SERVICE MANUAL



INSTALLATION INSTRUCTIONS DEHUMIDIFYING PROOFING CABINET

DPC1S **ML-132526**

- NOTICE -

This Manual is prepared for the use of trained Hobart Service Technicians and should not be used by those not properly qualified.

This manual is not intended to be all encompassing. If you have not attended a Hobart Service School for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained Hobart Service Technician.

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SERVICE UPDATES

DPC1S SERVICE UPDATES

March 2020

- Updated TOOLS.

GENERAL

INTRODUCTION

These instructions are for Baxter DPC1S dehumidifying proofer. The DPC1S 40.5 inch deep cabinet can be shipped assembled requiring minimal field assembly. This cabinet can also be shipped unassembled requiring field assembly. Both shipping methods will require leveling and connection to utilities. All utility connections are the responsibility of the customer. All information, illustrations and specifications contained in this manual are based on the latest product information available at the time indicated on the cover of the manual. Retain these instructions for future reference.

UNPACKING

Remove crating from cabinet and check for possible shipping damage. If cabinet is found to be damaged after un-crating, save packaging material and contact the carrier within 15 days of delivery. If location has multiple cabinets, keep serial numbered crates together. Check contents against packing list with shipment. Refer to hardware list for identifying hardware usage.

LOCATION

- Level floor within 1/8" per foot up to 3/4" in all directions.
- Drain connection:

  1/2" NPTF rear or front drain connection at 5" above finished floor, route to air gap drain.
- Water connection:

  Water and waste piping and connections shall comply with the International Plumbing Code 2003, International Code Council (ICC), or to the Uniform Plumbing Code 2003, International Association of Plumbing and Mechanical Officials (IAPMO).

NOTE: Plumbing connections must comply with applicable sanitary, safety and plumbing codes and provide adequate backflow protection to comply with applicable federal, state and local codes.

  1/2" NPTF water line connection at 95" above finished floor.

  30-80 psi flow.

  Cold water.
- Water Quality:

  Hardness 2-4GPG. pH 7.0 to 8.0.

  Chloride concentration 0-30ppm.

  Sediment <.5 micron.

  Turbidity <.5NTU.

  Total dissolved solids <400ppm.
- The electrical diagram is located on the cover of the component box. Cabinets requires a single phase or three phase 208-240 volt electrical connection. Neutral wire circuitry needed to provide 110-120 volt for miscellaneous control components. A separate 110-120 volt line may be run or a transformer option will be required if 110-120 volt is not available. Consult Bakery Product Support for 110-120 volt line or transformer option requirements.
- Single Phase (L1,L2, Neutral, Ground).
- Three Phase (L1,L2,L3, Neutral, Ground).

CLEARANCE DIMENSIONS

Cabinets UL/CSA Listed for 0" clearance for back and side walls.

A 2" to 4" back clearance is recommended when plumbing rear drain connection.

Top of cabinet requires a minimum of 24" clearance for servicing accessability.

Side wall(s) require a minimum of 1" clearance for better performance if the DPC1S cabinet is installed next to an oven.

TOOLS

Standard Tools

- Standard set of hand tools.
- VOM with AC current tester.
- Tile Trowel (square notch) Grainger No. 5LG06 supplied with floor option proofer.

Special Tools

- Hammer drill 1/2" Grainger No. 3TB72 to drill holes in floor for anchor bolts.
- 3/8" masonry drill bit to drill holes in floor for anchor bolts.

- Setting tool Part No. 01-1000V4-73A to set drop-in anchors in facility floor **(no longer supplied with proofer hardware as of 4/1/2020)**.
- Roller Tool (Laminate J Roller) - for completing seal of floor trim to wall.
- 7/32" hex socket 3/8" drive Grainger No. 3LB97.
- 5/16" hex key 6" long Grainger No. 4RE58 to lock cam locks.
- Handheld, digital temperature and humidity sensor Grainger No. 4ZG11.

