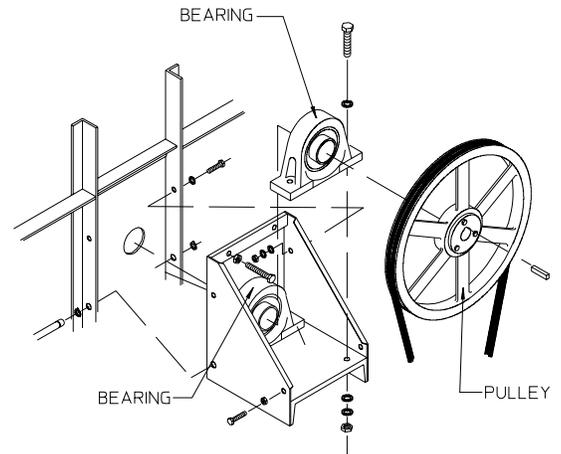
TO REPLACE THE NYLON CATCH

1. Open the main door.
2. Drill out the two (2) pop rivets holding the nylon catch to the front panel, using a #21 (0.1590") drill bit.
3. Using two (2) pop rivets (Part No. 154215), install nylon catch (Part No. 170330) to the front panel.

F. BASKET (TUMBLER) AND BEARING ASSEMBLY

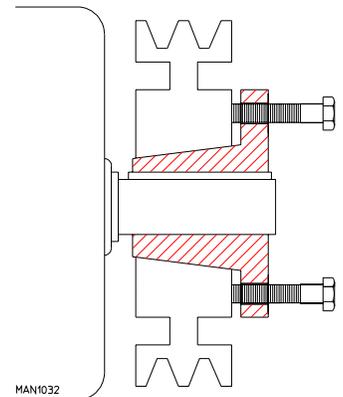
TO REPLACE BASKET (TUMBLER) PULLEY

1. Loosen V-belts. Rotate pulley and roll V-belts out of grooves.
2. Remove cap screws from the bushing.
3. Insert cap screws in tapped removal holes and tighten evenly until bushing becomes loose on shaft. Refer to figure "A."
4. Remove bushing, pulley, and key.
5. Assemble bushing and sheave as shown in figure "B." When cap screws are loosely inserted, bushing remains fully expanded to provide a sliding fit on the shaft.
6. Insert key on the shaft, then slide sheave to desired position with cap screw heads to the outside.
7. Tighten cap screws progressively. There should remain a gap between the sheave hub and the flange of the bushing.



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A

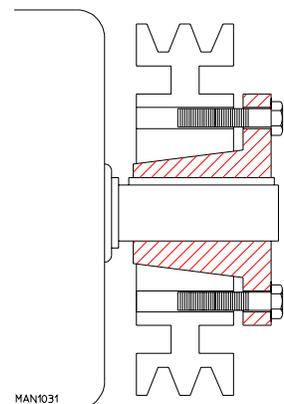


IMPORTANT: Tighten screws evenly and progressively. Never allow the sheave to be drawn in contact with the flange of the bushing. This gap should measure from 1/8" to 1/4". Proper cap screw torque is 30 ft-lbs. (41 Nm). If greater tightening forces are applied, excess pressures **will be** created in the hub of the mounted sheave, which may cause it to crack.

TO REPLACE SMALL IDLER PULLEY

1. Loosen V-belts. Rotate pulley and roll V-belts out of grooves.
2. Remove cap screws from the bushing.
3. Insert cap screws in tapped removal holes and tighten evenly until bushing becomes loose on shaft. Refer to figure "A."
4. Remove bushing, pulley, and key.
5. Assemble bushing and sheave as shown in figure "B." When cap screws are loosely inserted, bushing remains fully expanded to provide a sliding fit on the shaft.
6. Insert key on the shaft, then slide sheave to desired position with cap screw heads to the outside.

B

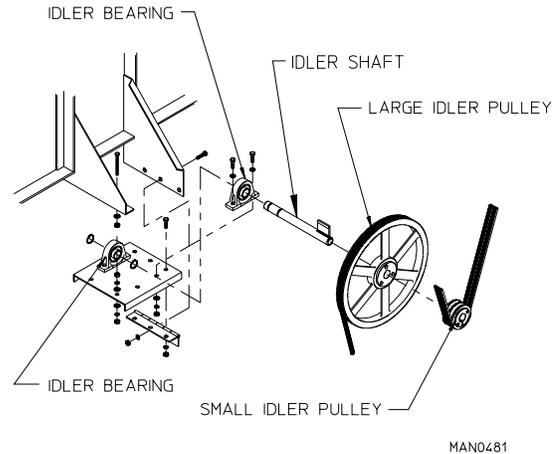


- Tighten cap screws progressively. There should remain a gap between the sheave hub and the flange of the bushing.

IMPORTANT: Tighten screws evenly and progressively. Never allow the sheave to be drawn in contact with the flange of the bushing. This gap should measure from 1/8" to 1/4". Proper cap screw torque is 6 ft-lbs. (8 Nm), if greater tightening forces are applied, excess pressures **will be** created in the hub of the mounted sheave, which may cause it to crack.

TO REPLACE LARGE IDLER PULLEY

- Loosen V-belts. Rotate pulley and roll V-belts out of grooves.
- Remove cap screws from the bushing.
- Insert cap screws in tapped removal holes and tighten evenly until bushing becomes loose on shaft. Refer to figure "A" on previous page.
- Remove bushing, pulley, and key.

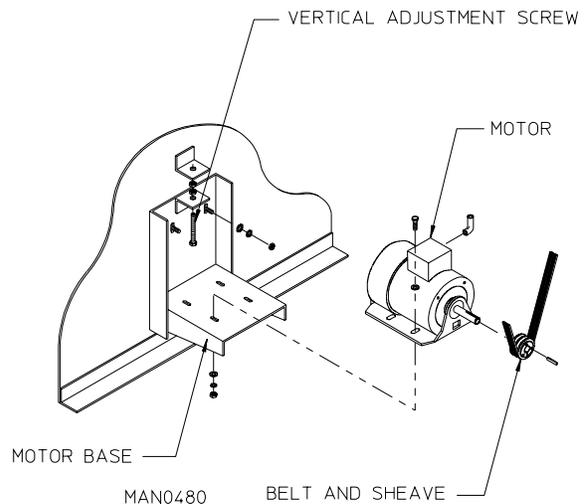


- Assemble bushing and sheave as shown in figure "B" on previous page. When cap screws are loosely inserted, bushing remains fully expanded to provide a sliding fit on the shaft.
- Insert key on the shaft, then slide sheave to desired position with cap screw heads to the outside.
- Tighten cap screws progressively. There should remain a gap between the sheave hub and the flange of the bushing.

IMPORTANT: Tighten screws evenly and progressively. Never allow the sheave to be drawn in contact with the flange of the bushing. This gap should measure from 1/8" to 1/4". Proper cap screw torque is 15 ft-lbs. (20 Nm). If greater tightening forces are applied, excess pressures **will be** created in the hub of the mounted sheave, which may cause it to crack.

TO REPLACE MOTOR PULLEY

- Loosen V-belts. Rotate pulley and roll V-belts out of grooves.
- Remove cap screws from the bushing.
- Insert cap screws in tapped removal holes and tighten evenly until bushing becomes loose on shaft. Refer to figure "A" on previous page.
- Remove bushing, pulley, and key.



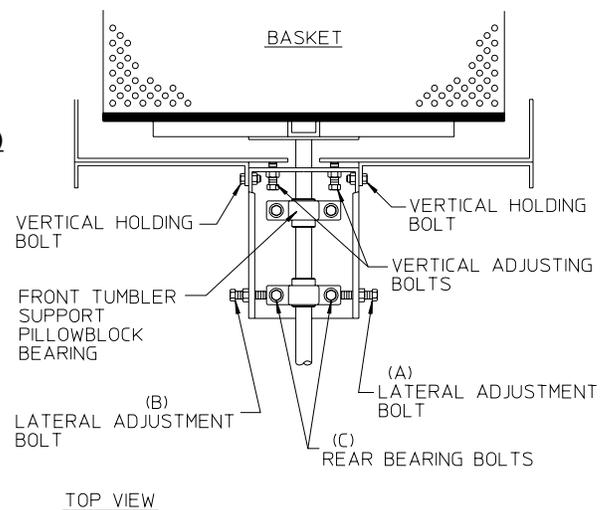
5. Assemble bushing and sheave as shown in figure “B” on **page 35**. When cap screws are loosely inserted, bushing remains fully expanded to provide a sliding fit on the shaft.
6. Insert key on the shaft, then slide sheave to desired position with cap screw heads to the outside.
7. Tighten cap screws progressively. There should remain a gap between the sheave hub and the flange of the bushing.

IMPORTANT: Tighten screws evenly and progressively. Never allow the sheave to be drawn in contact with the flange of the bushing. This gap should measure from 1/8” to 1/4”. Proper cap screw torque is 6 ft-lbs., (8 Nm). If greater tightening forces are applied, excess pressures **will be** created in the hub of the mounted sheave which may cause it to crack.

