

PROOFER OWNER'S MANUAL



B. A. K. E. MARKETING CORPORATION
BAKERY AND KITCHEN EQUIPMENT



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1.0 GENERAL INFORMATION

1.1 - GENERAL PRODUCT DESCRIPTION

- All Spartan proofers incorporate high-level electronic technology to provide an ideal environment for proofing and thawing a wide variety of bakery products. They allow very accurate regulation of temperature and humidity to achieve the best proofing results for different products. All proofers are equipped with a custom made, easy to operate electronic controller. It allows programming six different proofing recipes and incorporates four independent timers for individual timing up to four different products during the same proof cycle. The Rapid Thaw option allows automatic thaw cycle, which is followed by a proof cycle. Parameters for both cycles are programmable. The Proofer/Retarder option combines retarder and proofer features in one cabinet. Both retard and proof cycle are programmable for seven days a week due to real time clock incorporated in the controller. The unit allows a rest period before automatically switches to the next cycle.

CONSTRUCTION

- Interior and exterior of proofer cabinet is made from stainless steel 304 series.
- Panels are joined with cam locks for easy and quick installation.
- Insulation- 2" thick, polyurethane foam on all walls, ceiling and doors.
- Doors -completely insulated, equipped with a safety grip handle and self-adjusting magnetic gasket.
- Door remains stationary when opened beyond 90 deg; otherwise it is self-closing.

STANDARD FEATURES

- Digital displaying controlled parameters.
- Four independent timers incorporated in the controller allow individual timing up to four different products during the same proof cycle.
- The controller incorporates six product keys, which allow programming up to six different proofing recipes. Programming procedure is very simple.
- Proofer can be equipped with Rapid Thaw system for quick thawing of frozen product.
- Retarder/Proofer incorporates retarder and proofer in one cabinet. It allows for programming retard and proof cycles for 24 hours a day and 7 days a week.
- Left hinged door is available if specified.
- Stainless steel floor is a standard.
- No floor option is available on special request.
- PC connection is available for downloading program settings.
- Interior light is optional on all models.

SAFETY INSTRUCTIONS

- It is very important to read this installation, operating and maintenance instructions before installing, operating or servicing the proofer.
- Improper installation, operation or service may cause property damage, injury or death. It will also void manufacturer warranty.
- It is the responsibility of the owner/operator to only use qualified and factory authorized personnel for service.
- In the event of an electrical problem or fire within the appliance, turn off ALL electrical power to the appliance using the "Power" switch located above the proofer door.
- High humidity inside the proofer causes some water accumulation on the floor making it slippery. Use caution while walking inside or out the proofer. Keep proofer door open between uses.

1.2- WARRANTY

FSSi warrants the equipment it manufactures to be free of defects in material and workmanship for a period of one year from the date of original installation or verification of start-up. One year limited warranty covers both parts and labor except for conditions described within.

All labor shall be performed during regular working hours. Overtime premiums will be charged to the customer. Labor warranty is restricted to equipment located within the continental United States. Equipment located outside the continental United States is limited to the parts replacement only.

FSSi limited warranty is effective only if the term of payment for the equipment purchased has been satisfied. This warranty is not valid unless the equipment is installed, started and demonstrated under the supervision of a factory authorized representative or authorized service agency (there may be a charge for these services).

This warranty does not cover repair due to misuse, lack of proper care or cleaning and improper gas supply, electric supply, water supply or water condition (including but not limited to high lime, mineral, sediment or containment concentration). The Buyer is responsible for normal preventative maintenance of the equipment, which includes, but not limited to, lubrication, calibration, belt tightening, switch adjustments, programming of cyclic timers, replacement of light bulbs, fuses and indicator lights.

The foregoing warranty shall be valid and binding upon Spartan only if the Buyer loads, operates and maintains the equipment supplied hereunder in accordance with the instruction manual provided to the Buyer.

FSSi shall not be liable for consequential damages of any kind, which occur during the course of installation of the equipment, it's employees or other tradesmen hired by the Buyer, All claims for damage must be reported to the delivering carrier immediately and all claims made through the delivering carrier.

FSSi shall not be liable, directly or indirectly, under any circumstances for any loss of business, profits, labor cost, product or other charges associated with losses or damage incurred or suffered due to the operation or downtime of the equipment.

This warranty does not cover any defects due to or resulting from handling, abuse, misuse, chemical reactions, unauthorized modifications, altered or missing serial numbers, damage by flood, leaking roofs, water pipes, gas pipes, fire, electrical power failure, surges, etc.

The foregoing warranty is exclusive and in lieu of all other express and implied warranties whatsoever. Specifically, there are no implied warranties of merchantability or of fitness for a particular purpose.

The foregoing shall be FSSi's sole and exclusive obligation and the Buyers sole and exclusive remedy for any action, whether in breach of contract or negligence. In no event shall FSSi be liable for a sum in excess of the purchase price of the equipment.

2.0 INSTALLATION REQUIREMENTS

2.1 -INSTALLATION REQUIREMENTS

GENERAL

- Locally licensed, electrical, plumbing and HVAC professionals should perform installation of this equipment.
- Improper installation can cause injury to personnel and/or damage to equipment.
- This equipment must be installed in accordance with all applicable codes.

LOCATION

- Floor:
 - The proofer must be installed on the flat surface.
 - Proofer floor should be glued to the building floor with sealant 900-cam caulk.
 - Sanitation code requires a seal between the top of the proofer trim and the proofer wall and between the bottom of the proofer trim and the floor. The sealing should be done on inside and outside molding. Use PSI-601 or DOW Corning #732 silicone sealant.
- Minimum clearance to the walls (refer to drawing on page 8):
 - 3" to the back wall surface 3" to the hinged sidewall
 - 1" to the non-hinged side door

ELECTRIC

- This equipment requires two separate supply lines:
 - Control circuit: 120V/1PH, 15 AMP max. branch circuit protector size
208-240V/1PH, 15 AMP max. branch circuit protector size
 - Heating circuit: 208-240V/3PH/15.1-17.3 AMP unit with one duct
380-460V/3PH/9.2-11.5 AMP unit with one duct
440-480V /3PH/10.5-11.5 AMP unit with one duct
208-240V/IPH/26-30A unit with one duct

208-240V /3PH/30.2-34.6 AMP unit with two ducts
380-460V/3PH/18.4-22.2 AMP unit with two ducts
440-480V/3PH/21.2-23.2AMP unit with two ducts

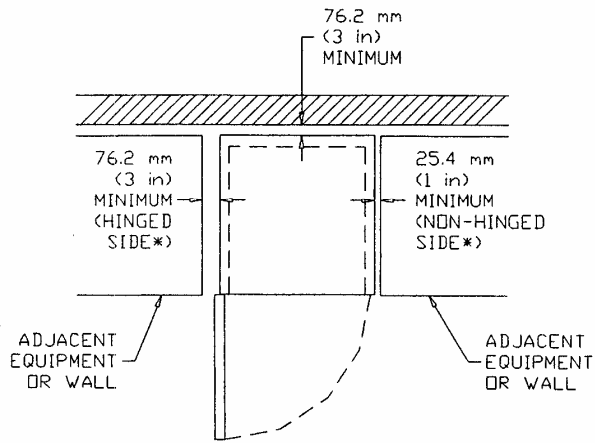
Units with two ducts are available only for 3-phase power supply line.

- All units are available for 50/60Hz frequency.
- Units with model numbers containing suffix "C" require only one power supply line. They are equipped with control transformers to supply the control circuits.

WATER

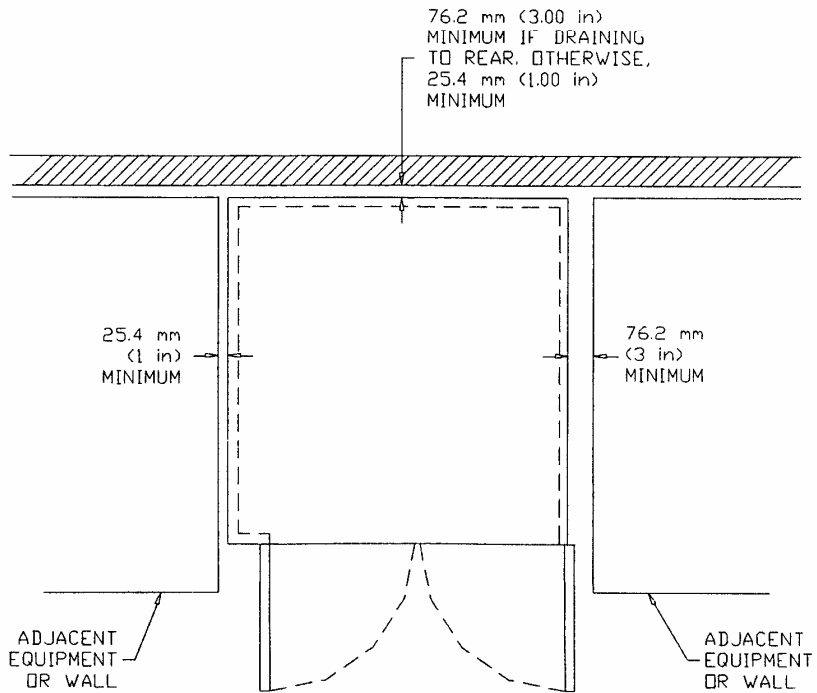
- Water inlet line 3/8". Connect to the water strainer on the top of the unit.
- Drain line -1/2"NPT connection located on the floor level in the back of the unit.
- Recommendation for inline water filter

DOOR OPTIONS



NOTE: DOOR CAN BE HINGED AT LEFT OR RIGHT SIDE UPON INSTALLATION. LEFT-HAND HINGE IS SHOWN.

1-WIDE UNITS



2-WIDE UNITS
















2.2 -INSTALLATION INSTRUCTIONS

GENERAL


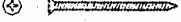
- This section illustrates how to install a proofer shipped fully assembled and also provides step by step procedure to assemble a proofer shipped knocked down.
- All necessary hardware is provided in enclosed hardware box.

HARDWARE BOX CONTENT FOR ASSEMBLED PROOFER:

PARTS LIST (TO BE SENT WITH ASSEMBLED PROOFER)

No	SKETCH	NAME	QTY	No	SKETCH	NAME	QTY
1		900 CAM CULK # 92	2	12		INNER JAM FRONT COVER	1
2		PSI-601	1	13		OUTER JAM COVER LEFT	1
3		3/8" DRILL BIT LG. 6"	1	14		CORNER JAM COVER	2
4		DRILL BIT #21 FOR 10-32 SCREW	1	15		REAR BASE TRIM, ALUMINUM OUTSIDE	1
5		TAP 10-32	1	16		SIDE BASE TRIM, ALUMINUM OUTSIDE	2
6		ANCHOR KNOCKING PIN (ANCHOR DRIVE)	1	17		REAR BASE TRIM S'STEEL INSIDE	1
7		14 GA X 3/4 X 2 SHIMS	40	18		SIDE BASE TRIM. S'STEEL INSIDE	2
8		"U" CHANNEL BACK	1	19		CONCRETE ANCHOR 1/4"-20 DRILL 3/8" DEPTH. 1 1/4" ZINC PLATED	16
9		"U" CHANNEL SIDE	2	20		WASHER	6
10		L-BRACKET	10	21		S'STEEL SCREW- FLAT HEAD PHILLIPS, 1/4-20 Lg. 3/4"	16
11		OUTER JAM COVER	1	22		S'STEEL SCREW- ROUND HEAD PHILLIPS, 10-32 Lg. 1/2"	52

ADDITIONAL HARDWARE FOR PROOFERS SHIPPED KNOCK DOWN

- | | | |
|-----|---|--|
| 23. |  | GIMLET SCREW 1/16"-18 1/2" LONG BLACK FINISH |
| 24. |  | ZINC PLATED STEEL-FLAT HEAD PHILLIPS, TYPE A, SHARP POINT No 14 Lg. 3" |
| 25. | | 1/16" ALLEN KEY |
| 26. | | PLUGS 1/4" |

