



***DEXTER***<sup>®</sup>  
***LAUNDRY***

**USE THE BLUE TABS LOCATED ON THE  
RIGHT AND LEFT SIDES OF THE FOLLOWING  
DOCUMENT TO ADVANCE TO EACH SECTION.**



**DEXTER**  
LAUNDRY



## Industrial OPL Stack Dryers 30 and 50 Pound OPL Stacked Dryers

Service and Parts Data

## Equipment Safety Warnings Symbols and Terminology Used in this Equipment

|  |  |
|--|--|
|  | <p><b>DANGER</b></p> <p>Indicates an imminently hazardous situation, which if not avoided, will result in death or serious injury.</p>   |
|  | <p><b>WARNING</b></p> <p>Indicates a potentially hazardous situation, which if not avoided could result in death or serious injury.</p>  |
|  | <p><b>CAUTION</b></p> <p>Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. Minor burns, pinch points that result in bruises and minor chemical irritation.</p>   |
|  | <p><b>NOTICE</b></p> <p>Indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.</p>  |
|  | <p>This is the user caution symbol. It indicates a condition where damage to the equipment resulting in injury to the operator could occur if operational procedures are not followed. <b>TO REDUCE THE RISK OF DAMAGE OR INJURY</b>, refer to accompanying documents; follow all steps or procedures as instructed.</p>   |
|  | <p>This is the electrical hazard symbol. It indicates that there are <b>DANGEROUS HIGH VOLTAGES PRESENT</b> inside the enclosure of this product. <b>TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK</b>, do not attempt to open the enclosure or gain access to areas where you are not instructed to do so. <b>REFER SERVICING TO QUALIFIED SERVICE PERSONEL ONLY</b></p> |
|  | <p>Caution! There are sharp edges on various sheet metal parts internal to the enclosure. Use safety consciousness when placing or moving your hands while working in the interior of this equipment.</p>  |
|  | <p>Caution! To reduce the risk of damage to the Water Inlet Valve, do not supply inlet water with a temperature that exceeds 70° C.</p> <p>Caution! To reduce the risk of fire or explosion, do not operate this equipment in any hazardous classified (ATEX) environment.</p>   |

## Equipment Safety Warnings Symbols and Terminology Used in this Equipment



Warning! Do not operate equipment if door glass is damaged in any way.



Warning! Keep clear of rotating parts.



Prohibited! Do not enter this equipment or space.



Prohibited! Do not step or stand on this equipment.



Prohibited! Do not operate without all guards and covers in place.










Prohibited! Do not operate without all guards and covers in place.



Prohibited! Do not wash or Dry clothing impregnated with flammable liquids (petrochemical).



Prohibited! Do not allow children to play in or around equipment.

|   |  |
|---|--|
|    | Indicates an imminently hazardous situation, which if not avoided, <u>will result</u> in death or serious injury.  |
|    | Indicates a potentially hazardous situation, which if not avoided <u>could result</u> in death or serious injury.  |
|    | Indicates a potentially hazardous situation which, if not avoided, <u>may result</u> in minor or moderate injury. It may also be used to alert against unsafe practices. Minor burns, pinch points that result in bruises and minor chemical irritation.   |
|    | Indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.  |
|    | This is the user caution symbol. It indicates a condition where damage to the equipment resulting in injury to the operator could occur if operational procedures are not followed. <b>TO REDUCE THE RISK OF DAMAGE OR INJURY, refer to accompanying documents; follow all steps or procedures as instructed.</b>  |
|  | This is the electrical hazard symbol. It indicates that there are <b>DANGEROUS HIGH VOLTAGES PRESENT</b> inside the enclosure of this product. <b>TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, do not attempt to open the enclosure or gain access to areas where you are not instructed to do so. REFER SERVICING TO QUALIFIED SERVICE PERSONEL ONLY</b> |
|  | Caution! To reduce the risk of fire or explosion, do not operate this equipment in any hazardous classified (ATEX) environment.  |



## WARNING

|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• All Dryers must be installed in accordance to all applicable electrical, plumbing and all other local codes.</li> <li>• These installation and operation instructions are for use by qualified personnel only. To avoid injury and electrical shock, do not perform any servicing other than that contained in the installation and operation instructions, unless qualified.</li> </ul> |
|  | Do not install Equipment in an explosive atmosphere.  |
|  | <ul style="list-style-type: none"> <li>• Care must be stressed with all foundation work to ensure a stable unit installation, eliminating possibilities of excessive vibration.</li> <li>• Foundation must be level within 13 mm to ensure proper washer operation.</li> </ul>  |
|  | Do not operate washer or Dryer if door glass is damaged in any way.   |
|  | Do not wash or Dry clothing impregnated with flammable liquids (petrochemical).   |



## WARNING




|  |   |
|--|---|
|  | Children should be supervised to ensure they do not operate or play in or around equipment.         |
|  | Keep all panels in place to protect against electrical shock and injury and add rigidity to washer. |

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

A washer should not be allowed to operate if any of the following occur:

- Excessive high water level.
- Machine is not connected to a properly earthed circuit.
- Door does not remain securely locked during the entire cycle.
- Vibration or shaking from an inadequate mounting or foundation

|   |  |
|---|--|
|    | <b>Warning! Do not operate equipment if door glass is damaged in any way.</b>                      |
|    | <b>Warning! Keep clear of rotating parts.</b>  |
|    | <b>Prohibited! Do not enter this equipment or space.</b>   |
|    | <b>Prohibited! Do not step or stand on this equipment.</b>   |
|   | <b>Prohibited! Do not operate without all guards and covers in place.</b>                          |
|  | <b>Prohibited! Do not operate without all guards and covers in place.</b>                          |
|  | <b>Prohibited! Do not wash or Dry clothing impregnated with flammable liquids (petrochemical).</b> |
|  | <b>Prohibited! Do not allow children to play in or around equipment.</b>                           |

|  |  |
|--|--|
|   | <b>Prohibited! Do not attempt to open, touch, or proceed before referring to the manual or unless qualified.</b> |
|   | <b>Mandatory! Read all supporting documentation before operating or maintaining equipment.</b>                   |
|   | <b>Mandatory! Disconnect power before servicing equipment.</b>   |
|   | <b>Mandatory! Lock out and tag out before servicing this equipment.</b>  |
|  | <b>Mandatory! Children should be supervised to ensure they do not operate equipment.</b>                         |



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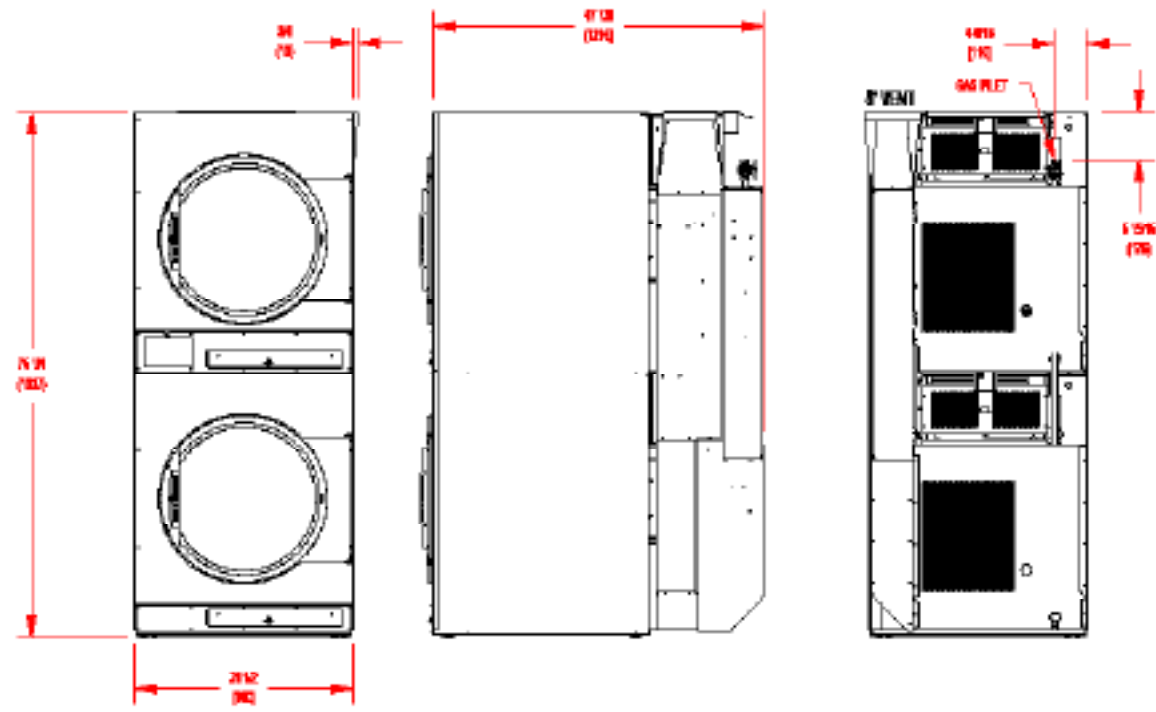
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# Section 1:

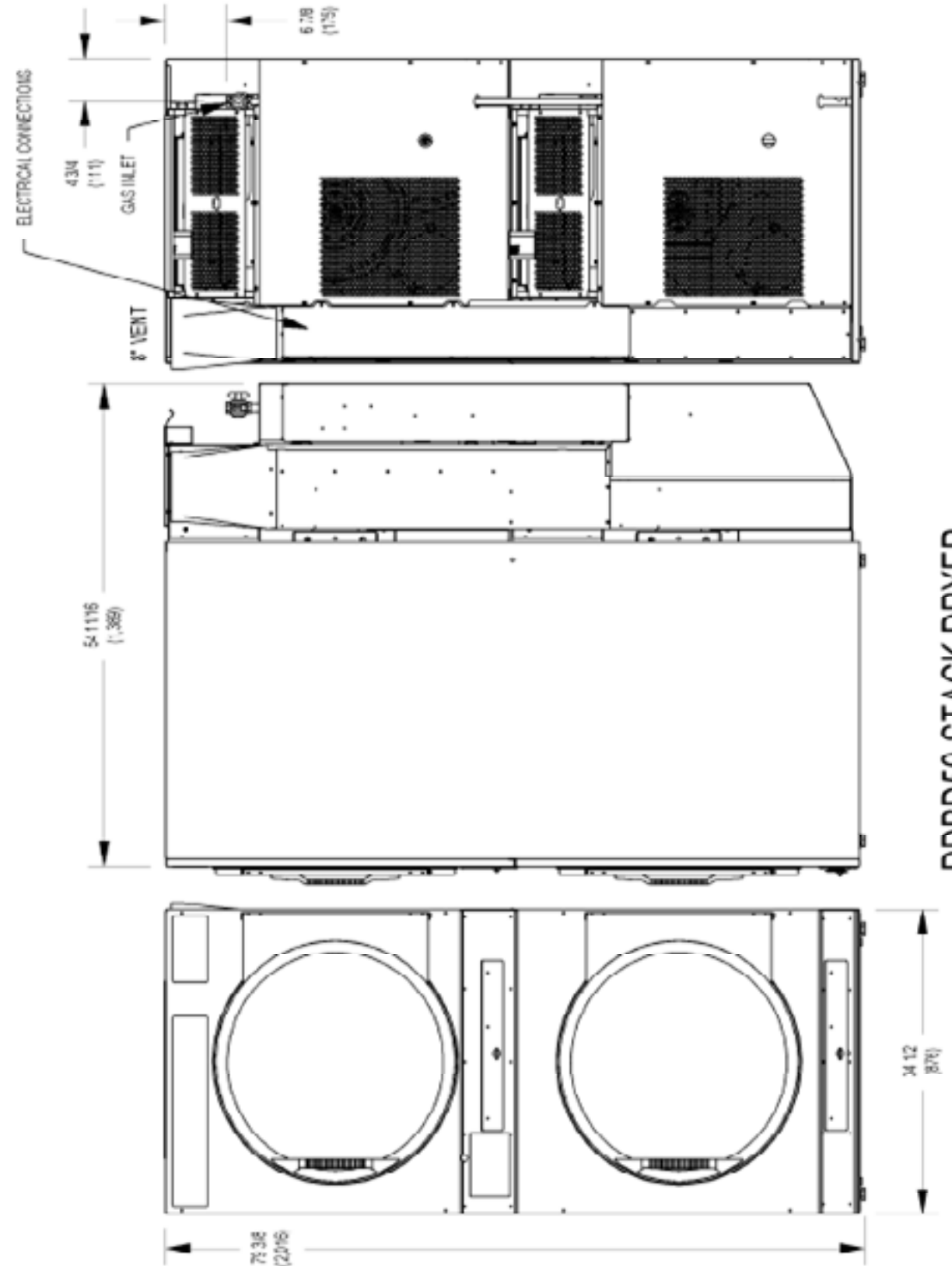
## Specifications

## Express Stack Dryer Specifications

| <b>Model</b>                                    | <b>DDAD30HC_-11</b>  | <b>DDBD50HC_-11</b>  |
|---|----------------------|----------------------|
| Cabinet Height                                  | 79.25" (1937mm)      | 79.625" (2023mm)     |
| Cabinet Width                                   | 31.5" (800mm)        | 34.5" (877mm)        |
| Overall Depth                                   | 50.0" (1270mm)       | 54.875" (1394mm)     |
| Floor to Door Bottom                            | 7.31" (186mm)        | 7.27" (185mm)        |
| Door Opening                                    | 22.69" (576mm)       | 25.69" (653mm)       |
| Dry Wt. Capacity                                | 30 x 2 (13.6 x 2mm)  | 50 x 2 (22.7 x 2mm)  |
| Cylinder Diameter                               | 30" (762mm)          | 32.5" (826mm)        |
| Cylinder Depth                                  | 27.5" (699mm)        | 33" (769mm)          |
| Cylinder Volume                                 | 11.25 (318ltr)       | 15.84 (448ltr)       |
| Lint Screen Area                                | 442" (2852cm)        | 536" (3458cm)        |
| Gas Input/Hour (kW) (per pocket)                | 90,000 BTU (26.4)    | 108,000 BTU (31.7)   |
| Gas Supply Connection                           | .5" (12.7mm)         | .5" (12.7mm)         |
| Natural Gas Supply (Water Column)               | 5-8"                 | 5-8"                 |
| L.P. Supply (Water Column)                      | 11.5-14"             | 11.5-14"             |
| Exhaust Size                                    | 8" (203mm)           | 8" (203mm)           |
| Make-up Air                                     | 1.5 sq. ft. (1394cm) | 1.5 sq. ft. (1394cm) |
| Motor Size                                      | 1/2 HP (373kW)       | 3/4 HP (560 kW)      |
| <b>Electrical Specifications - 220-240/60/1</b> |                      |                      |
| Voltage/Hz/Phase                                | 220-240V/60Hz/1Phase | 220-240V/60Hz/1Phase |
| Running Amps                                    | 10.0                 | 12.0                 |
| Circuit Protection Amps                         | 15                   | 20                   |
| Wire Size                                       | 12 gauge             | 12 gauge             |
| Electrical Service                              | 3 wire + ground      | 3 wire + ground      |
| Shipping Weight                                 | 773 lbs (351 kg)     | 950 lbs (431 kg)     |
| Net Weight                                      | 685 lbs (311 kg)     | 850 lbs (386 kg)     |
| Clearance Behind Machines (min.)                | 18" (457mm)          | 18" (457mm)          |



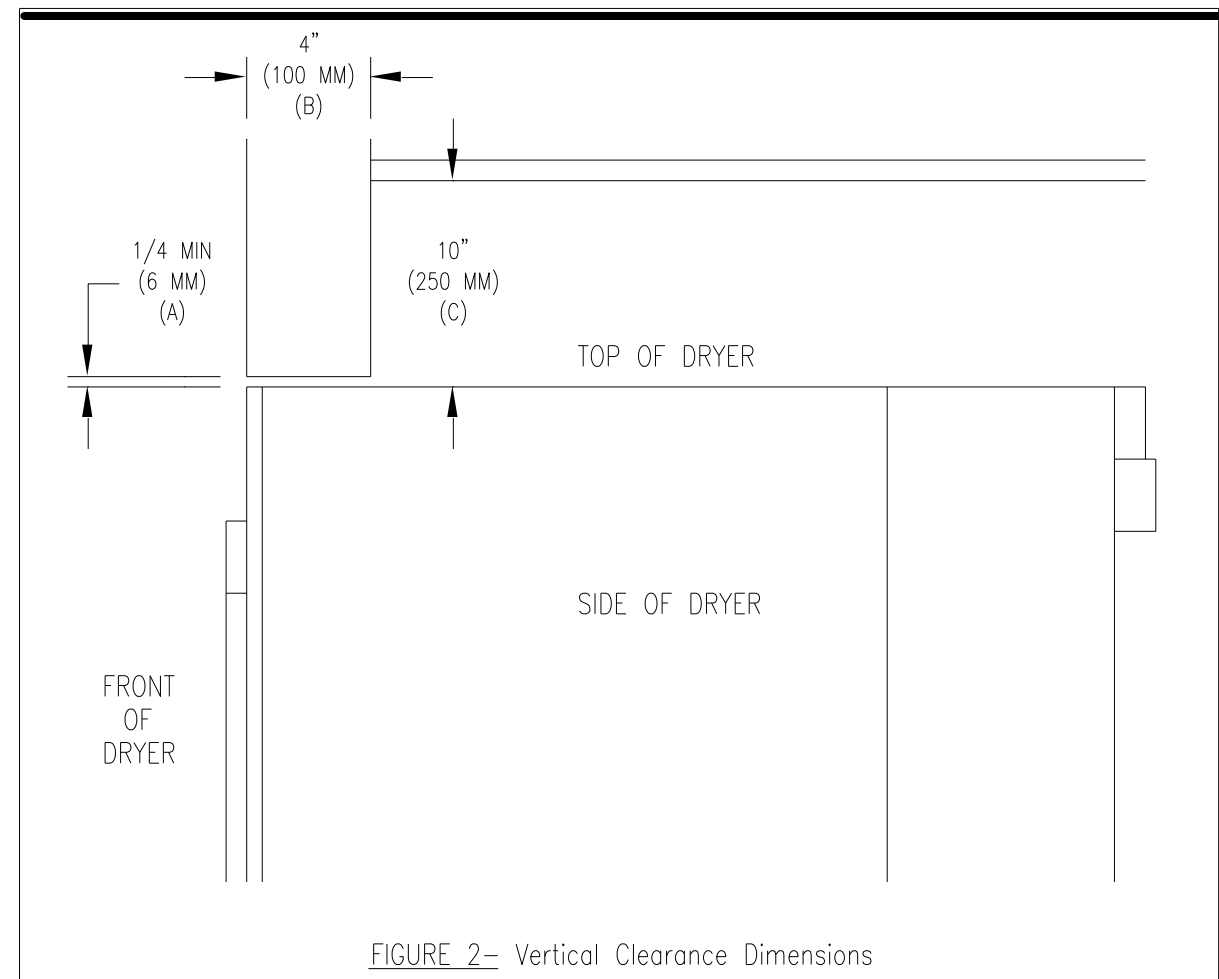
**DDAD30 OPL STACK DRYER**



**DDBD50 STACK DRYER**

Figure1, 50# Stack Dryer Dimensions, Inches (mm)

## Section 2: Installation & Operation



### Installation and Operation - 50lb and 30lb

All commercial dryer installations must conform with local applicable local codes or in the absence of local codes, with the National Fuel Gas Code ANSI Z223.1A-1988. Canadian installations must comply with current standard CAN/CGA-B149(.1 or .2) Installation Code for Gas Burning Appliances or Equipment, and local codes if applicable. The appliance, when installed, must be electrically grounded in accordance with the National Electric Code, ANSI/NFPA No. 70-1990, or when installed in Canada, with Standard CSA C22.1 Canadian Electrical Code Part 1.

#### Installation Clearances:

This unit may be installed at the following alcove clearances.

- |                |  |
|----------------|--|
| 1. Left side-  | 0"   |
| 2. Right side- | 0"   |
| 3. Back-       | 18" (Certified for 6" clearance: however 18" is required to clean, service, and maintain the dryer). |
| 4. Front-      | 48" to allow use of dryer.   |
| 5. Top-        | Refer to figure labelled "Vertical Clearance Dimensions".  |
| 6. Floor-      | This unit may be installed upon a combustible floor.   |

#### Makeup Air

Adequate makeup air must be supplied to replace air exhausted by dryers on all types of installations. Provide a minimum of 1 1/2 square feet of makeup air opening to the outside for each dryer. This is a net requirement of effective area. Screens, grills or louvers which will restrict the flow of air must be considered. Consult the supplier to determine the free area equivalent for the grill being used.

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

**NOTE:** The following illustration shows the various round main duct diameters to use with the individual dryer ducts. The main duct can be rectangular or round, provided adequate air flow is maintained. For each individual cylinder the total exhausting (main discharge duct plus duct outlet from the dryer) should not exceed the equivalent of 14 feet and two elbows. The diameter of the main discharge duct at the last dryer must be maintained to exhaust end.

**NOTE:** STATIC BACK PRESSURE should be a maximum of 0.3 in. w.c (7.6 mm w.c) at the rear exhaust outlet of the dryer. If multiple dryers are connected to the common duct, ensure the back draft damper is installed properly.

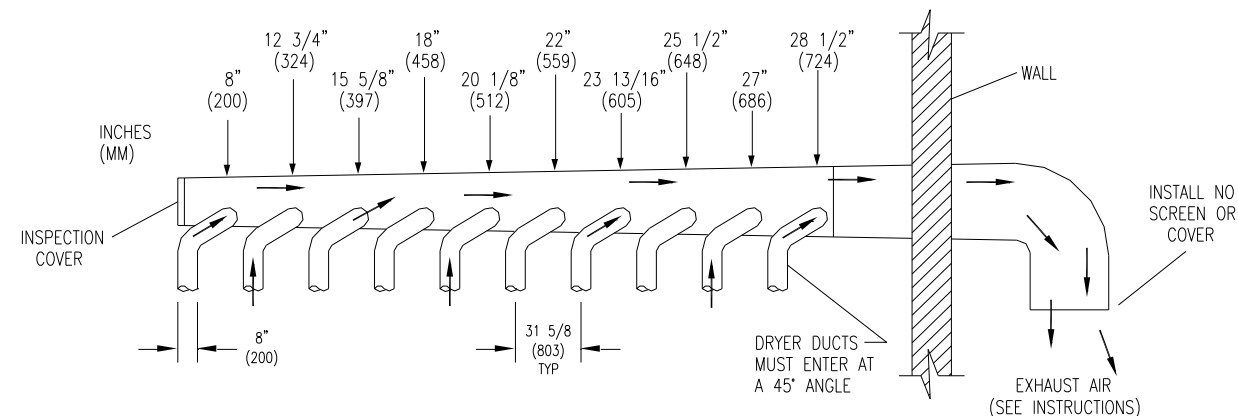


FIGURE 3- Dryer Exhausting Using A Main Discharge Duct.

7. **DRYER IGNITION (SOLID STATE IGNITION):** The solid-state ignition system lights the main burner gas by spark. The gas is ignited and burns only when the gas-relay (in the electronic controller) calls for heat. The procedure for

## TRANSIENT VOLTAGE SURGE SUPPRESSORS

Like most electrical equipment your new machine can be damaged or have its life shortened by voltage surges due to lightning strikes which are not covered by factory warranty. Local power distribution problems also can be detrimental to the life of electrical components. We recommend the installation of transient voltage surge suppressors for your new equipment. These devices may be placed at the power supply panel for the complete installation and don't require an individual device for each machine.

These surge protectors help to protect equipment from large spikes and also from small ongoing spikes in the power that occur on a day to day basis. These smaller surges can shorten overall life of electrical components of all types and cause their failure at a later date. Although they can't protect against all events, these protective devices have a good reputation for significantly lengthening the useful life of electronic components.

Electronic Components are helped to have a longer useful life when they are supplied with the clean stable electrical power they like.

We are including the following names and links to a few suppliers of these devices for those who don't currently have a source.

| MANUFACTURER            | LINK   |
|-------------------------|--|
| MCG Surge Protection    | <a href="http://mcgsurge.com">mcgsurge.com</a>               |
| Eaton Corporation       | <a href="http://eaton.com/us/en-us">eaton.com/us/en-us</a>   |
| Schneider Electric      | <a href="http://se.com/us/en">se.com/us/en</a>               |
| Asco Power Technologies | <a href="http://ascopower.com/us/en">ascopower.com/us/en</a> |
| Emerson Electric Co.    | <a href="http://emerson.com/en-us">emerson.com/en-us</a>     |

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

## Electrical Requirements

The electrical power requirements necessary to operate the unit satisfactorily are listed on the serial plate located on the back panel of each dryer. The electrical connection should be made to the terminal board, on the rear of the unit, using #12 AWG for 208-240V.

It is absolutely necessary that the dryer be grounded to a known ground. Individual circuit breakers for each stacked dryer are required. Use 20A circuit breakers for 208-240V.

## Gas Requirements

The complete gas requirements necessary to operate the dryer satisfactorily are listed on the serial plate located on the back panel of the dryer. The inlet gas connection to the unit is 1/2 inch pipe thread. However, the size of the piping to supply the dryer should be determined by reference to the Fuel Gas Code and consulting the local gas supplier.

A joint compound resistant to the action of liquefied petroleum gases should be employed in making pipe connections. A 1/8 inch NPT plugged tapping, accessible for test gage connection, must be installed immediately upstream of the gas supply connection to the dryer.

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

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

**CAUTION:** The dryer and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig. The dryer must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig.

## Burner Set-Up (Factory Shipped Preset for Natural Gas)

All gas burner manifolds should be checked for proper gas pressure while burning. Stack dryer burners should be set at 3.5 W.C. while burner operating.

## Exhaust Installation

Exhausting of the dryer should always be planned and constructed so that minimum air restrictions occur. (Refer to Figure on dryer exhausting). Maximum static back pressure (SBP) allowed at rear exit of dryer is .3 SBP.

Any restriction due to pipe size or type of installation can cause slow drying time, excessive heat, and lint build up in system and the room.

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

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

If the exhaust pipe passes through a wall, a metal sleeve of slightly larger diameter should be set in the wall and the exhaust pipe passed through this sleeve. This practice is required by some local codes and is recommended in all cases to protect the wall. This type of installation should have a means provided to prevent rain and high winds from entering the exhaust when the dryer is not in use. A hood with a hinged damper can be used for this purpose. Another method would be to point the outlet end of the pipe downward to prevent entrance of wind and rain. In either case, the outlet should be kept clear by at least 24" of any objects which would cause air restrictions.

Never install a protective screen over the exhaust outlet.

When exhausting a dryer straight up through a roof, the overall length of the duct has the same limits as exhausting through a wall. A rain cap must be placed on top of the exhaust and must be of such a type as to be free from clogging. The type using a cone shaped "roof" over the pipe is suitable for this application. Exhausting the dryer into a chimney or under a building is not permitted. In either case there is a danger of lint buildup which can be highly combustible.

Installation of several dryers where a main discharge duct is necessary, using the 8" exhaust entrance into the main discharge duct should be at a 45 degree angle in the direction of discharge air flow.

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

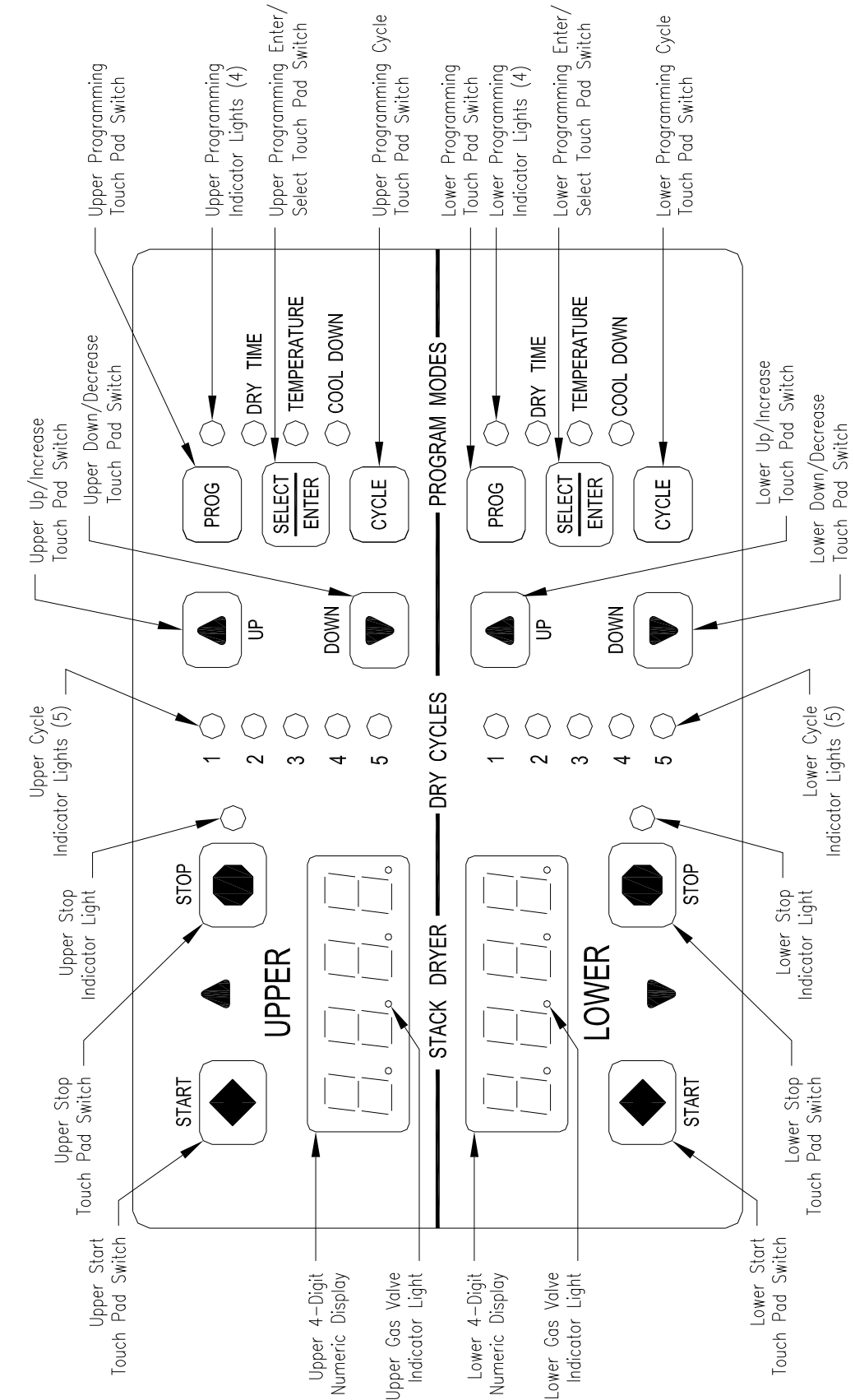


Figure 4: Non-Reversing Dryer Controller Interface

## Touch Pad Description







### Indicator Lights (LED's)

### Description

- Cycle (1 through 5)** These L.E.D.s are on solid when a particular cycle is chosen for operation or programming.
- Gas Valve** This L.E.D. is part of the 4-digit numeric display and will be on solid during the drying part of a cycle when the gas valve does not need to be on. The L.E.D. will be blinking when the gas valve needs to be on. The L.E.D. will not be on solid or blinking (off) if the cycle is stopped, complete, in cool down, or terminated.
- Programming** These L.E.D.s are on solid as they are selected during the programming of the dryer controller.
- Stop** This L.E.D. is on solid when either the stop button is pressed once or the door is opened during an operating cycle.