G. BASKET (TUMBLER) ASSEMBLY

BASKET (TUMBLER) ALIGNMENT (VERTICAL) (UP AND DOWN ADJUSTMENT)

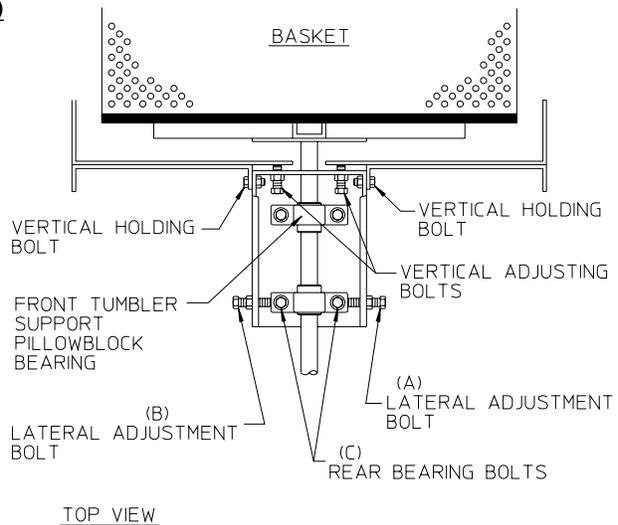
1. Discontinue electrical power to the dryer.
2. Remove back guard.
3. Loosen the two (2) vertical holding bolts on the sides at the top of the bearing box. (One [1] on each side).
4. Back off jam nuts on vertical adjustment bolts.
5. Turn these bolts clockwise (CW) evenly to raise basket (tumbler) or counterclockwise (CCW) evenly to lower basket (tumbler).
6. Rotate basket (tumbler) from front and check alignment with front door opening.
7. Leave a larger gap from the inside ring on the top of the front panel opening to the basket (tumbler) and a smaller gap on the bottom to compensate for the weight of the clothes when wet.
8. Retighten the two (2) vertical holding bolts on the sides, at the top of the bearing box, and the jam nuts on the two (2) vertical adjustment bolts.
9. Check basket (tumbler) drive belt for proper tension. Adjust if necessary.
10. Replace back guard.
11. Reestablish electrical power to the dryer.



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**BASKET (TUMBLER) ALIGNMENT (LATERAL)
(SIDE TO SIDE ADJUSTMENT)**

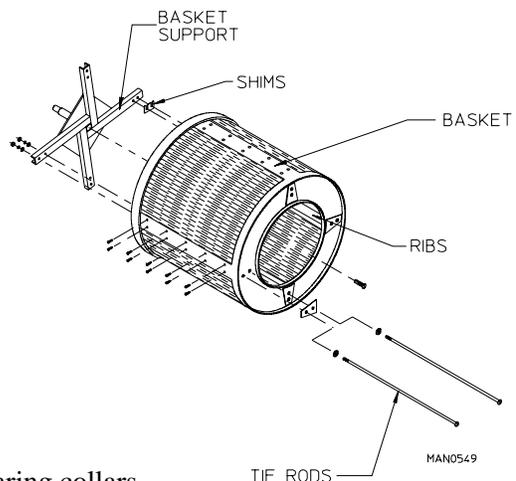
1. Discontinue electrical power to the dryer.
2. Remove back guard.
3. Loosen rear pillow block bearing bolts (C).
4. Back off jam nuts on the two (2) lateral adjustment bolts (A) and (B).
5. Simultaneously loosen one (1) bolt and tighten the other. This will move the rear pillow block bearing. Center the basket (tumbler) in the wrapper cavity.



6. Tighten and secure both lateral adjustment bolts (A) and (B) and jam nuts.
7. Tighten rear pillow block bearing bolts (C) loosened in *Step #3*.
8. Replace back guard.
9. Reestablish electrical power to the dryer.

TO REPLACE BASKET (TUMBLER) OR BASKET (TUMBLER) SUPPORT

1. Discontinue electrical power to the dryer.
2. Follow procedure for removal of main door assembly.
3. Follow procedure for removal of front panel assembly.
4. Remove back guard.
5. Remove basket (tumbler) belts.
6. Remove basket (tumbler) pulley.
7. Remove basket (tumbler) assembly and support.



- a. Loosen the two (2) setscrews on both the pillow block bearing collars.
- b. Remove the retaining rings from the grooves of the basket (tumbler) shaft.
- c. Remove the basket (tumbler) and support assembly from the front of the dryer. If the basket (tumbler) **cannot** be removed freely, clean the shaft area and spray WD-40 or similar lubricant. With a block of wood against the shaft end, strike the block of wood with a hammer or mallet to move the shaft past any burrs made by the setscrews.

IMPORTANT: Never strike the shaft directly with a hammer.

8. Remove basket (tumbler) from basket (tumbler) support.
 - a. Remove the bolt in the center of the basket (tumbler) back wall.
 - b. Loosen and remove the eight (8) sets of nuts and washers from basket (tumbler) tie rods. Remove the eight (8) tie rods.
 - c. Replace either basket (tumbler) or basket (tumbler) support by reversing procedure.

NOTE: Shims might be needed between basket (tumbler) and basket (tumbler) support to insure proper balancing of basket (tumbler).

9. Reassemble components onto dryer by reversing *Step #2 through Step #8*.
10. Check basket (tumbler) vertical/lateral alignment and adjust if necessary.
11. Replace back guard.
12. Reestablish electrical power to the dryer.

H. BEARINGS

(Refer to the illustrations in **Section F** on **page 35**)

TO REPLACE REAR BASKET (TUMBLER) SUPPORT PILLOW BLOCK BEARING

1. Discontinue electrical power to the dryer.
2. Remove back guard.
3. Remove basket (tumbler) pulley.
4. Loosen lateral adjustment jam nuts and bolts. (Refer to the illustration in **Section G “Basket (Tumbler) Alignment.”**)
5. Loosen two (2) setscrews from rear pillow block bearing collar.
6. Remove the rear bearing bolts, securing bearing to bearing mount. Remove bearing.
7. Replace by reversing *Step #3 through Step #6*.
8. Adjust both lateral and vertical basket (tumbler) alignment.
9. Replace back guard.
10. Reestablish electrical power to the dryer.

TO REPLACE FRONT BASKET (TUMBLER) SUPPORT PILLOW BLOCK BEARING

1. Discontinue electrical power to the dryer.
2. Remove back guard.

3. Follow ***Step #3 through Step #6*** from “To Replace Rear Basket (Tumbler) Support Pillow Block Bearing.”
4. Remove the two (2) retaining rings from the basket (tumbler) shaft.
5. Remove the two (2) bolts holding the front basket (tumbler) support pillow block bearing to the dryer.
6. Loosen bearing collar setscrews and as the end of the basket (tumbler) shaft is lifted up slightly, slide the bearing off the shaft.
7. Prop a block of wood between the basket (tumbler) shaft and the bearing mount to keep the basket (tumbler) level and in place.
8. Replace by reversing ***Step #2 through Step #6***.

NOTE: Before replacing back guard, check basket (tumbler) lateral/vertical adjustment, as well as, belt adjustment and readjust if necessary.

9. Reestablish electrical power to the dryer.

**TO REPLACE FRONT IDLER SHAFT PILLOW BLOCK BEARING
(BEARING NEAREST THE BACK OF THE DRYER)**

1. Discontinue electrical power to the dryer.
2. Remove V-belts from idler pulleys.
3. Remove bolts holding each idler pillow block bearing to mount.
4. Remove idler shaft (with both bearings and idler pulleys still attached) from dryer.
5. Remove end retaining ring and loosen the two (2) setscrews in the bearing race collar.
6. Slide bearing off the shaft.
7. Replace bearing by reversing procedure.
8. Align idler pulley with basket (tumbler) pulley before tightening bolts.
9. Reestablish electrical power to the dryer.

TO REPLACE REAR IDLER SHAFT PILLOW BLOCK BEARING

1. Follow ***Step #1 through Step #3*** from “To Replace Front Idler Shaft Pillow Block Bearing.”
2. Remove retaining rings on each side of forward idler shaft pillow block bearing.
3. Loosen the two (2) setscrews on each bearing collar.
4. Slide both bearings off the shaft.
5. Replace rear idler shaft pillow block bearing by reversing procedure.
6. Reestablish electrical power to the dryer.

I. V-BELTS

V-belts should have proper tension. If too loose, they will slip, if too tight, excessive wear on the bearings will result. If the pulleys are not properly aligned, excessive belt wear will result. Proper belt tension will allow 1/2" displacement under normal thumb pressure at mid span of belt.

NOTE: Always replace in matched sets (both belts).

V-BELT TENSION ADJUSTMENT (BASKET [TUMBLER] TO IDLER)

1. Discontinue electrical power to the dryer.
2. Back off jam nuts on idler adjustment belts.
3. Tighten belts by turning both bolts evenly clockwise (CW). (Turn counterclockwise [CCW] to loosen belts.)
4. Check vertical plane of idler pulley for parallel alignment with basket (tumbler) pulley.
5. If realignment is required, loosen basket (tumbler) pulley and bushing, and move basket (tumbler) pulley to proper position.
6. Retighten jam nuts.
7. Reestablish electrical power to the dryer.

V-BELT TENSION ADJUSTMENT (MOTOR TO IDLER)

1. Discontinue electrical power to the dryer.
2. Loosen the nuts on the four (4) studs holding the drive motor mount to the back of the dryer.
3. Loosen the jam nuts on the adjustment screw out the top of the motor mount.
4. Turn the adjustment screw to lower the motor mount (to tighten the belts) or raise the motor mount (to loosen the belts).
5. Check the vertical plane of the motor pulley and idler pulley for parallel alignment.
6. If realignment is required, loosen motor pulley and bushing and move motor pulley to proper position.
7. Retighten motor mount bolts and jam nuts.
8. Reestablish electrical power to the dryer.

TO REPLACE V-BELTS

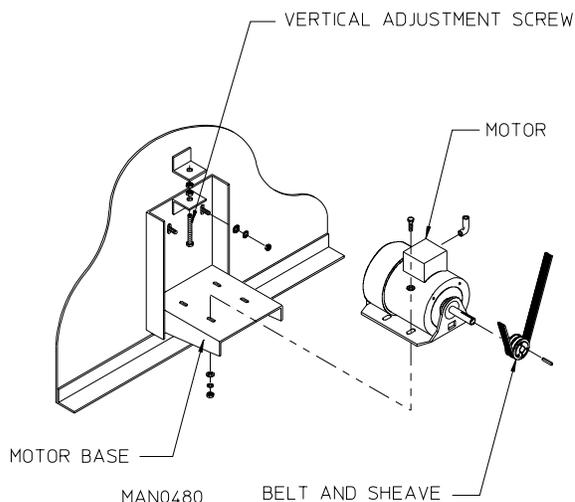
1. Loosen tension on V-belts so that they can easily be rolled off pulleys.
2. Replace V-belts.
3. Retighten V-belts and adjust tension and alignment per previous instructions.