INSTALLING ASSEMBLED PROOFER

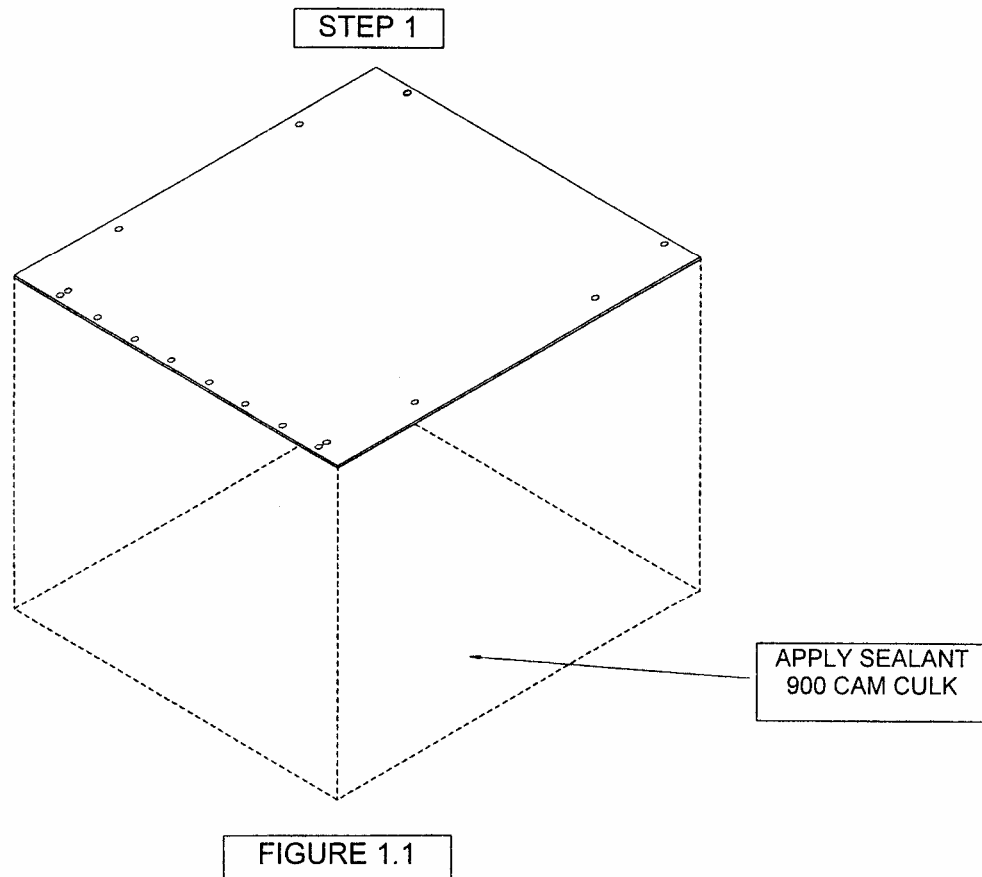
- Locate the proofer final position and marked it up on the floor.
- If proofer is not equipped with a floor install the back and sides U-brackets. Anchor the back U-bracket to the floor with two anchors. Follow instructions starting on page 14 for further installation.
- For proofers with floor, follow instructions for floor installation, place the unit on the floor and follow instructions starting on page 14 for further installation.

INSTALLING KNOCKED DOWN PROOFER

- For easier installation proofer is shipped in pre-assembled modules: left side wall, right side wall, back wall, roof with control box, doors, hood.
- Make sure that the floor where proofer will be located is dry and clean.

FLOOR INSTALLATION

- Make sure that the floor where proofer will be located is dry and clean.
- Step 1. Determine final proofer location. Mark up the proofer floor location and apply PSI- 900 sealant (provided in the hardware box) on the bottom side of proofer floor. Place proofer floor in its location.



- Step 2. Drill holes and anchor proofer floor along the front and side edges. Use 10 anchors item 19 on hardware list.

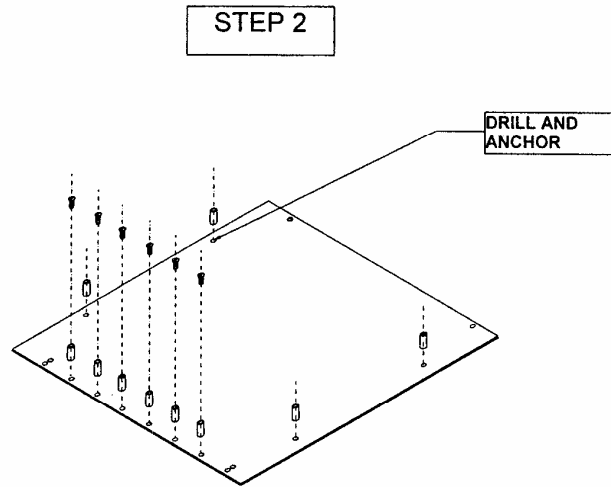


FIGURE 1.2

- Step 3. Install back and side U-brackets and anchor the back bracket through the proofer floor to the building floor. Use 2 anchors item # 19 on hardware list. Do not anchor the side U-brackets.

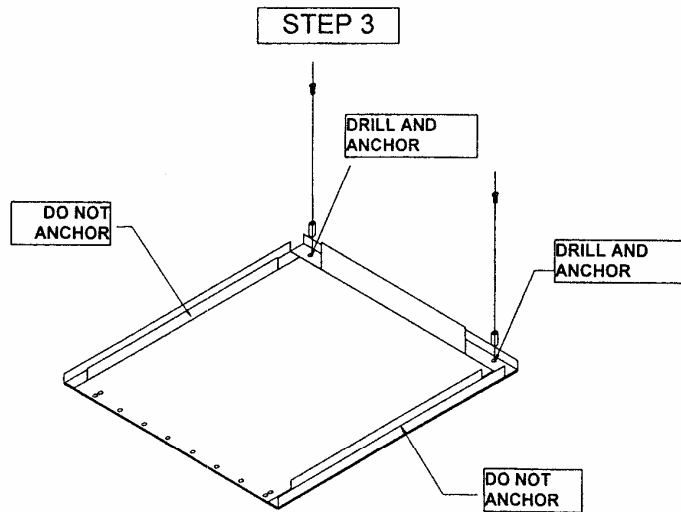


FIGURE 1.3

WALLS INSTALLATION

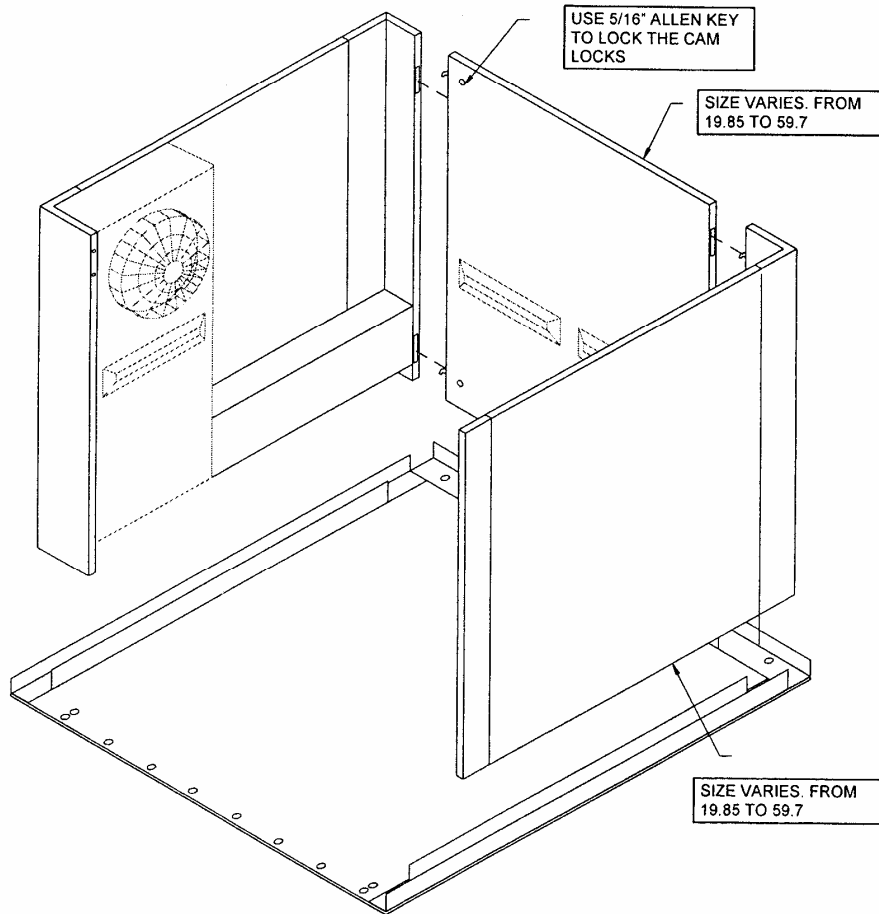


FIGURE 2

- Locate the walls in the proper position and using 5/16 Allen key lock the cam locks to connect the proofer back with left and right sidewalls.
- Install caps provided in the hardware box to cap of the cam lock holes

INSTALLING FRONT CROSS-BAR

INSTALLING FRONT CROSS-BAR

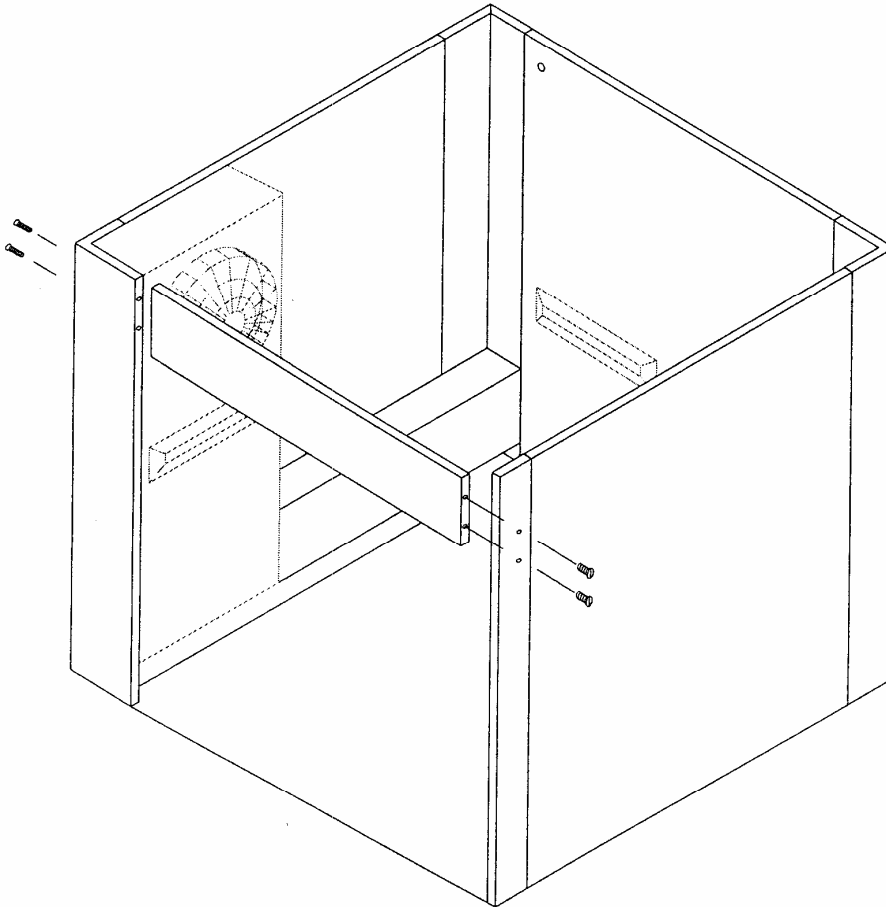


FIGURE 3

- Installing a crossbar above the door
- Use screws (item # 23) on page 9

INSTALLING PROOFER ROOF

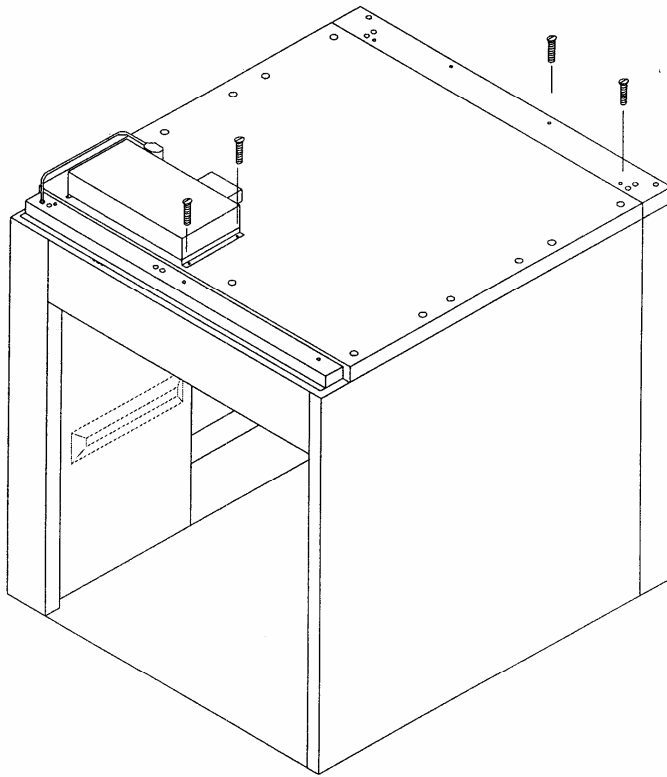


FIGURE 4

- Install proofer roof and mount it with screws to the walls.
- Install the electrical control box in location marked up on the roof. Mounting holes are made in the roof. Use screw (item #23) on hardware list on page 9.
- For roof mounting use screws (item #24) on hardware list on page 9.