### Switches (push buttons)

### Description

-  This touch pad switch will increment (increase) dry time, cool down time, and drying temperature. It will also scroll upwards when selecting a dry cycle.  
**Up/Increase**
-  This touch pad switch will decrement (decrease) dry time, cool down time and drying temperature. It will also scroll downwards when selecting a dry cycle.  
**Down/Decrease**
-  This touch pad switch allows the dryer controller to enter the permanent programming mode.  
**Program**
-  This touch pad switch will select one of the three variable parts of the dry cycle (dry time, temperature, or cool down) by sequencing through them. Once one of the variable parts of the dry cycle is chosen and changed, this touch pad switch will enter the new (changed) value into the dry cycle program.  
**Select/Enter**
-  This touch pad switch allows the dryer controller to enter the temporary programming mode.  
**Cycle**
-  This touch pad switch will stop the dryer during a dry cycle without clearing the present drying cycle if pressed once. If pressed and released twice, consecutively, the present dry cycle will be cleared.  
**Stop**



**Start**

This touch pad switch will start the operation of a dry cycle if pressed and released once. Pressing and holding this touch pad switch will display the current temperature of the dryer heat sensor as long as it is held in the depressed position.

### Message

### Description

- LOAD** This message is displayed after a dry cycle is complete and the dryer loading door has been opened or the STOP touch pad key on the dryer controller has been pressed and released twice.
- donE** This message blinks immediately after completion of the dry cycle and continues to blink until the stop key on the dryer controller touch pad is pressed or the dryer loading door is opened.
- Prog** This message is displayed when entering the permanent programming mode.
- .15** This message appears while the dryer is in the heating time of a dry cycle. The decimal point will blink if the output for the gas valve is on, or remain on constantly if the output for the gas valve is not on. The number represents the total time left in the dry cycle (includes cool down time).
- C02** This message appears when the cool down time of the dry cycle is reached. The letter "C" represents the cool down (non-heating) part of the dry cycle. The number(s) after the letter "C" represent(s) the total time remaining in the dry cycle.
- F5** This message appears if there is a dryer fault. The letter "F" indicates a fault and the number after the "F" represents the specific fault that has occurred. There are five different faults that can appear (F1 through F5).

## Operating Instructions

To dry a load of items, you must choose one of the five-programmed dry cycles. Each of these five dry cycles may be modified in two different ways to match your load. Please refer to the "Permanent Dryer Controller Programming" or "Temporary Dryer Controller Programming" section of this manual.

There are two parts to each dry cycle. The first part is the heating time, which is when the gas valve is cycled on and off according to the temperature setting in the dry cycle program. The second part is the cool down time, which is after the heating part of the dry cycle, and is when the cylinder continues to tum, but no heat is applied.

There will always be at least two minutes of cool down time for each dry cycle. The maximum amount of cool down time is 60 minutes.

The default value of the five dry cycles is shown in the "Dryer Controller Factory Default Program Settings" table in this manual.

To improve the drying capabilities of this dryer, you should always separate (untangle) the individual articles in your load before using the dryer.

In the following instruction steps, things that are displayed on the 4-digit numerical display will be in "quotation marks" and any keys on the dryer controller touch pad that physically need to be pressed will be in **CAPITAL AND BOLD LETTERS**.

1. Place your untangled load into the dryer cylinder and close the dryer loading door. Notice that the dryer controller 4-digit numerical display should show the word "LOAD". If it does not show this word, then press and release the **STOP** touch pad key on the dryer controller twice.
2. Press and release the **UP** or **DOWN** arrow touch pad key on the dryer controller to select a dry cycle.
3. Once the desired dry cycle is selected, press and release the **START** touch pad key.
- 4.

After the dryer controller **START** touch pad key is pressed, the dryer cylinder will start rotating and the two-digit total dry cycle time, along with a decimal point, will appear on the dryer controller display.

The time shown on the dryer controller display will count down to the programmed cool down time. At that time, the display will change from the decimal point and two-digit number to a letter "C" and two digits.

The letter "C" represents the cool down portion of the dry cycle. The two digits represent the amount of time remaining in the dry cycle. The two-digit time, shown on the dryer controller display, will count down to zero.

When the time decrements to zero, the dryer controller display will flash the word "donE" and the end of cycle tone will sound.

At that point, the wrinkle free cycle will automatically begin. This cycle will wait two minutes, if the door is not opened or the **STOP** touch pad key on the dryer controller is not pressed, and then rotate the cylinder for 10 seconds and stop. This idle time of two minutes and tumble time of 10 seconds will repeat a total of 10 times, at which time the wrinkle free cycle stops. The cylinder will not rotate again until a new dry cycle is started.

During the wrinkle free cycle the gas valve will not be operated and there will be no heat applied to the load. The word "donE" will also continue to flash and do so even after the wrinkle free cycle is finished. When the dryer loading door is opened, or the **STOP** touch pad key is pressed, the word "donE" will change to the word "LOAD" on the dryer controller display. The dryer will then be ready for another dry cycle.

During the dry cycle, either pressing the **STOP** touch pad key on the dryer controller or opening the dryer loading door, will stop the dry cycle and not clear it. If you press the **STOP** touch pad key on the controller and then open the dryer loading door the dry cycle will not be cleared. However, if you open (or open and close) the dryer loading door and then press the **STOP** touch pad key on the dryer controller, the present dry cycle will be cleared and the word "LOAD" will appear on the dryer controller display.

There are two jumpers and one push button on the component side of the dryer controller printed circuit board.

The jumper located at the back right side of the each circuit board controls whether the controller display shows and operates in the Fahrenheit or Celsius mode. This jumper is labeled as TEMP SELECT and has three pins. The back and middle pins are for Celsius and the front and middle pins are for Fahrenheit, which is indicated by the letter C for Celsius and the letter F for Fahrenheit.

The other jumper, located at the back middle side of each circuit board controls, is used for choosing either a reversing or non-reversing type of dryer. This jumper is labeled as REV and NON-REV. This jumper must be in the non-reversing position, which are the front and middle pins. If the jumper is in the reversing position, the heating part of the dry cycle will not operate properly. The dryer will not reverse direction either.

The push button, which is located at the middle center of each circuit board controls, is used to reset all five of the dry cycles to the factory default settings. It is labeled as DEFAULT SETTINGS. Even the dry cycles that have been modified using the permanent programming procedure will be changed back to the factory default settings when using this push button. This push button must be pressed and held for at least three seconds with power applied to the dryer controller circuit board.

If changing a jumper, remove power before moving jumper and then move jumper. Before restoring power, press and hold the DEFAULT SETTINGS pushbutton. Then, restore power and release the DEFAULT SETTINGS pushbutton after three seconds of restoring power.

## Temporary Dryer Controller Programming

The temporary programming mode will allow the change of the stored dry cycle settings in the dryer controller for one complete dry cycle. After the dry cycle is complete, the default settings that existed before the temporary change are restored. The temporary dry cycle can be stopped and cleared at any time during the dry cycle operation.

To temporarily change a dryer controller cycle, follow the procedures below. Things that are displayed on the 4-digit numeric display will be in "quotation marks". Keys on the dryer controller touch pad that physically need to be pressed will be in **CAPITAL AND BOLD LETTERS**.

If, at any time, you want to escape the temporary programming mode while changing the program settings, you can press the **STOP** key on the dryer controller touch pad if the 4-digit numeric display is not flashing. The **SELECT/ENTER** key on the dryer controller touch pad can be pressed and released to enter the flashing value shown on the 4-digit numeric display and allow you to escape.

If you press and release the **STOP** key on the dryer controller touch pad, when the 4-digit numeric display is not flashing, the temporary changes to the dry cycle program will be cancelled. The stored dry cycle settings that existed before the temporary change will then be restored.

If, at any time, you want to start the temporary dry cycle during the temporary programming mode, press and release the **START** key on the dryer controller touch pad if the 4-digit numeric display is not flashing. The **SELECT/ENTER** key on the dryer controller touch pad can be pressed and released to enter the flashing value shown on the 4-digit numeric display and allow you to start the temporary dry cycle. If you start the temporary dry cycle, the 4-digit numerical display will change to the total dry time and count down to 0 as the dry cycle progresses.

## Procedure

1. Make sure the dryer is not in a dry cycle. The 4-digit numeric display on the dryer controller will show "LOAD" when the dryer is not in a dry cycle.
2. Press and release the UP or DOWN arrow keys on the dryer controller touch pad to choose the dry cycle that you want to change (dry cycle 1 through 5). The dry cycle L.E.D. will illuminate to indicate which dry cycle you are choosing. If you press either arrow key and hold it down, the controller will sequence through the five dry cycles.
3. Press and release the CYCLE key on the dryer controller touch pad once you have chosen the dry cycle you want to change. After you press this key, the programming L.E.D. and the dry time L.E.D. will illuminate. The dry cycle L.E.D. will remain illuminated. The total dry time will also be displayed on the 4-digit numeric display.
4. Press and release the UP or DOWN arrow keys to change the total cycle time. Once either of the arrow keys is pressed, the dry time L.E.D. and the total dry time on the 4-digit numeric display will flash. If you press and hold either arrow key down, you will increment (UP arrow) or decrement (DOWN arrow) through the total dry times available (1 through 60 minutes). This displayed dry time includes the cool down time along with the heated time. To not change the total dry time, do not press the arrow keys to change the total dry time.
5. Press and release the SELECT/ENTER key. Once this key is pressed and released, the dry time L.E.D. will switch off, the dry cycle L.E.D. and programming L.E.D. will remain on, and the temperature L.E.D. will illuminate. The drying temperature will also be shown on the 4-digit numeric display.
6. Press and release the UP or DOWN arrow keys to change the drying temperature. Each press and release of the arrow keys will either increase or decrease the temperature by five degrees Fahrenheit or three degrees Celsius, depending on how your dryer controller is set up. Once either of the arrow keys is pressed, the temperature L.E.D. and the drying temperature on the 4-digit numeric display will flash. If you press and hold either arrow key down, you will increment (UP arrow) or decrement (DOWN arrow) your way through the available drying temperatures (10So Fahrenheit or 40° Celsius, up to 19So Fahrenheit or 9( Celsius). If you do not want to change the drying temperature, do not press the arrow keys. Go to the next step.
7. Press and release the SELECT/ENTER key. Once this key is pressed and released, the temperature L.E.D. will switch off, the dry cycle L.E.D. and programming L.E.D. will remain on, and the cool down L.E.D. will illuminate. The cool down time will also be shown on the 4-digit numeric display. 8) Press and release the UP or DOWN arrow keys to change the cool down time. Once either of the arrow keys is pressed, the cool down L.E.D. and the cool down time on the 4-digit numeric display will flash. If you press and hold either arrow key down, you will increment (UP arrow) or decrement (DOWN arrow) through the cool down times available (2 through 60 minutes). To not change the cool down time, do not press the arrow keys. Go to the next step.
8. Press and release the SELECT/ENTER key. Once this key is pressed and released, the cool down L.E.D. and the programming L.E.D. will switch off, and the dry cycle L.E.D. will remain on. The flashing cool down time on the 4-digit display will stop flashing and remain.
9. At this point, you have two choices. 1) You can perform the modified dry cycle by pressing and releasing the START key on the dryer controller touch pad, or 2) You can clear the modified dry cycle program by pressing and releasing the STOP key once. If you start the modified cycle, the total dry time will appear on the 4-digit numeric display and it will count down to 0 as the dry cycle progresses. If you choose to clear the modified dry cycle, the 4-digit numeric display will change to "LOAD".

## Temporary Dryer Controller Programming Example

Requirements: Dry a load with 40 minutes of actual heat at 18SoF and five minutes of cool down.

The following procedure will show you how to temporarily modify the existing dry cycle 1 program for one cycle of drying. It is based on the assumption that the factory defaults have not been permanently changed. If they have been changed, the steps of this procedure will be the same, but the values that are displayed will be different. The amount of times that the dryer controller touch pad UP or DOWN keys must be pressed and released may also be different.

If you want the change to be permanent, go to the "Permanent Dryer Controller Programming" section of this manual.

### Procedure

1. After the load has been placed in the dryer, press and release the UP or DOWN touch pad key on the dryer controller until the L.E.D. for dry cycle 1 is illuminated.
2. Press and release the CYCLE key on the dryer controller touch pad. You will see the number "35" on the dryer controller display. The programming L.E.D. and dry time L.E.D. will be illuminated.
3. Press and release the UP arrow key on the dryer controller touch pad 10 times so the display will show a flashing "45". When the UP arrow touch pad key is pressed the first time, the number "36" will be flashing on the dryer controller display. Each number after that will also flash.
4. Now, press and release the SELECT/ENTER touch pad key on the dryer controller. The number "45" will stop flashing and the dry time L.E.D. will switch off. The dryer controller display will now show "180", the temperature L.E.D. will illuminate, and the programming L.E.D. and dry cycle 1 L.E.D. will remain on.
5. Press and release the UP arrow key on the dryer controller touch pad one time so the controller display will show a flashing "185". Each press of the UP arrow key will increment the temperature by five degrees.
6. Now, press and release the SELECT/ENTER touch pad key on the dryer controller. The number "185" will stop flashing and the temperature L.E.D. will switch off. The dryer control display will now show a number "5", the cool down L.E.D. will illuminate, and the programming L.E.D. and dry cycle 1 L.E.D. will remain on.
7. Press and release the SELECT/ENTER key on the dryer controller touch pad, since the desired cool down time is five minutes. After you press the SELECT/ENTER touch pad key on the controller, the cool down L.E.D. and programming L.E.D. will switch off. The controller display will remain at "5" and the cycle 1 L.E.D. will remain on.

You are now ready to start the new dry cycle. This new dry cycle will be in effect for one dry cycle only. After the dry cycle is done, or if the STOP touch pad key on the dryer controller is pressed and released twice, consecutively, the cycle 1 program will revert to the factory default settings. If you press the START touch pad key on the dryer controller, the controller display will change from the number "5" to the number "45" and dry cycle 1 will begin.

## Permanent Dryer Controller Programming

The permanent programming mode will allow the change of the stored dry cycle settings in the dryer controller until the operator physically changes them again. The factory default settings can be restored in the dryer controller by pressing the default settings pushbutton on the back (component) side of the dryer

controller circuit board. It is labeled and located at the lower middle side of the printed circuit board, as you face the component side of the board. It must be pressed and held down for at least three seconds.

To permanently change a dryer controller cycle, follow the procedure below. Things that are displayed on the 4-digit numeric display will be in "quotation marks". Keys on the touch pad that physically need to be pressed will be in CAPITAL AND BOLD LETTERS.

If, at any time, you want to escape the permanent programming mode while changing the settings, you can press the STOP key on the dryer controller touch pad if the 4-digit numeric display is not flashing. The SELECT/ENTER key on the dryer controller touch pad can be pressed and released to enter the flashing value shown on the 4-digit numeric display and allow you to escape.

## Procedure

1. Make sure the dryer is not in a dry cycle. The 4-digit numeric display on the dryer controller will show "LOAD" when the dryer is not in a dry cycle.
2. Press and release the PROG key on the dryer controller touch pad.
3. Press and release the UP arrow key on the dryer controller touch pad. The programming L.E.D. will illuminate and the 4-digit numeric display on the dryer controller will change to "Prog".
4. Press and release the UP or DOWN arrow keys to choose the dry cycle you want to change (dry cycle 1 through 5). The dry cycle L.E.D. will illuminate to indicate which dry cycle you are choosing. If you press either arrow key and hold it down, the controller will sequence through the five dry cycles.
5. Press and release the SELECT/ENTER key once you have chosen the dry cycle you want to change. After you press this key, the dry time L.E.D. will illuminate. The dry cycle L.E.D. and the programming L.E.D. will remain illuminated. The total dry time will also be displayed on the 4-digit numeric display.
6. Press and release the UP or DOWN arrow keys to change the total dry time. Once either of the arrow keys is pressed, the dry time L.E.D. and the total dry time on the 4-digit numeric display will flash. If you press and hold either arrow key down, you will increment (UP arrow) or decrement (DOWN arrow) through the total dry times available (1 through 60 minutes). This displayed dry time includes the cool down time along with the heated time. To not change the total dry time, do not press the arrow keys. Go to the next step.
7. Press and release the SELECT/ENTER key. Once this key is pressed and released, the dry time L.E.D. will switch off, the dry cycle L.E.D. and programming L.E.D. will remain on, and the temperature L.E.D. will illuminate. The drying temperature will also be shown on the 4-digit numeric display.

Press and release the UP or DOWN arrow keys to change the drying temperature. Each press and release of the arrow keys will either increase or decrease the temperature by five degrees Fahrenheit or three degrees Celsius, depending on how your dryer controller is set up. Once either of the arrow keys is pressed, the temperature L.E.D. and the drying temperature on the 4-digit numeric display will flash. If you press and hold either arrow key down, you will increment (UP arrow) or decrement (DOWN arrow) your way through the available drying temperatures (1050 Fahrenheit or 400 Celsius, up to 1950 Fahrenheit or 9( Celsius). If you do not want to change the drying temperature, do not press the arrow keys. Go to the next step.

Press and release the SELECT/ENTER key. Once this key is pressed and released, the temperature L.E.D. will switch off, the dry cycle L.E.D. and programming L.E.D. will remain on, and the cool down L.E.D. will illuminate. The cool down time will also be shown on the 4-digit numeric display.

Press and release the UP or DOWN arrow keys to change the cool down time. Once either of the arrow keys is pressed, the cool down L.E.D. and the cool down time on the 4-digit numeric display will flash. If you press and hold either arrow key down, you will increment (UP arrow) or decrement (DOWN arrow) through the cool down times available (2 through 60 minutes). To not change the cool down time, do not press the arrow keys. Go to the next step.

Press and release the SELECT/ENTER key. Once this key is pressed and released, the cool down L.E.D. will switch off, the dry cycle L.E.D. and programming L.E.D. will remain on, and the 4-digit numeric display will change to "Prog".

Press and release the STOP key to save the cycle program and escape the programming mode. If you

want to change the same dry cycle program again, press the SELECT/ENTER key and continue at step 6 of this procedure. If you want to modify another dry cycle program, go to step 4 of this procedure and continue.

If you pressed the STOP key to escape the programming mode, you may now start the dry cycle by pressing the START key.

## Permanent Dryer Controller Programming Example

Requirements: Dry a load with 50 minutes of actual heat at 1950 F and three minutes of cool down. The following procedure will show you how to permanently modify the existing dry cycle 1 program for one cycle of drying. It is based on the assumption that the factory defaults have not been permanently changed. If they have been changed, the steps of this procedure will be the same, but the values that are displayed will be different. The amount of times that the dryer controller touch pad UP or DOWN keys must be pressed and released may also be different.

If you want the change to be temporary (for only one dry cycle), go to the "Temporary Dryer Controller Programming" section of this manual.

## Procedure

1. After the load has been placed in the dryer, press and release the UP or DOWN touch pad key on the dryer controller until the L.E.D. for dry cycle 1 is illuminated.
2. Press and release the PROG touch pad key on the dryer controller. The dryer controller display will not change.
3. Immediately, press and release the UP arrow key on the dryer controller touch pad. The controller display will change from "LOAD" to "Prog". You have now entered the permanent programming mode. The dry time L.E.D. will remain on and the programming L.E.D. will illuminate.
4. Press and release the SELECT/ENTER touch pad key once. The dry time L.E.D. and programming L.E.D. will remain on and the dry time L.E.D. will illuminate. The dryer controller will also show the number "35".
5. Press the UP arrow touch pad key 18 times until the dryer controller display shows the number "53".
6. Press and release the SELECT/ENTER touch pad key once. The dry time L.E.D. and programming L.E.D. will remain on and the dry time L.E.D. will switch off. The temperature L.E.D. will illuminate and the dryer controller display will show the number "180".
7. Press and release the UP arrow touch pad key three times until the dryer controller display shows the number "195".
8. Press and release the SELECT/ENTER touch pad key. The dry time L.E.D. and the programming L.E.D. will remain on and the temperature L.E.D. will switch off. The cool down L.E.D. will illuminate and the dryer controller display will show the number "5".



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# Section 3:

## Wiring Schematics

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### 208VAC 60 HZ Wiring Schematic Dryer Idle:

Top Dryer Used For This Example

208-240 VAC 60 HZ (Ground required must be to the neutral bar in Circuit panel) is supplied to the Main Power Terminal Block and comes out on BLK / RED and BLK / BLU wire to the Motor Control Relay (R1 & R2). Also from the Terminal Block is a Red and Blue wire supplying power to the main step down transformer (208/240 to 24VAC). 24 VAC is supplied to Main Computer Board and both Door Switches on the black wire from Step Down Transformer. When there is main power to the dryer, the Computer Board will always be powered and the display lighted. Closing the loading door allows 24 VAC to pass through door switches to the Computer Board on two blue wires. One blue wire makes 24 VAC available to one side of the Motor Run Relay on Computer Board. The other blue wire provides a 24 VAC signal to the Computer Board telling it that the door is closed.

### Start Process - Motor Starting and Running

Top Dryer Used For This Example

The Control will display load in the LED display, and you may choose one of the Six cycles by pushing the up or down arrows and the red LED's will illuminate next to the cycle number on the left of the touch pad. The time will display once the Start Button. When the Start Button is pushed the Computer Board Motor Run Relay closes on the computer. With this Relay closed, 24 VAC is supplied to the Motor Control Relay (R1) on the red wire to the terminal block in the rear control compartment, and then changes to a red/black to close the R1 relay. With (R1) engaged and Main Line Voltage at Motor Start Switch in motor, the incoming power 208 or 240 VAC is supplied directly to the main run winding and through the Start Capacitor to the Auxiliary Winding (start winding). As the Motor comes up to speed, the centrifugal switch inside motor opens the circuit to the Start Winding and closes the auxiliary contacts for the circuit. This also allows the 24 VAC from the gas Relay to pass through and supply voltage for the heat circuit. The heat circuit in the dryer cannot operate if the motor is not running.

### Heat Circuit

Top Dryer Used For This Example

With the Drive Motor running and 24 VAC provided to the Computer Board Gas Relay, it will close if Computer Board senses programmed temperature is needed. This will also be indicated by an L.E.D light in the center of the display for that pocket. When the tumbler is on and calling for gas the L.E.D will be blinking, when it reaches temperature and goes into a soak the L.E.D. will go solid. While the machine is in cool down the L.E.D will go off. The violet wire changes to an orange wire out of the Computer Board Gas Relay. When this relay closes it provides 24 VAC to the High Limit Thermostat. The High Limit Thermostat is normally closed. (It will open, turning off the heat circuit, if the dryer can't move enough air from problems such as an exhaust restriction or other problems.) 24 VAC now goes through to the normally open Air Switch (Sail Switch) on the brown wire. This switch is closed only if the dryer is running and has the correct air flow. With the dryer running and the Air Switch closed, 24 VAC is supplied to the normally closed upper manual reset Overtemp Thermostat on the gray wire and changes to the black wire out of switch and then changes to a red wire that goes to the 1.5 amp in-line fuse that protects the Upper Ignition Controller (GREY BOX). With 24 VAC now supplied to the Upper Ignition Controller (GREY BOX) it will then send high voltage to the Spark Ignition Electrode via the High Voltage Lead Wire (this lead looks like an automotive spark plug wire). The Ignition Control Module (GREY BOX) simultaneously sends 24 VAC to the Gas Valve Coil which opens the Gas Valve and allows gas to pass to the main burner. When ignition occurs the high voltage sparking stops and if Ignition Control Module (GREY BOX) gets a flame sense signal it will allow gas valve coil to remain energized and continue burner operation. If ignition does not occur, the Ignition Control Module (GREY BOX) will spark for 10 seconds three times before locking out.

## Manual Reset Safety Shutoff Over - Temperature Thermostat

Top Dryer Used For This Example

This thermostat is manually reset by pushing in the red button through the small hole in the cover. The Over Temperature Thermostat is a safety backup for the entire Heat Circuit and located in the recirculation Part # 8533-062-001 7/08 chamber area on the side of the burner housing. If the dryer overheats this Over Temperature Thermostat it opens the line to turn off the heat but leaves the Computer Board lighted and the drive motor powered and turning so the basket will cool down.

## Cool Down

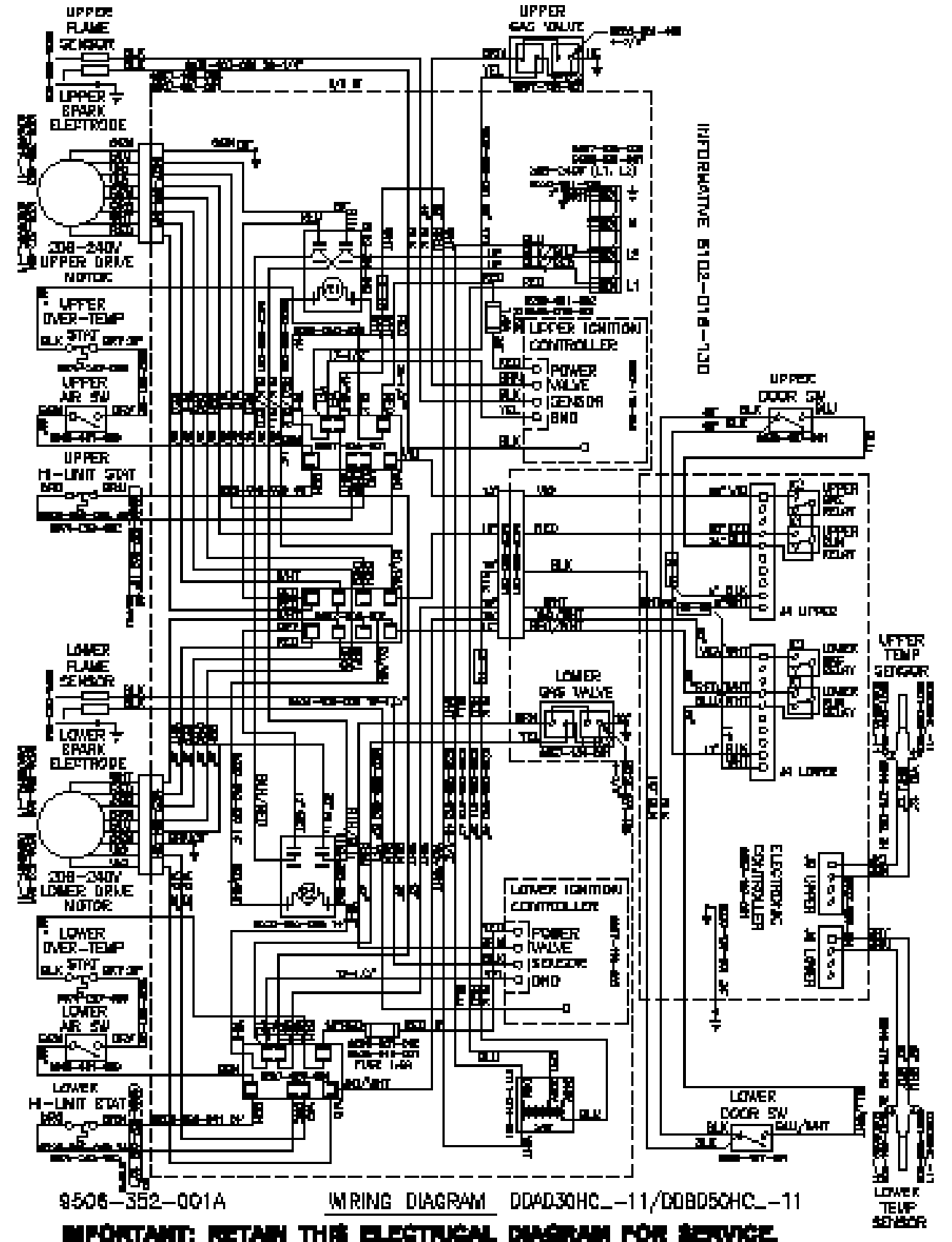
Top Dryer Used For This Example

At the preprogrammed time (2 minutes factory setting - adjustable) the Computer Board will open the Gas Relay Contact. This allows the Drive Motor to continue to run but without heat. This Cool Down period allows the clothing (zippers, snaps, etc.) time to cool down to a temperature that is easily handled by customers. This will also be indicated by the gas L.E.D light in the center of the display, the L.E.D. will be off.