NOTE: Always replace belts in matched sets (both belts).

J. MOTORS

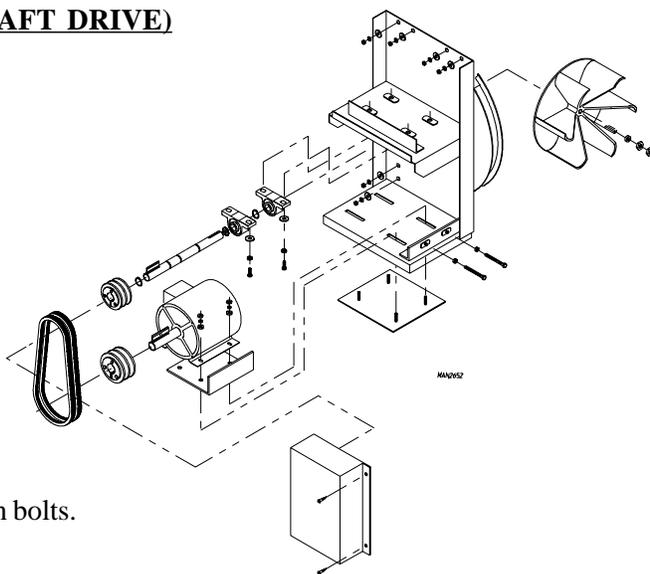
TO REPLACE DRIVE MOTOR

1. Discontinue electrical power to the dryer.
2. Remove drive belts.
3. Disconnect wiring harness from motor.
4. Remove bolts holding motor to mount and replace with new motor. **DO NOT** tighten bolts.
5. Remove pulley from old motor and install on new motor.
6. Align motor pulley with idler pulley and align motor shaft with idler shaft and tighten bolts.
7. Replace belts and adjust belt tension.
8. Retighten bolts.
9. Reestablish electrical power to the dryer.



TO REPLACE IMPELLOR MOTOR (FAN SHAFT DRIVE)

1. Discontinue electrical power to the dryer.
2. Remove drive belts.
3. Disconnect wiring harness from motor.
4. Remove bolts holding motor to mount and replace with new motor. **DO NOT** tighten bolts.
5. Remove pulley from old motor and install on new motor.
6. Align motor pulley with fan shaft pulley and tighten bolts.
7. Replace belts and adjust belt tension.
8. Retighten bolts.
9. Reestablish electrical power to the dryer.



K. IMPELLOR

1. Discontinue electrical power to the dryer.
2. Remove the left side panel to access the fan shaft mount assembly.
3. Remove the two (2) left handed jam nuts that hold the impellor to the fan shaft.
4. Remove the impellor, washers, and the key.
5. Replace the impellor, key, washers, left handed jam nuts, and the side panel.
6. Reestablish electrical power to the dryer.

L. LINT DRAWER ASSEMBLY

TO REPLACE LINT DRAWER ASSEMBLY

1. Pull out lint drawer.
2. Slide new lint drawer back into dryer.

TO REPLACE LINT DRAWER SWITCH

1. Discontinue electrical power to the dryer.
2. Remove lint drawer and lint door.
3. Disconnect both 4-pin connectors at the rear of the lint switch cover.
4. Remove the two (2) hex nuts securing the lint switch guard weldment to the lint drawer track.
5. Remove screw from the lint switch cover and disconnect the two (2) terminals of the switch.
6. Remove switch by pressing tabs together and push switch out.
7. Install new switch by reversing procedure.

SECTION VI

PHASE 7 OPL SYSTEM DIAGNOSTICS

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.

ALL major circuits, including door, microprocessor temperature sensor, heat and motor circuits are monitored. The Phase 7 OPL microprocessor controller (computer) will inform the user, via the light emitting diode (L.E.D.) display of certain failure messages, along with L.E.D. indicators on the Input/Output (I/O) board on the back panel of the front right control door.

A. DIAGNOSTIC (L.E.D.) DISPLAY FAULT MESSAGES

MAIN DOOR OPENED - A main door is open, when it **should be** closed.

EXHAUST HIGH TEMP FAULT - Indicates the temperature in the basket (tumbler) is above 220° F (104° C).

LINT ACCESS OPEN - Indicates the lint drawer is open and needs to be closed.

EXHAUST HIGH LIMIT FAULT - Indicates the temperature disk in the exhaust has opened.

SAIL SWITCH CLOSED FAULT - Sail switch is closed and **should be** opened.

SAIL SWITCH OPEN FAULT - Sail switch is open and **should be** closed.

BURNER HIGH LIMIT FAULT - Indicates the temperature disk in the burner has opened.

BURNER IGNITION CONTROL FAULT - No signal to gas valve from Direct Spark Ignition (DSI) module during trial for ignition time.

IGNITION FAULT - Gas valve did not remain open after trial for ignition. Indicates that no flame was detected.

FLAME FAULT - Indicates flame was detected during trial for ignition, but failed sometime after. This condition must reoccur for five (5) retries before fault occurs.

ROTATION FAULT - Indicates the basket (tumbler) is not rotating.

OPEN EXHAUST TEMPERATURE PROBE - Indicates the exhaust temperature probe is open or shorted.

OPEN SENSOR ACTIVATED FIRE EXTINGUISHING (S.A.F.E.) SYSTEM PROBE FAULT -

Indicates the temperature probe for the S.A.F.E. system is open or shorted.

LOW VOLTAGE FAULT - Indicates power has dropped below the operating values and will shutdown.

BURNER PURGE FAULT - The gas valve signal is present during the prepurge time.

MODEL ERROR, ENTER CORRECT MODEL - The wrong model was selected for the dryer.

EE PROM FAULT ### - Error in memory location. The ### indicates the location of the fault.

B. INPUT/OUTPUT (I/O) BOARD LIGHT EMITTING DIODE (L.E.D.) INDICATORS

1. **INPUTS**

1. ESTOP - (RED L.E.D.) This L.E.D. will indicate the status of the E-STOP. If the E-STOP has been pressed, then the L.E.D. is on.
2. GAS_V - (RED L.E.D.) This L.E.D. will indicate the status of the gas valve. If the gas valve is open (ON), then the L.E.D. is on.
3. BRHL - (RED L.E.D.) This L.E.D. will indicate the status of the burner high limit disk. If the disk is closed (temperature below 330° F [166° C]), then the L.E.D. is ON.
4. SAIL - (RED L.E.D.) This L.E.D. will indicate the status of the sail switch. If the switch is closed, then the L.E.D. is ON.
5. EXHL - (RED L.E.D.) This L.E.D. will indicate the status of the exhaust high limit disk. If the disk is closed (temperature below 225° F [107° C]), then the L.E.D. is ON.
6. MAIN - (RED L.E.D.) This L.E.D. will indicate the status of the main door. If the door is closed, then the L.E.D. is ON.
7. LINT - (RED L.E.D.) This L.E.D. will indicate the status of the lint drawer. If the drawer is closed, then the L.E.D. is ON.
8. FUSE - (RED L.E.D.) This L.E.D. will indicate the status of the control voltage. If the POWER ON button is pressed (green button light is on), then the L.E.D. is ON.

2. **OUTPUTS**

9. AUX - (GREEN L.E.D.) This is for a spare output to be programmed.
10. STEAM - (GREEN L.E.D.) This light emitting diode (L.E.D.) will indicate the status of the steam injection output. If the request to turn on the steam injection is made, then the L.E.D. is ON.
11. _HEAT - (GREEN L.E.D.) This L.E.D. will indicate the status of the heat output. If the request to turn on the heater is made, then the L.E.D. is ON.

12. AIR - (GREEN L.E.D.) This L.E.D. will indicate the status of the air jet output. If the request to turn on the air jet is made, then the L.E.D. is ON.
13. REV - (GREEN L.E.D.) This L.E.D. will indicate the status of the basket (tumbler) reverse direction output. If the request to tumble the drum in the reverse direction is made, then the L.E.D. is ON.
14. FWD - (GREEN L.E.D.) This L.E.D. will indicate the status of the basket (tumbler) forward direction output. If the request to tumble the drum in the forward direction is made, then the L.E.D. is ON.
15. FAN - (GREEN L.E.D.) This L.E.D. will indicate the status of the fan output. If the request to turn on the fan (blower) is made, then the L.E.D. is ON.

A. The display reads “Exhaust High Limit Fault.” (Refer to [page 51](#))

The temperature in the basket (tumbler) is above 220° F (104° C) or follow *Steps #1 through 4*.

1. Check for voltage (24 VAC) at the computer on the J5 connector from pin 1 to ground. If no voltage is present, either you have a poor connection at the J5 connector or the computer board is faulty. If voltage (24 VAC) is present, proceed to *Step #2*.
2. Check for voltage (24 VAC) at the J12 connector pin 3 to ground. If no voltage is present, there may be a poor connection at the J12 connector or a break in the wire going back to the J5 connector. If 24 VAC is present, proceed to *Step #3*.
3. Check for voltage on the J12 connector pin 4. If no voltage is present (24 VAC), check basket (tumbler) thermostat reset. If popped, push in to reset. If thermostat does not reset, then replace with new thermostat. If thermostat has not tripped, then check for poor connection in wire. If voltage is present, proceed to *Step #4*.
4. Check for voltage at the J5 connector pin 2 to ground. If no voltage is present, check for a loose wire between the J5 connector and the J12 connector.

B. The display reads “Burner High Limit Fault.” (Refer to [page 52](#))

1. Indicates the basket (tumbler) Hi-Limit has tripped.
2. Reset manual basket (tumbler) burner Hi-Limit.
3. Check for a block or restriction in the exhaust.
4. Make sure the exhaust is properly sized.
5. Make sure location has adequate make-up air.
6. Check for voltage (24 VAC) at the computer board J4 connector pin 3 red wire to ground. If no voltage (24 VAC), check for voltage (24 VAC) at the computer board J8 connector pin 1 pink wire to ground. If no voltage is present check the 24 volt secondary output of the transformer. If voltage is present at J8 connector pin 1 to ground replace the computer board.