BASIC CABINET CONSTRUCTION

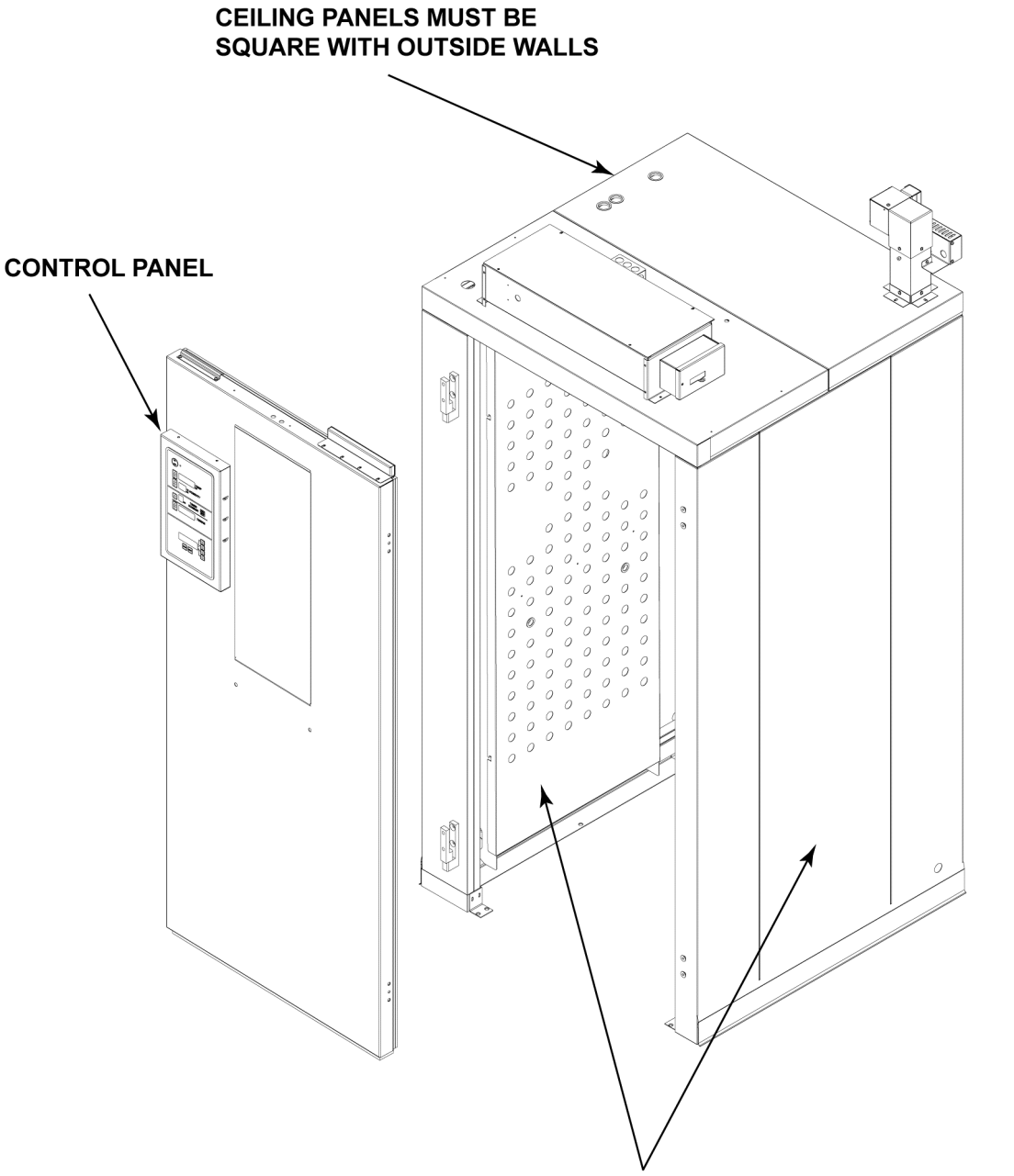


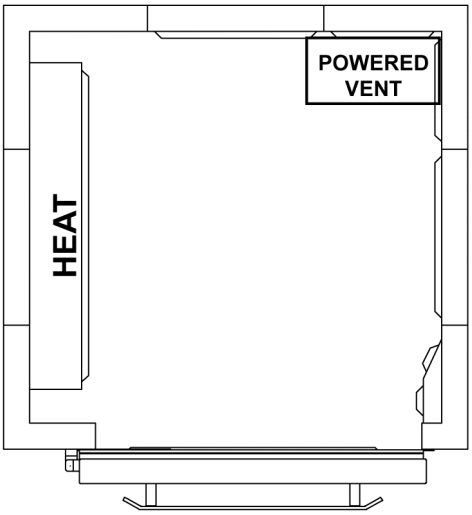
Fig. 1

WALL CONFIGURATIONS

The right side wall will always be the solid wall. The left side wall will contain the proofing system.

DPC1S Cabinet Witdh = 42.00"

DPC1S WALL CONFIGURATIONS



1 WIDE 40.5” DEEP AI3588

Fig. 2

PREASSEMBLED CABINETS

Cabinet can be shipped assembled. You may want to remove door(s) prior to maneuvering cabinet into place. Each cabinet is shipped with the individual parts needed for on site assembly along with a packing list. Before installing cabinet, compare parts to packing list to ensure all parts were received. Wait as long as possible before removing plastic protective covering from panels. Apply silicone between floor and wall angle or floor and base channel seams. Leave no voids.

POSITION CABINET

NOTE: If cabinet rear drain is not accessible from the back when in final location, route the proofer drain outside of the cabinet to the facility drain before setting proofer in final location.

1. Position cabinet near the final location.
2. Determine if the drain must be routed out the back or front of the unit.
   A. If the drain is not accessible with the unit in the final location, install drain prior to moving unit into final location.
3. Position cabinet in final location and level.
   A. If necessary, place shims under walls to level cabinet.

FLOOR

1. Install rear corner brackets at both rear corners of cabinet.

NOTE: Place a spot of silicone on back side of brackets to aid in holding brackets into position.

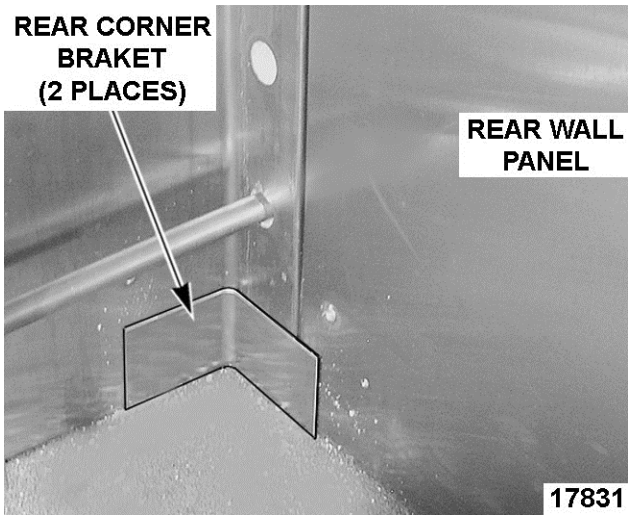


Fig. 3

2. Install front corner brackets at bottom of door jambs.

NOTE: Place a spot of silicone on back side of brackets to aid in holding brackets into position.