INSTALLING PROOFER HOOD

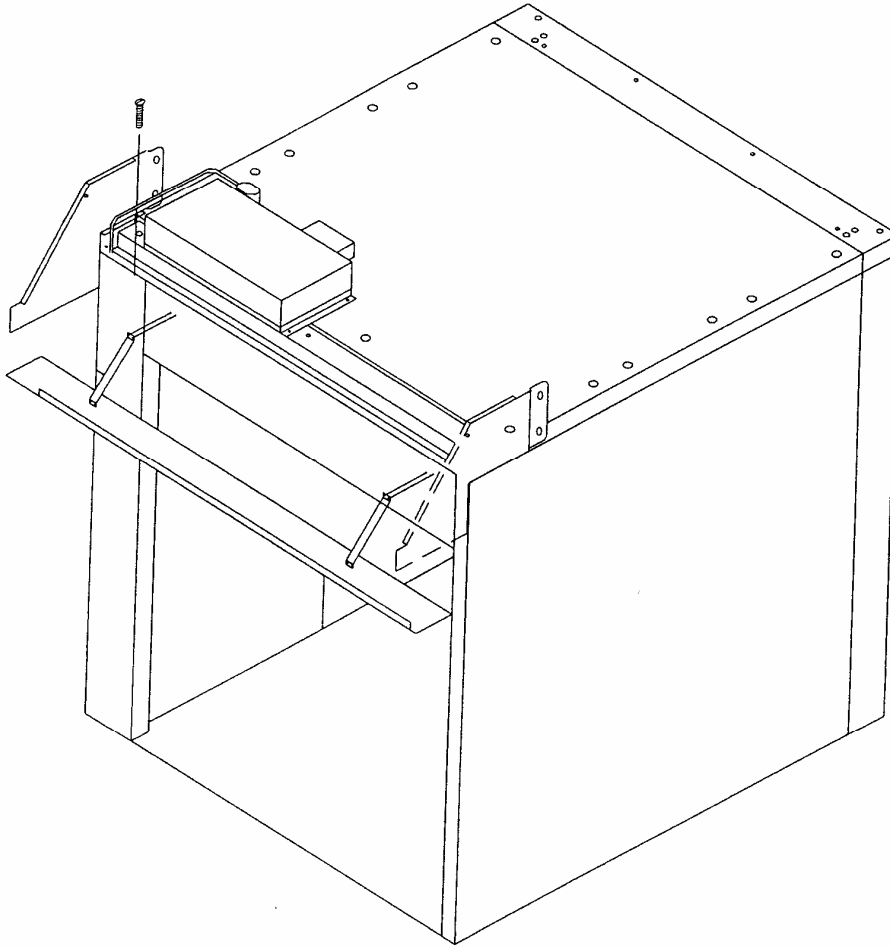


FIGURE 5

- Install proofer hood by mounting it to the side walls and to the front crossbar
- Use screws (item # 22) on hardware list on page 9.

INSTALLING PROOFER DOORS

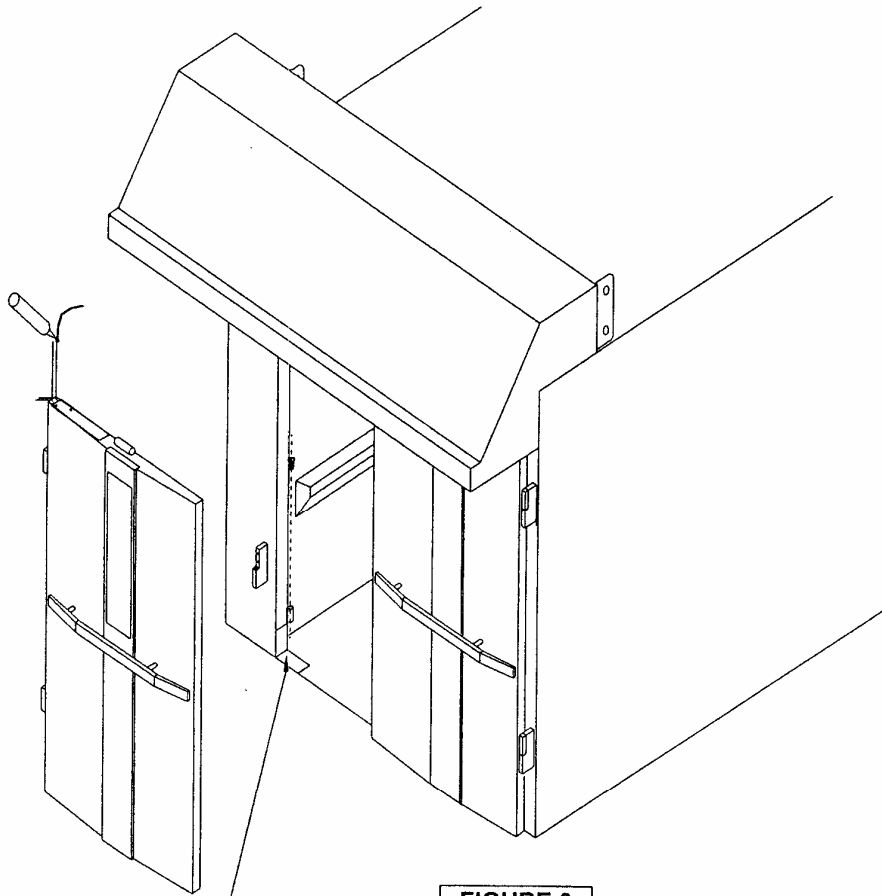


FIGURE 6

INSTALL PROPER SIZE OF L BRACKETS
ON BOTH SIDES OF THE DOOR JAM
USE 2 ANCHORS AND 2 SCREWS PER
BRACKET

- Install proofer doors (one door on single door units) by hanging them on the hinges.
- Check if doors open correctly and if gap between the doors is even. If necessary level the proofer by shimming the walls with shims and adjust the door jam by pushing the bottom of the door jam to inside or outside. Make an adjustment for each door. Install the proper size of L bracket (5 L brackets are provided for each door) by screw mounting them to the wall and anchoring them to the floor. Use two anchors (item # 19) and two screws (item # 21) per bracket.
- Use caution while installing door equipped with the electronic controller. Stick the protective tube with a telephone cable through a hole in the hood and seal it with silicone. Connect the telephone cable to the proper plug on the relay board located in the electrical control box.

INSTALLING PROOFER TRIMS

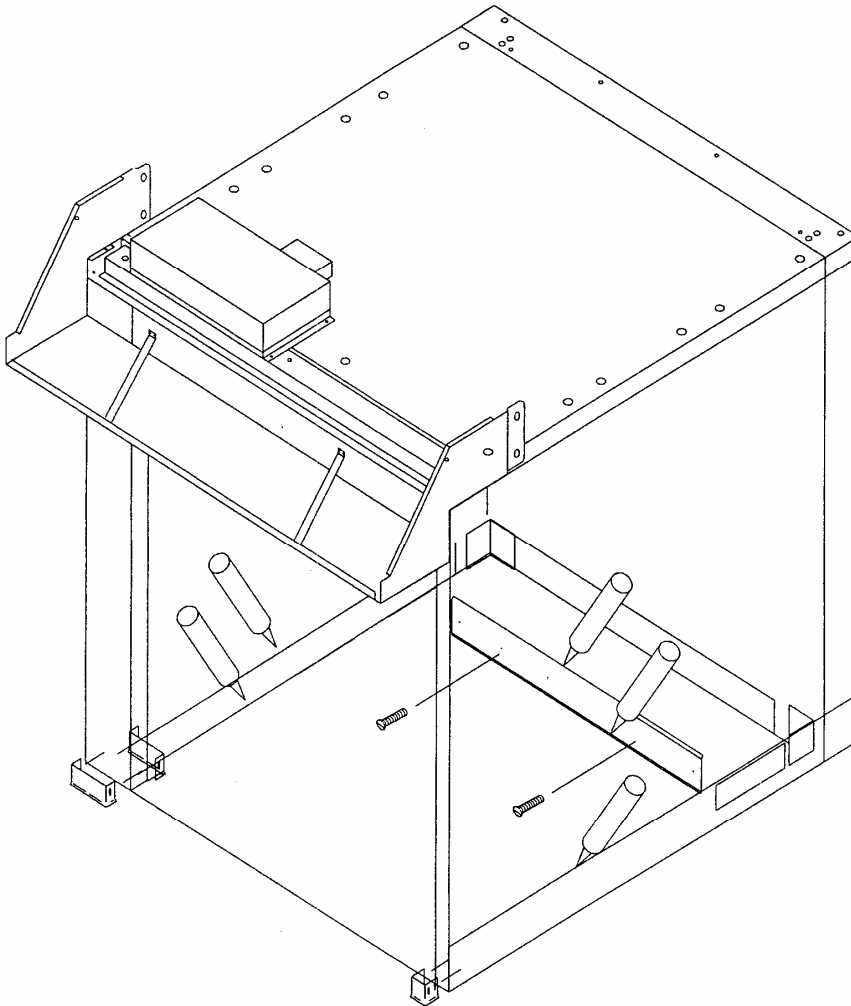


FIGURE 7

NOTE: Drawing shows proofer with doors removed for better visibility.

- Check if proofer is leveled and if doors operate correctly.
- Shim walls if necessary with (Item # 7) on hardware list on page 9
- Install inside and outside trims by drilling holes and mounting them to the proofer walls. Install outer and inner jam covers and corner covers.
- **Silicone the edges between trim and floor and trim and walls with PSI-601 silicone sealant.**
- For trim mounting use screws (item # 22) on hardware list on page 9.