C. The display reads “Bad Exhaust Temp Probe.” (Refer to [page 53](#))

1. Check for a loose connection at the computer J3 connector to temperature sensor probe. If connections are fine, next change the temperature sensor probe. If the display still reads “Bad Exhaust Temp Probe,” change the computer board.

D. The display reads “Sail Switch Open Fault.” (Refer to [page 52](#))

1. The sail switch did not close at the start of the drying cycle.
2. The sail switch has opened while dryer is in the heating mode.
3. Check for block or restriction in the exhaust.
4. Make sure exhaust is sized properly.
5. Clean the lint screen.

E. The display reads “Sail Switch Closed Fault.” (Refer to page 52)

1. Prior to start up, the sail switch is in the closed position.
2. Check the sail switch and readjust accordingly.
3. Replace sail switch, if necessary.

F. The display reads “Burner Ignition Control Fault.” (Refer to page 52)

1. Check for 24 VAC at the burner control module across MV and GND. If no voltage, replace the burner control module. If voltage is present, check for 24 VAC at the gas valve on terminals 1 and 2. If no voltage, check for a loose connection on the wires going back to the burner control module. If voltage is present, proceed to *Step #2*.
2. Make sure the gas valve shutoff is in the on position.
3. Make sure proper gas pressure is supplied to the gas valve (6.0 - 12.0 inches [14.92 - 29.9 mb] water column [W.C.] for natural gas and 10.5 inches [26.1 mb] water column for liquid propane [L.P.] gas).

G. Basket (tumbler) will not rotate (non-reversing models), display reads “Rotation Fault.” (Refer to page 55)

1. Possible causes:
 - a. Belt is broken, loose, or slipping.
 - b. Lint accumulation on the rotational sensor.
 - c. Rotational sensor magnet is missing or broken. Reset power, then, restart the dryer.
 - d. Check for 24 VAC at the computer board J8 connector pin 7 blue/silver wire to GND. If no voltage is present, check for a loose connection, if connection is good, replace computer. If voltage is present, proceed to next step.
 - e. Check for 24 VAC on the motor contactor A1 to A2. If no voltage, check for a loose connection in the wire. If voltage is present, proceed to next step.
 - f. Check for 24 VAC on the motor contactor across T1 and T2. If no voltage, replace motor contactor. If voltage is present, proceed to next step.
 - g. Use a nonconductive device (i.e., wooden pencil) to push in on the motor contactor. If motor does not come on, the problem is a faulty motor.

H. Drive motor reverses, but does not go forward, blower motor runs. The display reads “Rotation Fault.” (Refer to page 54)

1. Possible causes:
 - a. Belt is broken, loose, or slipping.
 - b. Lint accumulation on the rotational sensor.
 - c. Rotational sensor magnet is missing or broken. Reset power, then, restart the dryer.
 - d. Check for 24 VAC at the computer board J8 connector pin 8 brown wire to GND. If no voltage is present, check for a loose connection, if connection is good, replace computer. If voltage is present, proceed to next step.
 - e. Check for 24 VAC on the drive motor contactor forward side A1 to A2. If no voltage, check for a loose connection in the wire going back to the blower contactor A2. If voltage is present, proceed to next step.
 - f. Check for proper voltage on the T1, T2, and T3 side of the drive contactor. If no voltage, replace drive contactor. If voltage is present, proceed to next step.
 - g. Use a nonconductive device (i.e., wooden pencil) to push in on the motor contactor. If motor does not come on, the problem is a faulty motor.

I. Drive motor operates in forward mode, but does not reverse, blower motor runs. The display reads “Rotation Fault.” (Refer to page 57)

1. Possible causes:
 - a. Belt is broken, loose, or slipping.
 - b. Lint accumulation on the rotational sensor.
 - c. Rotational sensor magnet is missing or broken. Reset power, then, restart the dryer.
 - d. Check for 24 VAC at the computer board J8 connector pin 9 gray wire to GND. If no voltage is present, check for a loose connection, if connection is good, replace computer. If voltage is present, proceed to next step.
 - e. Check for 24 VAC on the drive motor contactor reverse side A1 to A2. If no voltage, check for a loose connection in the wire going back to the blower contactor A2. If voltage is present, proceed to next step.
 - f. Check for proper voltage on the T1, T2, and T3 side of the drive contactor. If no voltage, replace drive contactor. If voltage is present, proceed to next step.
 - g. Use a nonconductive device (i.e., wooden pencil) to push in on the motor contactor. If motor does not come on, the problem is a faulty motor.

J. No display condition or display reads “Low Voltage Fault.” (Refer to [page 54](#))

1. Check for line voltage (120, 208, 240, etc.) in the rear of the dryer at the distribution block. If no voltage is present, the problem may be a faulty or tripped breaker. If voltage is present, check for line voltage (120, 208, 240, etc.) at FIA (refer to the illustration on [page 54](#)) to neutral. If no voltage is present, check for blown fuse or loose connection.
2. If voltage is present, check for voltage (24 VAC) on the motor contactor T3. If no voltage is present, check for a loose connection. If connection is fine, replace the transformer. If voltage is present, check for 24 VAC at the J17 connector on the pink wire pin 3 to ground. If no voltage is present, check for a loose connection.
3. If voltage is present, check for 24 VAC on the microprocessor J8 connector pin 1 pink wire to ground. If no voltage is present, check for a loose connection. If voltage is present, check the 1/2-amp fuse on the computer board marked “F1.” If fuse is not blown, then the problem is a faulty microprocessor.

K. The display reads “Open Sensor Activated Fire Extinguishing (S.A.F.E.) System Probe Fault.” (Refer to [page 55](#))

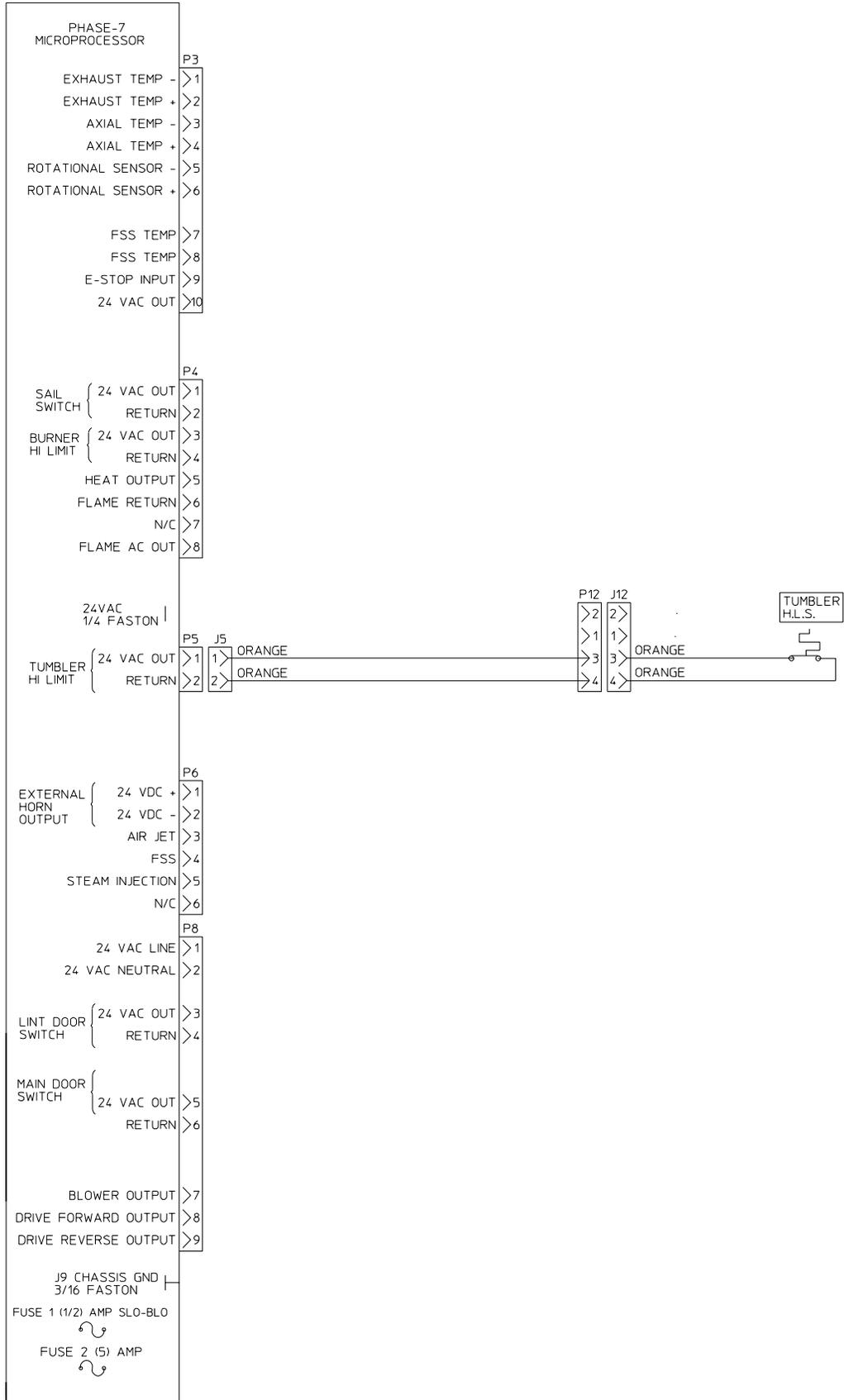
1. Check for a loose connection or shorted wire at the microprocessor at the J3 connector pin 7 red wire to the J10 connector pin 1.
2. Check for a loose connection or short in the wire at the microprocessor J3 connector pin 8 black wire.
3. Check for a loose connection at the 2-pin connector P10.
4. S.A.F.E. system probe may be shorted and needs to be replaced.