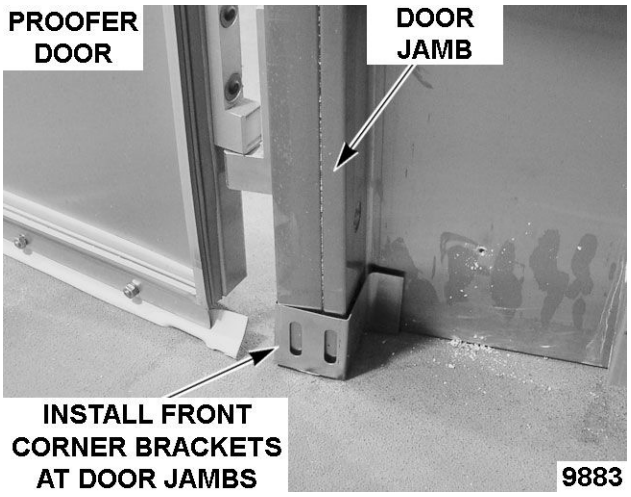


Fig. 4

3. (Cabinet No Floor option only) Check walls for squareness and Install floor angles.

NOTE: Do not use floor angles on cabinets with floor.

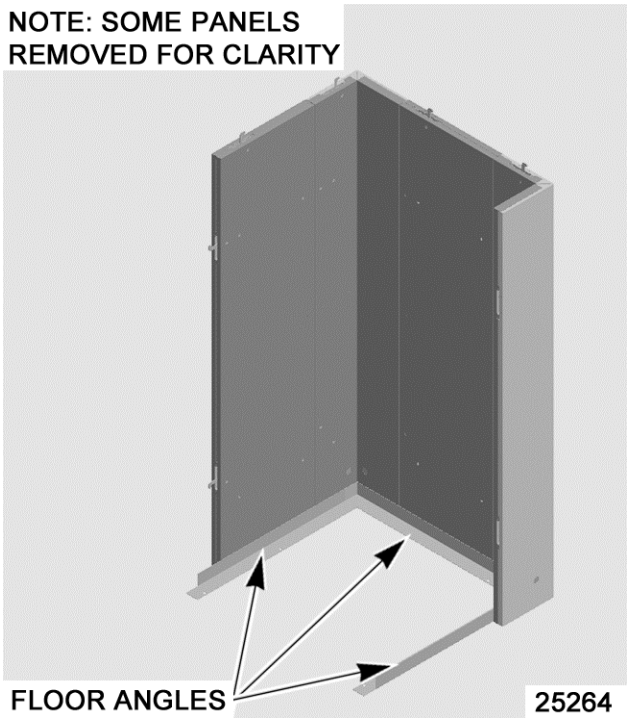


Fig. 5

4. Apply adhesive to bottom of floor and spread evenly with a trowel. Cover entire floor surface with adhesive.



Fig. 6

5. Place cabinet floor in final position.

   A. Position left hand side flange of single piece cabinet floor such that side flange is behind air duct.

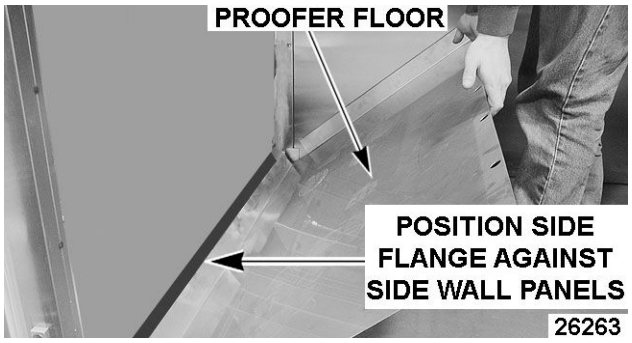


Fig. 7

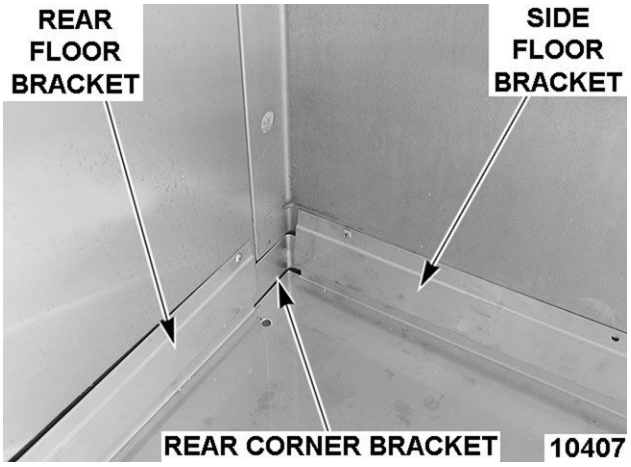
6. Anchor cabinet floor to facility floor.

7. Check proofer for being level. If necessary, place shims under cabinet walls to level.

FLOOR BRACKETS

1. Install floor brackets to cabinet walls.

NOTE: Ensure front and rear corner brackets are in the gap between cabinet floor and wall.



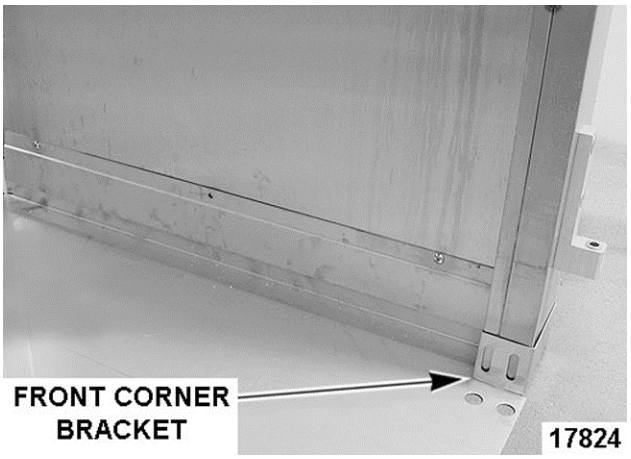


Fig. 9

2. Silicon front and rear corner brackets to cabinet floor and wall panels.

NOTE: One floor bracket for each side wall and one for the rear wall.

3. Level and square door. Install door jamb mounting brackets to front cabinet corners and secure to facility floor.

NOTE: If mounting bracket holes do not line up with clearance holes in floor, drill new clearance holes.