ELECTRICAL CONNECTIONS

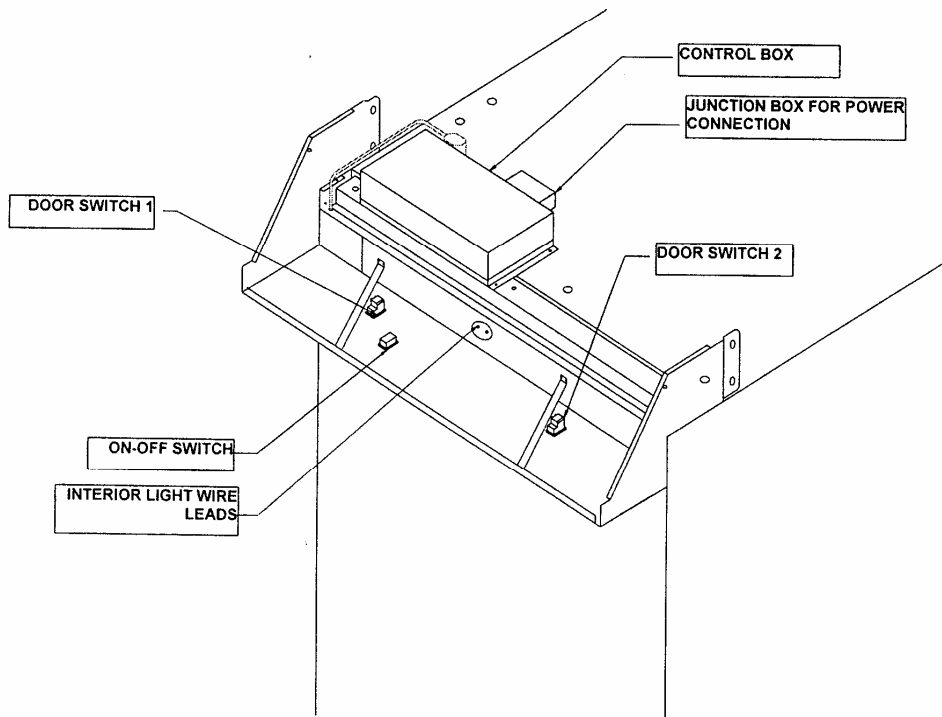
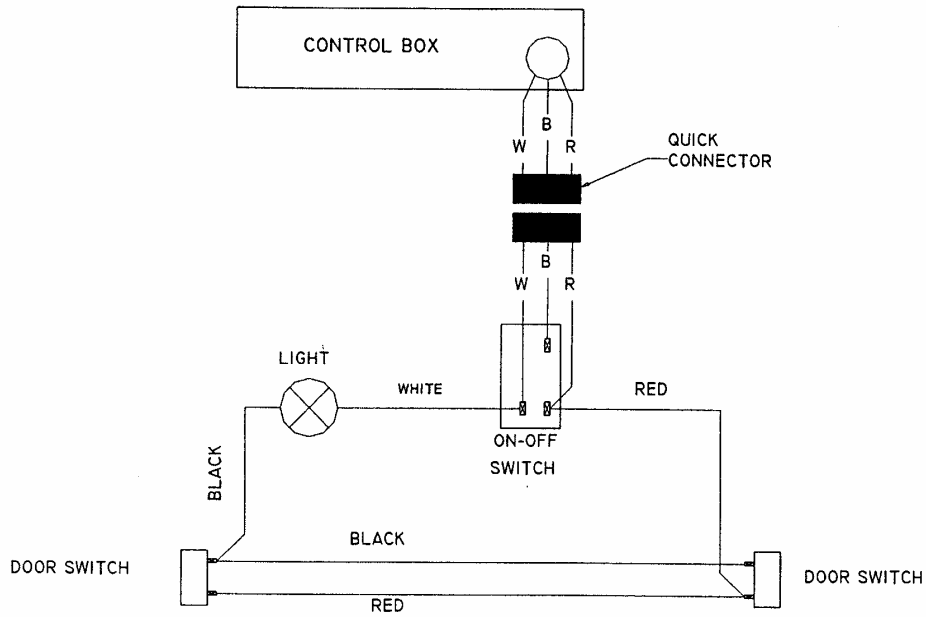


FIGURE 8

- Figure 8 shows electrical parts location on the proofer top.
- For electrical connections inside the hood and on the top of the proofer refer to drawings on figure 9 and 10.

ELECTRICAL CONNECTIONS INSIDE THE HOOD



WIRE COLOR CODE:
B - BLACK
R - RED
W - WHITE

FIGURE 9

- Connect together a quick connector to complete electrical connections inside the hood.

**ELECTRICAL CONNECTIONS ON THE TOP OF THE PROOFER:
HEATING ELEMENTS, FAN MOTOR.**

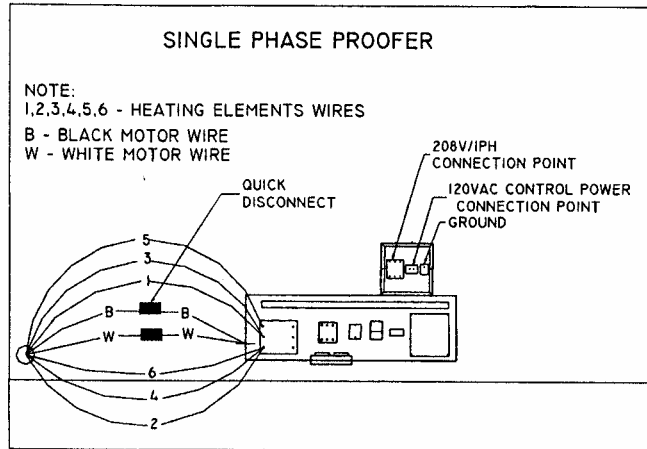


FIGURE 10.1

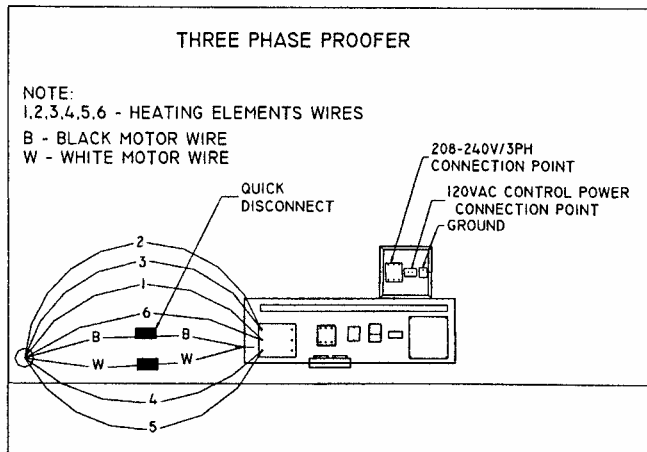


FIGURE 10.2

- Wires for heating elements and the fan motor are pulled back to the steam air duct for transportation.
- Remove air duct cover and insert the fan motor wires (white and black, hi temp wires) through a hole in the proofer roof. Make connections on the roof following wires color code. Wires are equipped with quick connect terminals.
- Insert heating element wires through a hole in the proofer roof and run them to the control box. Make connections on the terminal block following above instructions for single phase and three phase units. Wires and terminal block are marked with numbers.
- Wire colors legend:
 - B -black
 - W -white
 - PU -purple

PLUMBING CONNECTIONS

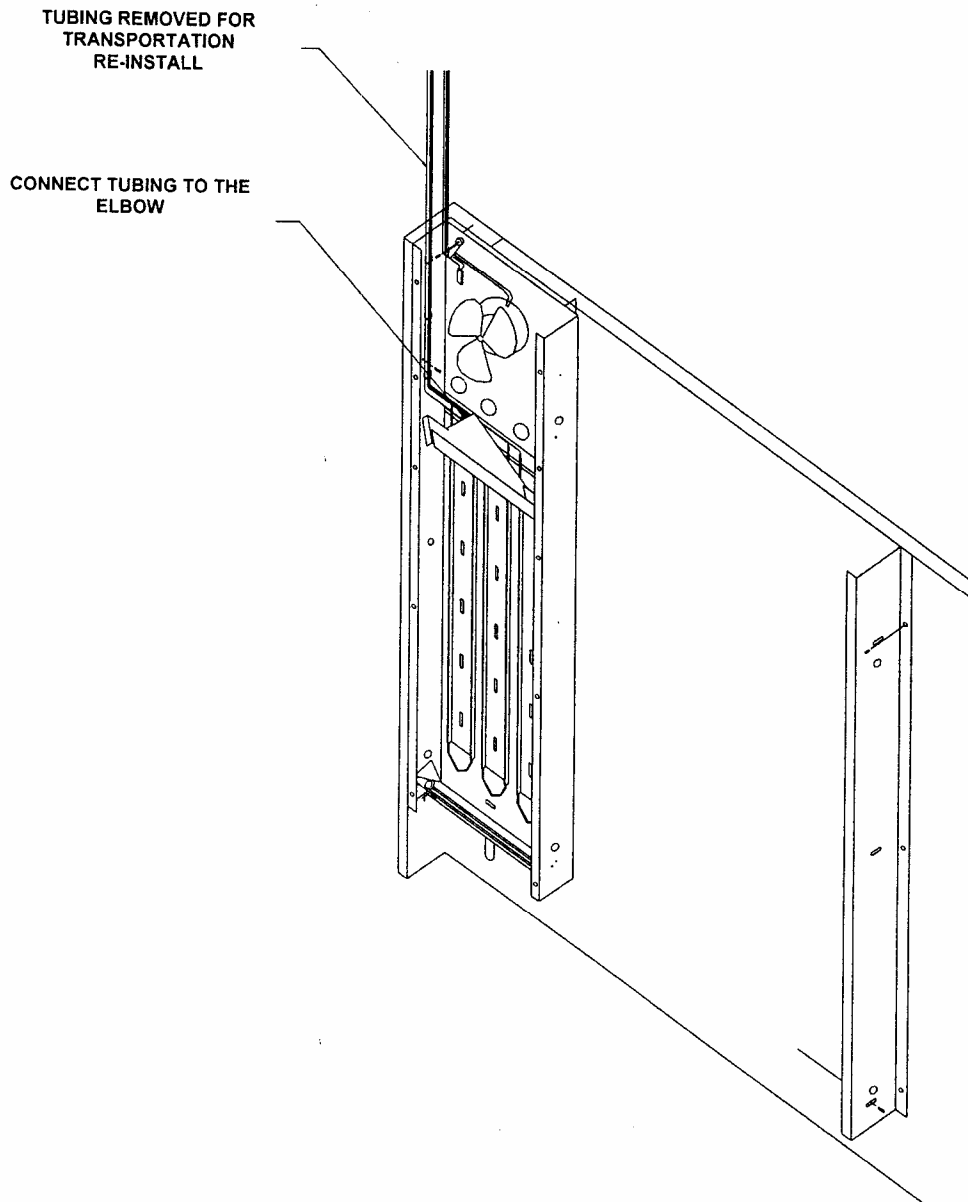


FIGURE 11

- Water line from water nozzle to the roof is disconnected for transportation.
- Remove air duct cover and re-install the water tubing by connecting it to the elbow with the nozzle.
- Air duct location varies for different models.

PLUMBING CONNECTIONS ON THE ROOF

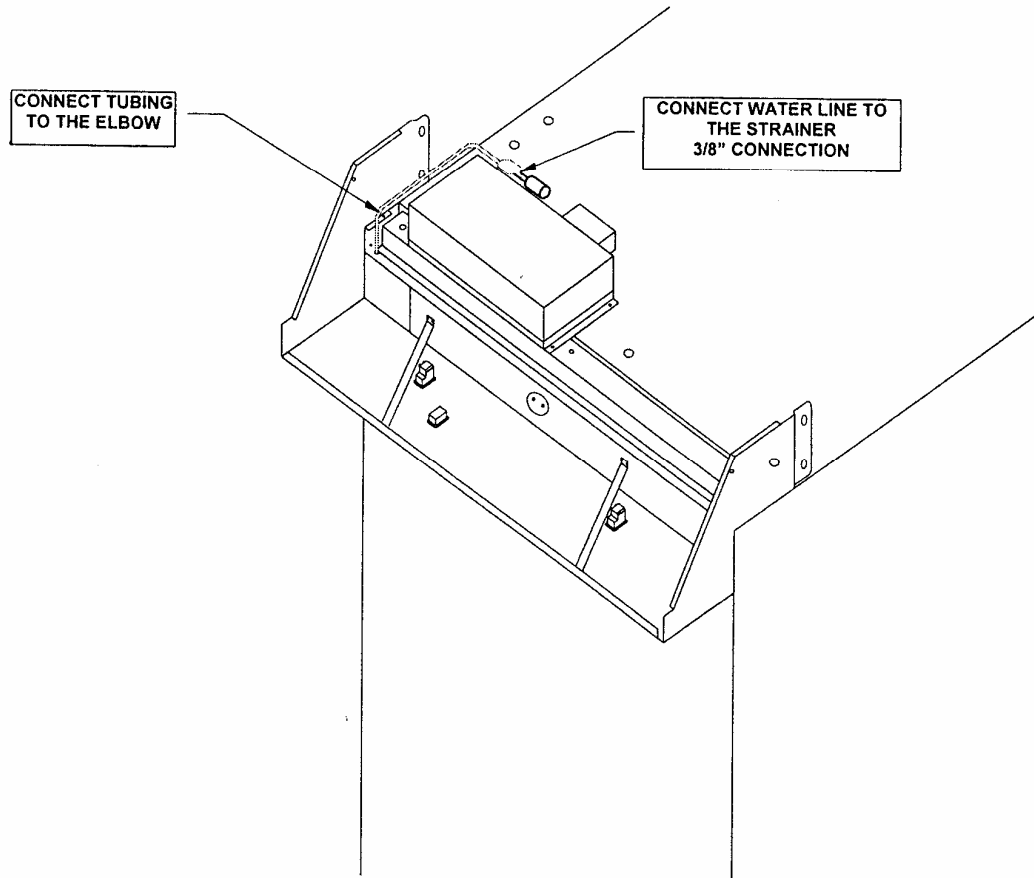


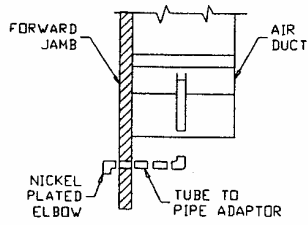
FIGURE 12

- Connect tubing from the water valve to the tubing from the air duct.