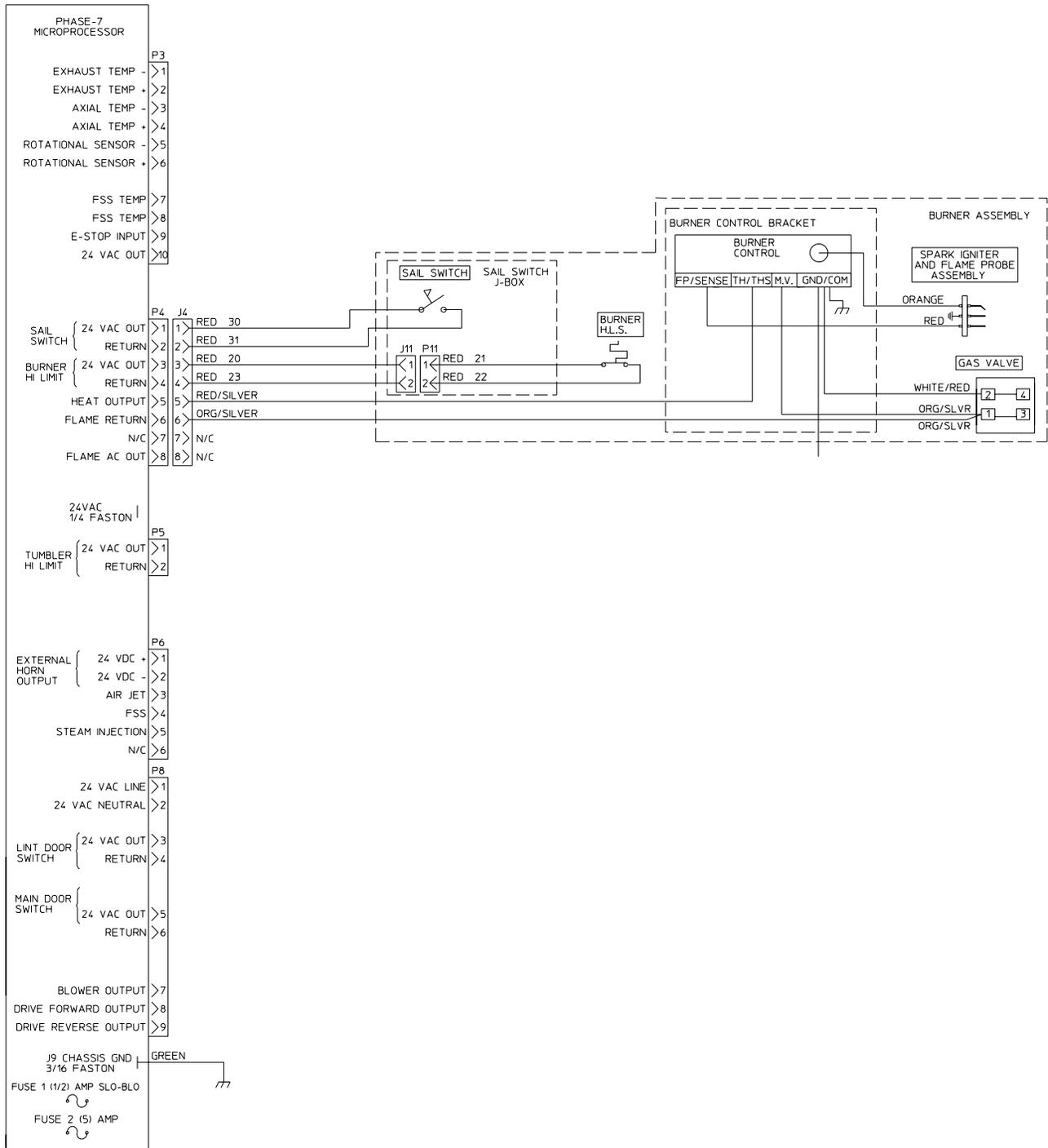
L. The display reads “Cycle Paused, Main Door Open.” (Refer to [page 56](#))

1. Make sure main door is closed.
2. Make sure main door has good contact with the main door switch.
3. Check for a loose connection at the microprocessor J8 connector pins 5 and 6 orange/silver wires.
4. Check for a loose connection at the connector pins 1 and 3.
5. Check for a loose connection at the main door switch.
6. When the door switch button is in the closed position, check for continuity. If no continuity, replace the door switch.

M. The display reads “Cycle Paused, Lint Access Open.” (Refer to [page 56](#))

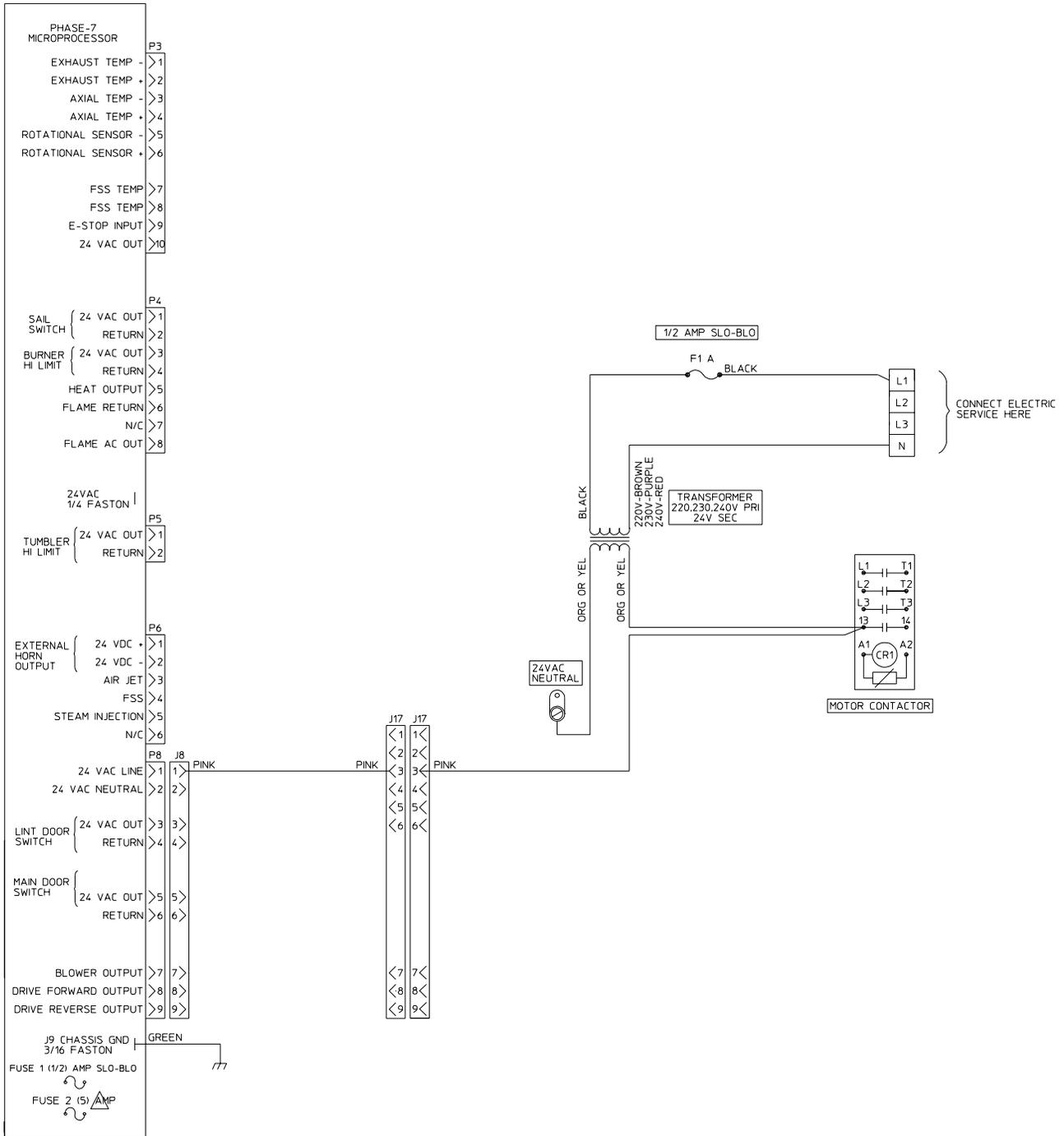
1. Make sure lint drawer is closed.
2. Check for a loose connection at the microprocessor J8 connector pins 3 and 4 orange/silver wires.
3. Check for a loose connection at the J18 connector pins 1 and 4 orange/silver wires.
4. When the lint drawer switch is pressed in, check for continuity. If no continuity, replace the lint drawer switch.