4. If door removed earlier, install door onto door hinges.



Fig. 10

5. Install outer floor trim, remove film covering from double sided tape and seal trim to wall. Use roller tool to complete seal to wall.

NOTE: Remove outer protective plastic after outer floor trim is installed.

NOTE: Before installing outer floor trim, clean outer wall surface with de-greaser.

6. Silicone both front corner floor trim at top and bottom seams.
7. Secure front edge of cabinet floor to facility floor.
8. Install air duct assembly onto cabinet.

ELECTRICAL SUPPLY CONNECTION



⚠ WARNING

Disconnect the electrical power to the machine and follow lockout / tagout procedures. There may be multiple circuits. Be sure all circuits are disconnected.

1. Connect electrical supply per the wiring diagram on the component box cover or back side of lower front trim.

NOTE: If 208-240 volt electrical supply does not have a neutral, a step-down transformer can be installed (see following diagram). Step down transformer must be installed in a leak tight housing supplied by customer.

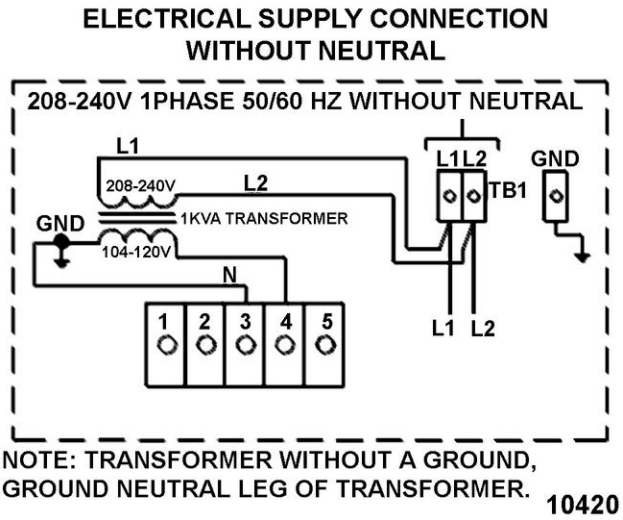


Fig. 11

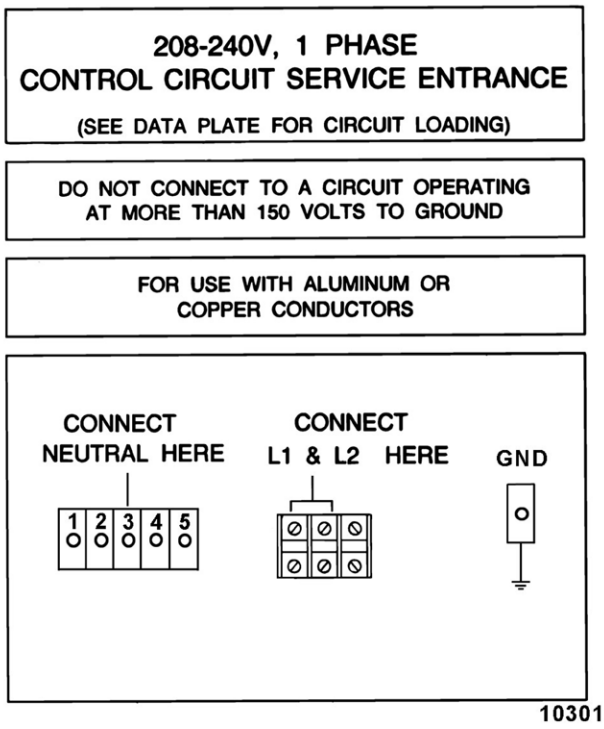


Fig. 12

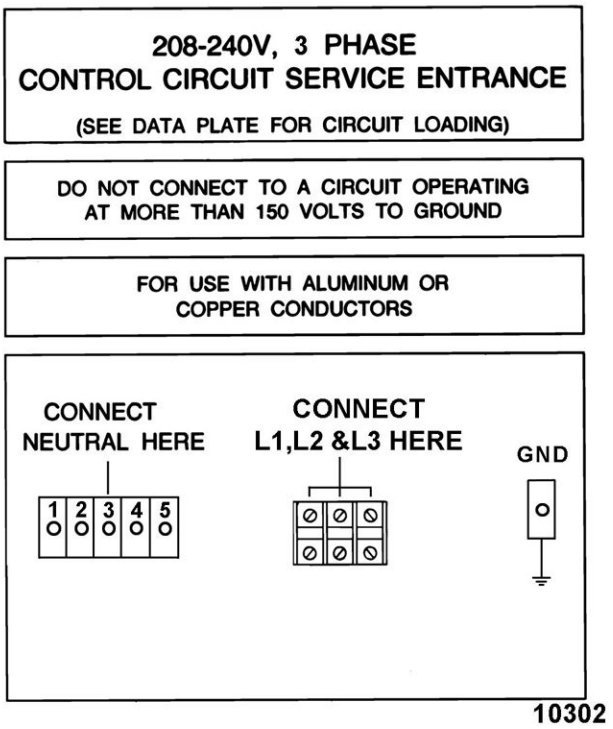


Fig. 13

FINAL CHECKS

1. Remove all remaining protective plastic.
2. Install plug buttons in unused holes i.e. wall and ceiling panels.
3. Ensure all holes with wiring / tubing thru wall & ceiling panels are filled with silicone.
4. Test for proper operation.

NOTE: The fans of each proofing system will run continuously for 20 minutes after power has been shut off at the controller.

5. Calibrate cabinet for temperature and humidity following instructions supplied. Dunkin' Donuts Calibration or Standard Calibration
6. Complete Installation Checklist and distribute copies per instructions on checklist.