## End of Cycle

Top Dryer Used For This Example

At the end of the cool down, the Computer Board opens the Upper Run Relay, which removes power from the Motor Control Relay (R1) and also removes power to the Drive Motor. The Drive Motor and tumbler stops and the Computer Board display now displays Done until the dryer loading door is opened. Once the dryer loading door is opened to remove the clothing the display goes back to Load.





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# Section 4:

## Service Procedures

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## Service Procedures

### Clothes Door Removal

1. The clothes door may be removed from the hinge bracket by unscrewing and removing the allen-head pivot screw located at the door upper hinge point.
2. Next lean the door out of the top of the hinge bracket and lift the door from the bottom hinge pin.

NOTE: the spacer between the bottom of the door and the hinge.

### Clothes Door Latch Adjustment

1. Loosen the lock nut on the latching stud. It is located directly behind the door handle.
2. Open the loading door.
3. Screw the door catch stud in or out as necessary and then retighten the lock nut.

### Door Switch Removal And Installation

1. Each door switch is located directly behind the hinge plate of the loading door assembly.
2. The entire switch can now be pulled from the front panel opening.
3. The switch has two clips that hold it in place on the rear of the switch.
4. With the panel removed, you can now squeeze the two clips and allow switch to be pushed back through panel and grasped from the front and switch removed.

### Installation Of Clothes Door Window And Gasket

1. Place the clothes door, with its face down, on a solid surface.

NOTE: Prewarming the gasket makes the installation much easier.

2. Install the window gasket on the clothes door flange. The wider lip of the gasket should be on the bottom side or front face of the clothes door and the ridges should be up.
3. Locate the seam at the latching stud.
4. Apply a soapy water solution or rubber lubricant to the gasket.
5. Slide the glass into the middle of the door ring and gasket with half of the glass above the door and half below.
6. While pressing down on the glass, stand the door up and use a modified screw driver with the end rounded off to install half of the glass. Lay the door down and install the other half.
7. At the six o'clock position, pry the glass up enough to install the black spacer. (reuse from old door gasket)

### High Limit Thermostat Locations And Functions

- A. Burner Housing-** This hi-limit is located on the back side of each burner housing.
1. The thermostat opens the circuit to the main burners in the event of malfunction in the gas control area or temperature control. This thermostat will open quickly if there is a significant loss of air flow over the burner area.
  2. It is covered by a guard and is held in place by two screws. There are spacers between the thermostat and bracket which must be used to give proper operation.

**B. Manual Reset Over temperature Safety Thermostats-** The second hi-limit thermostat is located on the right side of each burner housing as you view from the back of the machine. It is just above the gas valve and covered by a guard with a small access hole.

1. The manually resettable thermostat limits the operating temperature a dryer can reach should some abnormal situation occur.
2. Should one of the thermostats be tripped, that particular tumbler will cease to heat until the thermostat is reset. Once the dryer cools, the thermostat may be reset by inserting a pencil or stick through the opening in the thermostat cover.

**REMOVAL:** To remove either the hi-limit thermostat on the rear of the burner housing or the over-temperature thermostat on the right side of the burner housing, remove the mounting screws holding its respective guard. Next, remove the terminal of each wires attached to the thermostat. Lastly, remove the mounting screws holding the thermostat to the burner.

### Pressure Regulator Adjustment

Use the following procedure whenever it is necessary to check the pressure regulator setting.

**NOTE:** Any adjustment of the pressure regulator must be made with a manometer attached at the plug in the main burner manifold.

1. Shut off the gas supply to the dryer.
2. Remove the 1/8" pipe plug from the end of the main burner manifold.
3. Attach a manometer to the manifold end.
4. Remove the pressure regulator cover screw on the gas valve.
5. Open the shutoff valve, and operate the dryer.
6. Adjust the pressure for a manometer reading of 3.5" water column gas pressure. (11.0" for L.P.)

**NOTE:** The main burners must be operating when adjusting the pressure regulator.

7. Shut off the gas supply to the dryer. Remove the manometer and install the 1/8" pipe plug in the manifold.
8. Open the shut off valve, start the dryer and check for gas leaks while the burners are ignited.

### Heat Sensor

This unit takes the place of the regulating thermostat on a mechanical timer dryer. The Heat Sensor is a thermistor. The way these work is fairly simple. As the temperature goes up, the resistance in the thermistor (heat sensor) goes down. As the temperature drops, the resistance in the thermistor (heat sensor) goes up.

### Electronic Control Removal

Unlock the retaining lock in the control assembly. Slide the control out of the machine holding the control by the metal tray. There is enough wire length to allow removing the control tray from the machine before disconnecting the wires.

### Membrane Switch Replacement

The control buttons are an adhesive membrane switch assembly which may be replaced separately. Slide the control out to gain access to disconnect the ribbon connector. The ribbon connector must be pushed solidly and squarely into its connector when connecting a new membrane switch.

### Temperature Sensor Testing

If either tumbler display shows an F1 or F2, that is an indication of possible temperature sensor problems for that tumbler. Before replacing a sensor, check the wires and connections of the sensor for damage. The sensor lead wires are very small and care should be used in routing and connecting them. The sensors are located under the tumblers and may be viewed by removing the lint screen. The temperature sensor should have 10,000 ohms resistance at room temperature if okay.

### Temperature Testing

To check the temperature in the dryer tumbler, press and hold the upper or lower start button for the tumbler being checked and while holding the start button also press the temperature button for the temperature to be checked. The display will read out the current temperature.

### 30Lb Stack Temperature Sensor Removal

**UPPER -** Remove front panel, see front panel removal procedure, in the Control area remove the two gray wire nuts connecting the Temp sensor harness. Remove cap plug and slide Temperature probe into the control compartment area, be careful not to loose the retainer clip (9486-137-002) that is on the Temp probe inside the lint tray area. Reinstall in reverse operation.

**LOWER -** Remove Lower Panel, see lower panel removal procedure, in the left lower cavity remove the two gray wire nuts connecting the Temperature Sensor harness. Slide the Temperature Probe to the left cavity area to remove, be careful not to loose the retainer clip (9486-137-002) that is on the Temp probe inside the lint tray area. Reinstall in reverse operation.

### 50Lb Stack Temperature Sensor Removal

**UPPER -** First remove Electronic Control. Once the Control is removed, disconnect Temp Sensor wires by removing the two gray wire nuts. Remove the two temp sensor mounting screws, 5/16 head, remove Temp Sensor bracket assy. Remove sensor from bracket and replace and reinstall in reverse operation.

**LOWER -** To remove the Lower Temp Sensor and Bracket it is necessary to remove the Lower front panel; note you will have to loosen the upper panel to remove the lower panel, and disconnect the door switch wires. Next disconnect Temp Sensor wires by removing the two gray wire nuts. Remove the two temp sensor mounting screws, 5/16 head, remove Temp Sensor bracket assy. Remove sensor from bracket and replace and reinstall in reverse operation.

### 30Lb Stack Upper Front Panel Removal

**UPPER -** To remove the front panel the door assembly must be removed. First remove control and lint screen, next remove Door hinge upper special screw, 9545-052-001 3/16 allen wrench, and remove door. Next remove the four hinge strap torque screws, T20, and the upper right torque screw, and the three torque screws on the left hand side. Now the panel is loose. Next you must disconnect the door switch wires before you can remove the panel.

**LOWER -** To remove the Lower front panel the Control and upper lint screen plus the door must be removed. The front panel has to be loosened by removing the two lower torque screws (T20) on the upper door hinge and the left lower torque screw to loosen the front panel. The lower lint screen must be removed. Next remove Door hinge lower special screw, 9545-052-001 3/16 allen wrench, and remove door. Next remove the four hinge strap torque screws, T20, and the two torque screws on the left hand side. Now the panel is loose. Next you must disconnect the door switch wires before you can remove the panel.

**NOTE:** Always remove power from the machine before performing maintenance on the machine.

### 50Lb Stack Upper Front Panel Removal

The loading door does not have to be removed to remove the front panels on this model.

1. Remove the left two screws with finish washers.
2. Remove the right two screws with finish washers, at this time the front panel is loose but connected by the harness to the door switch.

## Lower Front Panel Removal

To remove the lower front panel a procedure similar to the upper may be used. However, the bottom of the upper panel must be loosened and pulled out to allow the upper flange of the lower panel clearance to be removed.

**NOTE:** Always remove power from the machine before changing drive belts or working with the drive system.

## Final Drive Belt Replacement

To replace the final drive belt turn the cylinder slowly by hand and work the belt off of the large pulley.

## Motor Drive Belt Replacement

To replace the motor drive belt the final drive belt should be removed as above. Cut the old motor belt and remove. The new motor drive belt fits inside of three of the four motor mounting bolts. To achieve this, remove these three bolts one at a time and slide the belt in past each in turn. In this way the motor is always supported by 3 bolts at any time.

**NOTE:** All drive belts are self adjusting.

## Tumbler Pulley Removal And Installation

Remove the 1 1/2" nut and lock washer. Pull the pulley off the shaft. Watch for the locking key on the tumbler shaft. Upon installation, the tumbler nut should be torqued to 150 ft./lbs.

## Intermediate Pulley And Tension Arm Removal

1. The intermediate pulley is retained with a snap ring. Remove the snap ring and the pulley slides off the shaft.
2. With the pulley off, there is access to the self adjusting tension arm assembly. The tension arm assembly may be removed by removing the snap ring that holds it to the tension arm support assembly pin. The arm assembly is replaced as a complete unit.
3. The grease fitting for the intermediate shaft should be greased monthly.

## Tension Arm Support Assembly Adjustment

The tension arm support assembly may be adjusted for alignment of the intermediate pulley and also to align the belts. The three outer nuts allow the alignment of the pin to be adjusted by pivoting the assembly on the center bolt. The center bolt can be screwed in to allow bringing the complete assembly farther back if necessary for belt alignment.

## Motor Blower Assembly Removal And Installation

1. Remove Belts
2. Disconnect Motor harness connector.
3. Remove Tumbler pulley. Remove 3/4" bolt, Next remove pulley using "T" bar puller (needed two 3/8"-16 UNC bolts).
4. Remove Idler pulley. Using snap ring pliers, remove snap ring and pulley.
5. Remove Blower back plate (Motor attached). Remove 1 5/16" harness clamp bolt, then remove nine 3/8" nuts and then tilt blower fan to remove.
6. Blower fan is held in place with 2 square headed set screws. Upon reassembly, one blower set screw should fit in the counter sink and the other should mount on the flat side of the shaft. Use red locktite on the set screws and torque to 165 in/lbs.
7. The Motor is mounted with 4 bolts to the motor mounting bracket on the rear of the dryer.
8. Reassemble in reverse order.

## Air Flow Switch Operation And Adjustment

The air flow switch assembly is part of the ignition safety circuit and insures that the burners don't operate unless there is air flow. When the drive motor and blower are running the flat actuator is pulled in against the back of the dryer closing the switch. If this doesn't happen ignition will not occur. The air flow switch assembly is mounted by two screws through the bracket. It can be adjusted by loosening these mounting screws and moving the switch forward or backward.

## Ignition Transformer Fuse

The 1 1/2 amp fuse protects the ignition transformer. To remove it just twist and pull it out.

## Ignition Control Transformer

When heat is called for, the ignition control transformer steps 120VAC down to 24VAC to power the ignition control.



## Electronic Ignition Module

This machine uses an electronic spark ignition system to directly light the burners in each tumbler.

1. The electronic ignition module for each tumbler is located inside the electrical box. This is the metal box on the back of each tumbler area directly to the right of the final drive pulleys.
2. The red wire from the transformer traveling thru the 1.5 amp fuse and into the module supplies the 24VAC required to operate the entire direct ignition system.
3. The black colored hi-voltage wire (spark plug type) plugs onto the post connector on the module, and the multi-wire plug fits into the side of the module.

## Spark Ignition Module Removal

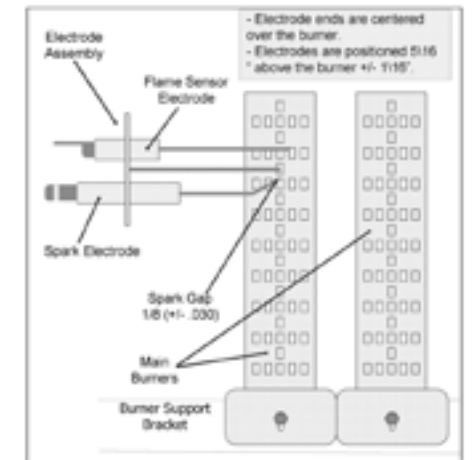
If the ignition modules are mounted on a bracket, see section A. Otherwise, see section B.

### A: With mounting bracket

Remove the connector housing of the wiring harness attached to the ignition module. Then, remove the terminal of the hi-voltage cable attached to the ignition module. Next, remove the mounting screws holding the ignition module mounting bracket in the rear control box. Lastly, remove the nuts holding the ignition module on its mounting bracket.

### B: Without mounting bracket

Remove all of the terminals of the wiring harness attached to the ignition module. Then, remove the terminal of the hi-voltage cable attached to the ignition module. Lastly, remove the mounting screws holding the ignition module in the control box. If there is no spark or intermittent spark, check black hi-voltage lead wire for damage



**NOTE:** Proper grounding of the ignition system (yellow wires) is very critical for proper ignition sequence.

## Ignition System-Function & Sequence

During normal dryer operation, the following occurs:

1. The dryer electronic control calls for heat.
2. If the drive motor is running, the motor safety circuit provides power to the electronic control. If the control senses that the heat should be on, a circuit is closed allowing power through the high limit thermostat and air flow switch to the ignition transformer. The transformer provides 24VAC to the ignition module and sparking occurs at the ignition electrode. At the same time 24VAC is applied to the gas valve.
3. Once the flame is established, the sensing electrode detects the presence of flame and the sparking stops.
4. If for any reason the flame is not established in a period of 10 seconds, the electronic control will try this sequence for 3 tries. Normally the 10 seconds "Trial For Ignition" period is ample to establish and prove flame.
5. If the flame is shutdown or blown out during operation, the ignitor will immediately go into "Trial For Ignition" again for 10 seconds.
6. However, at the end of 3 separate retries of 10 seconds "Trial for Ignition", the flame is not established, the ignition system goes into "Safety Lock-Out" and will not reactivate the "Trial for Ignition" until there is a current interruption for a period of 15 seconds. This interruption can be provided by opening the dryer loading door and allowing the machine to come to a complete stop for 15 seconds.

## Ignition System-Checkout

1. If flame is present during "Trial For Ignition" period but the system shuts down, there may be an improper ground. The entire ignition system is grounded together including the electrode assembly, the electrode mounting bracket, the burners and the burner bracket. Shutdown can also occur if for some reason the system isn't sensing the flame. Check the sensor for damage and check the connections of the sensor lead.
2. If there is no spark or intermittent spark, check black hi-voltage lead wire for damage or cracks in insulation. (This lead wire must not be taped or connected to any metal edges along its length to prevent pinching and arcing. Also, do not bundle this wire with other wires.)

**NOTE:** Spark gap and electrode location are important. If the electrode is damaged or mounting is changed the spark gap may not be correct for ignition to occur. Check for cracks in the ceramic insulator. Replace electrode assembly if necessary. Also check for carbon or foreign material on the electrodes and clean if necessary.

## Spark Electrode Assembly-Removal

1. Remove electrode cover and disconnect wires to electrodes.
2. Remove two screws to detach electrode assembly.

## Gas Valve Removal (shut off manual gas valve to stop gas flow before removing gas control valve)

1. Disconnect union at gas valve and disconnect wires from gas valve operator coils.

2. Remove right manifold mounting bracket screws and slide manifold to remove from left bracket.

## Main Burner Orifice Removal

1. Remove manifold and gas valve assembly as above.
2. Using an open end wrench, remove orifices from manifold.

## Main Burner Removal

1. Remove the 4 screws securing the cover for the burner housing and the one screw mounting the high limit cover. With the burner housing cover removed, there is complete access to the burner assemblies.

## Recirculation Chamber Inspection

1. Remove Resettable manual overtemp sensor and remove inspection plate in burner chamber between main burners and rear back panel of dryer.

## Cylinder Removal

1. Remove the front panel in front of the cylinder.
2. Remove drive belt, pulley, and key from cylinder shaft.
3. Pull the cylinder from the front of the machine.

## Adjustment Of Cylinder Assembly With Front Panel Removed

1. Loosen the two top adjusting bolts and two bottom adjusting nuts and lock nuts holding the bearing housing to the drive plate.
2. Loosen the four mounting bolts on the side channels.
3. Open the clothes door and insert a 1/4" thick shim at the 3 and 9 o'clock positions and a 1/8" thick shim at the 6 o'clock position.
4. Tighten the two bottom adjusting nuts and tighten locking nuts.
5. Tighten the bottom right mounting bolt, then the top left mounting bolt. Tighten the remaining two bolts. (Shim where and if necessary.)
6. Tighten the two top adjusting bolts.
7. Remove all the shims from between the front panel flange and cylinder (3, 6, and 9 o'clock).8. Spin the cylinder to check for rubbing baffles, pressing down hard while rotating. If rubbing is detected, repeat procedure paying particular attention to placement of shims between bearing housing and side channels.

## Tumbler Through Bolt Access Cover

Remove 4 screws that mount the air flow switch to the back of the dryer. Remove 2 screws that retain access cover. With access cover removed, tightness on the tumbler through bolts can be checked and tumbler alignment can be adjusted.

## Bearing Housing Removal

After removing cylinder as previously outlined, simply unbolt the bearing housing and remove.

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# Section 5:

## Troubleshooting

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## Trouble Shooting

### Electronic Control Diagnostic Lights

The electronic control has 6 diagnostic lights to aid in service of the dryer. Each pocket has indicator lights for the motor circuit, door switch circuit, and the heat circuit. When the electronic control is carefully unlocked and moved forward these lights are visible on the circuit board. They are each labeled as to function indicated.

1. When either dryer door is closed, the appropriate door light on the computer should be illuminated indicating that the door is closed.
2. When either dryer is running, the appropriate motor light on the computer should be illuminated indicating that the computer is calling for the motor to operate.
3. When either dryer is calling for heat, the appropriate heat light on the computer should be illuminated indicating that the computer is calling for heat.

An example of their function would be troubleshooting an upper dryer pocket that did not heat.

1. Start the machine and insure that it did not heat.
2. Check the upper heat light and see if it is lit.
3. If the heat light is on, this would indicate that the computer was calling for heat and that it was not at fault. You would then go on to check the rest of the heat circuit.

### Electronic Control Test Cycle

This test cycle allows the dryer to run for 5 minutes without the need for adding money while servicing. To actuate this 5 minute test cycle leave the loading doors closed, unlock the computer and push the program button on the right front corner of the computer as if you were putting it into the program mode. This will give a 5 minute cycle on both tumblers for evaluating the machine.

## Trouble Shooting Fault Codes

- F1 Shorted sensor or shorted sensor wire harness
- F2 Open sensor or sensor wire harness disconnected
- F3 EEPROM corrupted. Dryer will not start and "F3" appears on the 4-digit display. The power to the dryer must be cycled to reset the controller. Fault should only occur when starting a dry cycle.
- F4 Gas valve on fault. The drying temperature did not increase 1°F. in 15 minutes. "F4" will flash on the display and the dry cycle will finish without calling for heat (energizing gas valve). Opening the door or pressing the STOP key will reset the fault and clear the remaining time in the dry cycle.
- F5 Temperature fault. The drying temperature is at least 25°F. above the temperature setting. "F5" will flash on the 4-digit display and the dry cycle will finish without calling for heat (energizing the gas valve). The power to the dryer must be cycled to reset the controller.

## Troubleshooting Tips

| Symptom               | Probable Cause     | Suggested Remedy  |
|-----------------------|--------------------|---|
| Tumbler does not turn | Drive belts        | Check both drive belts. Replace if failed.  |
|                       | Drive motor        | Check capacitor and motor. Replace if failed  |
|                       | Door switch        | Check door switch contacts and adjustment. Adjust or replace the door switch  |
|                       | Electronic Control | Is electronic control closing motor relay to power drive motor? Check for motor light on electronic control. If no light change control. If light is on, check voltage and wiring to motor. |

| Symptom                              | Probable Cause   | Suggested Remedy   |
|--------------------------------------|--|--|
| Tumbler turns but no spark at burner | Glass fuse   | Check small glass control fuse in back of dryer. Replace if failed.  |
|                                      | Temperature Sensor   | The temperature sensor should have between 30,000 ohms and 60,000 ohms resistance at room temperature if okay. Replace if not in this range.   |
|                                      | Ignition   | Check for 24VAC output from transformer.   |
|                                      | Transformer  | Replace if have 120V between black & white and no 24V between red and yellow.  |
|                                      | Over temperature   | Check to see if manually resettable thermostat. Thermostat is kicked out. Reset by pushing red reset button.   |
|                                      | Ignition control   | Check for 24VAC coming into the control on the at burner red wire. If voltage, then check for 24VAC out on the brown wire. Also check for spark at the ignitor. If no 24VAC output or no spark to the ignitor, replace ignition control. |
|                                      | Air Flow Switch  | Check air flow switch to be sure it closes when dryer is running. If not, adjust or replace switch.  |
|                                      | Hi-limit   | Check for continuity. Should be 0 ohms resistance when cold. If not, replace thermostat.   |
|                                      | Gas supply   | No gas can cause system lockout  |
| Electronic Control                   | Is electronic control closing gas relay to power Control heat circuit? Check for gas light on electronic control. If no light change control. If light is on, check voltage and components in heat circuit at transformer at rear of unit. |  |

| Symptom                                  | Probable Cause         | Suggested Remedy  |
|--|------------------------|---|
| Tumbler turns, ignition sparks, no flame | Gas supply             | Make sure gas supply is working.  |
|  | Gas pressure           | Make manometer check of gas pressure. Adjust if necessary.  |
|  | Spark Electrode Sensor | Check for damage to electrode or mounting. Replace if necessary.                                      |
|  | Gas valve              | Check coil continuity, replace valve if failed.   |
|  | Ignition Control       | Check for 24VAC to gas valve coils. If no voltage replace ignition control.                           |
| Burner Lights, but goes on and off       | Electrodes             | Check low voltage harness for possible wire break or cuts to allow no signal back to ignition control |

| Symptom   | Probable Cause                      | Suggested Remedy  |
|---|-------------------------------------|---|
| Erratic display                                     | Initial Start-up                    | If erratic on initial start-up, leave power on for approximately one hour and check machine operation again.                                      |
|   | Grounding                           | Machine must be grounded by separate conductor back to neutral bar in breaker box.  |
|   | Program                             | Check program and make corrections if necessary.  |
|   | Voltage spike                       | Power down machine for 20 seconds and repower. If no improvement, replace control.  |
|   | Manual overtemp Tripping Frequently | Recirculating chamber Lint Accumulation   |
| Exhaust ducting Excessive lint buildup              |                                     | Remove exhaust duct at rear of dryer and inspect for excessive lint build up in complete duct from dryer to where duct exits building.            |
| Clean lint of of top heat air chamber above tumbler |                                     | Remove front panel completely. Be careful of any wiring attached. Remove heated air chamber cover and clean above tumbler back to burner housing. |



## Kits, Assemblies, & Common Parts

DDAD30HC\_-11

| Loading Door Components       | Part Number  |
|-------------------------------|--------------|
| Door Handle                   | 9244-082-001 |
| Door Close Switch             | 9539-487-001 |
| Electrical Components         | Part Number  |
| Relay, Motor Run (24VAC)      | 5192-298-002 |
| Transformer, Ignition/Control | 8711-014-001 |
| OPL Controls (Blue)           | 9857-187-001 |
| OPL Controls (Black)          | 9857-187-003 |
| Heating Circuit Components    | Part Number  |
| Ignition Control Module       | 9857-116-003 |
| Ignition Electrode Assembly   | 9875-002-003 |
| Thermostat, Hi-Limit          | 9576-203-002 |
| Thermostat, Overtemp          | 9576-207-008 |
| Fuseholder                    | 9200-001-002 |
| Fuse 1.5 amp                  | 8636-018-001 |
| Fuse 2.5amp                   | 8636-018-004 |
| Airflow Switch                | 9539-461-009 |
| Cabinet Components            | Part Number  |
| Cleanout Duct Assembly 8"     | 9973-034-001 |



## Section 6: Parts Data 30# Stack

## Cabinet Group - 30lb

| Key | Part Number  | Description   | Quantity |
|-----|--------------|---|----------|
| *   | 9960-256-032 | Door Assy., Loading Complete-Wht .....                | 2        |
| *   | 9960-256-034 | Door Assy., Loading Complete-SS .....                 | 2        |
| 1   | 9960-255-008 | Door Assy., Loading-SS(ring only) .....               | 2        |
| 2   | 9982-280-014 | Plate Assy., Hinge (Wht) No Pin .....                 | 2        |
| 2   | 9982-280-012 | Plate Assy., Hinge (SS) No Pin.....                   | 2        |
| *   | 9545-012-015 | Screw, Hinge to Door .....                            | 8        |
| *   | 8640-413-002 | Nut, Hinge to Door .....                              | 8        |
| 3   | 9212-002-003 | Glass, Door .....                                     | 2        |
| 4   | 9206-164-009 | Gasket, Glass (Gray).....                             | 2        |
| 4   | 9206-413-001 | Gasket, Glass (Black).....                            | 2        |
| *   | 9548-117-000 | Support, Door Glass .....                             | 2        |
| 5   | 9206-420-002 | Gasket, Outer Rim (Gray) .....                        | 2        |
| 5   | 9206-420-003 | Gasket, Outer Rim (Black) .....                       | 2        |
| 6   | 9244-082-001 | Handle, Loading Door .....                            | 2        |
| *   | 9545-018-017 | Screw, Handle 1/4-20 x 3/8 .....                      | 2        |
| *   | 9531-033-001 | Stud, Door Catch .....                                | 2        |
| *   | 8640-413-001 | Nut, Hex .....  | 2        |
| *   | 8640-413-003 | Nut, Acorn .....                                      | 2        |
| *   | 9086-015-002 | Catch, Loading Door .....                             | 2        |
| *   | 8638-190-009 | Pop Rivet for mtg. catch .....                        | 4        |
| *   | 8641-582-019 | Lockwasher .....                                      | 4        |
| *   | 8640-399-001 | Spring Nut .....                                      | 6        |
| 7   | 9989-516-011 | Panel Assy., Front- Lower (Wht) .....                 | 1        |
| 7   | 9989-516-010 | Panel Assy., Front- Lower (SS) .....                  | 1        |
| 8   | 9989-513-015 | Panel Assy., Front- Upper (Wht) .....                 | 1        |
| 8   | 9989-513-013 | Panel Assy., Front- Upper (SS) .....                  | 1        |
| 9   | 9545-008-020 | Screw, Torx HD 10 x 3/4.....                          | 14       |
| 9   | 8541-582-019 | Lockwasher .....                                      | 6        |
| *   | 8640-399-001 | Nut, Spring .....                                     | 12       |
| 10  | 9544-047-002 | Strap, Hinge (Wht) .....                              | 2        |
| 10  | 9544-047-007 | Strap, Hinge (SS/Gray) .....                          | 2        |
| *   | 9545-012-028 | Screw, Hinge to Panel .....                           | 8        |
| 11  | 9545-052-001 | Screw, Door to Hinge Strap (Special Black Type) ..... | 2        |
| *   | 8641-436-003 | Washer, Fiber .....                                   | 2        |
| *   | 9472-001-013 | Cabinet Touch Up Paint (White).....                   | 1        |



## Cabinet Group - 30lb (continued)

| Key | Part Number  | Description  | Quantity |
|-----|--------------|--|----------|
| 14  | 9994-030-002 | Escutcheon, Upper .....  | 1        |
| 15  | 9435-026-001 | Trim, Overlay-Upper (Blue).....                                  | 1        |
| 15  | 9435-034-001 | Trim, Overlay-Upper (Black) .....                                | 1        |
| 16  | 9994-031-001 | Escutcheon, Lower .....  | 1        |
| 17  | 9435-020-001 | Trim, Overlay-Lower (Blue).....                                  | 1        |
| 17  | 9435-028-001 | Trim, Overlay-Lower Black) .....                                 | 1        |
| 18  | 9412-154-001 | Nameplate Stack Dryer Express (Blue).....                        | 1        |
| 18  | 9412-167-001 | Nameplate Stack Dryer Express (Black) .....                      | 1        |
| 21  | 8650-026-002 | Lock, Thumb Turn .....   | 2        |
| 22  | 9857-187-001 | Controls Assy, Electronic Mounted With Membrane Switch (Blue) .  | 1        |
| 22  | 9857-187-003 | Controls Assy, Electronic Mounted With Membrane Switch (Black) 1 |          |
| 22  | 9801-096-001 | Membrane Switch Assy (Blue) .....                                | 1        |
| 22  | 9801-105-001 | Membrane Switch Assy (Black).....                                | 1        |
| 23  | 8650-012-003 | Lock and Key, Control #6324 .....                                | 1        |
| 24  | 9501-006-002 | Sensor Temp Control.....   | 2        |
| 24  | 9486-137-002 | Retainer - Push On.....  | 2        |
| 25  | 9866-004-010 | Lint Drawer Assembly (Blue) .....                                | 2        |
| 25  | 9866-004-013 | Lint Drawer Assembly (Black).....                                | 2        |
| 25  | 9435-003-009 | Overlay trim, lint dwr, upper/lower (Blue) .....                 | 1        |
| 25  | 9435-029-002 | Overlay trim, lint dwr, upper/lower (Black).....                 | 1        |
| *   | 9545-020-009 | Screw.....   | 10       |
| *   | 9532-074-003 | Felt Seal ( back of lint screen assembly ) .....                 | 2        |
| *   | 9805-029-002 | Lint Screen Assembly ONLY (no front) .....                       | 2        |
| *   | 9555-057-002 | Replaceable Lint Screen Only .....                               | 2        |
| *   | 9095-044-001 | Cam, Lock Lint Drawer .....                                      | 2        |
| *   | 9545-008-001 | Lint Screen Strap Hold Down Screws 10Bx 1/4 .....                | 32       |
| *   | 9627-885-001 | Harness, Electronic Control .....                                | 1        |
| *   | 9095-041-001 | Cam, Lock Control.....   | 1        |
| *   | 6292-006-007 | Key 6324 only for Computer.....                                  | 2        |
| *   | 9627-886-001 | Harness, Heat Sensor .....                                       | 1        |
| *   | 9277-041-011 | Insulation Cabinet Cover .....                                   | 1        |
| *   | 9209-037-002 | Grommet, 3/16 ID .....   | 2        |
| *   | 8544-006-001 | Leg, Leveling 1/2" .....   | 4        |
| *   | 8545-060-002 | Leveling Leg Wrench.....   | 1        |
| *   | 9074-261-001 | Cover, Cabinet (Top).....  | 1        |
| *   | 9732-102-011 | LP Kit for DDAD Dryers.....                                      | 1        |
| *   | 9732-243-001 | Stack Dryer Trunion Puller .....                                 | 1        |
| *   | 9555-057-003 | Replaceable Lint Screen Fine Mesh Only .....                     | 1        |
| *   | 9277-053-001 | Insulation-Front Panel-Top Half .....                            | 2        |
| *   | 9277-053-002 | Insulation-Front Panel-Lower Half.....                           | 2        |
| *   | 8640-276-002 | Wire Nut Connector Grey.....                                     | 4        |
| *   | 9527-007-002 | Standoff Wire Saddle.....  | 8        |
| *   | 9544-041-002 | Strap - Bead Tie.....  | 1        |