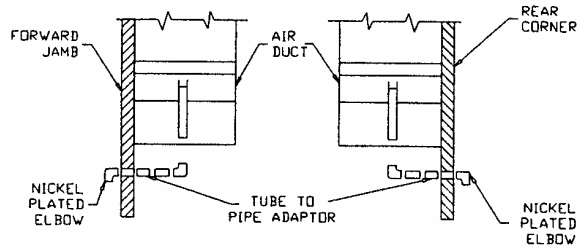
Note: On different units the air duct is located in the back of the proofer.
The biggest models are equipped with two air ducts.

- Connect water inlet line to the strainer 3/8".
- Connect the drain line 1/2" NPT. Standard drain connection point is located 5" above the floor, in the back wall. Refer to drawing on page 23 for different drain locations.

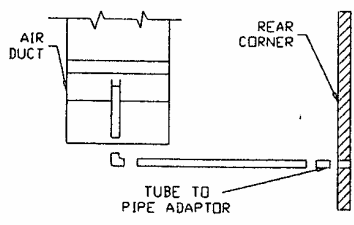
DRAIN CONNECTIONS



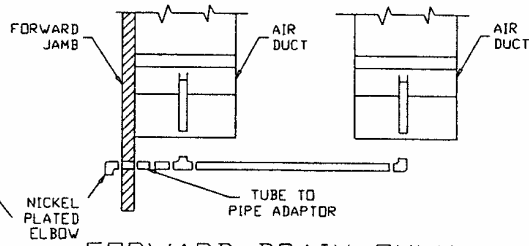
FORWARD DRAIN
(SINGLE AIR DUCT)



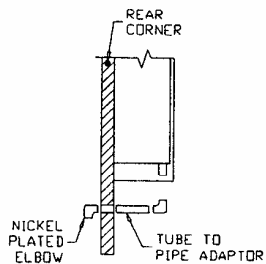
FORWARD AND REAR DRAIN
(DUAL AIR DUCTS)



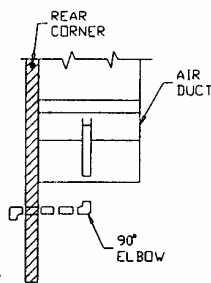
REAR DRAIN
(SINGLE AIR DUCT)



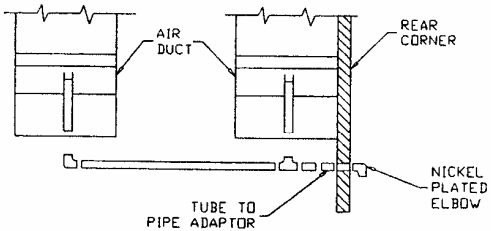
FORWARD DRAIN ONLY
(DUAL AIR DUCTS)



SIDE VIEW



FRONT VIEW



REAR DRAIN ONLY
(DUAL AIR DUCTS)

REAR DRAIN
(1 WIDE STANDARD ONLY)

2.3 - UTILITY CONNECTIONS

ELECTRICAL

- A junction box with two-power terminal is located on the top of the proofer, behind control compartment
- Connect 3-phase or 1-phase heating circuit to the bigger terminal block inside the junction box.
- Connect 1-phase 120V or 208-240V control circuit to the small terminal inside the junction box.
- Connect a ground wire to the ground log inside the junction box.
- A qualified contractor in accordance with the local electrical codes should perform electrical work.

PLUMBING

- Water inlet line 3/8". Connect to the water strainer on the top of the unit.
- Drain line –1/2" NPT connection located on the floor level in the back of the unit.
- A locally licensed plumbing contractor should make all connections.

3.0 OPERATION INSTRUCTIONS

3.1 -CONTROL PANEL

GENERAL DESCRIPTION

The following refer to control panel drawing on page 27.

ON KEY (1):

- Pressing this key will turn proofer controller ON

OFF KEY (2):

- Pressing this key will turn proofer controller OFF.

TEMPERATURE DISPLAY (3):

- Shows set temperature (as default) when set LED is on.
- Shows actual temperature when ACT LED is on.
- Pressing simultaneously temperature up and down arrow keys will toggle between set and actual temperature.

SET TEMPERATURE INDICATOR LED (4):

- Indicates that display is displaying set temperature.

READY INDICATOR LED (5):

- Indicates that proofer has reached the set temperature.

ACTUAL TEMPERATURE INDICATOR LED (6):

- Indicates that display is displaying actual temperature.

TEMPERATURE DOWN Key - (7):

- Pressing this key will decrease temperature in increments of 1 degree.

TEMPERATURE UP KEY (8):

- Pressing this key will increase temperature in increments of 1 degree.

RELATIVE HUMIDITY DISPLAY (9):

- Shows set humidity (as default) when set LED is on.
- Shows actual humidity when act LED is on.
- Pressing simultaneously humidity up and down arrow keys will toggle between set and actual humidity.

SET HUMIDITY INDICATOR LED (10):

- Indicates that display is displaying set humidity.

READY INDICATOR LED (11):

- Indicates that proofer has reached the set humidity.

ACTUAL HUMIDITY INDICATOR LED (12):

- Indicates that display is displaying actual.

HUMIDITY UP KEY (13):

- Pressing this key will increase relative humidity in increments of 1 %.

HUMIDITY DOWN KEY (14):

- Pressing this key will decrease relative humidity in increments of 1 %.

TIMER DISPLAY (15)

- Displays the timer number, which is actually in operation.

TIME DISPLAY (16)

- Displays time set to the selected timer. If there is more than one timer used in the same proof cycle display always shows the timer with the shortest time and when this time is finished the controller turns the buzzer on for 15 seconds. This alarm can be canceled by pressing the stop key. After the alarm is canceled time display starts counting down the remaining time on the timer with the next shortest time. After the last timer time is finished the controller turns the alarm on and it will stay on until is canceled by pressing the stop key. The final alarm has a different tone than the first one.

TIMER KEYS (17)

- There are four timer keys. Pressing each key selects each timer so the time can be set to this timer. When time is set to any timer, the indicator light above this timer comes on.

TIME DOWN KEY (18)

- Pressing this key will decrease set time on selected timer in increments of 1 deg.

TIME UP KEY (19)

- Pressing this key will increase set time on selected timer in increments of 1deg.

SELECT KEY (20)

- Pressing this key will select the next timer. It can be used for setting or checking the set time on different timers.

PRODUCTS KEYS (21)

- There are six product keys. They allow programming settings for six different products.
- Pressing and releasing the Key will recall previously set parameters. If nothing was programmed it will recall the default settings for temperature and humidity.
- Pressing and holding the key for more than 3 seconds will save the settings to the product key.
- Indicator light above each key indicates which product key is being actually used.

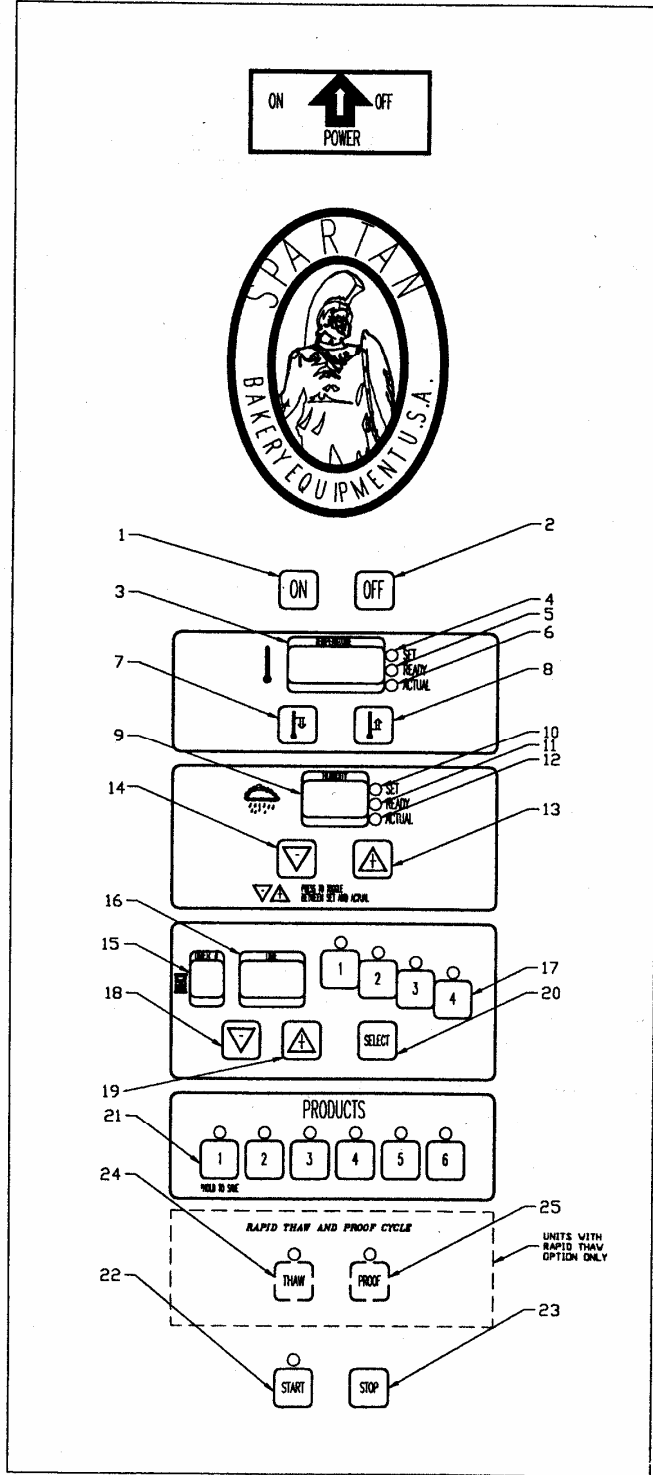
START KEY (22)

- Pressing this key will start the proof cycle. Time display will be flashing while counting down the proof cycle time. The indicator light above the start key will come on. . If there is no time set to any timer pressing the start key will do nothing.

STOP KEY (23)

- If pressed during the proof cycle it will stop the proof cycle.
- If pressed after alarm turns on, but another timer still has some remaining time, it will cancel the alarm and the time display will start counting down the remaining time on the other timer.
- If pressed after the last timer time has finished and alarm turns on, it will stop the proof cycle.

CONTROL PANEL



MANUAL OPERATION

TURNING THE PROOFER ON:

- Make sure the both supply lines to the proofer are on.
- 208 or 240 or 480V, 1ph or 3ph power lines.
- 120V, 1ph control line.
- Turn the power switch located above the proofer door to "ON" position. The red indicator light on the switch comes on. It turns on the control power to the proofer.
- Press on key (1) on the proofer controller.
- Temp. Display (3) shows 100°F default temperature. Temperature set light (4) is on.
- Humidity display (9) shows 80% default humidity. Humidity set light (10) is on.
- Time display (16) indicates 00 (no time set).

SETTING TEMPERATURE:

- Pressing the up (8) or down (7) temperature arrow keys will increase/decrease the set point temperature displayed (17) in increments of one degree.
- The maximum proof temperature setting is 120°F or 49°C.
- The minimum proof temperature setting is 70°F or 21°C.
- The default proof temperature is 100°F or 38°C.
- Pressing the up and down key simultaneously will toggle between displaying set or actual proofer temperature. Set (4) or act (6) indicator lights indicate which temperature (set or actual) is being displayed.

SETTING HUMIDITY:

- Pressing the up (13) or down (14) humidity arrow keys will increase/decrease the set point humidity displayed (9) in increments of one degree.
- The maximum proof humidity setting is 95%.
- The minimum proof humidity setting is 50%.
- The default proof humidity setting is 80%.
- Pressing the up and down key simultaneously will toggle between displaying set or actual proofer humidity. Set (14) or act (13) indicator lights indicate which relative humidity (set or actual) is being displayed.