UNASSEMBLED CABINETS

WALL PANEL

Refer to WALL CONFIGURATIONS section for sequence of wall panel assembly. As walls are added, ensure panel seals are on opposite sides.

1. Start with left rear corner at final position on facilities floor.

NOTE: Both rear corner panels should be positioned with the cam locks at the top.

NOTE: Turn top cam CW and bottom cam CCW to lock.

2. Attach adjacent rear wall panel and left wall panel to left rear corner and lock in place.
3. Follow WALL CONFIGURATIONS to assemble remaining panels.

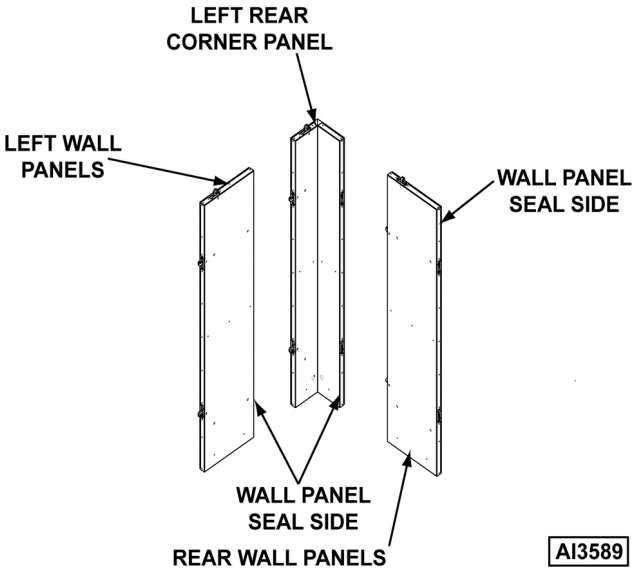


Fig. 14

CEILING PANELS

1. Install ceiling panels.

NOTE: All cam locks on ceiling panels turn CW except cam locks on front corner panels.

A. Start with rear ceiling panel with the square vent hole in it.

B. Position rear ceiling such that vent hole is in the right rear corner of the unit and align edges of ceiling panel with rear wall and lock into place.

C. Secure rear ceiling panel to side walls with cam locks.

D. When placing front ceiling panel lock ceiling panels together and then lock to side walls.

FLOOR

1. Install rear corner brackets at both rear corners of cabinet.

NOTE: Place a spot of silicone on back side of brackets to aid in holding brackets into position.

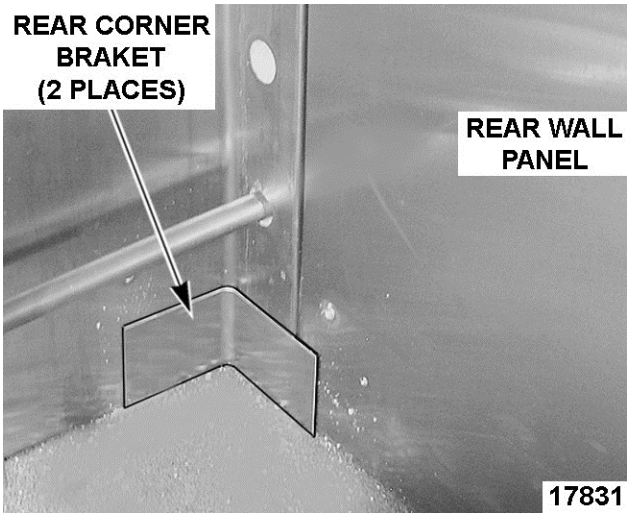


Fig. 15

2. Install front corner brackets at bottom of door jambs.

NOTE: Place a spot of silicone on back side of brackets to aid in holding brackets into position.

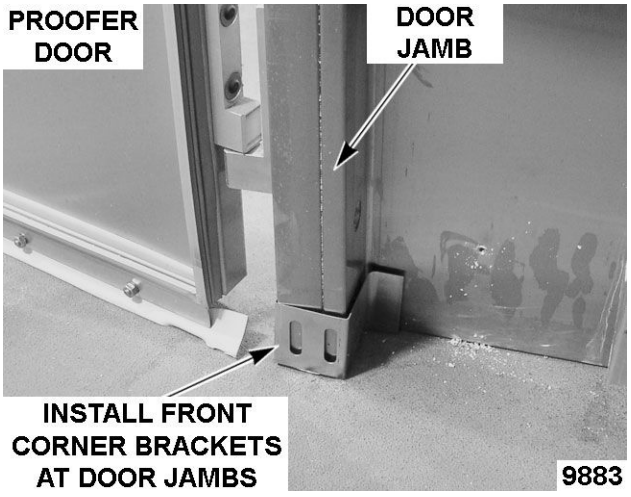


Fig. 16

3. (Cabinet No Floor option only) Check walls for squareness and Install floor angels.

NOTE: Do not use floor angles on cabinets with floor.