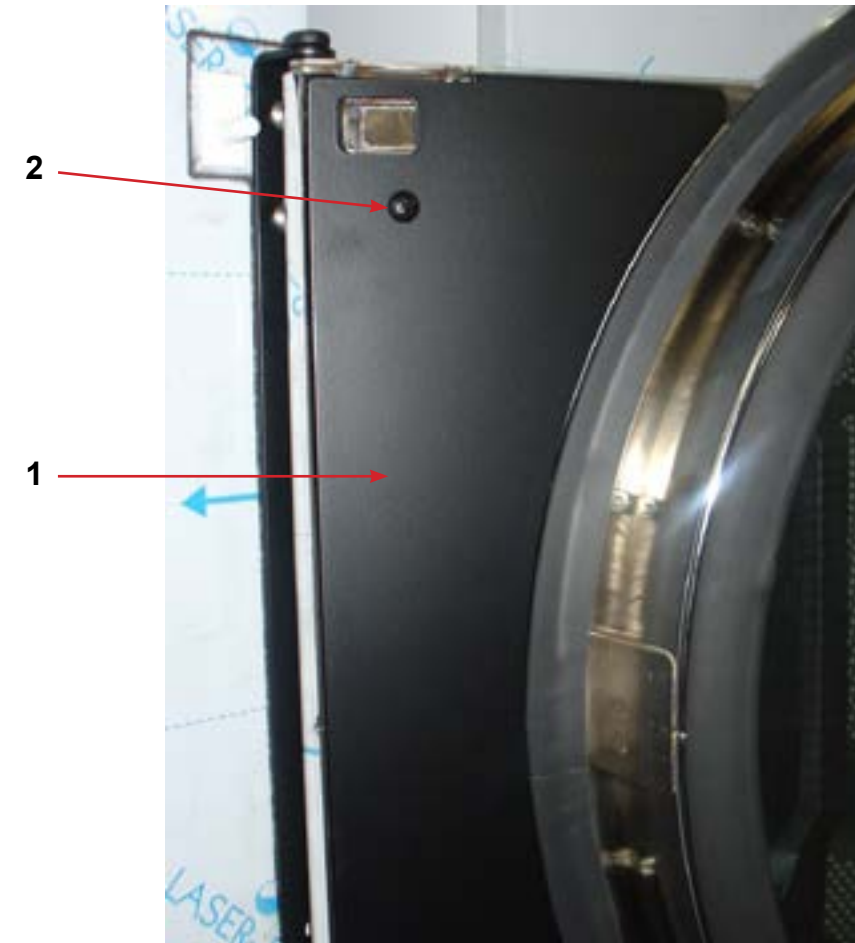
## Door Switch Group - 30lb

| Part Number  | Description         | Quantity |
|--------------|---------------------|----------|
| 9539-487-001 | Door Switches ..... | 2        |



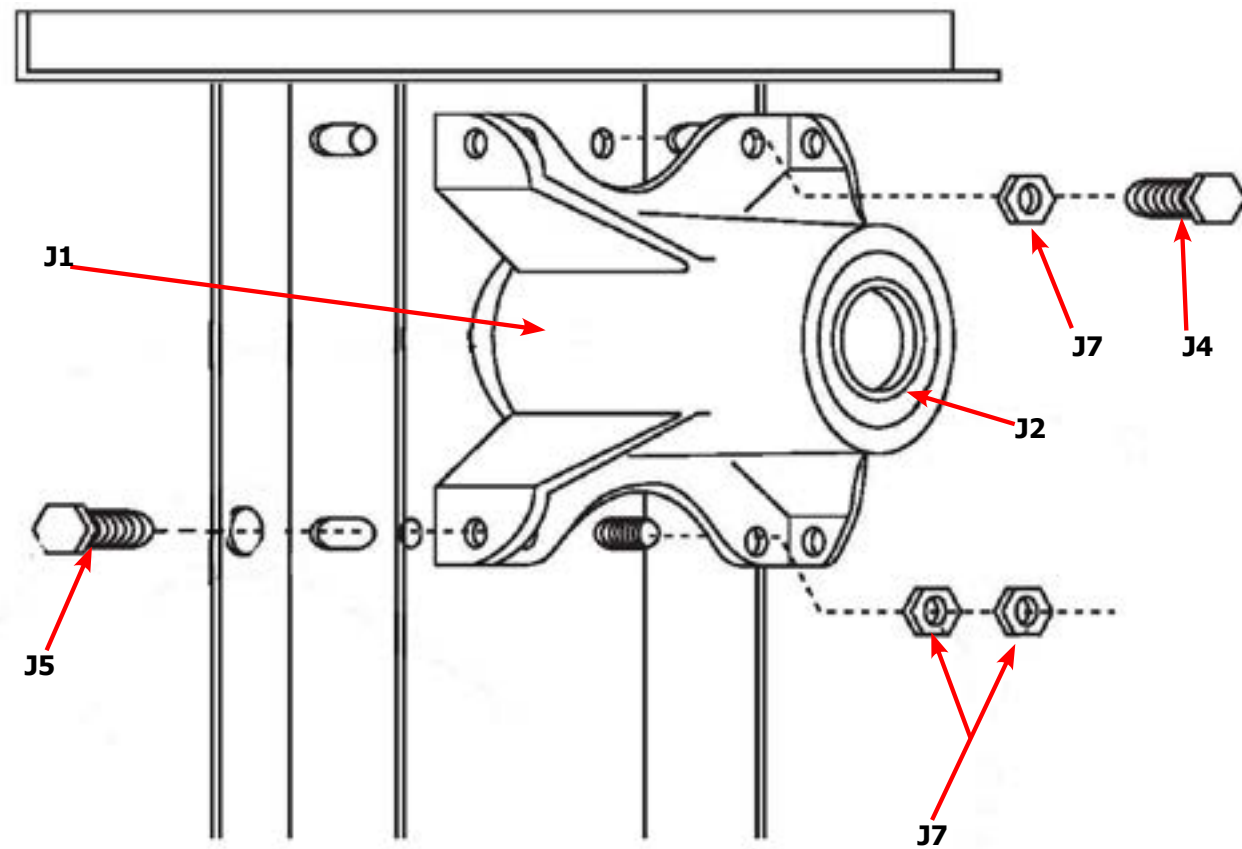
## Hinge Plate Cover (after Serial # 220625 )

|  |              |                                     |   |
|--|--------------|-------------------------------------|---|
| 1  | 9074-341-002 | Cover-Hinge, Black .....            | 2 |
| Note: Before Serial # 220625 Holes can be drilled in hinge plate to install (#18 Drill bit). |              |                                     |   |
| 2  | 8636-018-001 | Screw-TRHDCR, 10B x 3/8, Black..... | 4 |



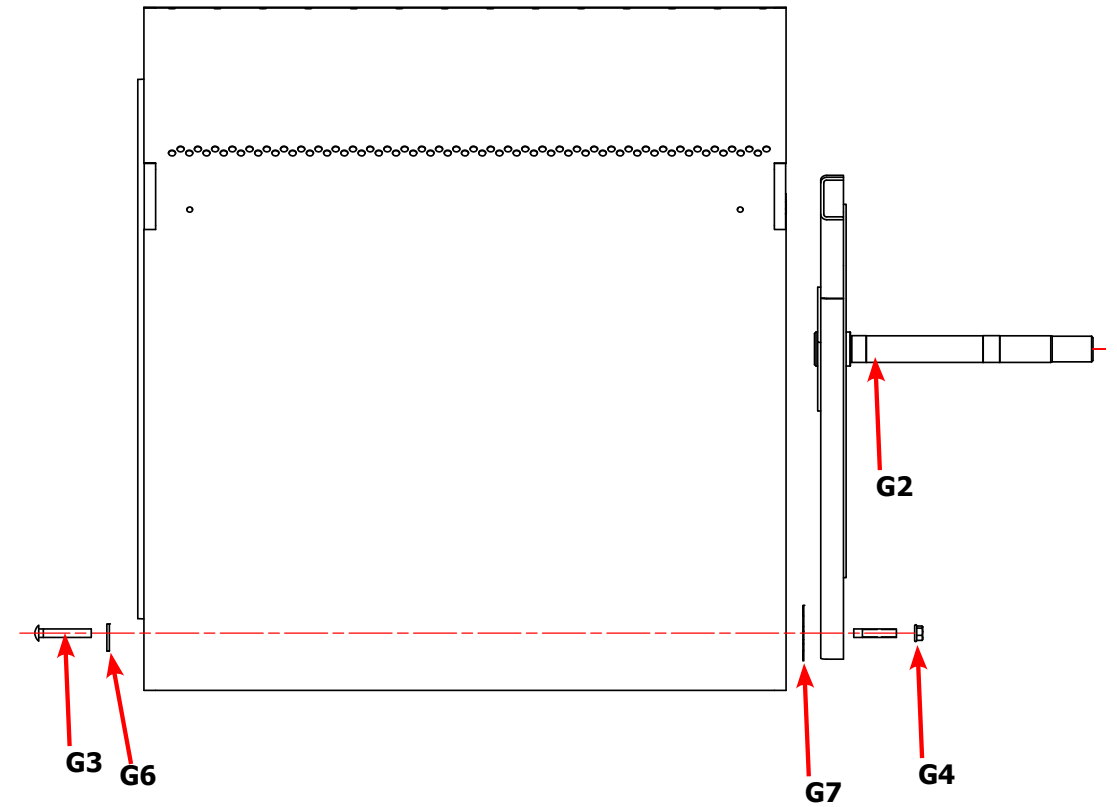
## Bearing Housing Group - 30lb

| Key | Part Number  | Description   | Quantity |
|-----|--------------|---|----------|
| J1  | 9241-161-002 | Housing, Bearing .....  | 2        |
| J2  | 9036-130-001 | Bearing, Ball .....   | 4        |
| *   | 9538-139-002 | Spacer, Bearing .....   | 2        |
| J5  | 9545-049-001 | Screw, 3/8 x 1.....   | 4        |
| J6  | 8640-415-002 | Nut, 3/8.....   | 4        |
| J7  | 8640-400-002 | Nut, 5/16.....  | 8        |
| *   | 9803-160-003 | Bearing Housing Complete Ass'y (includes bearings,spacer) ..... | 2        |
| J4  | 9545-049-002 | Screw 3/8 x 3/4.....  | 8        |



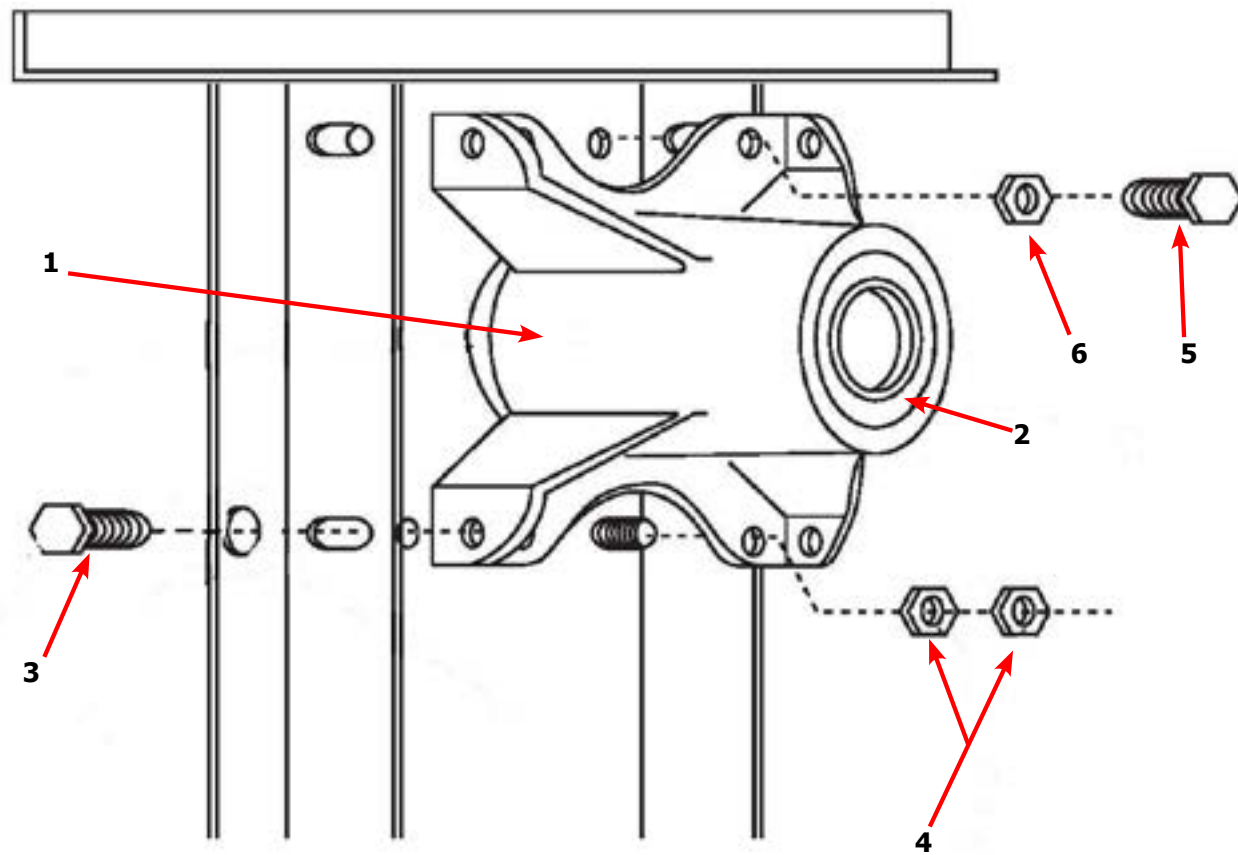
## Tumbler Group - 30lb

| Key | Part Number  | Description                                 | Quantity |
|-----|--------------|---|----------|
| *   | 9848-127-001 | Tumbler Assembly Galvanized w/ Spider ..... | 2        |
| *   | 9848-127-002 | Tumbler Assembly Stainless w/ Spider .....  | 2        |
| G2  | 9568-011-001 | Spider Assembly .....                       | 2        |
| G3  | 9497-019-003 | Rod, Tumbler .....                          | 6        |
| G4  | 8640-415-004 | Nut, 3/8" - 16 .....                        | 6        |
| G6  | 8641-554-001 | Washer, Special .....                       | 6        |
| G7  | 9552-013-003 | Shim .....                                  | .AR      |
| *   | 9848-126-002 | Tumbler Assembly Stainless Steel Only ..... | 2        |
| *   | 9848-126-001 | Tumbler Assembly Galvanized Only .....      | 2        |



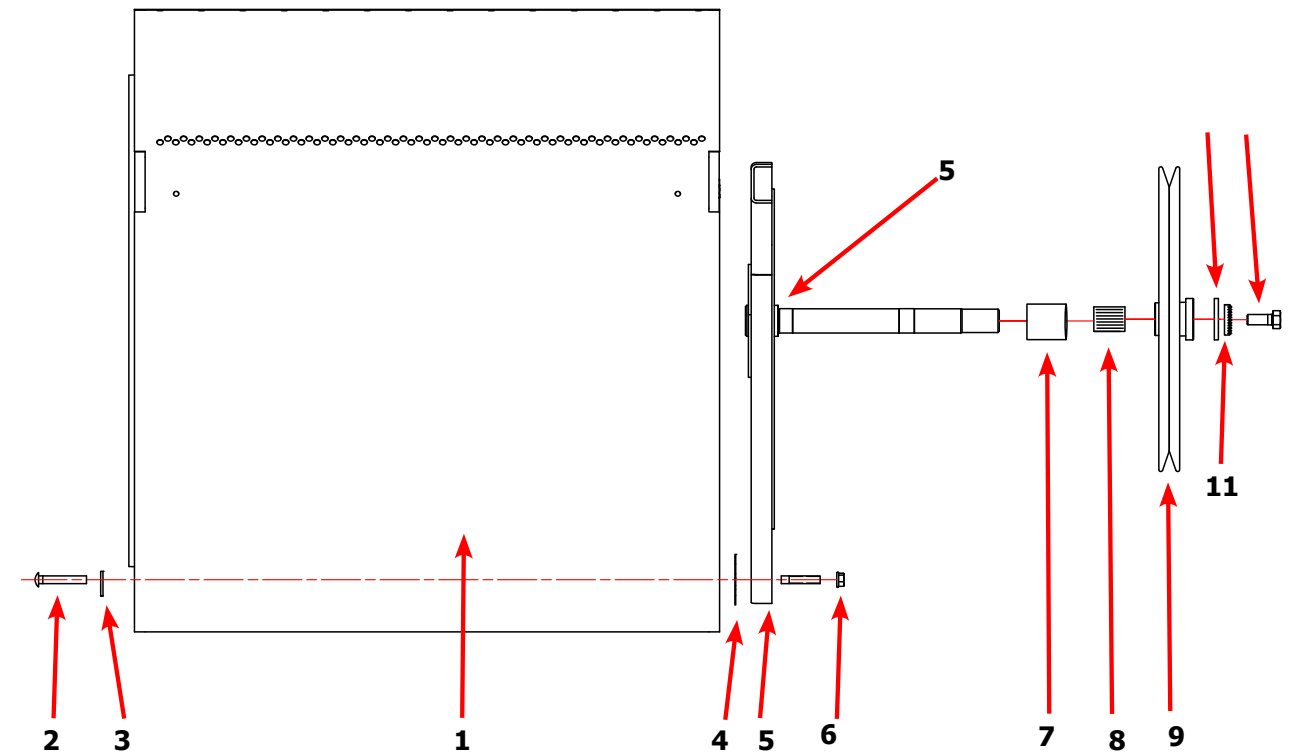
## Bearing Housing Group After serial #226213

| Key | Part Number  | Description   | Quantity |
|-----|--------------|---|----------|
| *   | 9803-160-003 | Bearing Housing Complete Assy (Includes bearings & Spacer)..... | 1        |
| 1   | 9241-161-002 | Housing, Bearing.....   | 1        |
| *   | 9036-130-001 | Bearing, Ball, Front .....                                      | 1        |
| *   | 9538-139-002 | Spacer, Bearing.....  | 1        |
| 2   | 9036-130-001 | Bearing, Ball, Rear .....                                       | 1        |
| 3   | 9545-049-002 | Screw-Wizlock, 3/8-24x3/4 .....                                 | 4        |
| 4   | 8640-400-002 | Nut, 5/16-18.....   | 4        |
| 5   | 9545-049-001 | Screw, 3/8-24x1.....  | 2        |
| 6   | 8640-415-002 | Nut, 3/8-24.....  | 2        |
| *   | 9538-139-002 | Shim, Tumbler .....   | AR       |



## Tumbler Group After Serial #226213

| Key | Part Number  | Description  | Quantity |
|-----|--------------|--|----------|
| *   | 9848-142-001 | Tumbler Assy Complete W/Spider (GALV).....             | 1        |
| *   | 9848-142-002 | Tumbler Assy Complete W/Spider (SS & Galv front) ..... | 1        |
| 1   | 9848-126-001 | Tumbler Assy (Galvanized).....                         | 1        |
| 1   | 9848-126-002 | Tumbler Assy (Stainless Galvanized front) .....        | 1        |
| 2   | 9497-019-003 | Rod, Tumbler.....                                      | 3        |
| 3   | 8641-554-001 | Washer, Special.....                                   | 3        |
| 4   | 9552-013-000 | Shim .....   | AR       |
| 5   | 9568-015-001 | Spider Assy.....                                       | 1        |
| 6   | 8640-415-004 | Nut, Wiz Lock .....                                    | 3        |
| 7   | 9538-164-001 | Spacer-Shaft.....                                      | 1        |
| 8   | 9487-234-005 | Tolerance Ring.....                                    | 1        |
| 9   | 9908-049-002 | Pulley, Driven.....                                    | 1        |
| 10  | 8641-581-026 | Washer -Flat.....                                      | 1        |
| 11  | 8641-582-016 | LockWasher - IntTooth, 1" .....                        | 1        |
| 12  | 9545-017-009 | Screw, 1/2-13x1 1/4.....                               | 1        |



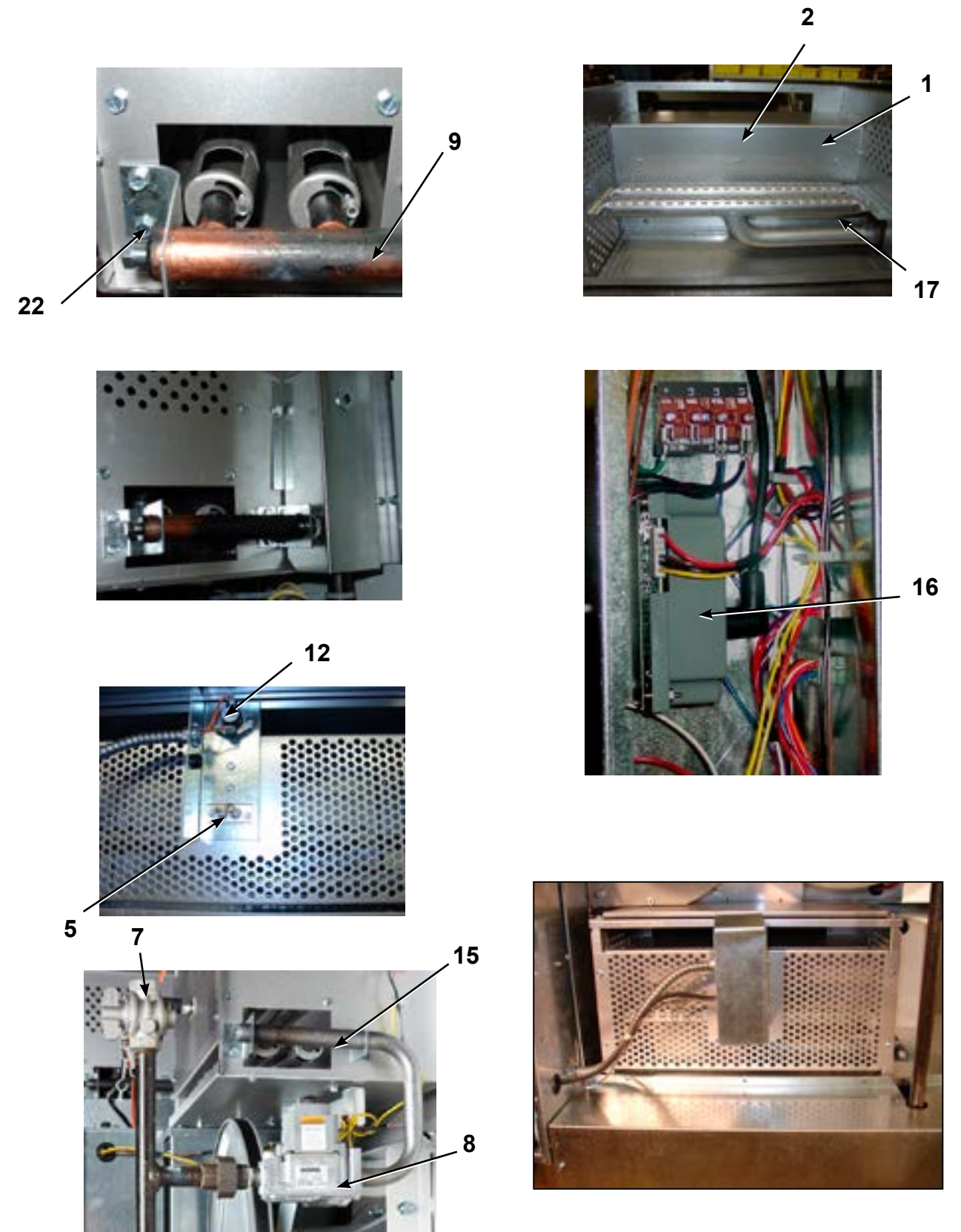
10, 11, 12

## Burner Housing Group - 30lb

| Key | Part Number  | Description  | Quantity |
|-----|--------------|--|----------|
| 1a  | 9452-730-001 | Service Burner Plate Front...                              | 2        |
| 1   | 9452-729-001 | Service Plate baffle Recirculation Chamber Clean Out ..... | 2        |
| 2   | 9545-008-001 | Screw .....  | 16       |
| 18  | 9003-220-001 | Angle, Burner Support .....                                | 2        |
| 17  | 9048-020-001 | Burner, Main .....   | 4        |
| 4   | 9545-008-001 | Screw 10B x1/4" .....                                      | 8        |
| 5   | 9875-002-003 | Electrode Assy, Ignition .....                             | 2        |
| 19  | 9545-045-001 | Screw, Electrode Mtg 8B x 1/4" .....                       | 4        |
| 7   | 9379-186-001 | Valve, Gas Shut Off (Optional) .....                       | 1        |
| 8   | 9857-134-001 | Control Assy, Gas .....                                    | 2        |
| 9   | 9381-012-001 | Manifold, Assy 2 Part 1 Piece .....                        | 2        |
| 22  | 8615-104-038 | Pipe Plug in end of Burner Manifold .....                  | 2        |
| 11  | 9452-749-001 | Plate Assy, Hi-Limit Stat Ignitor .....                    | 2        |
| 12  | 9576-203-002 | Thermostat, Hi-Limit .....                                 | 2        |
| 13  | 9074-315-001 | Cover, Hi-Limit Stat Ignitor .....                         | 2        |
| 15  | 9825-058-001 | Cover, Safety Stat .....                                   | 2        |
| 16  | 9857-116-003 | Control, Ignition Fenwall (3 trybox) .....                 | 2        |
| *   | 9803-199-001 | Housing Assembly, Burner .....                             | 2        |
| *   | 9545-008-006 | Screw 10AB x 3/8" .....                                    | 4        |
| *   | 9454-816-001 | Panel, Back Burner Housing .....                           | 2        |
| *   | 9425-069-023 | Orifice, Burner-Natural #125 .....                         | 4        |
| *   | 9425-069-024 | Orifice, Burner-LP #49 .....                               | 4        |
| *   | 9039-915-001 | Bracket, Gas Control .....                                 | 2        |
| *   | 9545-008-006 | Screw .....  | 4        |
| *   | 9538-142-001 | Spacer, Hi-Limit .....                                     | 4        |
| *   | 9545-045-007 | Screw 8B x 3/4" .....                                      | 4        |
| *   | 9545-008-006 | Screw .....  | 6        |
| *   | 9576-207-008 | Thermostat, Safety Shutoff .....                           | 2        |
| *   | 9545-008-006 | Screw .....  | 4        |
| *   | 9545-008-006 | Screw .....  | 4        |
| *   | 9550-173-001 | Shield, Burner Inlet .....                                 | 1        |
| *   | 9732-102-011 | Kit, LP Conversion DDAD Kit .....                          | 2        |