SETTING PROOF TIME:

- Pressing the up (19) or down (18) time arrow keys will increase/decrease the set proof time displayed (16) in increments of one minute.
- The indicator light above timer key (17) number 1 will come on and number 1 will appear on the timer display (15). It indicates that there is time set on timer number 1.
- If another timer should be programmed, press another timer key or select key. Another timer indicator light will come on and the timer display (15) will display the timer number. Use up and down keys to set the time to another timer.
- There are four independent timers, which can be used simultaneously during the same proof cycle.
- The maximum time setting for each timer is 99 minutes.
- When proof cycle is started timer display (15) shows the timer number with the shortest time and the time display (16) counts down the time set to this timer. When this time is finished, unit will turn the alarm on (short beeps) for 15 seconds or until is it cancelled by pressing the stop key (23).

PREHEATING PROOFER AND LOADING PRODUCT

- After setting temperature, humidity and proof time allow about 15 min to preheat the proofer.
- The proofer will automatically preheat to the set point temperature and humidity.
- The ready led for temperature (5) and humidity (11) will come on indicating that the proofer has reached the settings.
- Open proofer door and roll the racks with product into the proofer. For better proofing results, reduce to the minimum door open time.

STARTING PROOF CYCLE

- Press the start key (22). Indicator led above the start key will come on.
- Time display will blink counting down the proof time.
- When proof cycle is started, timer display (15) shows the timer number with the shortest time and the time display (16) counts down the time set to this timer. When this time is finished the unit will turn the alarm on (short beeps) for 15 seconds or until it is canceled by pressing the stop key (23). If there is another timer with time programmed it's number will appear on the timer display (15) and the time display (16) will start counting down time remaining on the next timer.
- When time programmed to the last timer is finished, the unit will turn the alarm on (long beep) and all displays will blink until top key (23) is pressed.

PROGRAMMED RECIPES OPERATION

PROGRAMMING RECIPIES

- Turn the proofer on by following procedure as described in manual operation section.
- Press the product number key (21) that corresponds to the product you wish to program. That key led will illuminate.
- Make sure that temperature is in set mode, set led (4) is on. If not press simultaneously up (8) and down (7) temperature arrow keys to change temperature to the set mode.
- Press the proofer temperature up (8) or down (7) keys to increase/decrease the set point temperature displayed (3).
- Make sure that humidity is in set mode; set led (10) is on. If not press simultaneously up (14) and down (13) humidity arrow keys to change humidity to the set mode.
- Press the proofer humidity up (14) or down (13) keys to increase/decrease the set point humidity displayed (9).

- Press the up (19) or down (18) time arrow keys to increase/decrease the set proof time displayed (16) in increments of one minute.
- The indicator light above timer key (17) number 1 will come on and number 1 will appear on the timer display (15). It indicates that there is a time set on timer number 1.
- If another timer should be programmed press another timer key or select key. Another timer indicator light will come on and the timer display (15) will display the timer number. Use up and down keys to set the time to another timer.
- There are four independent timers, which can be used simultaneously during the same proof cycle.
- To save the program, press and hold the appropriate product number key until the controller beeps, indicating that the recipe has been saved.

PROOFING WITH PROGRAMMED RECIPIES:

- Press proofer controller on switch (1).
- Press the product number key (21) that corresponds to the product to be proofed. The respective LED will be illuminated.
- The proofer will automatically adjust itself to the set point temperature and humidity.
- Wait until ready led for temperature and humidity will come on or verify if temperature and humidity has reached the set points by switching to the actual mode.
- Open proofer door and roll racks with the products inside the proofer.
- Press the start key (22) to initiate the countdown timer in the time display window (16).
- The time display will blink with 1-sec increments while the timer is counting down.
- At the end of the proof cycle an alarm will sound, "00" will appear in the time display and all of the display will blink.
- Press the stop key to silence the alarm.
- Proofer controller will reset to previously select product key unless a different product key is pressed.
- Open proofer door, check the product and if it is done remove it from the proofer.

NOTE:

Try to avoid often door opening during the proof cycle because it will slow down the proofing process.

4.0 FINAL ADJUSTMENTS

4.1 - PROOFER CALIBRATION

TEMPERATURE CALIBRATION

Turn the proofer on.

- Place a mercury thermometer with a temperature range up to 200°F inside the proofer. Thermometer should be placed on an empty rack in the middle of its height.
- Temperature display will show 100°F default temperature.
- Humidity display will show 85% default relative humidity.
- Allow about 20 minutes until proofer reaches default parameters. Ready LED's for temperature and humidity should be on.
- Press simultaneously up (8) and down (7) arrow temperature keys to switch the display to actual temperature mode.
- Open the proofer door for the short time and check thermometer reading.
- If the temperature indicated on the mercury thermometer does not match the actual proofer temperature displayed by the control, calibrate the control in setup mode
 1. Turn the proofer off (press off key 2).
 2. While pressing both start and stop keys turn the proofer on (press on key 1).
 3. Timer number display shows P and timer display shows parameter number.
 4. Press time up arrow key until parameter number 3 is displayed.
 5. Temperature display shows actual temperature.
 6. Adjust the displayed proofer temperature by using temperature arrow keys (7) and (8) to match temperature showed by mercury thermometer.
 7. Exit setup mode by pressing and holding stop key (23) and pressing select key (20).
 8. Proofer goes back to regular operation.

HUMIDITY CALIBRATION

- Turn the proofer on.
- Place a digital hygrometer inside the proofer. The hygrometer should be placed on an empty rack in the middle of its height.
- Temperature display will show 100°F default temperature.
- Humidity display will show 85% default relative humidity.
- Allow about 20 minutes until proofer reaches default parameters. Ready LED's for temperature and humidity should be on.
- Press simultaneously up (14) and down (13) arrow humidity keys to switch the display to actual humidity mode.
- Open the proofer door for the short time and check the hygrometer reading.
- If the humidity indicated on the digital hygrometer does not match the actual proofer humidity displayed by the control, calibrate the control in setup mode.
 1. Turn the proofer off (press off key 2).
 2. While pressing both start and stop keys turn the proofer on (press on key 1).
 3. Timer number display shows P and timer display shows parameter number.
 4. Press time up arrow key until parameter number 4 is displayed.
 5. Humidity display (9) shows actual temperature.
 6. Adjust the displayed proofer humidity by using temperature arrow keys (7) and (8) to match humidity showed by digital hygrometer.

7. Exit setup mode by pressing and holding stop key (23) and pressing select key (20).
8. Proofer goes back to regular operation.
9. Proofer goes back to regular operation.

4.2 - PARAMETERS SETTING

SETUP MODE

ENTERING SETUP MODE

- Turn the proofer off (press off key 2).
- While pressing both start and stop keys turn the proofer on (press on key 1).
- Timer number display shows “P” and timer display shows parameter number 1.

THE LIST OF PROGRAMMABLE PARAMETERS

- P1 -default temperature set to 100 °F. Use temperature arrow keys for adjustment.
- P2 -default relative humidity set to 85%. Use temperature arrow keys for adjustment.
- P3 -temperature calibration. Procedure is described above.
- P4 -humidity calibration. Procedure is described above
- P5 -fan on time. Use temperature arrow keys for adjustment.
- P6 -fan off time. Use temperature arrow keys for adjustment
- P7 -heat on time. Use temperature arrow keys for adjustment
- P8 -heat off time. Use temperature arrow keys for adjustment
- P9- water on time. Use temperature arrow keys for adjustment
- P10 -water off time. Use temperature arrow keys for adjustment

NOTE:

Proofer parameters are pre-calibrated at the factory for the best performance. Changing parameters different than P3 and P4 can be done only by factory authorized personnel. Changing these parameters can void the warranty!

5.0 MAINTENANCE

5.1 -CLEANING INSTRUCTIONS

DAILY:

At the end of each working day wipe down the proofer interior walls and door to remove any excess condensation and mop out floor of any excess moisture. Leave doors slightly open to allow walls and floor to completely dry.

WEEKLY:

Clean interior and exterior of proofer with mild soap and water solution.

Do not use the following to clean the proofer interior:

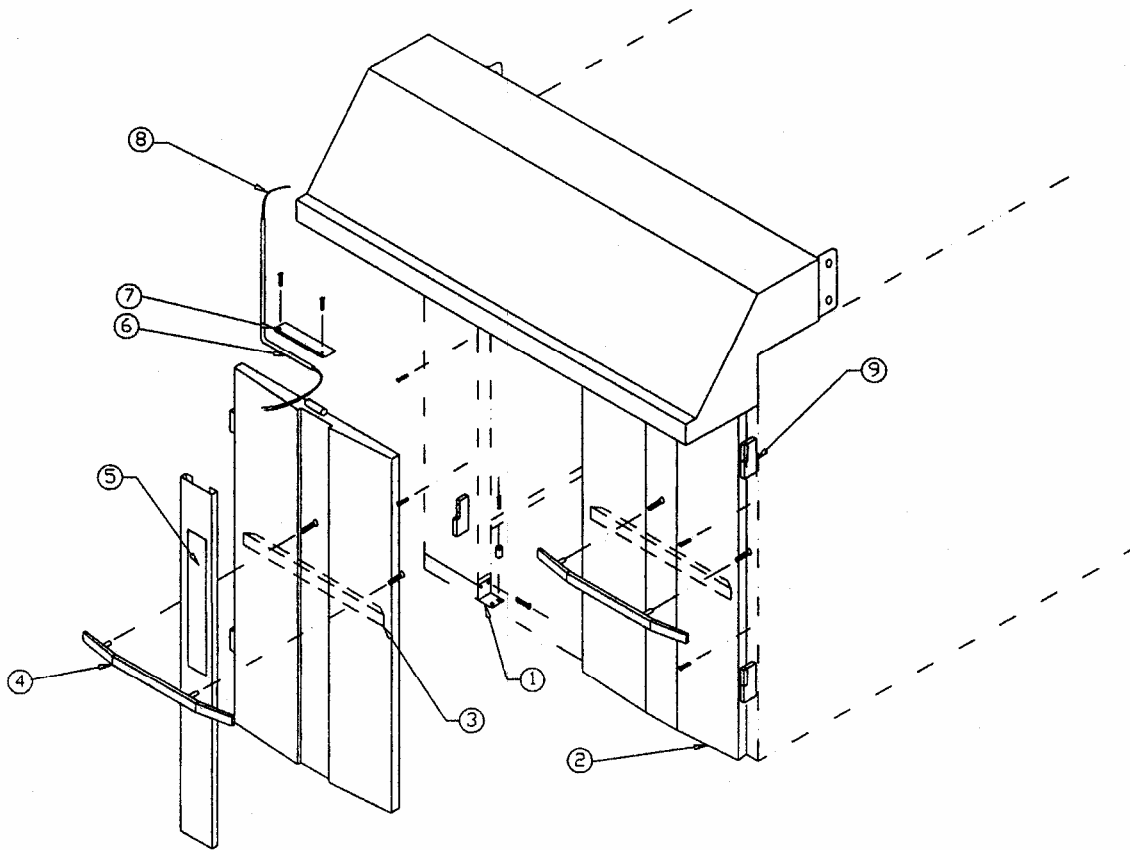
- Abrasive cleaners such as cleaners, they can permanently mar the interior surface.
- Stainless steel cleaners containing oils, they can cause smoke or flavoring of the products.
- Any cleaners containing acids or bleach, which can cause dangerous vapors.
- **Never use a hose or power washer to wash down the exterior or interior of the proofer as it could cause water to get into the electrical panels.**

5.2 -PREVENTIVE MAINTENANCE

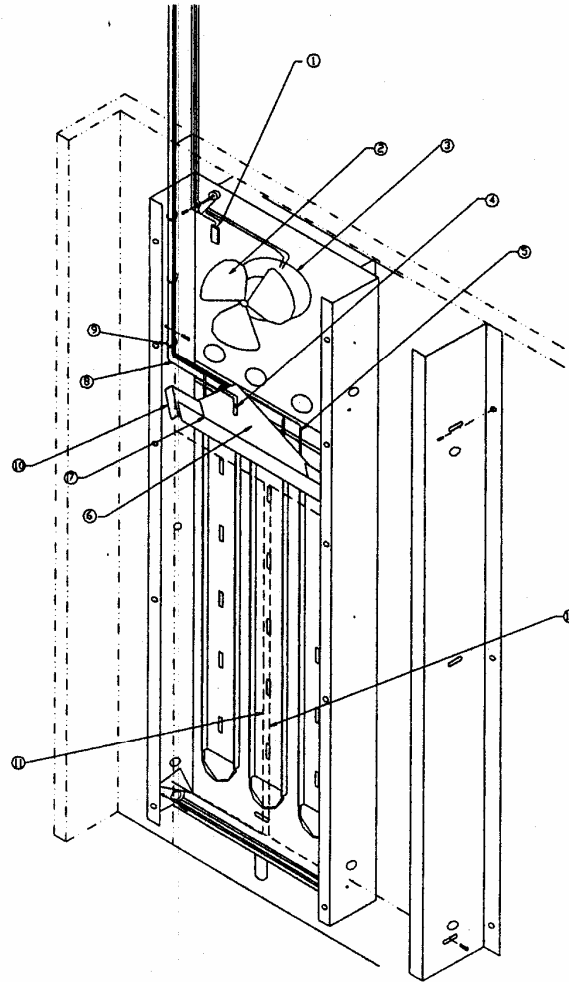
To be performed every six months by service agency or trained store maintenance technician.