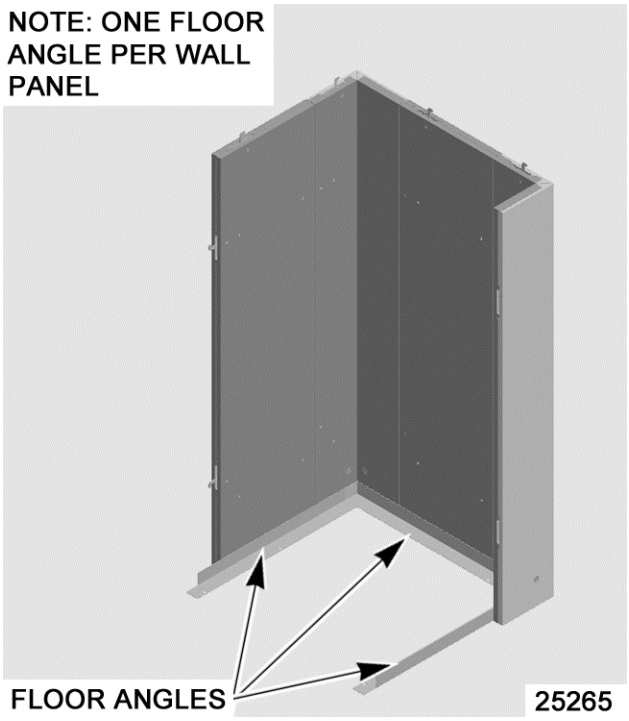


Fig. 17

4. Apply adhesive to bottom of floor and spread evenly with a trowel. Cover entire floor surface with adhesive



Fig. 18

5. Place cabinet floor in final position.

   A. Position cabinet floor such that side flange is behind air duct.

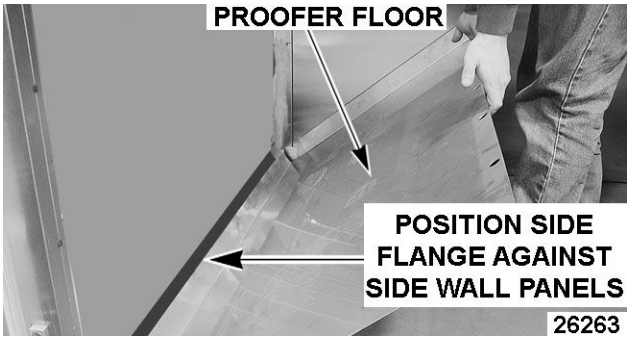


Fig. 19

NOTE: Floor brackets may need to be removed to position the floor in place.

6. Anchor cabinet floor to facility floor.
7. Check cabinet for being level. If necessary, place shims under cabinet walls to level.
8. Install door jamb mounting brackets to front cabinet corners and secure to facility floor.

NOTE: If mounting bracket holes do not line up with clearance holes in floor, drill new clearance holes.

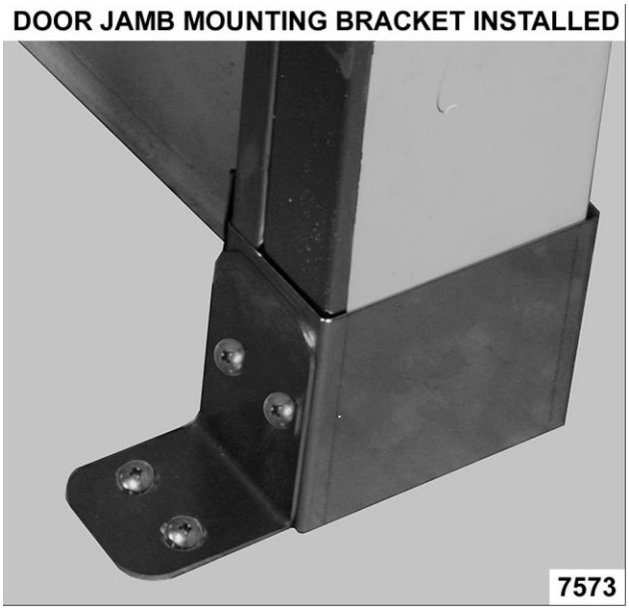


Fig. 20

FLOOR BRACKETS

1. Install floor brackets to cabinet walls.

NOTE: Ensure front and rear corner brackets are in the gap between cabinet floor and wall.

NOTE: Only peel back protective plastic where floor brackets are installed.

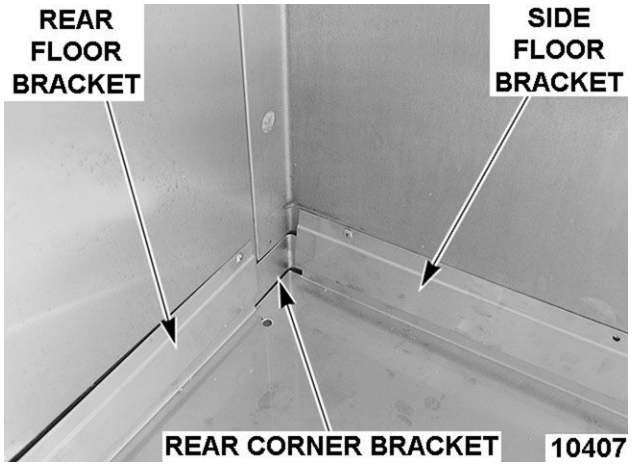


Fig. 21

2. Silicon front and rear corner brackets to cabinet floor and wall panels.
3. Level and square door(s).
4. Install outer floor trim, remove film covering from double sided tape and seal trim to wall. Use roller tool to complete seal to wall.

NOTE: Only peel back protective plastic where outer floor trim is installed.

NOTE: Before installing outer floor trim, clean outer wall surface with de-greaser.

5. Silicone both front corner floor trim at top and bottom seams.
6. Secure front edge of cabinet to facility floor.

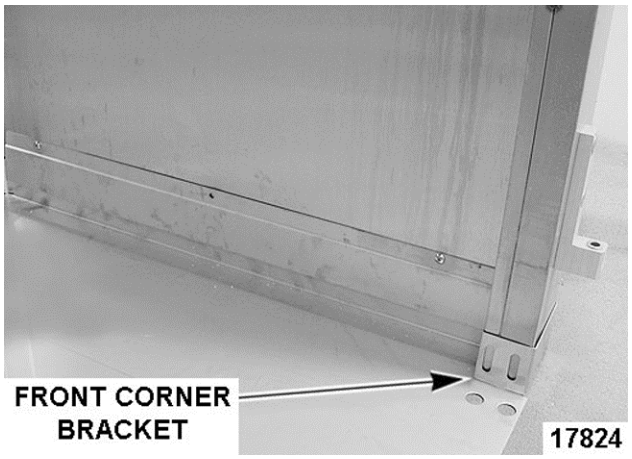


Fig. 22

AIR DUCT ASSEMBLY

1. Install plug buttons into unused holes that would be behind air duct assembly.
2. Install humidity/temperature sensor in top left front corner inside cabinet.
   A. Route sensor through ceiling panel. Plug will not fit through ceiling hole.
   B. Install sensor bracket onto ceiling.