^ Models built before 9/07

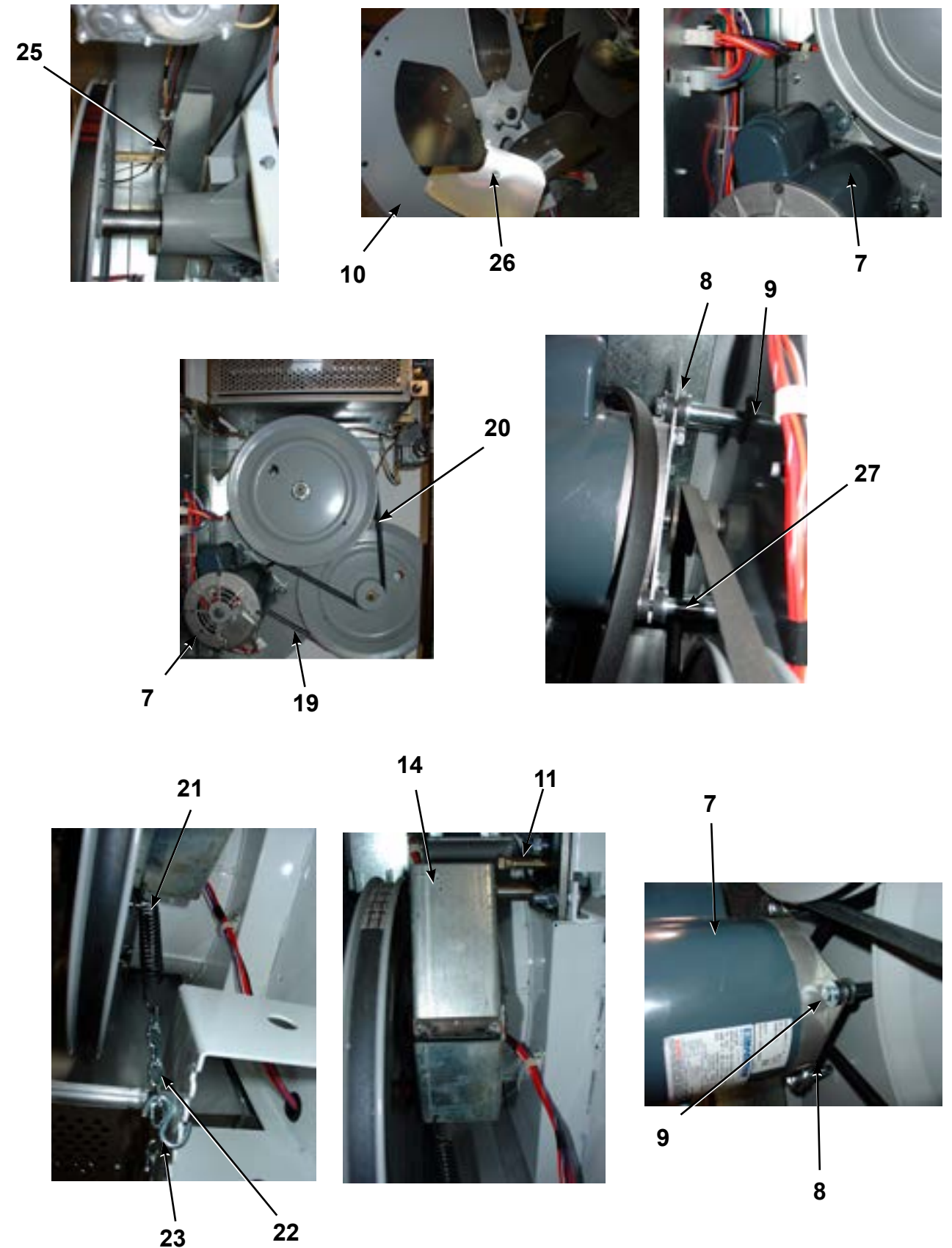
## Burner Housing Group Photos - 30lb



## Rear View - 30lb

| Key | Part Number   | Description   | Quantity |
|-----|---------------|---|----------|
| *   | 9627-861-001  | Wire Harness Overtemperature Switch.....                  | 2        |
| *   | 9801-095-001  | Switch Assy, Air Flow .....                               | 2        |
| 1   | 9539-461-009  | Switch, Air Flow.....                                     | 2        |
| 2   | 9029-174-001  | Bracket, Switch- Air Flow .....                           | 2        |
| 3   | 9008-007-001  | Actuator, Switch .....                                    | 2        |
| 4   | 9451-169-002  | Pin, Cotter .....   | 2        |
| 5   | 9545-020-001  | Screw 4-40 x 5/8" .....                                   | 4        |
| *   | 8640-401-001  | Nut, Special Twin .#4-40.....                             | 2        |
| *   | 9550-169-003  | Shield, Switch.....                                       | 2        |
| *   | 9545-008-001  | Screw 10 Bx 1/4" .....                                    | 6        |
| 7   | 9376-309-003  | Motor, Drive.....   | 2        |
| *   | 9732-205-002  | Motor Kit .....   | 2        |
| 8   | 9452-740-001  | Plate, Motor Mtg.....                                     | 2        |
| *   | 9545-029-008  | Bolt 3/8" - 16 x 3/4".....                                | 8        |
| *   | 8641-582-003  | Lockwash Spring 3/8 .....                                 | 8        |
| 9   | 9545-018-019  | Screw, Motor Plate to Back Assy. 1/4-20x 2 1/2 .....      | 8        |
| 9   | 86411-582-007 | Lockwasher 1/4.....                                       | 8        |
| 9   | 9538-163-006  | Spacer .....  | 8        |
| 9   | 8641-581-017  | Flat Washer 1/4 x 7/8.....                                | 24       |
| 9   | 9209-086-002  | Rubber Grommet.....                                       | 8        |
| *   | 9538-166-006  | Grommet Spacers.....                                      | 8        |
| *   | 9545-028-013  | Screw, Set .....  | 4        |
| 10  | 9962-017-002  | Back Assy, Blower Hsg.....                                | 2        |
| 26  | 9278-039-001  | Impeller, W/Set Screws.....                               | 2        |
| 11  | 9991-053-001  | Support Assy, Intermed. Pulley .....                      | 2        |
| 12  | 9545-029-010  | Bolt, Rd Hd 3/8-16 x 1 1/4.....                           | 6        |
| 13  | 9545-029-003  | Bolt, 3/8-16 x 1 1/2.....                                 | 2        |
| 12  | 8640-415-004  | Nut Flange Wziocok 3/8" - 16 .....                        | 6        |
| 12  | 8641-581-035  | Washer, Flat.....   | 6        |
| 14  | 9861-022-001  | Arm Assy-Tension, Complete .....                          | 2        |
| *   | 8641-581-035  | Washer, Flat.....   | 2        |
| 15  | 9487-200-003  | Ring-Retaining .....                                      | 6        |
| 16  | 9908-039-004  | Pulley Assy, Intermediate with bronze flange bearing..... | 2        |
| *   | 9036-145-002  | Bearing - Bronze Flange.....                              | 4        |
| 17  | 9908-040-001  | Pulley Driven.....  | 2        |
| *   | 9306-006-000  | Key Tumbler Shaft Woodcuff .....                          | 2        |
| *   | 8640-222-000  | Nut Hex 1" - 14 .....                                     | 2        |
| *   | 8641-582-015  | Washer Lock .....   | 2        |
| *   | 9538-164-001  | Spacer, Shaft .....                                       | 2        |
| 18  | 86A1-582-015  | Washer, Lock .....  | 2        |
| 19  | 9040-077-001  | Belt, Drive- Motor .....                                  | 2        |
| 20  | 9040-073-009  | Belt, Drive- Tumbler .....                                | 2        |
| 21  | 9534-319-002  | Spring, Tension .....                                     | 2        |
| 22  | 9099-012-002  | Chain, Tension.....                                       | 2        |
| 23  | 9248-022-002  | Hook, Tension .....                                       | 2        |
| *   | 9125-007-001  | Damper Inside Duct Exhaust Upper .....                    | 1        |
| 24  | 9451-146-001  | Pin, Damper Hinge .....                                   | 2        |
| *   | 8520-141-000  | Nut, Spring .....   | 4        |
| *   | 9425-007-002  | Damper, Inside Duct Exhaust Lower .....                   | 1        |
| *   | 9545-008-026  | Screw #10B x 1/2.....                                     | 6        |
| 25  | 9074-338-001  | Cover Duct Upper.....                                     | 1        |
| *   | 9074-339-001  | Cover Duct Lower.....                                     | 1        |
| *   | 9545-008-026  | Screw 10ABx 1/2".....                                     | 14       |
| 25  | 9973-033-001  | Heat Recirculation Assembly Duct.....                     | 2        |
| 27  | 9453-157-001  | Motor Pulley - Driver.....                                | 1        |
| *   | 9029-173-001  | Bracket for Wire Harness Under Burner Housing.....        | 2        |
| *   | 9545-008-024  | Screw 10 AB x 3/8 .....                                   | 58       |

## Rear View Photos - 30lb



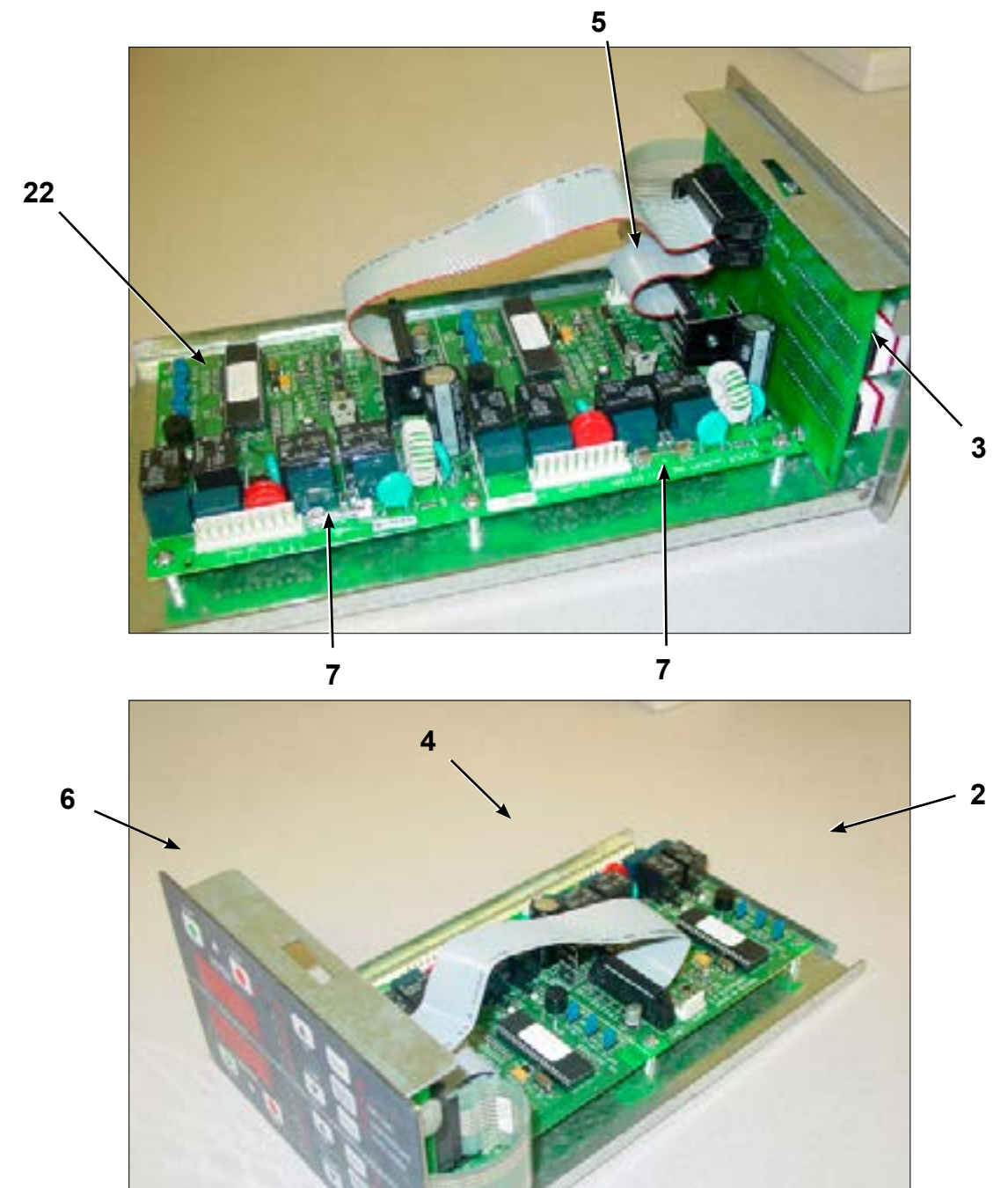
## Rear Panel & Cover Group - 30lb

| Key | Part Number  | Description                                  | Quantity |
|-----|--------------|--|----------|
| 1   | 9208-083-001 | Back Drive Guard Panel.....                  | 2        |
| *   | 9545-008-024 | Guard Screws.....*                           |          |
| 2   | 9208-076-001 | Back Side Guard Panel Ass'y.....             | 2        |
| 3   | 9074-261-001 | Cabinet (TOP COVER).....                     | 1        |
| *   | 8544-006-001 | Legs Leveling.....                           | 4        |
| 5   | 9545-008-024 | Screws 10 AB x 3/8.....                      | 4        |
| 6   | 9577-062-001 | Top Duct w/ Oval.....                        | 1        |
| 4   | 9108-117-001 | Electric Box Cover w/ Hinge.....             | 1        |
| *   | 9545-008-024 | Screws, Electronic Box Cover.....            | 3        |
| *   | 9973-034-001 | 8" Slide Open Clean Out Duct (Optional)..... | 1        |



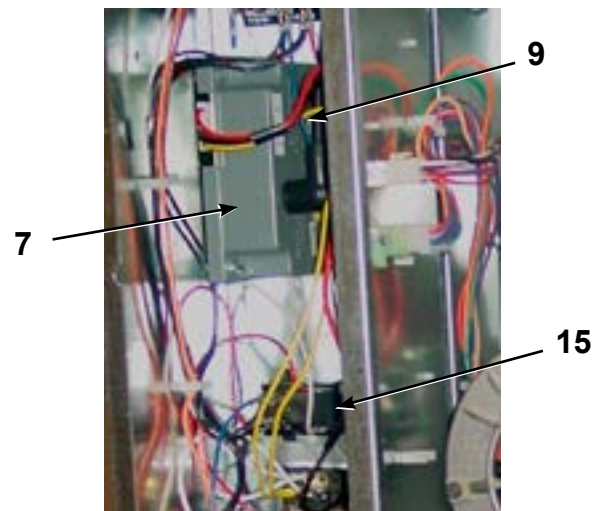
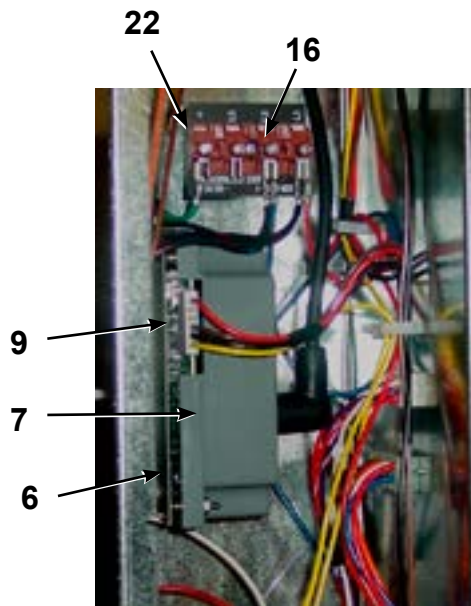
## OPL Control Board - 30lb

| Key | Part Number  | Description                               | Quantity |
|-----|--------------|---|----------|
| 1   | 9857-187-001 | Control Assembly (Blue).....              | 1        |
| 1   | 9857-187-003 | Control Assembly (Black).....             | 1        |
| 2   | 9471-017-001 | PCB Control Board.....                    | 1        |
| 3   | 9471-018-001 | PCB Display Board.....                    | 1        |
| 4   | 9500-007-001 | Cable, Upper Control Long.....            | 1        |
| 5   | 9500-007-002 | Cable, Lower Control Long.....            | 1        |
| 6   | 9801-096-001 | Membrane Switch Assembly (Blue).....      | 1        |
| 6   | 9412-167-001 | Membrane Switch Assembly (Black).....     | 1        |
| 7   | 8636-024-001 | Fuse, 600ma / 250v.....                   | 2        |
| *   | 9627-885-001 | Harness Main Control OPL Stack Dryer..... | 1        |

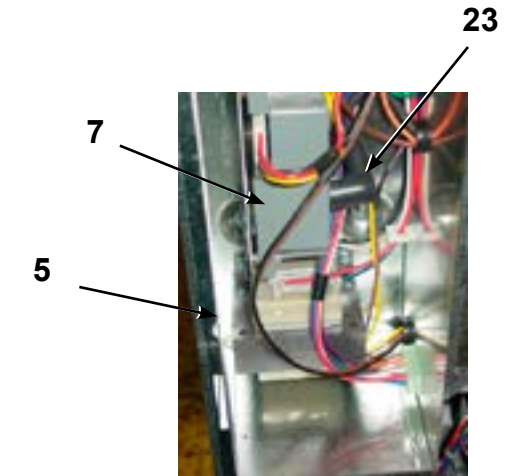
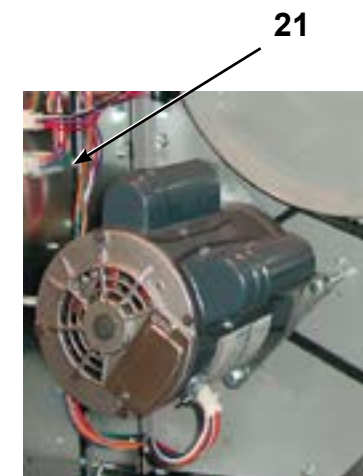
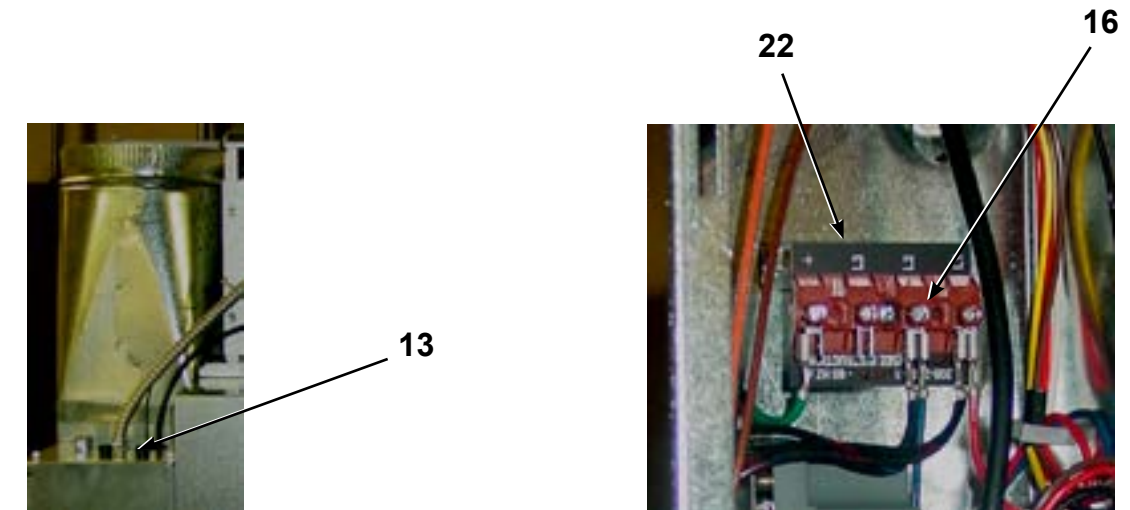
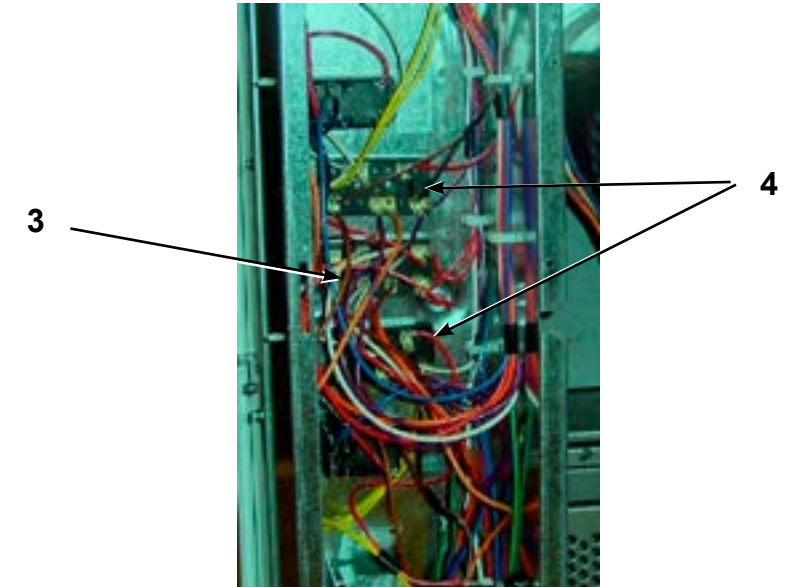


## Control Assembly Group - 30lb

| Key | Part Number  | Description   | Quantity |
|-----|--------------|---|----------|
| *   | 9108-117-001 | Control Box Cover Door .....                                  | 1        |
| *   | 8220-001-478 | Wire Assembly Green 7" .....                                  | 1        |
| 3   | 9897-026-002 | Terminal Block Main Power Middle .....                        | 1        |
| 4   | 9897-026-001 | Terminal Block.....   | 2        |
| 5   | 8711-014-001 | Transformer Ignition .....                                    | 2        |
| 6   | 9982-348-001 | Plate Assembly MTG Ignition Control.....                      | 2        |
| 7   | 9857-116-003 | Ignition Control .....  | 2        |
| 8   | 9631-403-009 | Wire Assembly High Voltage Upper .....                        | 1        |
| 9   | 9627-860-001 | Wire Harness Ignition Control Upper .....                     | 1        |
| 10  | 9627-860-002 | Wire Harness Ignition Control Lower .....                     | 1        |
| 11  | 9053-067-002 | Bushing Wire 7/8" .....                                       | 4        |
| 12  | 8653-068-003 | Connector Conduit 3/8" STR.....                               | 1        |
| 13  | 9200-001-002 | Fuseholder Assembly .....                                     | 2        |
| 14  | 8636-018-001 | Fuse 1.5 Amp.....   | 2        |
| 15  | 5192-298-002 | Relay Power 24 VAC.....                                       | 2        |
| 16  | 9897-035-001 | Terminal Block Assembly Main Power Inlet .....                | 1        |
| *   | 8220-062-036 | Wire Assembly Red/Black 14" .....                             | 1        |
| *   | 8220-062-037 | Wire Assembly Red/White 14" .....                             | 1        |
| *   | 8220-062-038 | Wire Assembly White 14" .....                                 | 2        |
| 20  | 9627-859-001 | Wire Harness - Power Main .....                               | 1        |
| 21  | 9627-864-001 | Wire Harness Motor Extension.....                             | 2        |
| 22  | 9558-029-003 | Strip Terminal Marker (Behind Input Power) to above #16 ..... | 1        |
| *   | 9857-169-005 | Control Assmbly Complete (all below included) .....           | 1        |
| *   | 8639-621-007 | Screw # 10-32 x 12 Green .....                                | 1        |
| *   | 8641-582-006 | Lockwasher Ext Tooth #10.....                                 | 1        |
| *   | 9545-045-012 | Screw #8 ABx1 2 for terminal block.....                       | 6        |
| *   | 9545-008-024 | Screws 10AB x 3/8" .....                                      | 4        |
| *   | 9545-008-001 | Screws 10B x 1/4" MTG Above Plate.....                        | 4        |
| *   | 8640-411-003 | #6-32 Screws.....   | 4        |
| 23  | 9631-403-008 | Wire Assembly High Voltage Lower .....                        | 1        |
| *   | 9545-045-012 | Screws Power #8 AB x 1/2".....                                | 6        |
| *   | 9527-007-001 | Stand Off - Wire Saddle / Arrowhead .....                     | 17       |
| *   | 9545-031-005 | Screw 6 B x 3/8" .....  | 4        |
| *   | 9627-887-001 | Wire Harness Main Extension Access Under Burner Housing ..... | 1        |



## Control Assembly Group - 30lb





## Kits, Assemblies, & Common Parts

DDBD50HC\_-11

| Loading Door Components       | Part Number  |
|-------------------------------|--------------|
| Door Handle                   | 9244-082-001 |
| Door Close Switch             | 9539-487-001 |
| Electrical Components         | Part Number  |
| Relay, Motor Run (24VAC)      | 5192-298-002 |
| Transformer, Ignition/Control | 8711-014-001 |
| OPL Controls (Blue)           | 9857-187-001 |
| OPL Controls (Black)          | 9857-187-003 |
| Heating Circuit Components    | Part Number  |
| Ignition Control Module       | 9857-116-003 |
| Ignition Electrode Assembly   | 9875-002-003 |
| Thermostat, Hi-Limit          | 9576-203-002 |
| Thermostat, Overtemp          | 9576-207-008 |
| Fuseholder                    | 9200-001-002 |
| Fuse 1.5 amp                  | 8636-018-001 |
| Fuse 2.5amp                   | 8636-018-004 |
| Airflow Switch                | 9539-461-009 |
| Cabinet Components            | Part Number  |
| Cleanout Duct Assembly 8"     | 9973-034-001 |