- Check condition of door gaskets.
- Check doors operation and door seal. Door must self close and seal on all sides properly.
- Check the top of the proofer and cleaned from derbies.
- Check water connections for leaking.
- Check temperature and humidity calibration.

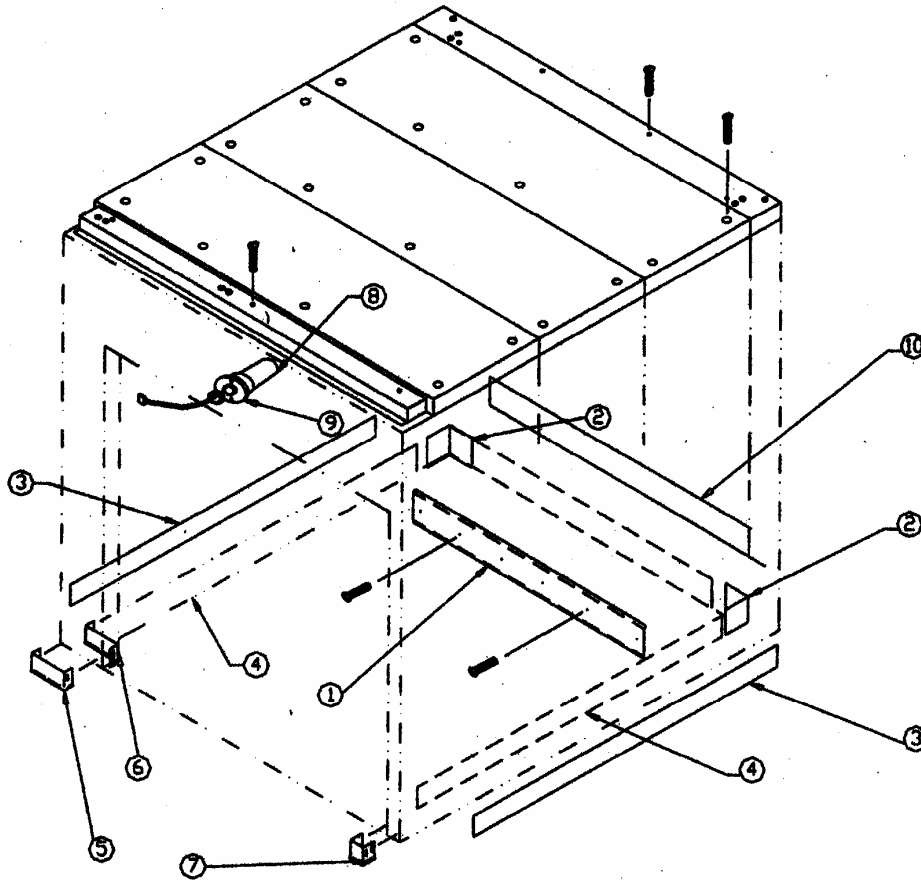
PROOFER PARTS BREAKDOWN



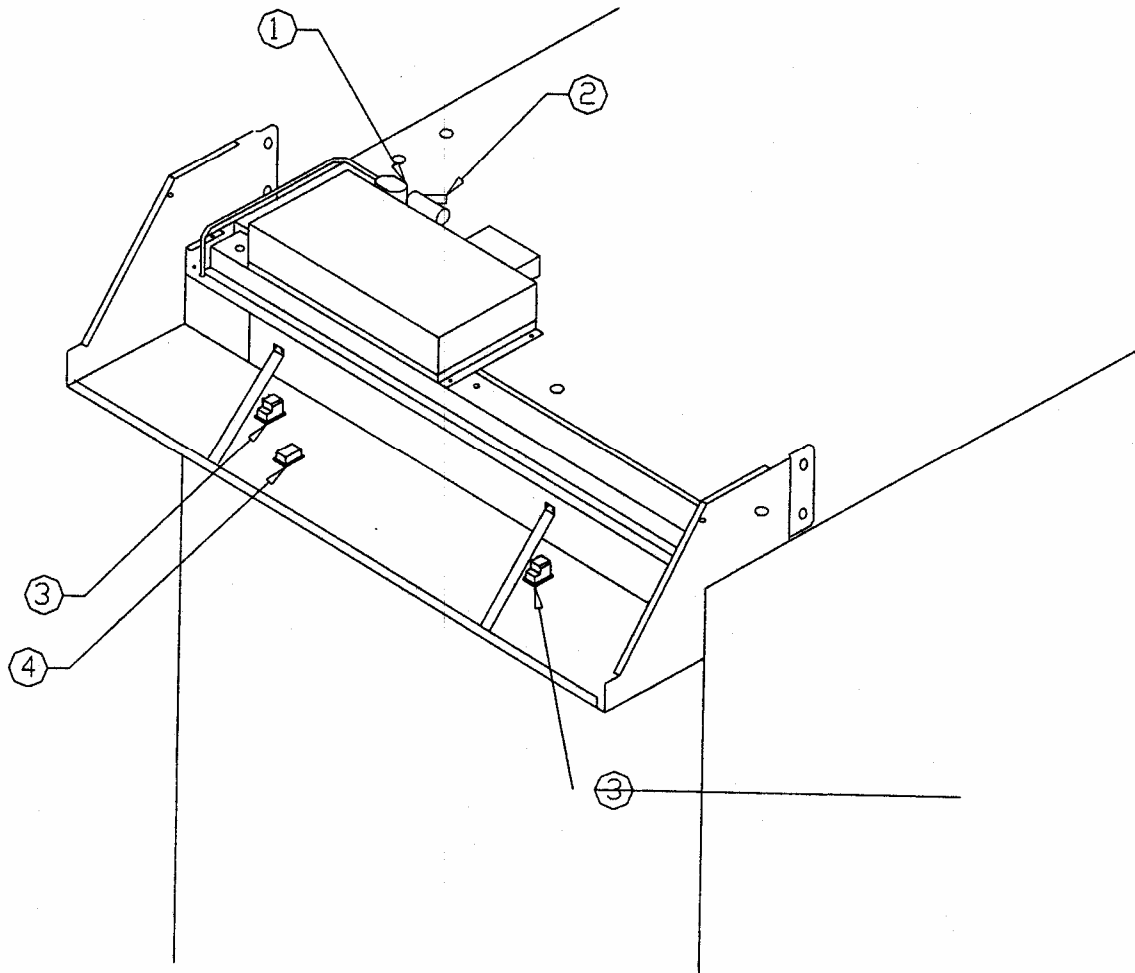
- | | |
|--------------------------|-------|
| 1. Door L-Bracket | SP050 |
| 2. Door magnetic gasket | SP025 |
| 3. Door bumper | SP023 |
| 4. Door handle | SP051 |
| 5. Proofer controller | SP009 |
| 6. Cable protective pipe | SP052 |
| 7. Holding plate | SP053 |
| 8. Controller cable | SP013 |
| 9. Door hinge male | SP054 |
| Door hinge female | SP055 |
| 10. Sweep gasket | SP049 |



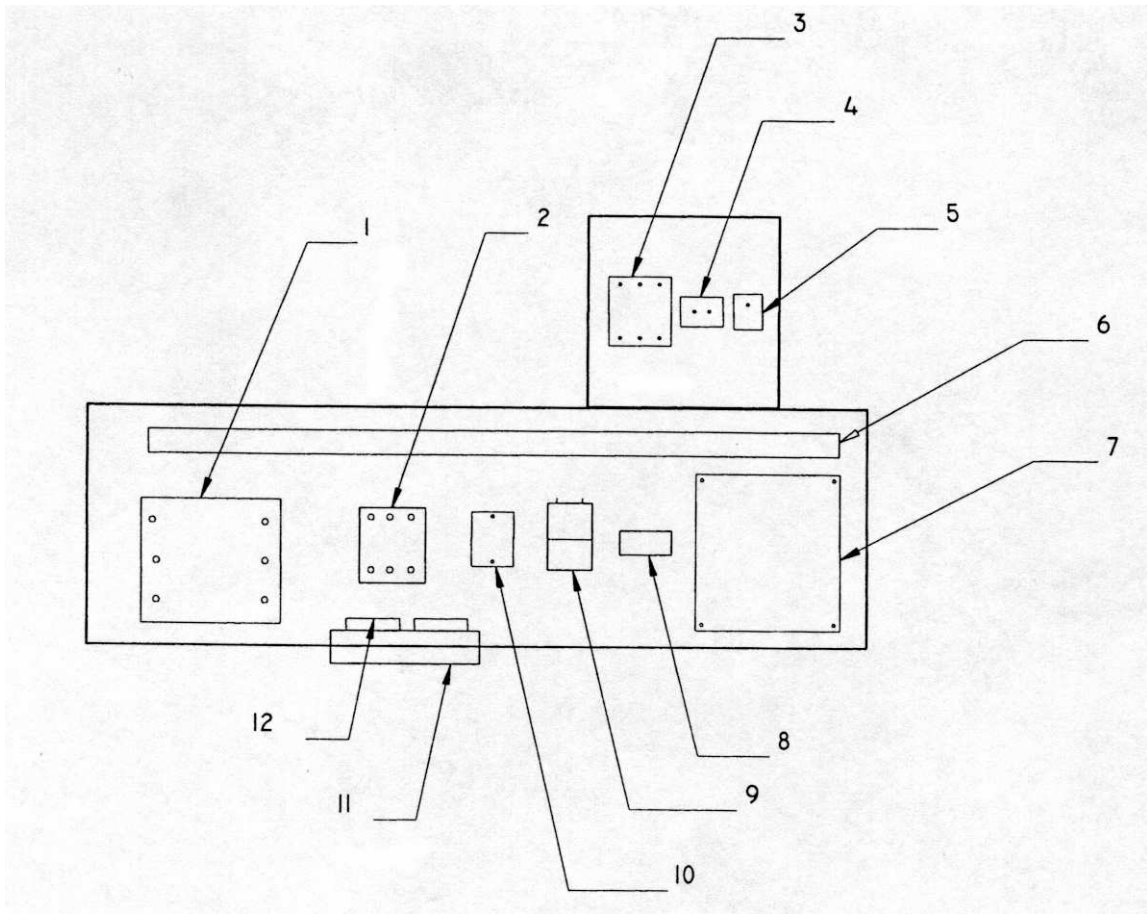
- | | |
|--------------------------------------|-------|
| 1. Hi-limit thermostat (alternative) | SP007 |
| 2. Fan blade | SP002 |
| 3. Fan motor | SP003 |
| 4. Spray nozzle | SP012 |
| 5. Heating element | SP001 |
| 6. Triangle cover plate | SP056 |
| 7. Cross cover plate | SP057 |
| 8. 3/8" water tubing | SP028 |
| 9. Holding bracket | SP058 |
| 10. Side bracket | SP059 |
| 11. Shield left | SP060 |
| 12. Shield right | SP061 |