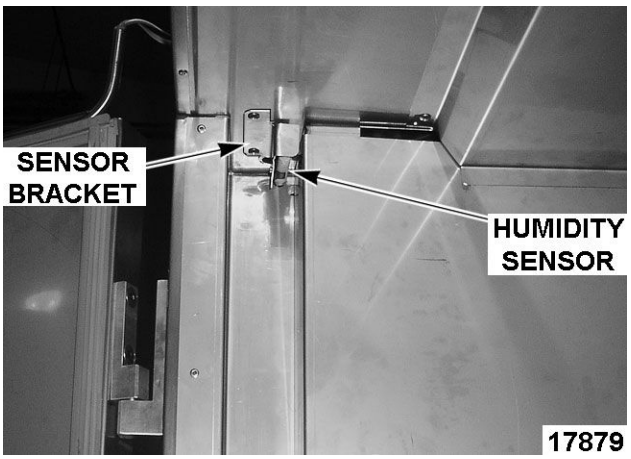


Fig. 23

   C. Install sensor into clamp on sensor bracket.

NOTE: Do not remove the white protective covering from humidity/temperature sensor.

NOTE: Ceiling has pre-drilled holes for mounting sensor bracket.

3. Position sensor 1/4" from end of bracket.

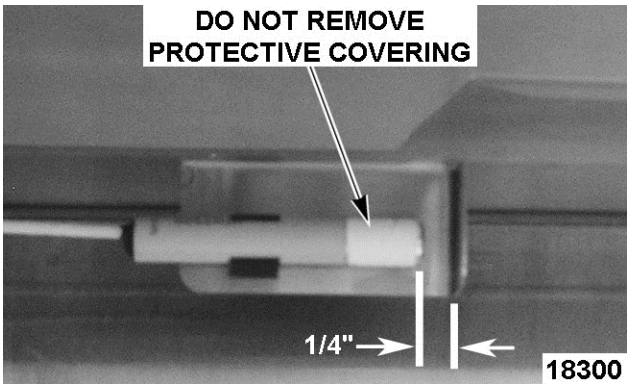


Fig. 24

4. Install air duct assembly.

NOTE: Refer to WALL CONFIGURATIONS section for air duct assembly location.

   A. Remove air intake cover and intermediate panel from air duct assembly.
   B. Install air duct bolts loose into nut serts in ceiling panel.
   C. Hang air duct assembly onto bolts using key holes in air duct assembly.
   D. Secure air duct assembly to wall panel (4 places) and tighten ceiling bolts.

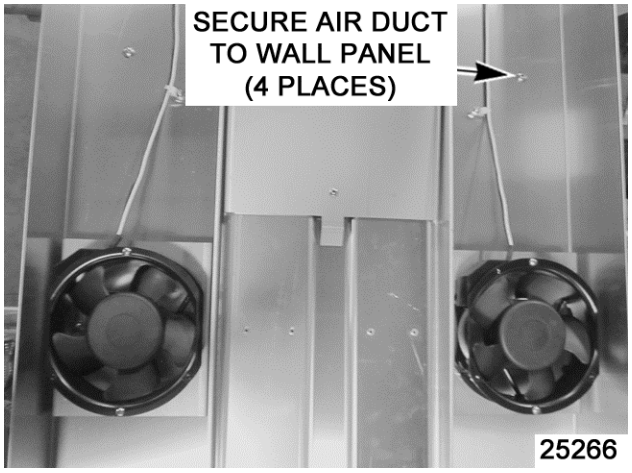


Fig. 25

E. Install grommets into routing holes in air duct assembly.

5. Route heater, fan, and high limit lead wires through appropriate access hole in ceiling. There will be a grommet around both the inner and outer skin access holes.

NOTE: Insulation may need to be cleaned out of holes so heater wires can be routed through.

6. Install water line from solenoid to spray nozzle using shallow radius bends.

NOTICE

Do not kink the water line.

NOTE: Fitting on spray nozzle is a self locking push in type.

DRAIN

1. Install drain tube from outside of cabinet thru hole in rear wall or hole in front wall depending on location of facilities drain.

NOTE: Insulation may need to be cleaned out of hole so drain tube can be routed through.

NOTE: T drain assembly fittings are hand tighten only.

NOTE: Straight run of drain tube from air gap drain should have a 1/4" slope per foot to cabinet wall.

2. Install capped 4" drain tube into T drain assembly coupler that is not being used for drain line.

3. Cut tubing to proper length. Length will be determined by location of proofer in proximity to a wall or drain and the quantity of air ducts installed.