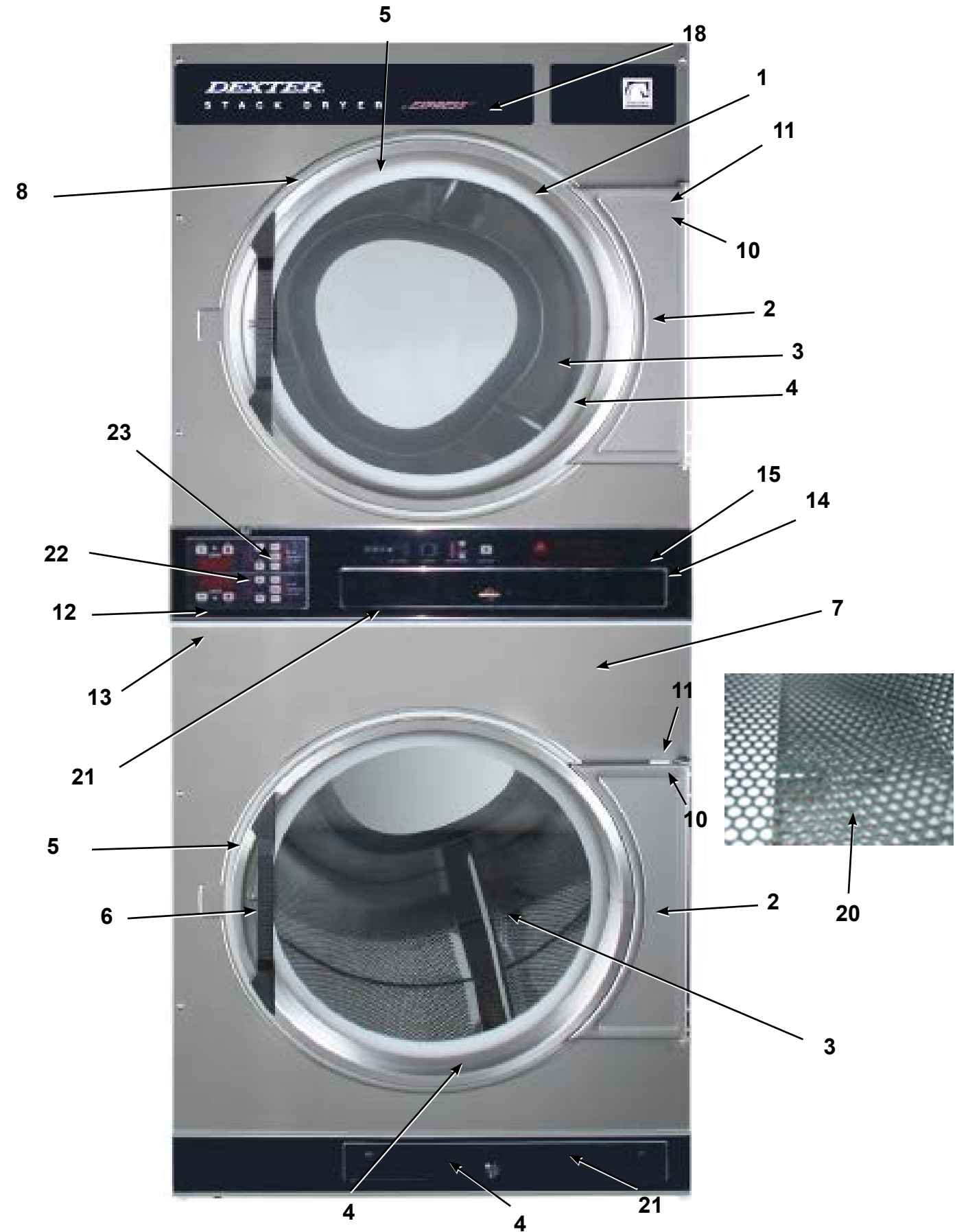


## Section 7:

Parts Data  
50# Stack

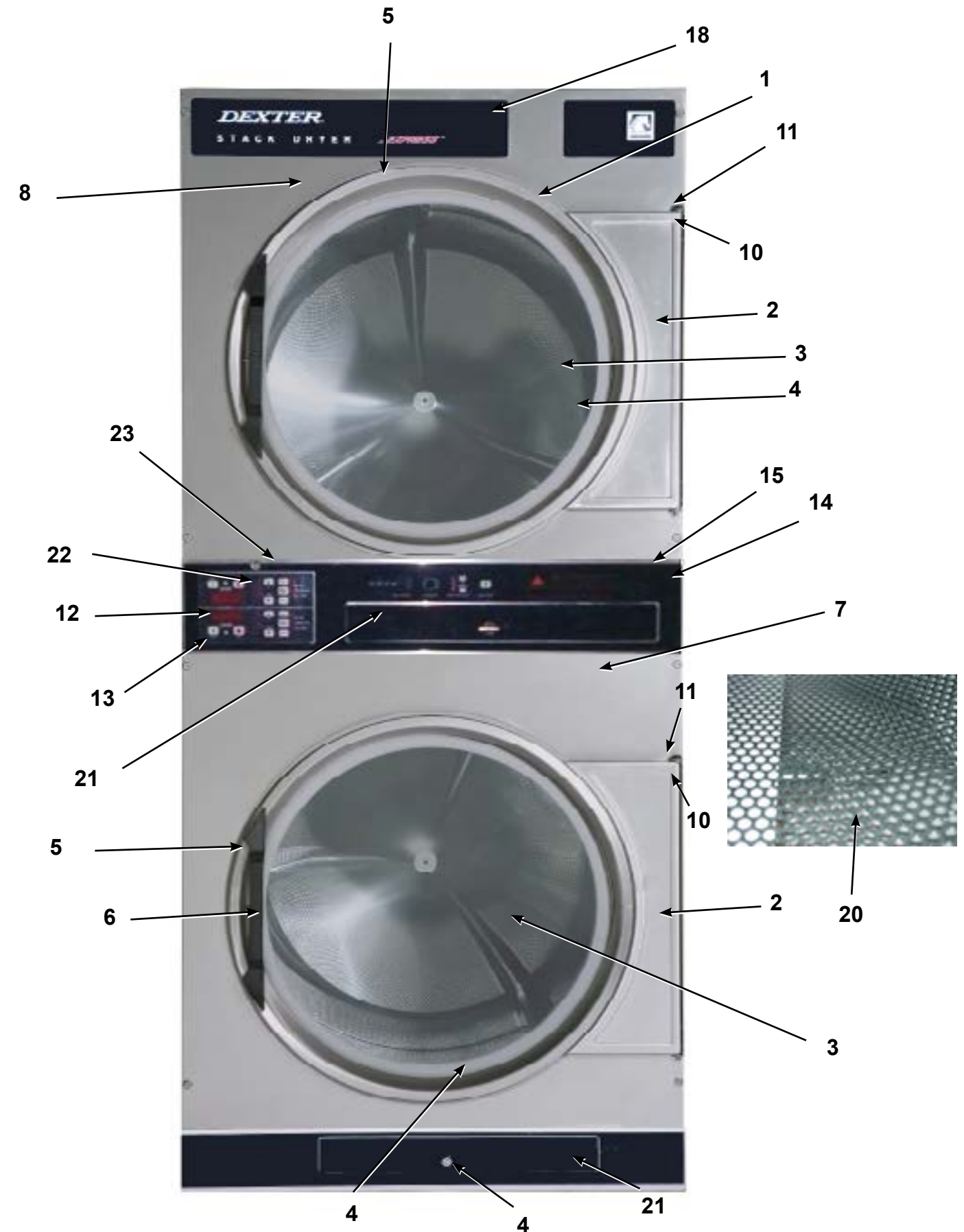
## Cabinet Group - 50lb

| Key | Part Number  | Description   | Quantity |
|-----|--------------|---|----------|
| *   | 9960-285-002 | Door Assy., Loading Complete-Wht .....                | 2        |
| *   | 9960-285-001 | Door Assy., Loading Complete-SS .....                 | 2        |
| 1   | 9960-284-002 | Door Assy., Loading-SS(ring only) .....               | 2        |
| 2   | 9982-353-002 | Plate Assy., Hinge (Wht) No Pin .....                 | 2        |
| 2   | 9982-353-001 | Plate Assy., Hinge (SS) No Pin .....                  | 2        |
| *   | 9545-012-015 | Screw, Hinge to Door .....                            | 8        |
| *   | 8640-413-002 | Nut, Hinge to Door .....                              | 8        |
| 3   | 9212-002-004 | Glass, Door .....                                     | 2        |
| 4   | 9206-164-010 | Gasket, Glass (Gray).....                             | 2        |
| 4   | 9206-413-002 | Gasket, Glass (Black).....                            | 2        |
| *   | 9548-117-000 | Support, Door Glass .....                             | 2        |
| 5   | 9206-420-004 | Gasket, Outer Rim (Gray) .....                        | 2        |
| 5   | 9206-420-005 | Gasket, Outer Rim (Black) .....                       | 2        |
| 6   | 9244-082-001 | Handle, Loading Door .....                            | 2        |
| *   | 9545-018-017 | Screw, Handle 1/4-20 x 3/8 .....                      | 2        |
| *   | 9531-033-001 | Stud, Door Catch .....                                | 2        |
| *   | 8640-413-001 | Nut, Hex .....  | 2        |
| *   | 8640-413-003 | Nut, Acorn .....                                      | 2        |
| *   | 9086-015-002 | Catch, Loading Door .....                             | 2        |
| *   | 8638-190-009 | Pop Rivet for mtg. catch .....                        | 4        |
| *   | 8641-582-006 | Lockwasher .....                                      | 4        |
| *   | 8640-399-001 | Spring Nut .....                                      | 6        |
| 7   | 9989-517-011 | Panel Assy., Front- Lower (Wht) .....                 | 1        |
| 7   | 9989-517-009 | Panel Assy., Front- Lower (SS) .....                  | 1        |
| 8   | 9989-517-015 | Panel Assy., Front- Upper (Wht) .....                 | 1        |
| 8   | 9989-517-013 | Panel Assy., Front- Upper (SS) .....                  | 1        |
| *   | 9277-054-001 | Insulation Front Panel, half moon (top).....          | 2        |
| *   | 9277-054-002 | Insulation Front Panel, half moon (bottom).....       | 2        |
| *   | 9545-008-014 | Screw, FLHDCR, 10B x 1.....                           | 14       |
| *   | 8641-582-019 | Lockwasher .....                                      | 8        |
| *   | 8640-399-001 | Nut, Spring .....                                     | 12       |
| 10  | 9544-069-002 | Strap, Hinge (Wht) .....                              | 2        |
| 10  | 9544-069-004 | Strap, Hinge (SS/Gray) .....                          | 2        |
| *   | 9545-012-028 | Screw, Hinge to Panel .....                           | 8        |
| 11  | 9545-052-001 | Screw, Door to Hinge Strap (Special Black Type) ..... | 2        |
| *   | 8641-436-003 | Washer, Fiber .....                                   | 2        |
| *   | 9472-001-013 | Cabinet Touch Up Paint (White).....                   | 1        |



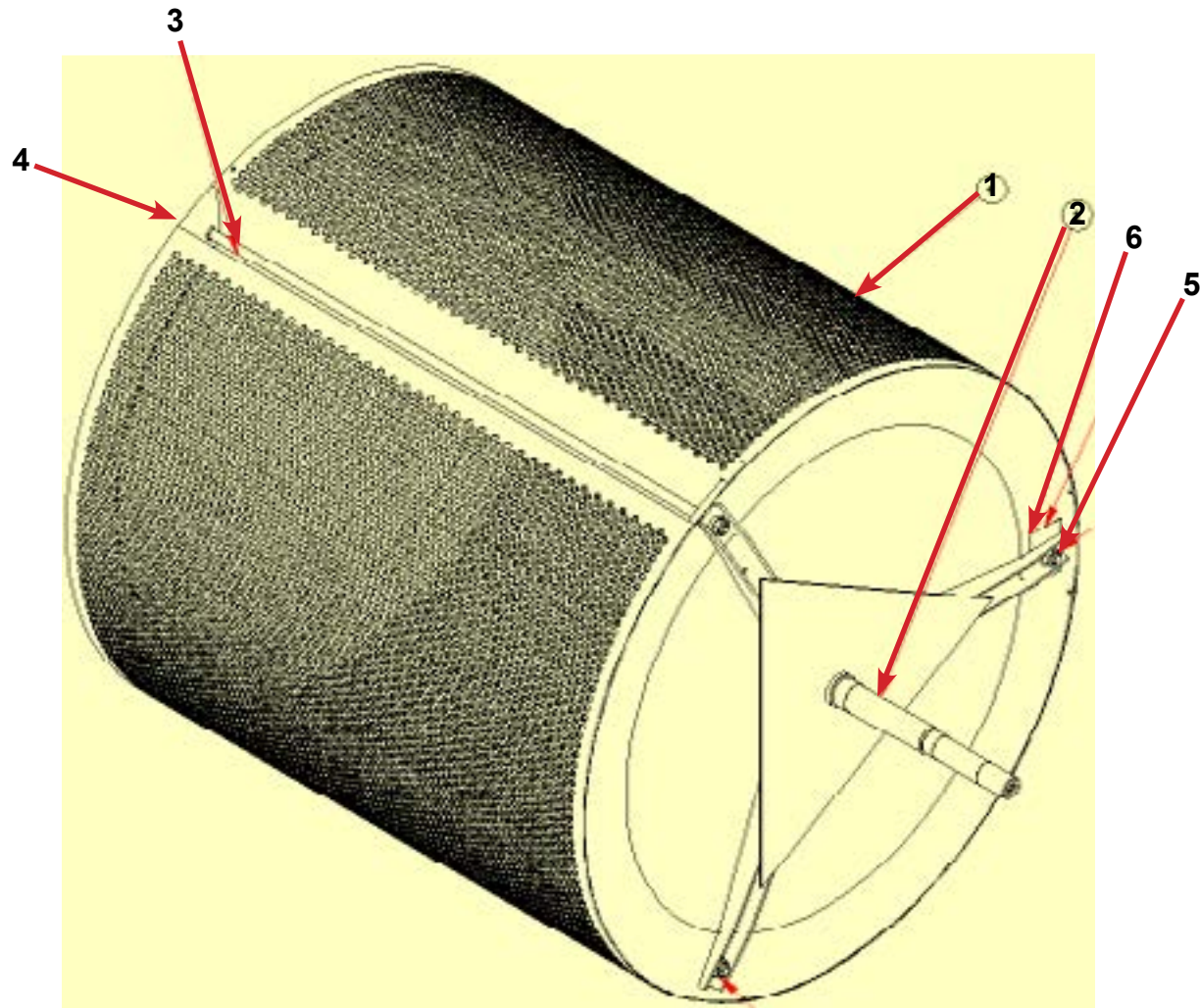
## Cabinet Group - 50lb (Continued)

| Key | Part Number  | Description  | Quantity |
|-----|--------------|--|----------|
| 14  | 9994-032-002 | Escutcheon, Upper .....  | 1        |
| 15  | 9435-025-001 | Trim, Overlay-Upper (Blue) .....                                 | 1        |
| 15  | 9435-033-001 | Trim, Overlay-Upper (Black) .....                                | 1        |
| 16  | 9994-033-001 | Escutcheon, Lower .....  | 1        |
| 17  | 9435-023-001 | Trim, Overlay-Lower (Blue) .....                                 | 1        |
| 17  | 9435-031-001 | Trim, Overlay-Lower (Black) .....                                | 1        |
| *   | 9545-020-009 | Screw .....  | 10       |
| 18  | 9412-154-002 | Nameplate Stack Dryer Express (Blue) .....                       | .1       |
| 18  | 9412-167-001 | Nameplate Stack Dryer Express (Black) .....                      | .1       |
| 21  | 9866-005-002 | Lint Drawer Assembly (Blue) .....                                | 2        |
| 21  | 9866-005-005 | Lint Drawer Assembly (Black) .....                               | 2        |
| 21  | 9435-024-001 | Overlay Trim, Lint Drwr (Blue) .....                             | 1        |
| 21  | 9435-032-002 | Overlay Trim, Lint Drwr (Black) .....                            | 1        |
| *   | 9532-074-003 | Felt Seal ( back of lint screen assembly ) .....                 | 2        |
| *   | 9805-033-002 | Lint Screen Assembly ONLY (no front) .....                       | 2        |
| *   | 9555-057-008 | Replaceable Lint Screen Only .....                               | 2        |
| 24  | 8650-026-002 | Lock and Key, Lint Drawer Thumb Turn .....                       | 2        |
| *   | 9095-044-001 | Cam, Lock .....  | 2        |
| *   | 9545-008-001 | Lint Screen Strap Hold Down Screws 10Bx 1/4 .....                | 32       |
| 22  | 9857-187-001 | Controls Assy, Electronic w/Membrane Switch (Blue) .....         | 1        |
| 22  | 9857-187-003 | Controls Assy, Electronic w/Membrane Switch (Black) .....        | 1        |
| 22  | 9801-096-001 | Membrane Switch Assy (Blue) .....                                | 1        |
| 22  | 9801-105-001 | Membrane Switch Assy (Black) .....                               | 1        |
| *   | 9627-885-001 | Harness, Electronic Control .....                                | 1        |
| *   | 6292-006-007 | Cam, Lock Control .....  | 1        |
| *   | 9627-886-001 | Harness, Heat Sensor .....                                       | 1        |
| *   | 9277-041-017 | Insulation Cabinet Cover .....                                   | 1        |
| 20  | 9501-004-004 | Sensor Temp Control (10K Ohms) .....                             | 2        |
| *   | 9545-045-005 | Screw, Round Head (Mounts sensor; phillips head) .....           | 2        |
| *   | 9209-037-002 | Gromm.et, 3/16 ID .....  | 2        |
| *   | 8544-006-001 | Leg, Leveling 1/2" .....   | 4        |
| *   | 8545-061-002 | Leveling Leg Wrench .....  | 1        |
| *   | 9074-320-001 | Cover, Cabinet (Top) .....                                       | 1        |
| *   | 9732-253-001 | DDAD Kit for Dryers without Neutral and using 208-240 volt ..... | 1        |
| *   | 9732-102-013 | LP Kit for DDAD Dryers 108K BTU .....                            | 1        |
| *   | 9732-243-001 | Stack Dryer Trunion Puller .....                                 | 1        |
| *   | 9555-057-010 | Replaceable Lint Screen Fine Mesh Only .....                     | 1        |
| *   | 9277-054-001 | Insulation-Front Panel-Top Half .....                            | 2        |
| *   | 9277-054-002 | Insulation-Front Panel-Lower Half .....                          | 2        |
| *   | 9501-008-002 | Bracket for Heat Sensor Mounting (Under Basket) with Sensor ..   | 2        |
| *   | 8640-276-002 | Wire Nut Connector Grey .....                                    | 4        |
| *   | 9527-007-002 | Standoff Wire Saddle .....                                       | 8        |
| *   | 9544-041-002 | Strap - Bead Tie .....   | 1        |



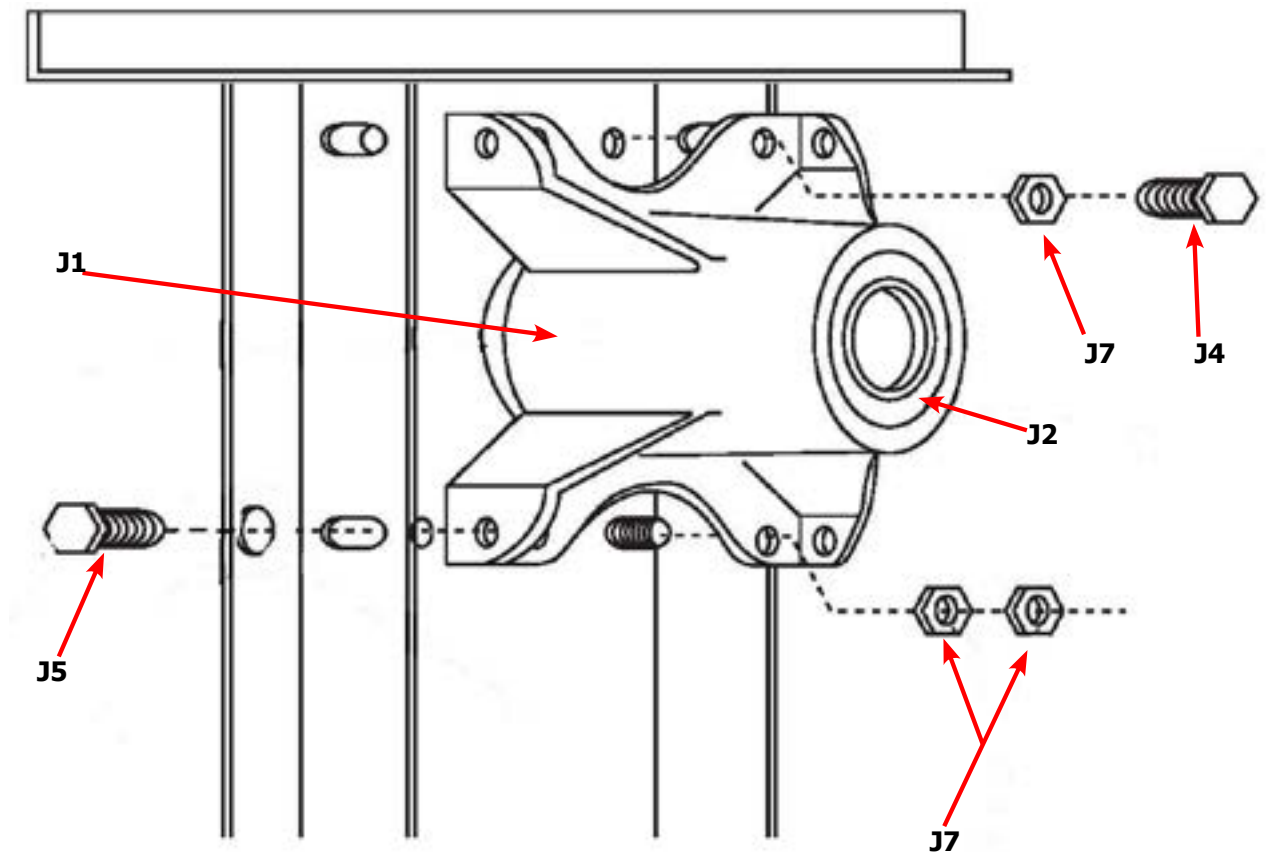
## Tumbler Group

| Key | Part Number  | Description   | Quantity |
|-----|--------------|---|----------|
| 1   | 9848-148-001 | Tumber Assembly Galvanized.....                           | 2        |
| 1   | 9848-157-001 | New Tumbler with Tall Baffles (Anti-Roping).....          | 2        |
| *   | 9848-148-002 | Tumbler Assembly Stainless Steel.....                     | 2        |
| *   | 9848-149-001 | Tumbler Assembly Galvanized w/spider.....                 | 2        |
| *   | 9848-158-001 | New Tumbler with Tall Baffles (Anit-Roping) w/Spider..... | 2        |
| *   | 9848-149-002 | Tumbler Assembly Stainless w/spider.....                  | 2        |
| 2   | 9568-013-001 | Spider Assembly .....                                     | 2        |
| 3   | 9497-226-002 | Rod, Tumbler .....  | 6        |
| 5   | 8640-417-005 | Nut, 1/2 - 13 .....                                       | 6        |
| 4   | 8641-590-002 | Washer, Special .....                                     | 6        |
| 6   | 9552-013-000 | Shim .....  | AR       |



## Bearing Housing Group - 50lb

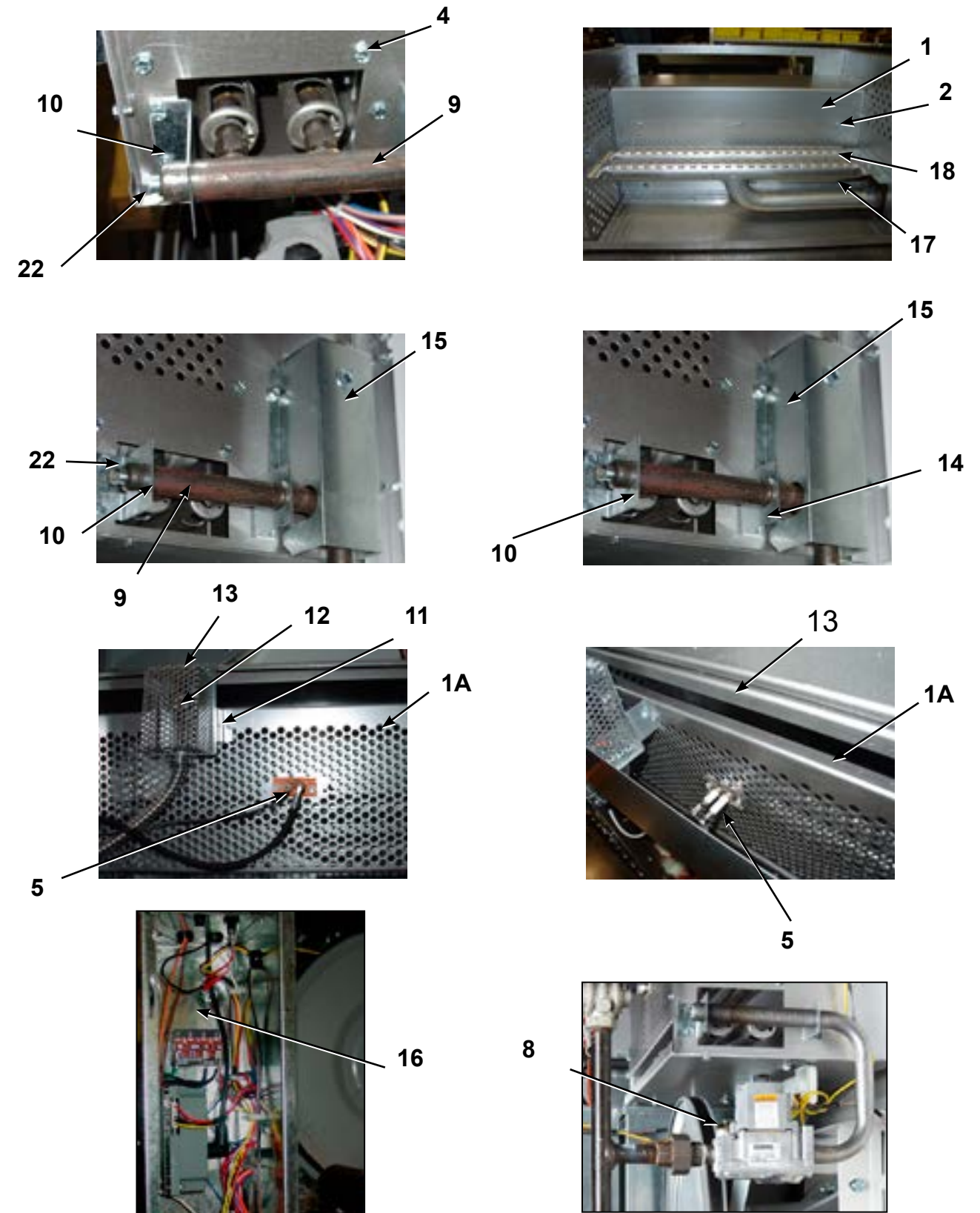
| Key | Part Number  | Description   | Quantity |
|-----|--------------|---|----------|
| J1  | 9241-189-002 | Housing, Bearing .....  | 2        |
| J2  | 9036-159-001 | Bearing, Ball, Front .....                                      | 4        |
| *   | 9036-159-003 | Bearing, Ball, Rear.....  | 4        |
| *   | 9538-183-001 | Spacer, Bearing .....   | 2        |
| J5  | 9545-017-017 | Bolt, 1/2 x 3/4.....  | 8        |
| J7  | 8640-417-002 | Nut, 1/2 .....  | 8        |
| *   | 9803-201-001 | Bearing Housing Complete Ass'y (includes bearings,spacer) ..... | 2        |
| J4  | 9545-017-018 | Screw 1/2 x 1 1/2 .....   | 4        |
| *   | 9036-159-003 | Bearing Rear.....   | 1        |



## Burner Housing Group - 50lb

| Key    | Part Number  | Description  | Quantity |
|--------|--------------|--|----------|
| *      | 9803-207-001 | Housing Assembly, Burner .....                             | 2        |
| 1a     | 9452-730-001 | Service Burner Plate Front.....                            | 2        |
| 1      | 9452-729-001 | Service Plate baffle Recirculation Chamber Clean Out ..... | 2        |
| *      | 9545-008-006 | Screws .....   | 8        |
| 2      | 9545-008-001 | Screw .....  | 16       |
| 18     | 9003-220-001 | Angle, Burner Support .....                                | 2        |
| *      | 9545-008-006 | Screw .....  | 4        |
| 17     | 9048-020-002 | Burner, Main .....   | 4        |
| *      | 9545-008-006 | Screw 10AB x 3/8" .....                                    | 4        |
| *      | 9454-824-001 | Panel, Back Burner Housing.....                            | 2        |
| 4      | 9545-008-001 | Screw 10B x1/4" .....                                      | 8        |
| 5      | 9875-002-003 | Electrode Assy, Ignition .....                             | 2        |
| 19     | 9545-045-001 | Screw, Electrode Mtg 8B x 1/4".....                        | 4        |
| 7      | 9379-186-001 | Valve, Gas Shut Off .....                                  | 1        |
| 8      | 9857-134-001 | Control Assy, Gas .....                                    | 2        |
| 9      | 9381-012-001 | Manifold, Assembly 2 Part 1 Piece.....                     | 2        |
| *      | 9425-069-021 | Orifice, Burner-Natural #29.....                           | 4        |
| *      | 9425-069-022 | Orifice, Burner-LP #46.....                                | 4        |
| 10, 14 | 9029-175-001 | Bracket, Manifold .....                                    | 4        |
| 22     | 8615-104-038 | Pipe Plug in end of Burner Manifold .....                  | 2        |
| *      | 9545-008-006 | Screw .....  | 4        |
| 12     | 9576-203-002 | Thermostat, Hi-Limit .....                                 | 2        |
| *      | 9538-142-001 | Spacer, Hi-Limit .....                                     | 4        |
| *      | 9545-045-007 | Screw 8B x 3/4" .....                                      | 4        |
| 13     | 9074-329-001 | Cover, Hi-Limit Stat Ignitor .....                         | 2        |
| *      | 9545-008-006 | Screw .....  | 6        |
| *      | 9576-207-008 | Thermostat, Safety Shutoff .....                           | 2        |
| *      | 9545-008-006 | Screw .....  | 4        |
| 15     | 9825-062-001 | Cover, Safety Stat .....                                   | 2        |
| *      | 9545-008-006 | Screw .....  | 4        |
| 16     | 9857-116-003 | Control, Ignition Fenwall (3 trybox) .....                 | 2        |
| *      | 9732-102-013 | Kit, LP Conversion DDAD Kit .....                          | 2        |
| *      | 9838-018-003 | Welded One Piece Gas Pipe Assembly .....                   | 1        |

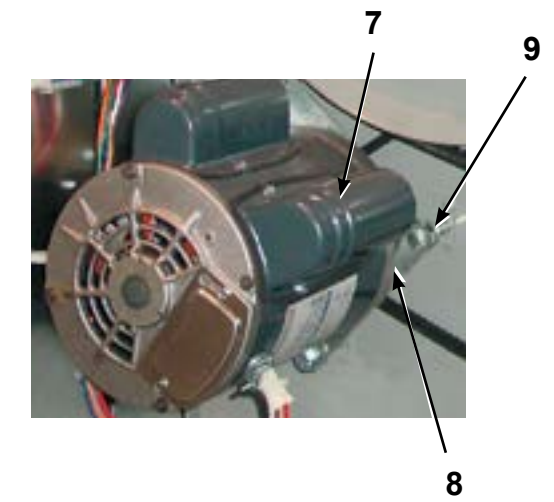
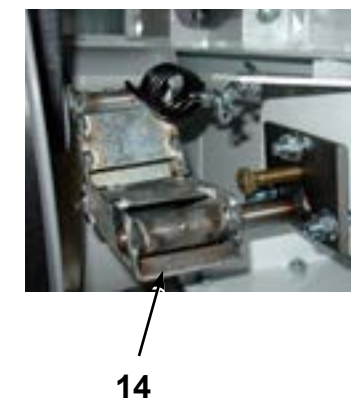
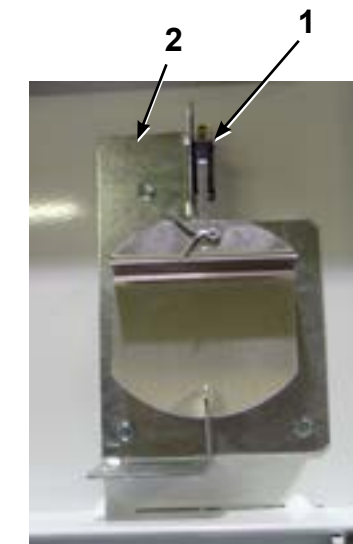
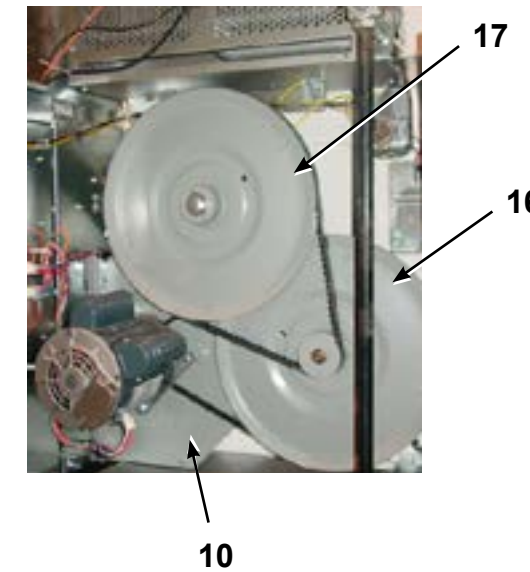
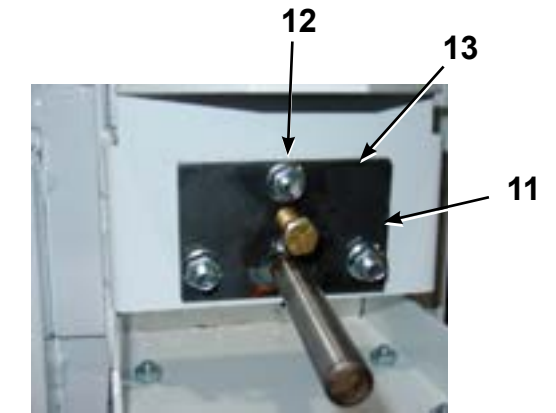
## Burner Housing Group Photos - 50lb