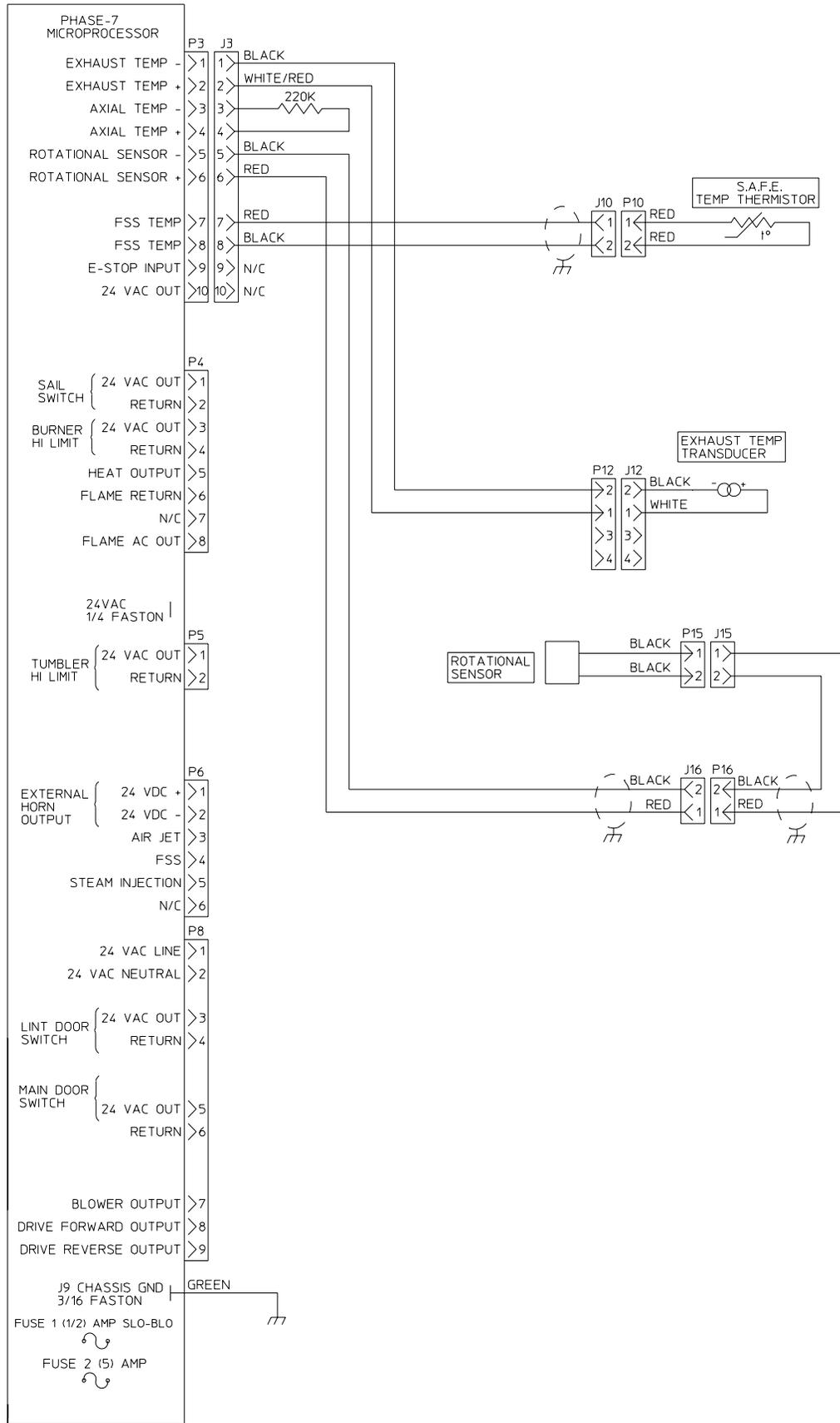
AS 1/24/03

MAN6455



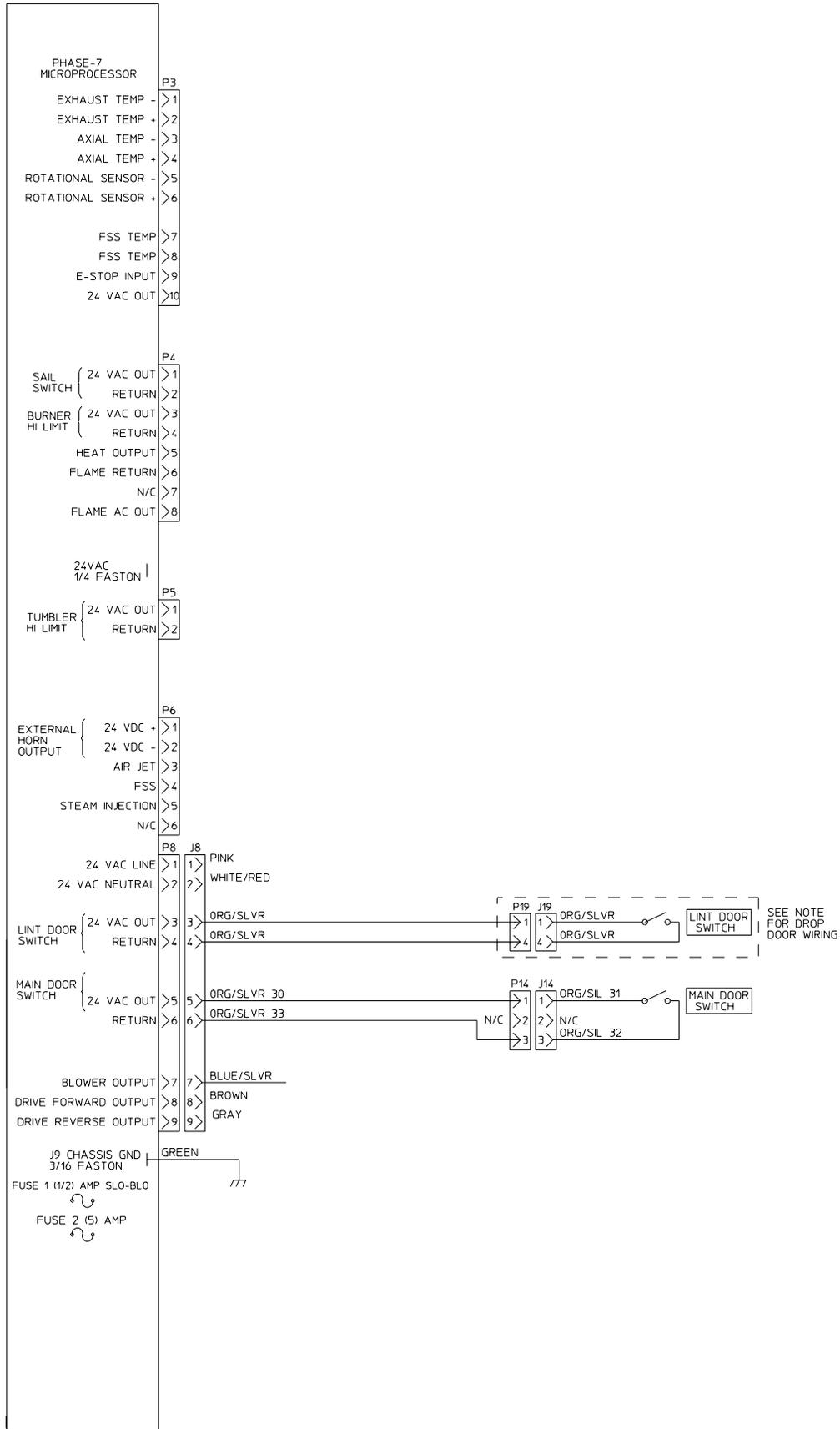
AS 2/4/03

MAN6508



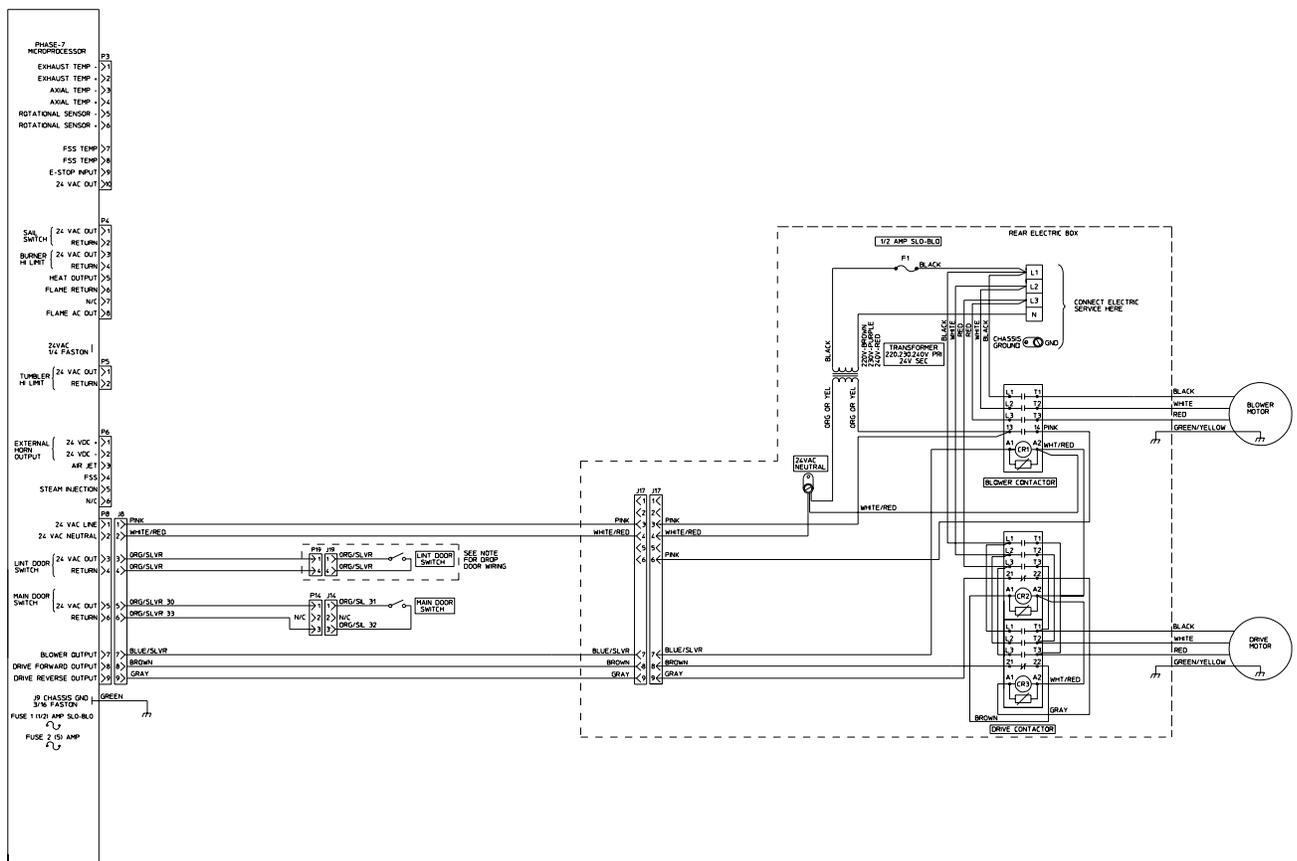
WM 2/6/03

MAN6527



MAN6541

WM 2/6/03



AS 1/24/03

MAN6472

THE DATA LABEL

1. MODEL NUMBER

The model number is an **Maytag Company** number, which describes the size of the dryer and the type of heat (gas, electric, or steam).