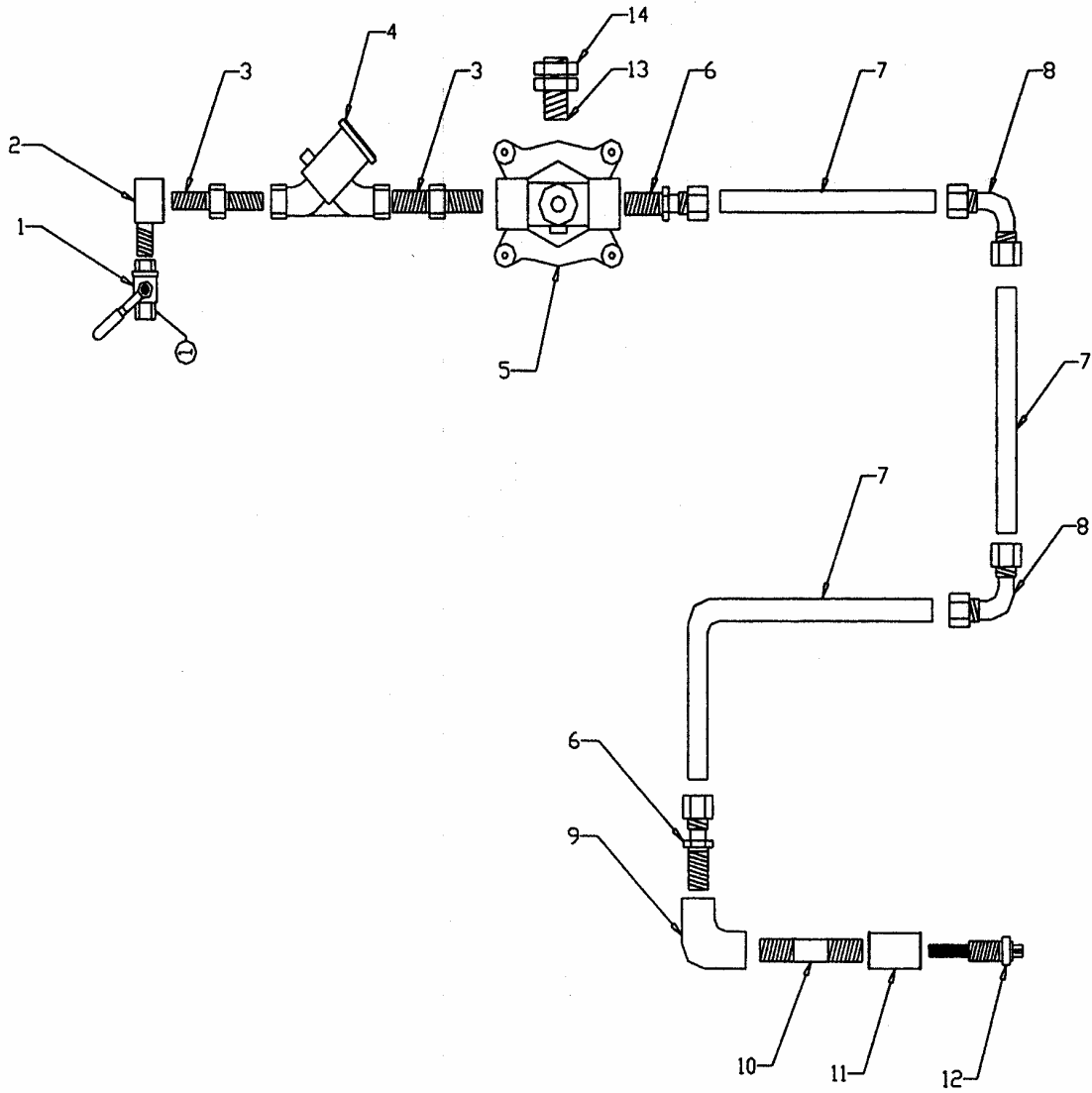
- | | |
|----------------------------|------------------|
| 1. Inner back trim | SP062 |
| 2. Inner corner trim | SP063 |
| 3. Outer side trim | SP064 |
| 4. Inner side trim | SP065 |
| 5. Outer jam front cover | SP066 |
| 6. Inner jam front cover | SP067 |
| 7. Outer jam cover | SP068 |
| 8. Light globe, Light bulb | SP069 (optional) |
| 9. Light fixture | SP004 (optional) |
| 10. Outer back trim | SP070 |



- | | |
|-------------------|-------|
| 1. Solenoid valve | SP015 |
| 2. Strainer | SP016 |
| 3. Door switch | SP008 |
| 4. On-Off switch | SP006 |

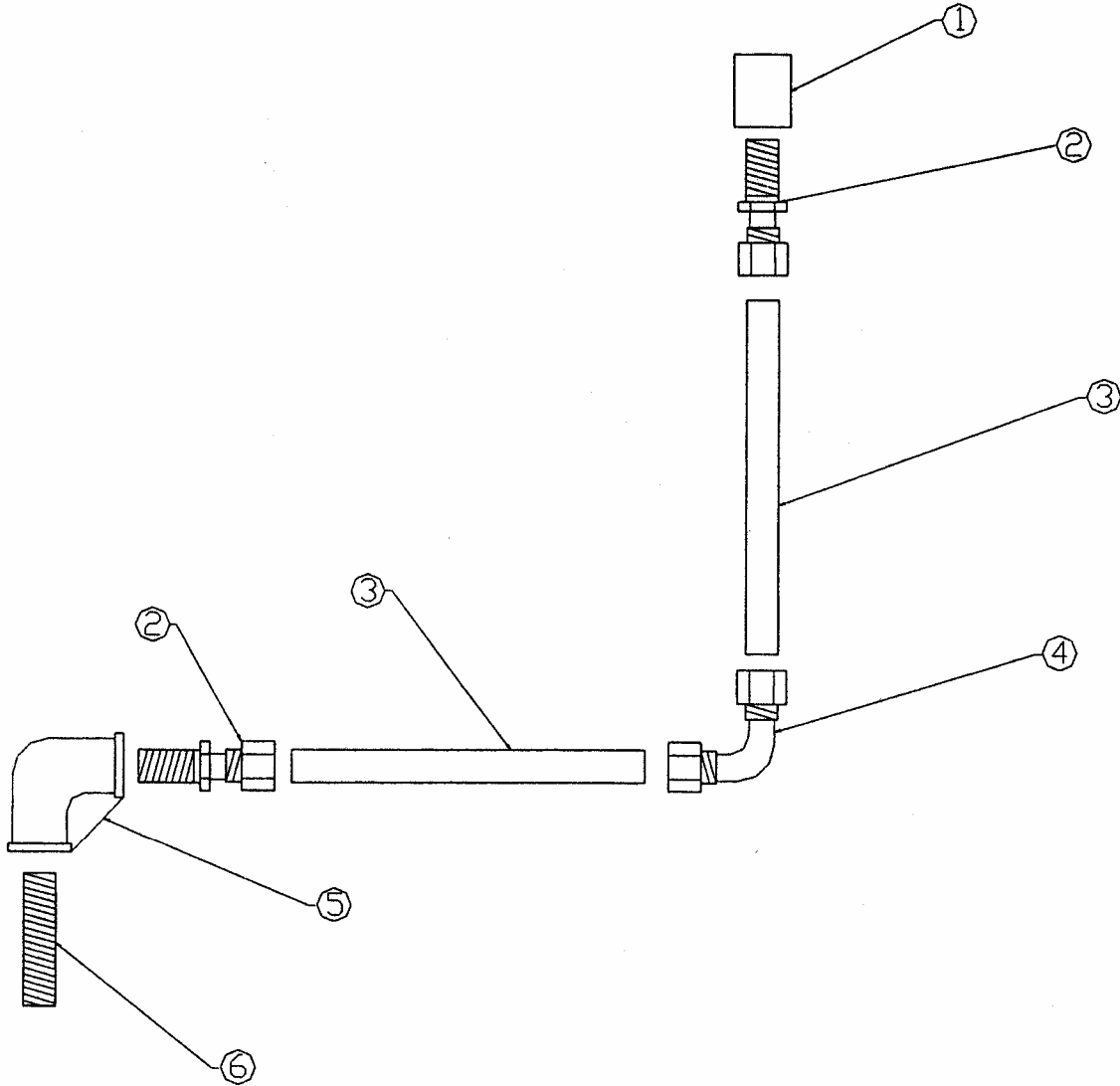


- | | |
|--|-------|
| 1. Terminal block- heating element circuit | SPO05 |
| 2. Main contactor | SP022 |
| 3. Terminal block- 208 V connection | SPO05 |
| 4. Terminal block- 120 V connection | SP019 |
| 5. Ground log | SP020 |
| 6. Wire duct | SP021 |
| 7. Relay board | SP024 |
| 8. Terminal 4-place | SP071 |
| 9. Hi-limit thermostat | SP046 |
| 10. Fan SS relay 10A | ER-12 |
| 11. Heat sink | SP072 |
| 12. Heating elements SS relays | SP017 |



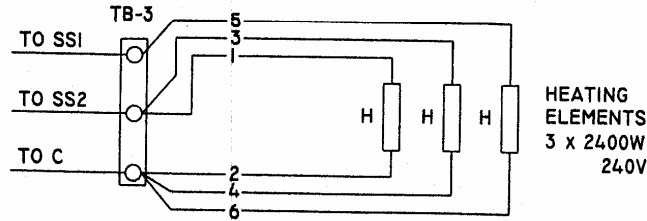
- | | |
|---|-------|
| 1. $\frac{3}{8}$ Shut Off Valve Brass | SP030 |
| 2. $\frac{3}{8}$ MPT X $\frac{3}{8}$ FPT 90° Street Elbow Male-Female | SP036 |
| 3. $\frac{3}{8}$ MPT Hex Close Nipple | SP029 |
| 4. $\frac{3}{8}$ FPT Strainer | SP016 |
| 5. $\frac{3}{8}$ FPT Solenoid Valve | SP015 |
| 6. $\frac{3}{8}$ "OD X $\frac{3}{8}$ MPT Straight Compressing Connector | SP033 |
| 7. $\frac{3}{8}$ "OD Copper Tubing | SP028 |
| 8. $\frac{3}{8}$ "OD X $\frac{3}{8}$ "OD Compressing 90° Elbow | SP035 |
| 9. $\frac{3}{8}$ FPT Brass Elbow | SP032 |
| 10. $\frac{3}{8}$ MPT X 2" SS. Nipple | SP038 |
| 11. Reducing Cooping $\frac{3}{8}$ FPT X $\frac{1}{4}$ FPT | SP037 |
| 12. Nozzle 1/4MPT | SP012 |
| 13. $\frac{1}{2}$ MPT Brass Close Nipple | SP048 |
| 14. 1/2FPT Brass Lock Nut | SP031 |

- | | |
|---|-------|
| 1. ½ FPT SS Half coupling | SP040 |
| 2. 5/8"OD X 1/2MPT Brass straight compressing connector | SP041 |
| 3. 5/8" OD Copper tubing | SP042 |
| 4. 5/8OD X 5/8OD 90° Brass compressing elbow | SP043 |
| 5. ½ FPT Brass 90° elbow | SP044 |
| 6. 1/2MPT Brass close nipple | SP045 |

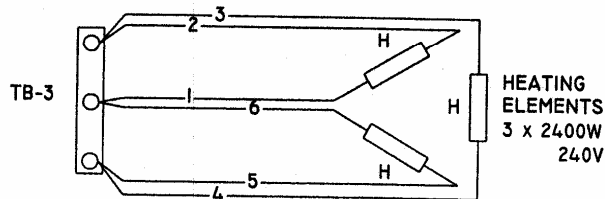


PROOFER HEATING ELEMENTS CONFIGURATION

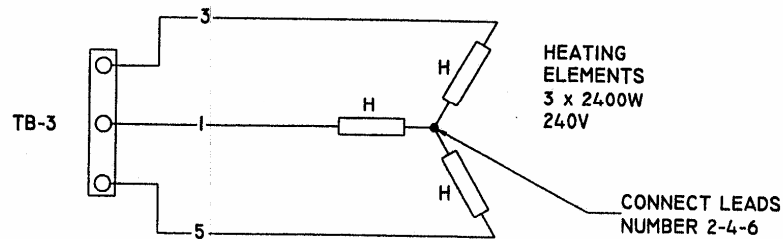
208-240V SINGLE PHASE



208-240V 3- PHASE



380-480V 3-PHASE



SPARTAN

TITLE: HEATING ELEMENTS CONFIGURATION
FOR 208-240/1PH, 208-240/3PH, 380-480/3PH

MODEL: SPARTAN PROOFERS (W/I AIR DUCT)

DRAWN BY: A.S. **DATE:** 12/09/99

CHECKED BY: A.S.

REV.

REV	DESCRIPTION	INITIALS	DATE	SCALE:	N.T.S.	REV.
A	CHANGE HEATING ELEMENT WIRING 1-PH UNIT	A.S.	1/19/00	PAGE: 1 OF 1	DWG#: S-0029A	A