## Rear View

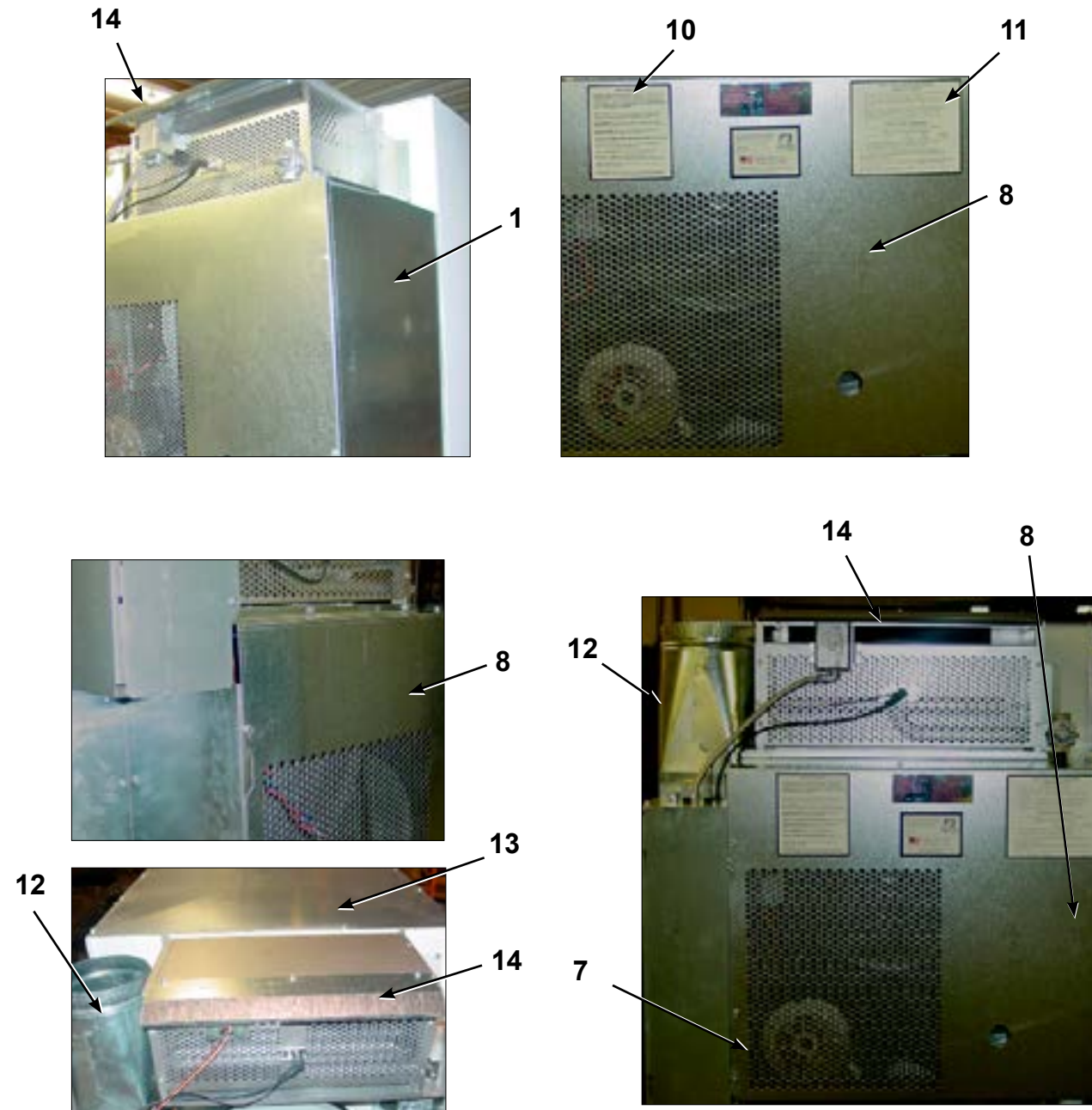
| Key | Part Number  | Description   | Quantity |
|-----|--------------|---|----------|
| *   | 9627-861-001 | Wire Harness, Overtemperature Switch Upper .....        | 1        |
| *   | 9801-098-001 | Switch Assy, Air Flow .....                             | 2        |
| 1   | 9539-461-009 | Switch, Air Flow .....                                  | 2        |
| 2   | 9029-200-001 | Bracket, Switch-Air Flow .....                          | 2        |
| *   | 8640-401-001 | Nut, Special Twin #4-40 .....                           | 2        |
| *   | 9550-169-003 | Shield, Switch .....                                    | 2        |
| 3   | 9008-007-001 | Actuator, Switch.....                                   | 2        |
| 4   | 9451-169-002 | Pin, Cotter.....  | 2        |
| 5   | 9545-020-001 | Screw, 4-40x 5/8 .....                                  | 4        |
| 7   | 9376-322-001 | Motor, Drive .....                                      | 2        |
| *   | 9732-205-027 | Motor Kit.....  |          |
| *   | 5191-108-002 | Capacitor, Motor Run.....                               | 1        |
| *   | 5191-109-002 | Capacitor, Motor Start .....                            | 1        |
| 27  | 9453-169-013 | Motor-Pulley, Driver.....                               | 2        |
| *   | 9452-770-001 | Plate, Motor Mounting .....                             | 2        |
| 9   | 9962-018-002 | Plate, Impeller Mounting.....                           | 2        |
| *   | 9538-163-006 | Spacer, Motor Mounting .....                            | 8        |
| *   | 9545-029-008 | Screws, Hex Cap.....                                    | 8        |
| *   | 8641-582-003 | Lock Washers .....                                      | 8        |
| *   | 9545-018-019 | Screw HXHD 1/4-20 x 2 1/2 .....                         | 8        |
| *   | 8641-581-017 | Washer-Flat, 1/4 x 7/8 .....                            | 32       |
| *   | 9538-166-006 | Spacer, Metal.....                                      | 8        |
| 12  | 9991-053-001 | Support Assy, Intermediate pulley.....                  | 2        |
| 12  | 9545-029-010 | Bolt, Rd Hd 3/8-16 x 1 1/4 .....                        | 6        |
| 12  | 8640-415-004 | Nut Flange Wizlock 3/8 - 16 .....                       | 6        |
| 12  | 8641-581-035 | Washer, Flat .....                                      | 6        |
| 13  | 9545-029-003 | Bolt, 3/8 - 16 x 1 1/2.....                             | 2        |
| 14  | 9861-022-001 | Arm Assy-Tension, Complete.....                         | 2        |
| *   | 9487-200-003 | Ring-Retaining.....                                     | 6        |
| 16  | 9908-048-003 | Pulley Assy, Intermediate w/Bronze Flange Bearing ..... | 2        |
| *   | 9036-145-002 | Bearing - Bronze Flange .....                           | 4        |
| 17  | 9908-047-002 | Pulley Driven, Tumbler.....                             | 2        |
| *   | 9487-234-005 | Tolerance Ring.....                                     | 2        |
| 34  | 8641-581-026 | Washer, Flat 1/2" for Tumbler Pulley.....               | 2        |
| 35  | 9545-017-009 | Bolt, 1/2" - 13 x 1 1/4 .....                           | 2        |
| 36  | 8641-582-016 | Washer, Star 1/2" for Tumbler Pulley .....              | 2        |
| *   | 9538-184-001 | Spacer, Shaft.....                                      | 2        |
| 19  | 9040-076-009 | Belt, Drive Motor and intermediate.....                 | 2        |
| 20  | 9040-073-011 | Belt, Driven-intermediate to.....                       | 2        |
| 21  | 9534-151-000 | Spring, Tension.....                                    | 2        |
| 22  | 9099-012-005 | Chain Tension.....                                      | 2        |
| 23  | 9248-022-002 | Hook, Tension .....                                     | 2        |
| *   | 9451-146-001 | Pin, Damper Hinge.....                                  | 2        |
| *   | 8520-141-000 | Nut, Spring.....  | 4        |
| *   | 9825-334-001 | Cover, Duct-Upper .....                                 | 1        |
| 25  | 9973-032-001 | Heat Recirculation Assembly Duct .....                  | 2        |
| *   | 9545-028-013 | Set Screw.....  | 2        |
| 30  | 9278-043-001 | Impeller .....  | 2        |
| *   | 9125-007-001 | Damper, Exhaust Duct - Upper .....                      | 1        |
| *   | 9125-007-002 | Damper, Exhaust Duct - Lower .....                      | 1        |
| *   | 8520-141-000 | Nut, Spring.....  | 4        |
| *   | 9545-008-026 | Screw #10B x 1/2 .....                                  | 14       |
| *   | 9074-335-001 | Cover, Duct - Lower .....                               | 1        |
| *   | 9545-008-024 | Screw #10AB x 3/8 .....                                 | 58       |
| *   | 9029-173-001 | Bracket for Wire Harness Under Burner Housing .....     | 2        |

## Rear View Photos - 50lb



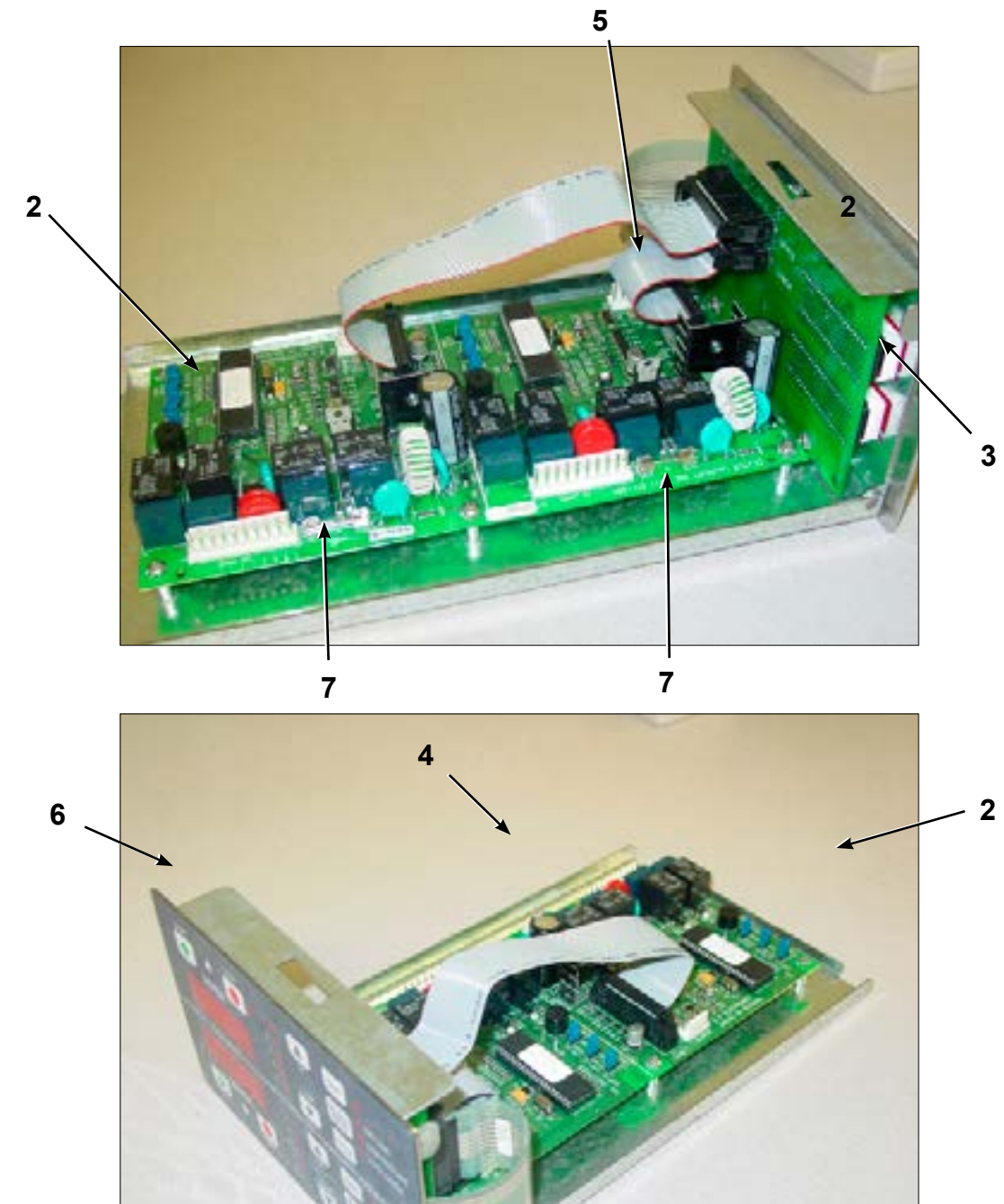
## Rear Panel & Cover Group - 50lb

| Key | Part Number  | Description                                   | Quantity |
|-----|--------------|---|----------|
| 1   | 9208-090-001 | Rear Guard Side Panel 1 .....                 | 2        |
| 4   | 9545-008-024 | Screws 10 AB x 3/8 .....                      | 30       |
| *   | 9208-089-001 | Rear Guard Top, Lower .....                   | 1        |
| 7   | 9545-082-024 | Screws 10 AB x 3/8 .....                      | 6        |
| 8   | 9208-089-001 | Rear Guard Back Panel .....                   | 2        |
| 10  | 8502-600-001 | Label Warning & Notice .....                  | 1        |
| 11  | 8502-645-001 | Label - Instructions .....                    | 1        |
| 12  | 9109-113-001 | Transition Assembly Outlet .....              | 1        |
| 13  | 9074-320-001 | Top Cover Dryer Panel .....                   | 1        |
| 14  | 9550-188-001 | Top Burner Housing Heat Shield .....          | 1        |
| *   | 9973-034-001 | 8" Slide Open Clean Out Duct (Optional) ..... | 1        |



## OPL Control Board

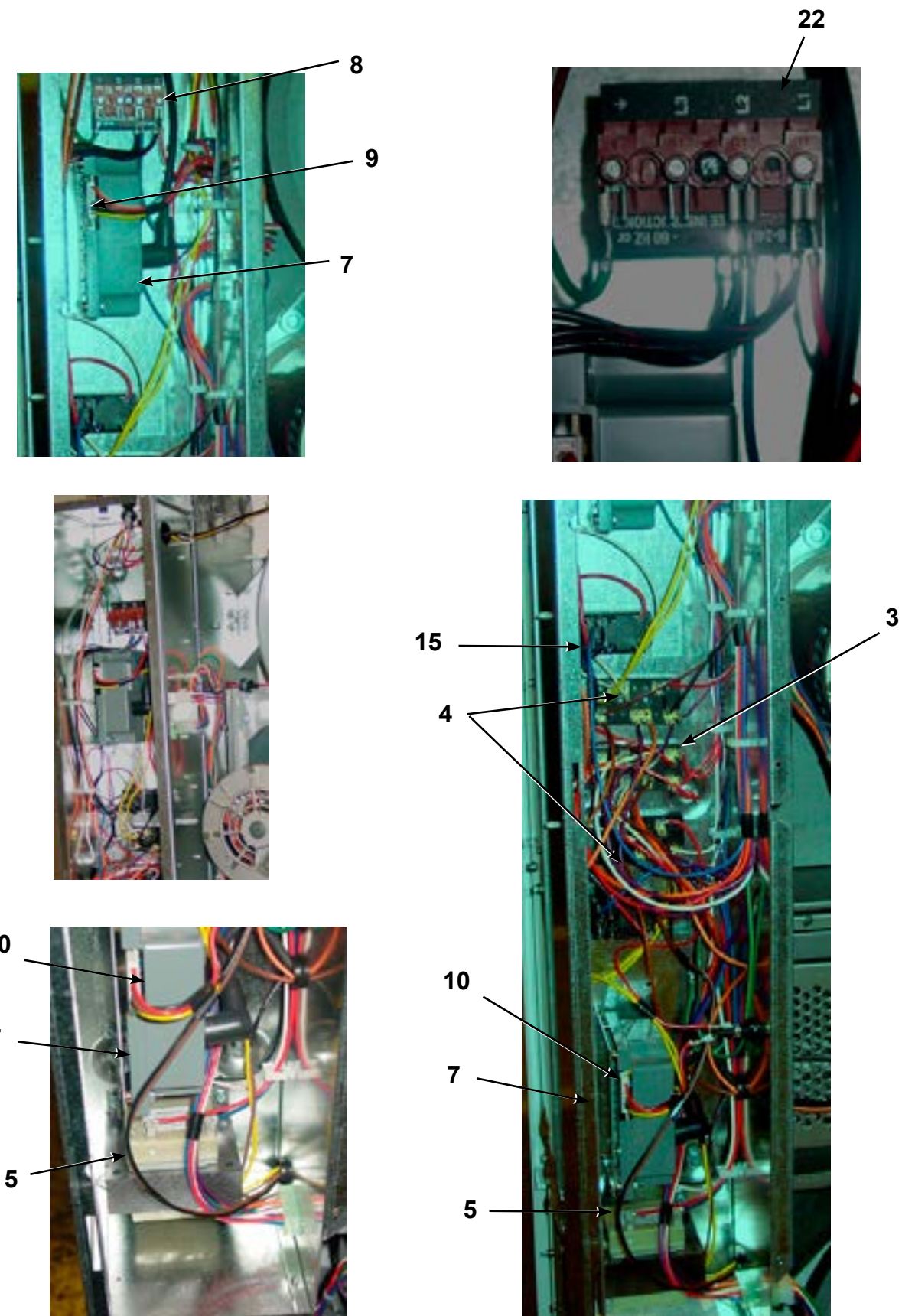
| Key | Part Number  | Description                                | Quantity |
|-----|--------------|--|----------|
| 1   | 9857-187-001 | Control Assembly (Blue) .....              | 1        |
| 1   | 9857-187-003 | Control Assembly (Black) .....             | 1        |
| 2   | 9471-017-001 | PCB Control Board .....                    | 1        |
| 3   | 9471-018-001 | PCB Display Board .....                    | 1        |
| 4   | 9500-007-001 | Cable, Upper Control Long .....            | 1        |
| 5   | 9500-007-002 | Cable, Lower Control Long .....            | 1        |
| 6   | 9801-096-001 | Membrane Switch Assembly (Blue) .....      | 1        |
| 6   | 9412-167-001 | Membrane Switch Assembly (Black) .....     | 1        |
| 7   | 8636-024-001 | Fuse, 600ma / 250v .....                   | 2        |
| *   | 9627-885-001 | Harness Main Control OPL Stack Dryer ..... | 1        |



## Control Assembly Group - 50lb

| Key | Part Number  | Description   | Quantity |
|-----|--------------|---|----------|
| *   | 9857-189-002 | Control Assmly Complete (all below included)            | 1        |
| *   | 9108-117-001 | Control Box Door  | 1        |
| *   | 8220-001-478 | Wire Assembly Green 7"                                  | 1        |
| *   | 8639-621-007 | Screw #10-32 x 12 Green                                 | 1        |
| *   | 8641-582-006 | Lockwasher Ext Tooth #10                                | 1        |
| 3   | 9897-026-002 | Terminal Block Main Power Middle                        | 1        |
| 4   | 9897-026-001 | Terminal Block  | 2        |
| *   | 9545-045-012 | Screw #8 ABx 1/2 for terminal block                     | 6        |
| 5   | 8711-014-001 | Transformer Ignition                                    | 1        |
| *   | 9545-008-024 | Screws 10AB x 3/8"                                      | 4        |
| 6   | 9982-348-001 | Plate Assembly MTG Ignition Control                     | 2        |
| *   | 9545-008-001 | Screws 10B x 1/4" MTG Above Plate and Others            | 14       |
| 7   | 9857-116-003 | Ignition Control  | 2        |
| *   | 8640-411-003 | #6-32 Nuts  | 4        |
| 8   | 9631-403-009 | Wire Assembly High Voltage Upper                        | 2        |
| 9   | 9627-860-001 | Wire Harness Ignition Control Upper                     | 1        |
| 10  | 9627-860-002 | Wire Harness Ignition Control Lower                     | 1        |
| *   | 9053-067-002 | Bushing Wire 7/8"                                       | 6        |
| 13  | 9200-001-002 | Fuseholder Assembly                                     | 2        |
| 14  | 8636-018-001 | Fuse 1.5 Amp  | 2        |
| 15  | 5192-298-002 | Relay Power 24 VAC                                      | 2        |
| 16  | 9897-035-001 | Terminal Block Assembly Main Power Inlet                | 1        |
| *   | 9545-045-012 | Screw #8 AB x 1/2"                                      | 4        |
| *   | 8220-062-036 | Wire Assembly Red/Black 14"                             | 1        |
| *   | 8220-062-037 | Wire Assembly Red/White 14"                             | 1        |
| *   | 8220-062-038 | Wire Assembly White 14"                                 | 2        |
| *   | 9627-859-001 | Wire Harness - Power Main Input                         | 1        |
| 21  | 9627-864-001 | Wire Harness Motor Extension                            | 2        |
| *   | 9527-007-001 | Stand Off - Wire Saddle / Arrowhead                     | 15       |
| *   | 9545-031-005 | Screw 6 B x 3/8"  | 4        |
| 22  | 9558-029-003 | Strip Terminal Marker (Behind Input Power) to above #3  | 1        |
| *   | 9627-887-001 | Wire Harness Main Extension Access Under Burner Housing | 1        |
| 23  | 9631-403-008 | Wire Ass'y - High Voltage Lower                         | 1        |
| 24  | 9029-048-001 | Bracket - Fuseholder                                    | 2        |
| *   | 8220-095-011 | Wire Assembly - Red, 37"                                | 1        |
| *   | 8220-095-012 | Wire Assembly - Blue, 42"                               | 1        |
| *   | 8220-095-013 | Wire Assembly - White, 43 1/2"                          | 1        |
| *   | 8220-062-028 | Wire Assembly - Black, 17"                              | 1        |
| *   | 8653-039-000 | Connector Wire, 1/4"                                    | 1        |

## Control Assembly Group - 50lb



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## Door Switch Group

| Part Number  | Description         | Quantity |
|--------------|---------------------|----------|
| 9539-487-001 | Door Switches ..... | 2        |



## Section 8: Electric Heated 60Hz

## Electric Heated Parts DDAD30HC\_-16FC

| Key | Part Number  | Description                           | Quantity |
|-----|--------------|---------------------------------------|----------|
| *   | 8220-001-499 | Wire-BLK, 26" .....                   | 2        |
| *   | 8220-057-016 | Wire-BLK, 8", 8 AWG.....              | 6        |
| *   | 8220-057-021 | Wire-WHT, 5 1/2", 18 AWG.....         | 2        |
| *   | 8220-057-023 | Wire-BLK, 9 1/2", 10 AWG.....         | 12       |
| *   | 8220-057-031 | Wire-BLK, 36", 12 AWG.....            | 1        |
| *   | 8220-057-032 | Wire-RED, 36", 12 AWG.....            | 1        |
| *   | 8220-061-011 | Wire-BLK, 17", 10 AWG .....           | 12       |
| *   | 8220-063-020 | Wire-WHT/BLK, 65" 18 AWG.....         | 1        |
| *   | 8220-078-014 | Wire-BLK, 22" 18 AWG.....             | 2        |
| *   | 8220-095-023 | Wire-BRN, 54" 18 AWG.....             | 2        |
| *   | 8220-103-002 | Wire-Red, 19" 18AWG.....              | 2        |
| *   | 9636-155-001 | Wrapper-Housing, Heater.....          | 2        |
| *   | 9545-008-001 | Screw 10B x 1/4.....                  | 6        |
| *   | 9551-032-001 | Side-Housing, Heater, Right Hand..... | 2        |
| *   | 9551-033-001 | Side-Housing, Heater, Left Hand.....  | 2        |
| *   | 9551-040-001 | Side Control Heater.....              | 4        |
| *   | 9114-044-001 | Defl ector-Bottom Housing.....        | 2        |
| *   | 9545-008-024 | Screw-10AB x 3/8.....                 | 6        |
| *   | 9058-026-001 | Bottom-Housing, Heater.....           | 2        |
| *   | 9545-008-024 | Screw-10AB x 3/8.....                 | 22       |
| *   | 9114-045-001 | Defl ector-Wraper, Housing.....       | 2        |
| *   | 9545-008-024 | Screw-10AB x 3/8.....                 | 8        |
| *   | 9114-046-001 | Defl ector-Baffl e.....               | 12       |
| *   | 9049-078-001 | Baffl e-Housing, Heater.....          | 2        |
| *   | 9636-191-001 | Wrapper-Control, Heater.....          | 2        |
| *   | 9074-293-001 | Cover-Plate, Heater.....              | 2        |
| *   | 9551-040-001 | Side-Control Heater.....              | 4        |
| *   | 9545-008-024 | Screw-10AB x 3/8.....                 | 16       |
| *   | 9029-194-001 | Bracket-Control, Heater.....          | 4        |
| *   | 9074-333-001 | Cover-Control, Heater.....            | 2        |
| *   | 9545-018-014 | Screw-1/4-20 x 3/4.....               | 8        |
| *   | 9277-041-014 | Insulation.....                       | 2        |
| *   | 9029-181-001 | Bracket-Back, Panel.....              | 1        |
| *   | 9074-337-001 | Cover-Terminal, Heater.....           | 2        |
| *   | 9576-207-006 | Thermostat-Overtmp, Manual reset..... | 2        |
| *   | 9538-166-005 | Spacer Over Temp Thermostat.....      | 4        |
| *   | 9982-364-001 | Plate Assembly-Overtmp switch.....    | 2        |
| *   | 9627-861-002 | Harness-Over Temp Switch.....         | 2        |
| *   | 9348-066-001 | Lever-Overtmp Switch.....             | 2        |
| *   | 9452-769-001 | Plate-Over Temp Switch.....           | 2        |
| *   | 9497-229-001 | Rod-Over Temp Switch.....             | 2        |
| *   | 9488-011-002 | Rail-Din, 35 x 15mm.....              | 2        |

## DDAD30HC\_-16FC 208/60/3 24KW

| Key | Part Number  | Description                         | Quantity |
|-----|--------------|-------------------------------------|----------|
| *   | 5192-285-004 | Relay.....                          | 2        |
| *   | 5192-296-001 | Relay, Heating Element.....         | 2        |
| *   | 9377-003-001 | Varister-Coil Supressor.....        | 2        |
| *   | 5198-213-002 | Circuit Breaker-3 Pole.....         | 4        |
| *   | 8652-134-002 | Terminal-Lug, Solderless.....       | 4        |
| *   | 9870-093-004 | Heater Element, 12KW 208V.....      | 6        |
| *   | 9295-004-002 | Jumper-Formed.....                  | 4        |
| *   | 9295-005-002 | Jumper-Straight.....                | 8        |
| *   | 9897-037-001 | Block-Power, 3 Pole.....            | 2        |
| *   | 9897-038-001 | Block-Power, 1 Pole.....            | 2        |
| *   | 9506-466-001 | Wiring-Schematic.....               | 1        |
| *   | 9506-467-001 | Wiring-Diagram.....                 | 1        |
| *   | 9506-468-001 | Wiring-Diagram/Schematic.....       | 1        |
| *   | 8514-202-001 | Booklet-Owners, DDAD30HC_-16FC..... | 1        |





## 50 Hz Specifications

|  |                              |
|--|------------------------------|
| Dry Weight Capacity:                   | 13.5kg @ 2 each - 27kg total |
| Basket Depth:                          | 699mm                        |
| Basket Diameter:                       | 762mm                        |
| Basket Volume:                         | 318 liters                   |
| Door Opening:                          | 576mm                        |
| Overall Height (with legs):            | min. 1937mm, max.            |
| Cabinet Width:                         | 800mm                        |
| Overall Depth:                         | 1270mm                       |
| Door Height (floor to bottom of door): | 186mm                        |
| Cylinder Rotation Direction:           | CCW                          |
| Speed:                                 | 47rpm                        |
| Natural Gas Supply (water column):     | 4" - 10" wc                  |
| Natural Gas at Burner Manifold:        | 3 1/2" wc                    |
| LP Supply:                             | 11" - 14" wc                 |
| LP Burner:                             | 11" wc                       |
| Gas Inlet Line Size:                   | 1/2" npt                     |
| Motor Size:                            | 373kw                        |

### Electrical

|                                  |                 |
|----------------------------------|-----------------|
| Voltage: 220-240v/ 50hz/ 1 phase |                 |
| Running Amps:                    | 10.0            |
| Amp Circuit Protection:          | 15              |
| Wire Size:                       | 12 guage        |
| Electrical Service:              | 3 wire + ground |

### Weights

|             |       |
|-------------|-------|
| Shipping:   | 351kg |
| Net Weight: | 311kg |

|  |       |
|--|-------|
| Clearance behind machine for service minimums: | 457mm |
|--|-------|

## Heat Circuit

Top Dryer Used For This Example

With the Drive Motor running and 24 VAC provided to the Computer Board Gas Relay, it will close if Computer Board senses programmed temperature is needed. The violet wire changes to an orange wire out of the Computer Board Gas Relay. When this relay closes it provides 24 VAC to the High Limit Thermostat. The High Limit Thermostat is normally closed. (It will open, turning off the heat circuit, if the dryer can't move enough air from problems such as an exhaust restriction or other problems.) 24 VAC now goes through to the normally open Air Switch (Sail Switch) on the brown wire. This switch is closed only if the dryer is running and has the correct air flow. With the dryer running and the Air Switch closed, 24 VAC is supplied to the normally closed upper manual reset Over-temp Thermostat on the gray wire and changes to the black wire out of switch and then changes to red wire and goes to the 1.5 amp in-line fuse that protects the Upper Ignition Controller(GREY BOX). With 24 VAC now supplied to the Upper Ignition Controller (GREY BOX) it will then send high voltage to the Spark Ignition Electrode via the High Voltage Lead Wire (this lead looks like an automotive spark plug wire). The Ignition Control Module (GREY BOX)simultaneously sends 24VAC to the Gas Valve Coil which open the Gas Valve and allows gas to pass through to the main burner. When ignition occurs the high voltage sparking stops and if Ignition Control Module (GREY BOX) gets a flame sense signal it will allow gas valve coil to remain energized and continue burner operation. If ignition does not occur, the Ignition Control Module (GREY BOX) will spark for 10 seconds before locking out.