2. SERIAL NUMBER

The serial number allows **Maytag** to gather information on your particular dryer.

3. MANUFACTURING CODE NUMBER

The manufacturing code number is a 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) or steam.

5. HEAT INPUT (for GAS DRYERS)

This describes the heat input in British Thermal Units per Hour (BTUH).

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.

9. APPLICABLE APPROVAL SEAL(S)

I.E., Canadian Standards Association International.

SECTION VIII

S.A.F.E. System In Action



The exclusive Sensor Activated Fire Extinguishing (S.A.F.E.) System will extinguish fires that may start in the drying basket (tumbler). A series of sensors positioned throughout the basket (tumbler) and interfaced with the microprocessor will trigger the S.A.F.E. system water jet(s) to quickly extinguish the flames. The water jet(s) remain on for 2 minutes and will automatically activate again if a fire condition remains or reignites. While the water jet(s) are activated, the basket (tumbler) will jog to move the water throughout the load. The microprocessor will display that the system was activated and will continue to display until the dryer is attended to.

We have tried to make this manual as complete as possible and hope you will find it useful. 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.

BEFORE YOU START!

CHECK LOCAL CODES AND PERMITS

Call your local water company or the proper municipal authority for information regarding local codes.

IMPORTANT: It is your responsibility to have **ALL** plumbing connections made by a qualified professional to assure that the plumbing installation is adequate and conforms to local, state, and federal regulations or codes.

IMPORTANT: It is the installation or owners responsibility to see that the necessary or required water, water pressure, pipe size, or connections are provided. Manufacturer assumes no responsibility if the Sensor Activated Fire Extinguishing (S.A.F.E.) System **is not** connected, installed, or maintained properly.

INSTALLATION

1. Requirements

The connection point to the electric water solenoid valve is a 1/2" M.P.T., the S.A.F.E. system **must be** supplied with a minimum water pipe size of 1/2" and be provided with 40 PSI +/- 20 PSI (2.75 bar +/- 1.37 bar) of pressure. For use of optional manual bypass, a second source with the same piping and pressure requirements is required.

Flexible 1/2 feeds **must be** provided to avoid damage to electric water solenoid valve by vibration.

IMPORTANT: Flexible supply line/coupling **must be** used. Solenoid valve failure due to hard plumbing connections **WILL VOID WARRANTY**.

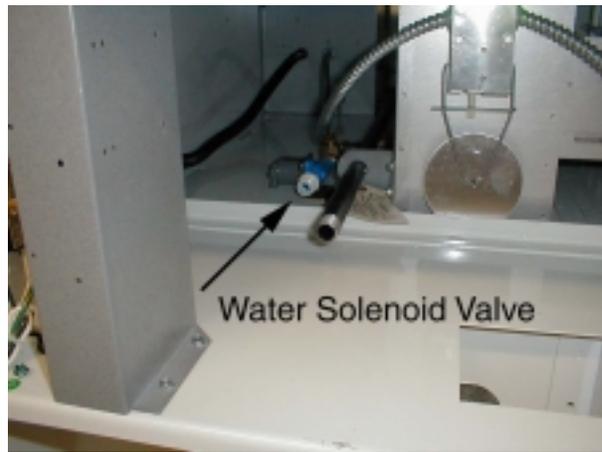
If the rear area of the dryer, or the water supply is located in an area where it will be exposed to cold/freezing temperatures, provisions **must be** made to protect these water lines from freezing.

WARNING: If the water in the supply line or water solenoid valve freezes, the S.A.F.E. system **will be** INOPERATIVE!!

IMPORTANT: Appliance is to be connected to the water mains using a new hose-set and the old hose-sets **should not be** reused.

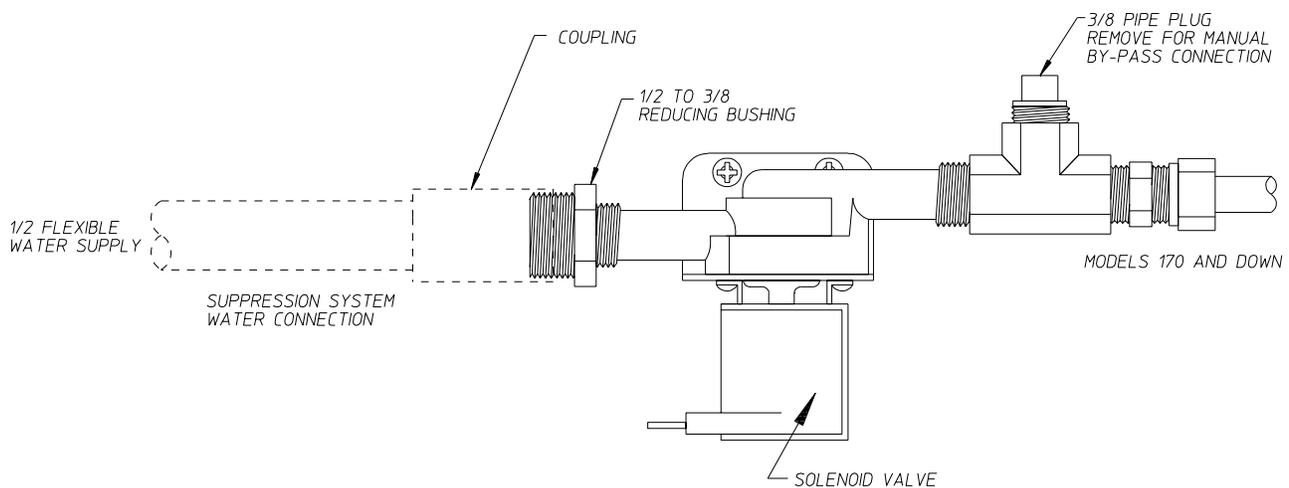
2. Water Connections:

The water connection is made to the 1/2" M.P.T. bushing of the electric water solenoid valve located at the rear upper left area of the dryer (see photo). The water solenoid valve has a 3/8" M.P.T. connection and a 1/2" bushing is supplied to provide the minimum 1/2" supply (feed) line. Flexible supply line/coupling **must be** used in effort to avoid damage to electric water solenoid valve.



IMPORTANT: Flexible supply line/coupling **must be** used. Solenoid valve failure due to hard plumbing connections **WILL VOID WARRANTY**. **It is recommended** that a filter or strainer be installed in the water supply line.

Typical water supply...



DMG 4/1/03

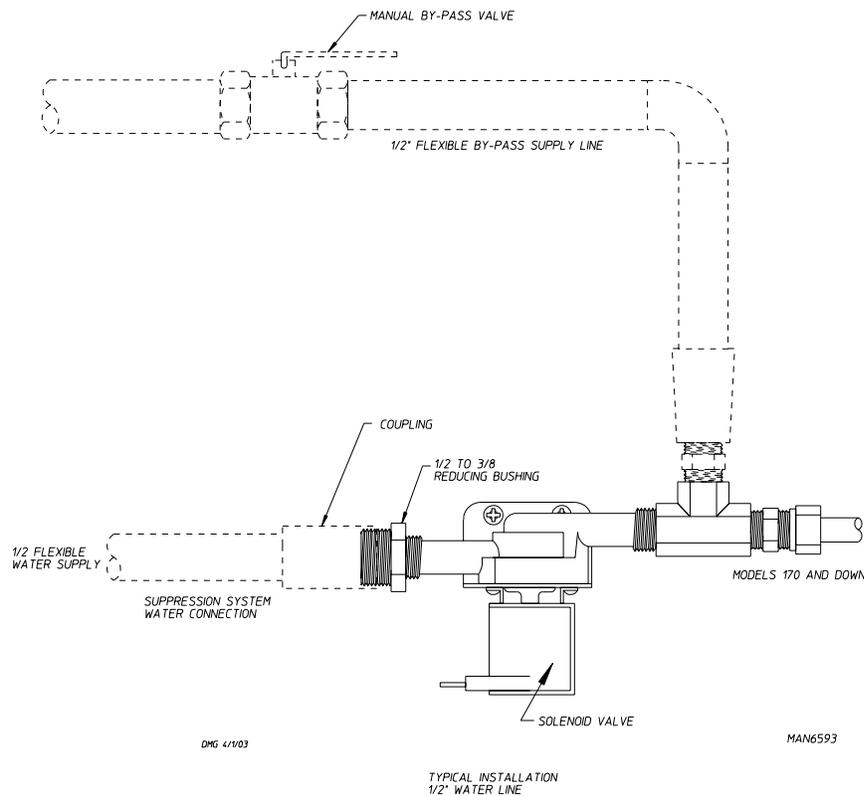
MAN6592

OPTIONAL MANUAL BYPASS

Provisions are made in the dryer Sensor Activated Fire Extinguishing (S.A.F.E.) system for the installation of an optional manual bypass. Depending on the model dryer, the connections for the manual bypass are made at the “T” or “four way” fitting located in the outlet supply side of the water solenoid valve. The use and connections of this manual bypass are at the option or discretion of the owner.

The water connection for the manual bypass is made to the “T” or “four way” fitting which has a 3/8” F.P.T. and a coupling **must be** used to provide the minimum 1/2” supply (feed) line.

If the rear area of the dryer, or the water supply is located in an area where it will be exposed to cold/freezing temperatures, provisions **must be** made to protect these water lines from freezing.



WARNING: If the water in the supply line or water solenoid valve freezes, the S.A.F.E. system **will be** INOPERATIVE!!

The manual ball cock shutoff valve **must be** located outside of the dryer at a distance from the dryer where it is easily accessible.

3. Electrical Requirements

No independent external power source or supply connection is necessary. The 24 volt power to operate the S.A.F.E. system is accomplished internally in the dryer (from the dryer controls).

WARNING: Electrical power **must be** provided to the dryer at **ALL** times. If the main electrical power supply to the dryer is disconnected, the S.A.F.E. system is INOPERATIVE!!

Sensor Activated Fire Extinguishing (S.A.F.E.) System Theory of Operation

While the dryer is in an idle state or 20-seconds after the heat turns off, the Phase 7 control monitors the S.A.F.E. system probe located in the top of the basket (tumbler) chamber and records the minimum temperature. If the minimum recorded S.A.F.E. system probe temperature is no less than 120° F (48° C) and the control detects a 50° rise in temperature, this will be the trip point and the S.A.F.E. system routine will activate.

While a drying cycle is in process and the heat has turned on at least once, the Phase 7 control monitors the exhaust temperature transducer. If the drying cycle temperature set point is set greater than 160° F (71° C) and the control detects an exhaust temperature rise 25° F greater than set point, this will be the trip point and the S.A.F.E. system routine will activate. If set point is below 160° F (71° C) the trip point will be 185° F (85° C).

Once the S.A.F.E. system routine is activated, water will be injected into the basket (tumbler) chamber. Anytime water is being injected into the basket (tumbler); the basket (tumbler) drive will turn the load for 1-second every 15-seconds. This process will continue for a minimum of 2 minutes. After 2 minutes has elapsed, the control will check if the temperature remained above trip point, if so water will remain on. The control will continue to check if temperature is above trip point every 30-seconds. If the water has been on for a constant 10 minutes, the water will be turned off regardless of the temperature. If the temperature has dropped below trip point, the control will turn off the water prior to 10 minutes.

SYSTEM RESET

After the microprocessor determines that the situation is under control and shuts the water being injected into the basket (tumbler) off, the microprocessor display will read “S.A.F.E. System activated,” and the horn/tone will sound until reset manually.

To reset the microprocessor once the control displays “S.A.F.E. System activated,” press the red  key on the keyboard (touch pad).

OPL S.A.F.E. SYSTEM CHECK PROCEDURE

The operation of the water solenoid valve can be tested to insure that the water supply system and valve are functional. Before attempting system check, be sure that **ALL** water supply shutoff valves to the dryer are in the OPEN position, and the dryer **must be** in the “READY” mode where no cycle is loaded or in progress.

The procedure is as follows:

1. Press and hold the RED STOP key (while in “READY” mode and no cycle in progress).
2. Press and hold the “A” key.
3. Water valve will open and water will be dispensed into basket (tumbler) area as long as both keys are held.

IMPORTANT: This is a test function only and the keys *should be* held and system activated for only a second or so, otherwise water will accumulate in various places in the dryer.

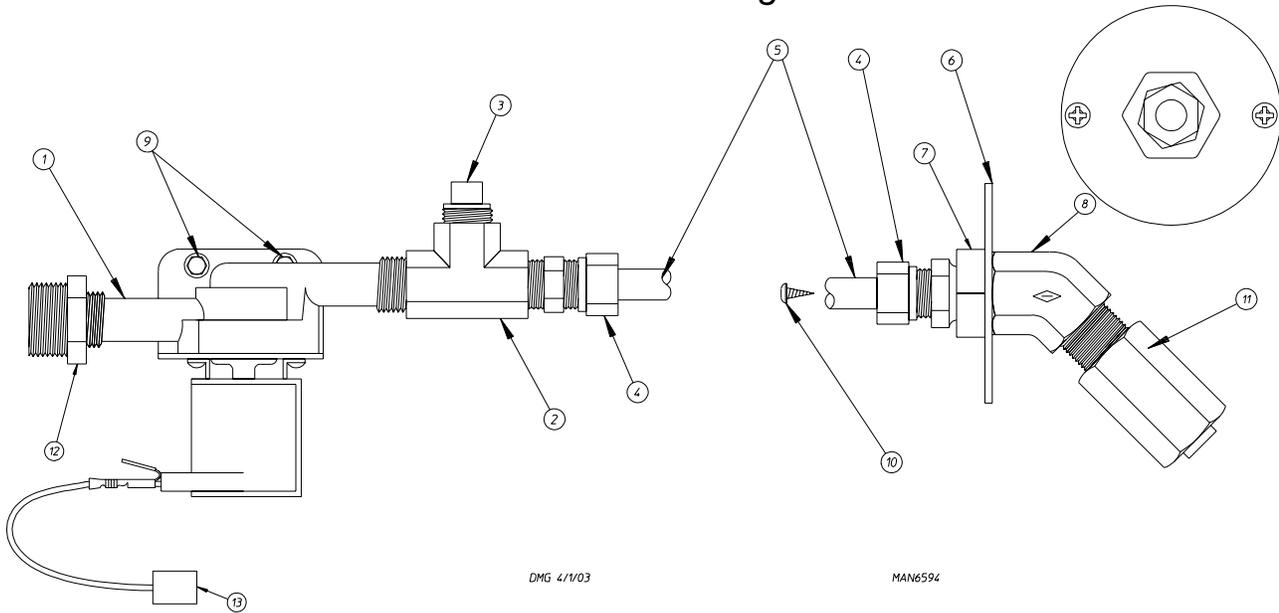
Sensor Activated Fire Extinguishing (S.A.F.E.) System Parts Break Down

Replacement parts can be obtained from your dealer or the **Maytag Company**. 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.

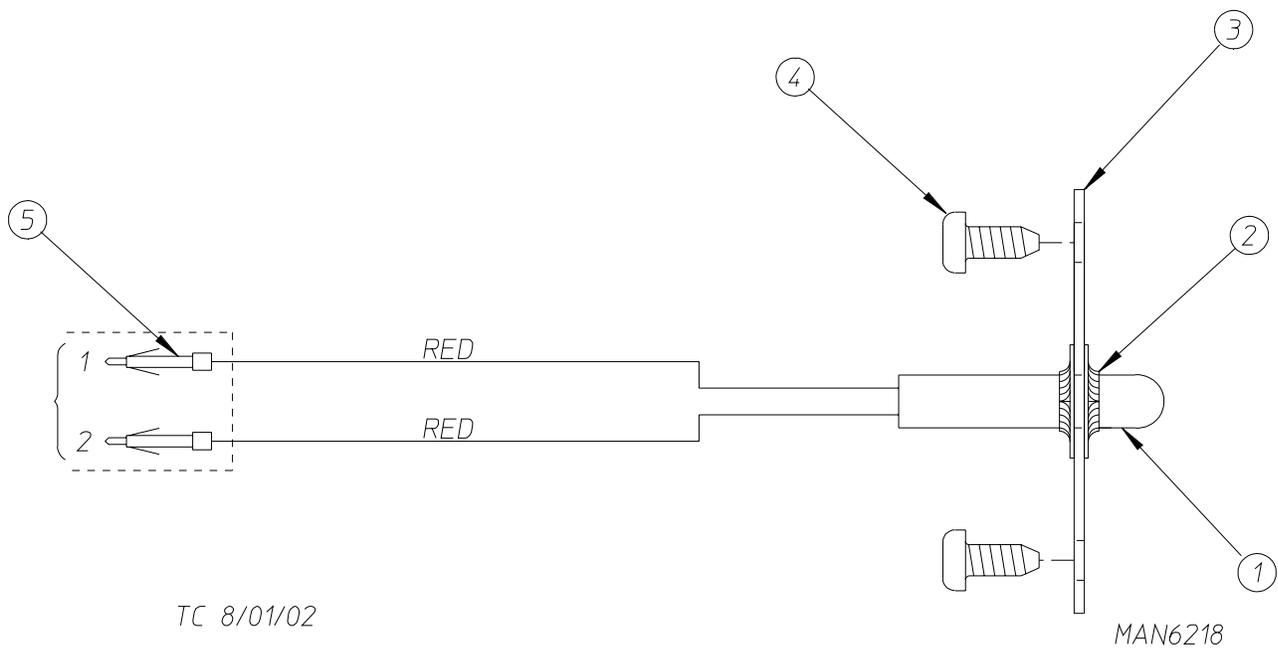
The illustrations on the following pages may not depict your particular dryer exactly. The illustrations are composite of the various dryer models. Be sure to check the descriptions of the parts thoroughly before ordering.

We have tried to make this manual as complete as possible and hope you will find it useful. **Maytag** 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.

For Models 90 through 170



<u>Illus. No.</u>	<u>Part No.</u>	<u>Qty.</u>	<u>Description</u>
1	165114	1	S.A.F.E. System Solenoid Valve 24V 50/60 Hz
2	143220	1	3/8" F.P.T. Brass Tee
3	143251	1	3/8" M.P.T. Brass Plug
4	143208	2	3/8" Comp x 3/8" M.P.T. Brass Connector
5	143108	1	20" Long Stainless Steel Flexible Tubing
6	311588	1	Sprinkler Head Mounting Plate
7	143303	1	3/8" N.P.T. Brass Lock Nut
8	143301	1	3/8" Brass 45° Elbow
9	152001	2	#8-32 x 3/8" OD Hex Nut
10	150301	2	#8-18 x 7/16" Phillips Pan Head TEK Screw
11	143581	1	3 GPM 3/8" F.P.T. Spray Nozzle
12	142888	1	1/2" M.P.T. x 3/8" F.P.T. Hex Bushing
13	824081	1	R.C. Network Assembly



<u>Illus. No.</u>	<u>Part No.</u>	<u>Qty.</u>	<u>Description</u>
1	822752	1	S.A.F.E. System Temperature Probe Assembly (includes illus. nos. 1 through 5)
2	154007	2	Push On Fastener
3	390390	1	Sensor Bracket ONLY
4	150301	2	#8-18 x 7/16" Phillips Pan Head TEK Screw
5	122647	1	Connector ONLY (does not include terminals)