## Control Assembly Group - 30lb

| Key | Part Number  | Description  | Quantity |
|-----|--------------|--|----------|
| *   | 9857-169-006 | Control Assmby Complete (all below included).....            | 1        |
| *   | 9108-117-001 | Control Box Door.....  | 1        |
| *   | 8220-137-002 | Wire Assembly Green 7".....                                  | 1        |
| *   | 8639-621-007 | Screw #10-32 x 12 Green.....                                 | 1        |
| *   | 8641-582-006 | Lockwasher Ext Tooth #10.....                                | 1        |
| *   | 9897-026-002 | Terminal Block Main Power Middle.....                        | 1        |
| *   | 9897-026-001 | Terminal Block.....  | 2        |
| *   | 9545-045-012 | Screw #8 ABx 1/2 for terminal block.....                     | 6        |
| *   | 8711-008-002 | Transformer Ignition.....                                    | 1        |
| *   | 9545-008-024 | Screws 10AB x 3/8".....                                      | 4        |
| *   | 9982-348-001 | Plate Assembly MTG Ignition Control.....                     | 2        |
| *   | 9545-008-001 | Screws 10B x 1/4" MTG Above Plate and Others.....            | 14       |
| *   | 9857-140-001 | Ignition Control.....  | 2        |
| *   | 8640-411-003 | #6-32 Nuts.....  | 4        |
| *   | 9631-403-009 | Wire Assembly High Voltage Upper.....                        | 2        |
| *   | 9627-867-001 | Wire Harness Ignition Control Upper.....                     | 1        |
| *   | 9627-867-002 | Wire Harness Ignition Control Lower.....                     | 1        |
| *   | 9053-067-002 | Bushing Wire 7/8".....                                       | 6        |
| *   | 9200-001-002 | Fuseholder Assembly.....                                     | 2        |
| *   | 8636-018-001 | Fuse 1.5 Amp.....  | 2        |
| *   | 5192-295-013 | Relay Power 24 VAC.....                                      | 2        |
| *   | 9897-035-001 | Terminal Block Assembly Main Power Inlet.....                | 1        |
| *   | 9558-029-004 | Strip Terminal Marker (Behind Input Power).....              | 1        |
| *   | 9545-045-012 | Screw #8 AB x 1/2".....                                      | 4        |
| *   | 8220-062-036 | Wire Assembly Red/Black 14".....                             | 1        |
| *   | 8220-062-037 | Wire Assembly Red/White 14".....                             | 1        |
| *   | 8220-062-038 | Wire Assembly White 14".....                                 | 2        |
| *   | 9627-859-001 | Wire Harness - Power Main Input.....                         | 1        |
| *   | 9627-864-002 | Wire Harness Motor Extension.....                            | 2        |
| *   | 9527-007-001 | Stand Off - Wire Saddle / Arrowhead.....                     | 15       |
| *   | 9545-031-005 | Screw 6 B x 3/8".....  | 4        |
| *   | 9627-861-001 | Wire Harness Main Extension Access Under Burner Housing..... | 1        |
| *   | 9631-403-008 | Wire Ass'y - High Voltage Lower.....                         | 1        |
| *   | 9029-048-001 | Bracket - Fuseholder.....                                    | 2        |
| *   | 8220-095-011 | Wire Assembly - Red, 37".....                                | 1        |
| *   | 8220-095-012 | Wire Assembly - Blue, 42".....                               | 1        |
| *   | 8220-095-013 | Wire Assembly - White, 43 1/2".....                          | 1        |
| *   | 8220-062-028 | Wire Assembly - Black, 17".....                              | 1        |
| *   | 8653-039-000 | Connector Wire, 1/4".....                                    | 1        |

## DDAD30HC\_-59\_ Gas Control Parts

| Key | Part Number  | Description                          | Quantity |
|-----|--------------|--------------------------------------|----------|
| 3   | 9732-162-001 | Kit-Honeywell VR86 Valve Flange..... | 4        |
| *   | 9791-001-001 | Adapter Assembly - Gas Inlit.....    | 1        |
| 2   | 9857-132-004 | Gas Control Valve.....               | 2        |
| *   | 9425-069-009 | Orifice - Mainburner, #32.....       | 4        |

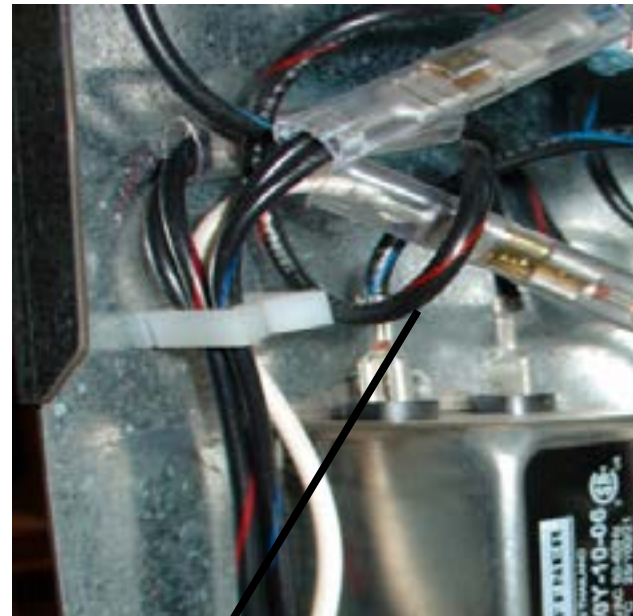


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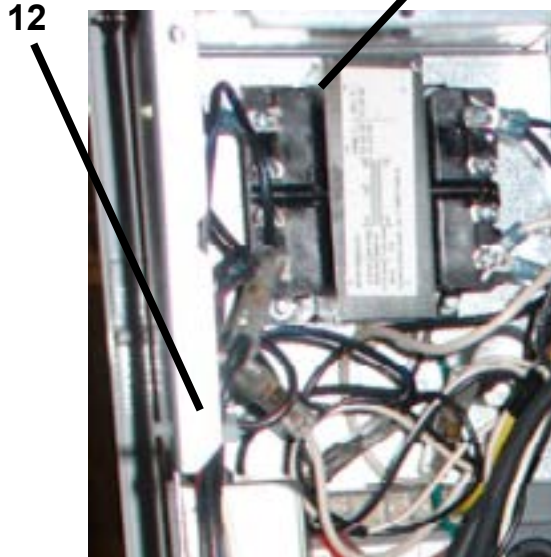
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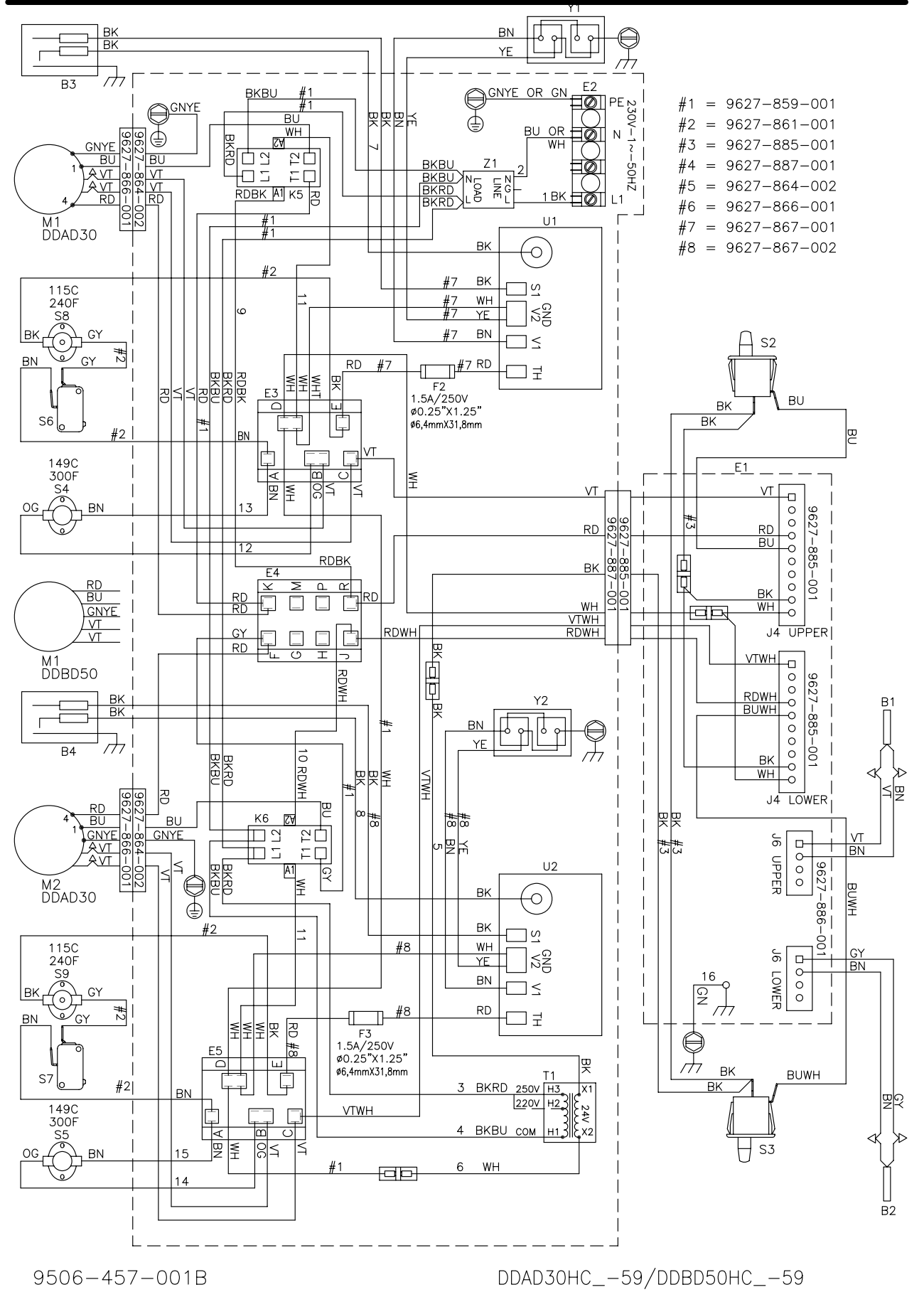
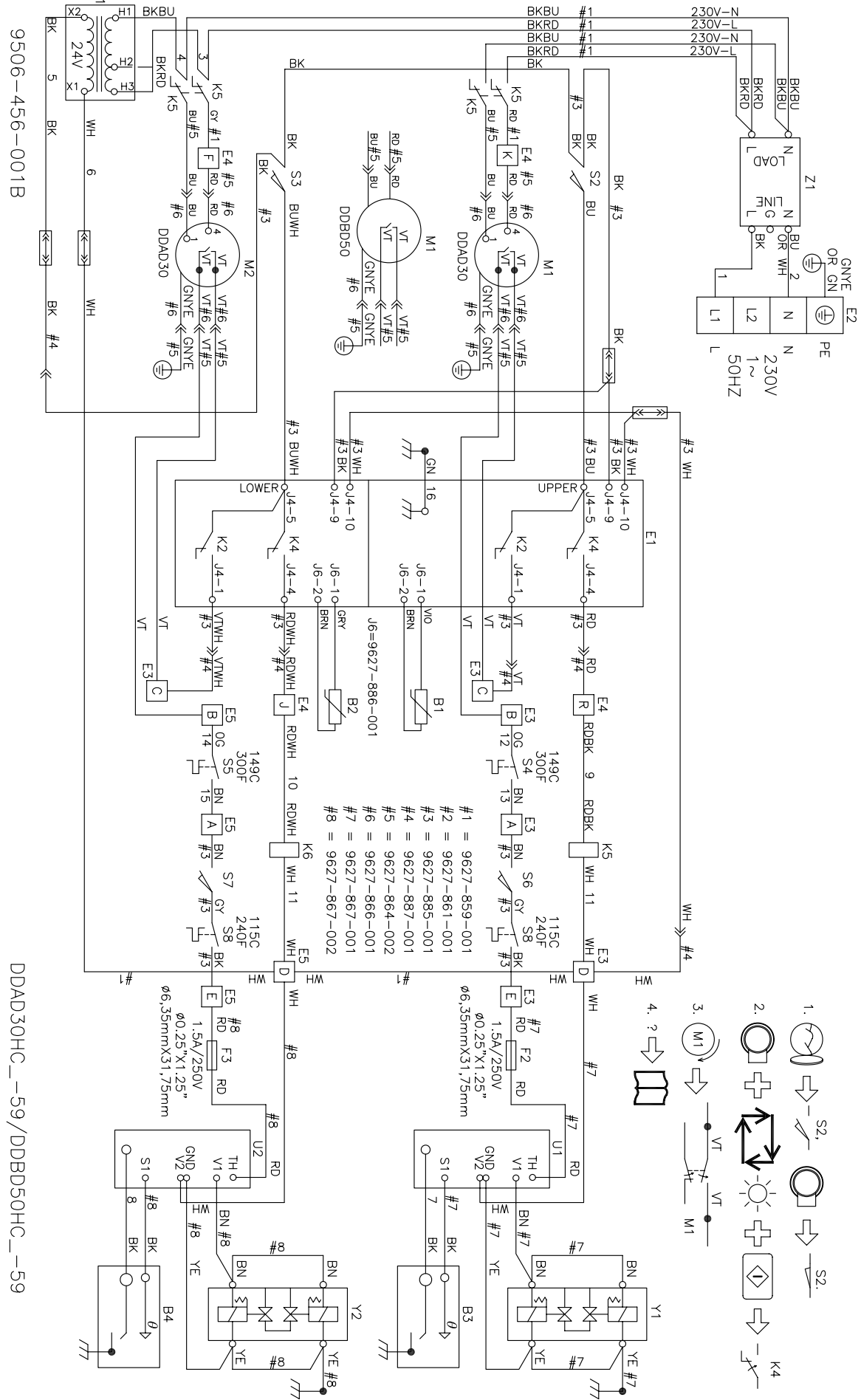
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## Electrical Components 50Hz Gas Heated DDAD30HC\_-59

| Key | Part Number  | Description                                  | Qty |
|-----|--------------|--|-----|
| *   | 5192-295-013 | Relay .....                                  | 2   |
| *   | 8220-062-008 | Wire assy-BLK, 11".....                      | 1   |
| *   | 8220-062-034 | Wire assy-WHT, 11" .....                     | 1   |
| *   | 8220-065-006 | Wire assy-BLK/RED, 11".....                  | 1   |
| *   | 8220-065-022 | Wire assy-BLK/BLU, 19" .....                 | 1   |
| *   | 8220-065-033 | Wire assy-WHT, 11" .....                     | 1   |
| *   | 8220-065-040 | Wire assy-BLK, 40" .....                     | 1   |
| *   | 8640-276-006 | Nut-Wire Connection, #72B, BLU .....         | 4   |
| 7   | 8711-008-002 | Transformer Control .....                    | 1   |
| 12  | 9183-030-002 | Filter-line, EMI .....                       | 1   |
| 13  | 9379-296-004 | Motor-Dryer, A.O. Smith 50Hz.....            | 2   |
| 13  | 9376-318-001 | Motor-Dryer, Marathon 50Hz.....              | 2   |
| *   | 9453-169-009 | Pulley-Motor .....                           | 2   |
| *   | 9627-864-002 | Wiring Harness-Motor Extention .....         | 2   |
| *   | 9627-866-001 | Wiring Harness-Motor Main .....              | 2   |
| *   | 9627-867-001 | Wiring Harness-Ignition Control, Upper ..... | 1   |
| *   | 9627-867-002 | Wiring Harness-Ignition Control, Lower ..... | 1   |
| 8   | 9857-140-001 | Ignition Module, Fenwal .....                | 2   |
| *   | 8502-743-001 | Label-Warning, Lifting Hazard .....          | 1   |
| *   | 8507-230-003 | Instructions-Transformer Connect .....       | 2   |
| *   | 8514-201-001 | Booklet-Owners DDAD30HC_-59 .....            | 1   |
| *   | 9506-456-001 | Wiring-Schematic .....                       | 1   |
| *   | 9506-457-001 | Wiring-Diagram .....                         | 1   |
| *   | 9506-458-001 | Wiring-Schematic/Diagram .....               | 1   |





## Electric Heated Parts DDAD30HC\_-64FN

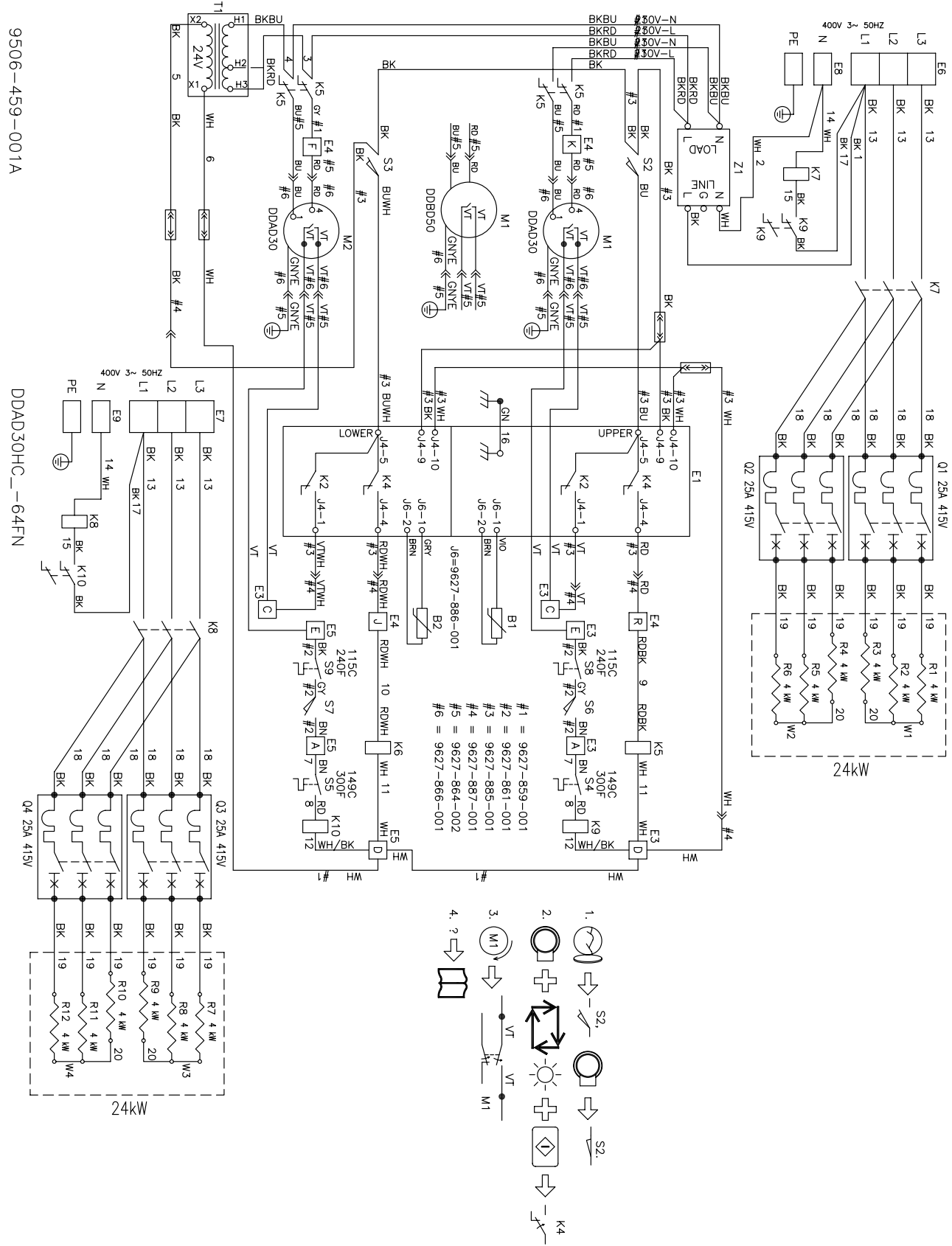
| Key | Part Number   | Discription                            | Qty |
|-----|---------------|--|-----|
|     | 8220-001-499  | Wire-BLK, 26" .....                    | 2   |
|     | 8220-057-016  | Wire-BLK, 8", 8 AWG.....               | 6   |
|     | 8220-057-021  | Wire-WHT, 5 1/2", 18 AWG.....          | 2   |
|     | 8220-057-023  | Wire-BLK, 9 1/2", 10 AWG.....          | 12  |
|     | 8220-060-003  | Wire-BLK, 5".....                      | 1   |
|     | 8220-061-011  | Wire-BLK, 17", 10 AWG .....            | 12  |
|     | 8220-063-020  | Wire-WHT/BLK, 65" 18 AWG.....          | 1   |
|     | 8220-078-014  | Wire-BLK, 22" 18 AWG.....              | 2   |
|     | 8220-095-023  | Wire-BRN, 54" 18 AWG.....              | 2   |
|     | 8220-103-002  | Wire-Red, 19" 18AWG.....               | 2   |
|     | 9636-155-001  | Wrapper-Housing, Heater.....           | 2   |
|     | 9545-008-001  | Screw 10B x 1/4.....                   | 6   |
|     | 9551-032-001  | Side-Housing, Heater, Right Hand.....  | 2   |
|     | 9551-033-001  | Side-Housing, Heater, Left Hand.....   | 2   |
|     | 9551-040-001  | Side Control Heater.....               | 4   |
|     | 9114-044-001  | Deflector-Bottom Housing.....          | 2   |
|     | 9545-008-024  | Screw-10AB x 3/8.....                  | 6   |
|     | 9058-026-001  | Bottom-Housing, Heater.....            | 2   |
|     | 9545-008-024  | Screw-10AB x 3/8.....                  | 22  |
|     | 9114-045-001  | Deflector-Wraper, Housing.....         | 2   |
|     | 9545-008-024  | Screw-10AB x 3/8.....                  | 8   |
|     | 9114-046-001  | Deflector-Baffle.....                  | 12  |
|     | 9049-078-001  | Baffle-Housing, Heater.....            | 2   |
|     | 9636-191-001  | Wrapper-Control, Heater.....           | 2   |
|     | 9074-293-001  | Cover-Plate, Heater.....               | 2   |
|     | 9551-040-001  | Side-Control Heater.....               | 4   |
|     | 9545-008-024  | Screw-10AB x 3/8.....                  | 16  |
|     | 9029-194-001  | Bracket-Control, Heater.....           | 4   |
|     | 9074-333-001  | Cover-Control, Heater.....             | 2   |
|     | 9545-018-014  | Screw-1/4-20 x 3/4.....                | 8   |
|     | 9277-041-014  | Insulation.....                        | 2   |
|     | 9029-181-001  | Bracket-Back, Panel.....               | 1   |
|     | 9074-337-001  | Cover-Terminal, Heater.....            | 2   |
|     | 9576-207-006  | Thermostat-Overtemp, Manual reset..... | 2   |
|     | 95368-166-005 | Spacer Over Temp Thermostat.....       | 4   |
|     | 9982-364-001  | Plate Assembly-Overtemp switch.....    | 2   |
|     | 9627-861-002  | Harness-Over Temp Switch.....          | 2   |
|     | 9348-066-001  | Lever-Overtemp Switch.....             | 2   |
|     | 9452-769-001  | Plate-Over Temp Switch.....            | 2   |
|     | 9497-229-001  | Rod-Over Temp Switch.....              | 2   |
|     | 9488-011-002  | Rail-Din, 35 x 15mm.....               | 2   |

## DDAD30HC\_-64FN 400/3/50HZ

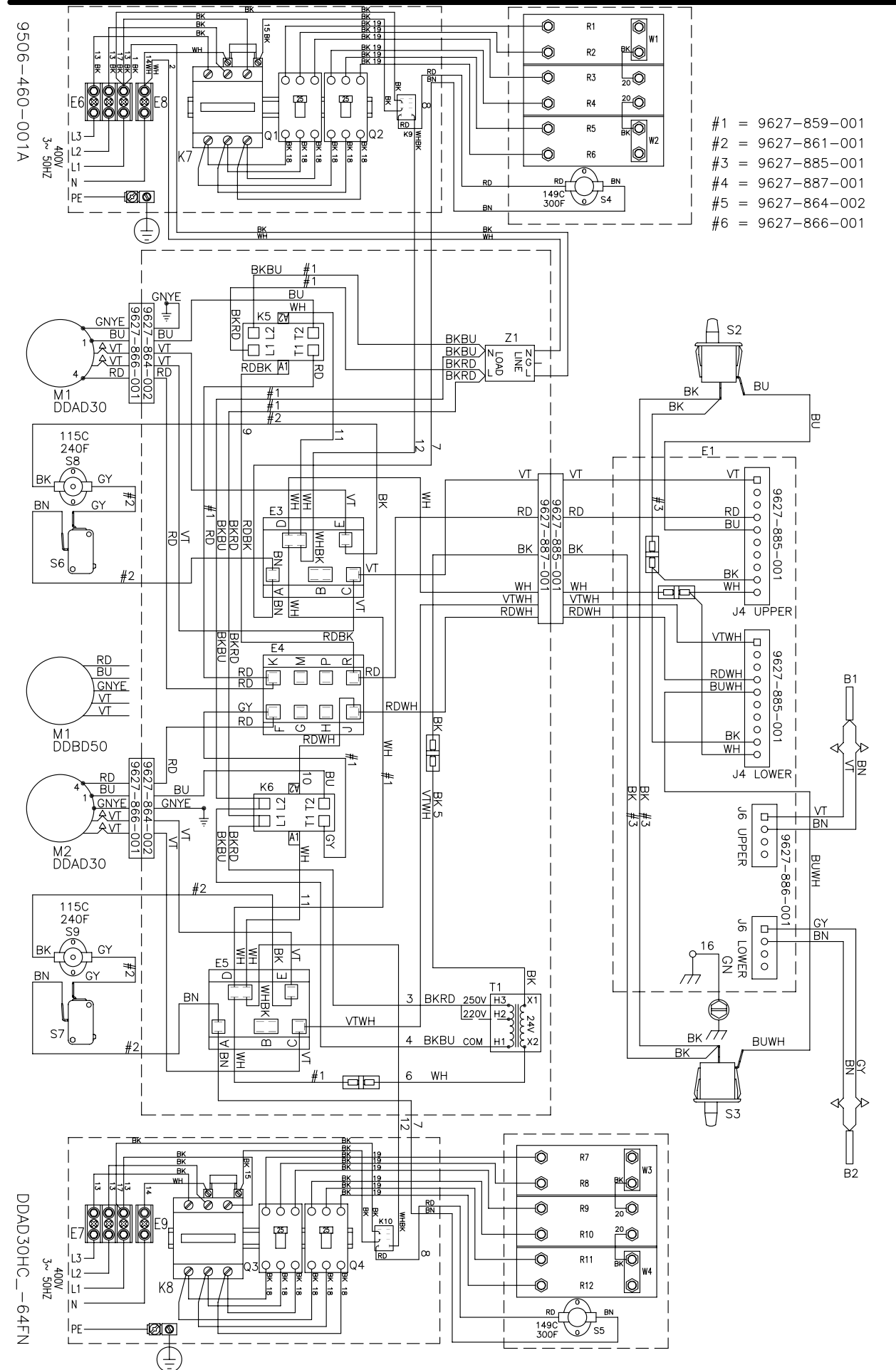
| Key | Part Number  | Discription                         | Qty |
|-----|--------------|-------------------------------------|-----|
|     | 5192-295-013 | Relay.....                          | 2   |
|     | 5192-291-002 | Relay, Heating Element 60 Amp.....  | 2   |
|     | 9377-003-001 | Varister-Coil Supressor.....        | 2   |
|     | 5198-215-002 | Circuit Breaker-3 Pole, 415V.....   | 4   |
|     | 8652-134-002 | Terminal-Lug, Solderless.....       | 4   |
|     | 9870-095-002 | Heater Element, .....               | 6   |
|     | 9295-004-002 | Jumper-Formed.....                  | 4   |
|     | 9295-005-002 | Jumper-Straight.....                | 4   |
|     | 9897-037-001 | Block-Power, 3 Pole.....            | 2   |
|     | 9897-038-001 | Block-Power, 1 Pole.....            | 2   |
|     | 9506-459-001 | Wiring-Schematic.....               | 1   |
|     | 9506-460-001 | Wiring-Diagram.....                 | 1   |
|     | 9506-461-001 | Wiring-Diagram/Schematic.....       | 1   |
|     | 8514-202-001 | Booklet-Owners, DDAD30HC_-16FC..... | 1   |

# DDAD30HC\_-64FN 400/3/50HZ

9506-459-001A



9506-460-001A





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# Preventative Maintenance

## Daily

- Step 1:** Clean the lint screen free of lint and other debris. Use a soft brush and Hot water if necessary.
- Step 2:** Check the lint screen for tears. Replace if necessary.
- Step 3:** Clean lint from the lint screen compartment.
- Step 4:** Inspect felt seal on lint screen assembly, replace if needed.

## Monthly

- Step 1:** Remove lint accumulation from the end bells of the motor.
- Step 2:** Remove lint accumulation from front control area.
- Step 3:** Remove lint and dirt accumulation from the top of the dryer and all areas above, below, and around the burners and burner housing. Failure to keep this portion of the dryer clean can lead to a build-up of lint creating a fire hazard.
- Step 4:** Remove and clean coin acceptors. (Vended Models Only)

## Quarterly

- Step 1:** Check the belts for looseness, wear, or fraying.
- Step 2:** Inspect the gasket of the door glass for excessive wear.
- Step 3:** Check tightness of all fasteners holding parts to support channel.
- Step 4:** Check tightness of all set screws.
- Step 5:** Remove the air flow switch assembly and check the tumbler thru-bolts for tightness.
- Step 6:** Apply a few drops of oil to pivot pins and the tension arms where in contact with each other.

## Semi-Annually

- Step 1:** Remove and clean the main burners.
- Step 2:** Remove all orifices and examine for dirt and hole obstruction.
- Step 3:** Remove all lint accumulation. Remove the front panel and the lint screen housing and remove lint accumulation.

## Annually

- Step 1:** Check the intermediate pulley bearings for wear.
- Step 2:** Check and remove any lint accumulation from the exhaust system including recirculation chambers if applicable.
- Step 3:** Grease the bearings and the shaft of the intermediate pulley. Use an Alemite grease gun and Molykote BR2-S grease. (Where applicable)