4. Silicone drain tube at wall of cabinet.

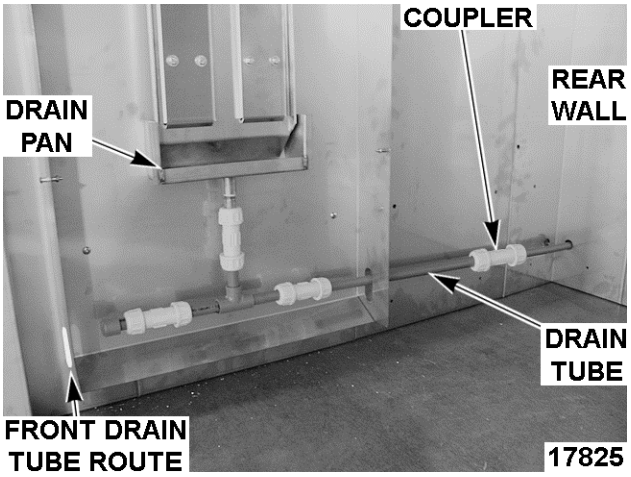


Fig. 26

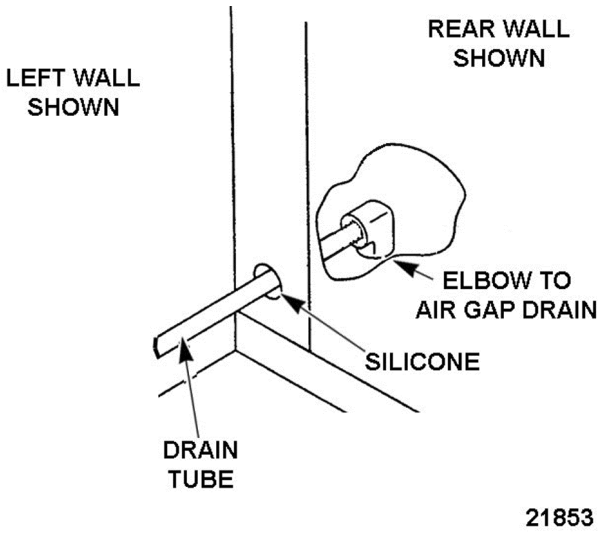


Fig. 27

AIR INTAKE & INTERMEDIATE PANEL

1. Install intermediate panel to air duct assembly. Intermediate panel fits inside air duct assembly.

2. Install bumper to air intake cover.

3. Install air intake cover onto air duct assembly. Air intake cover fits over air duct assembly.

A. Secure cover in upper left corner of air duct assembly with a screw.

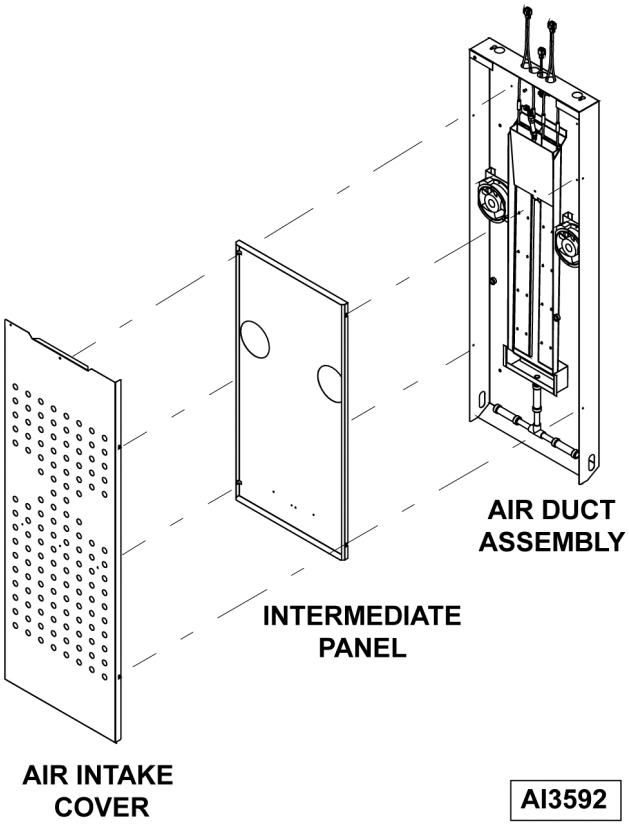


Fig. 28

4. Install air flow panel.

   A. Install air flow panel mounting screws loose into ceiling panel.

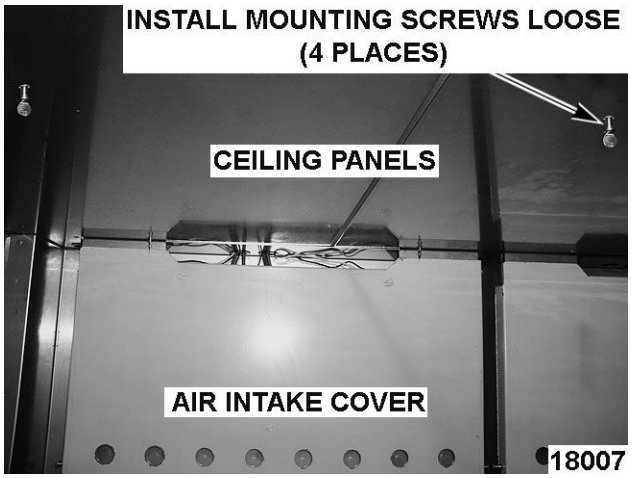


Fig. 29

   B. Mount the air flow panel onto mounting screws.

NOTE: 90E flat bend fits against air intake cover panel. Opposite end has angled bend to deflect air upwards.

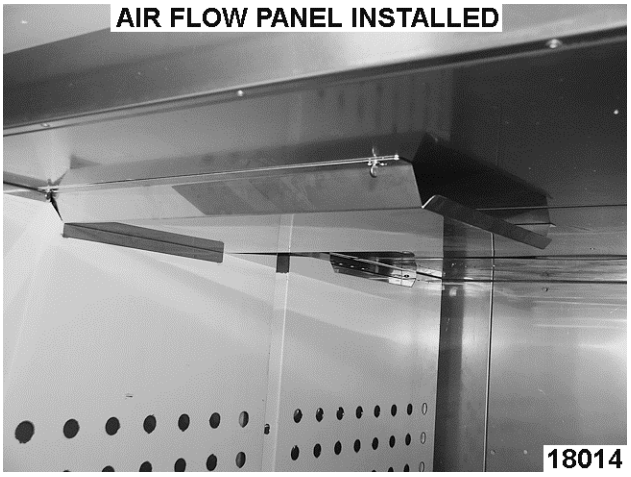


Fig. 30

BUMPERS

1. Remove the necessary protective plastic.
2. Install left & right bumper(s) to walls.
3. Install rear bumper to wall.

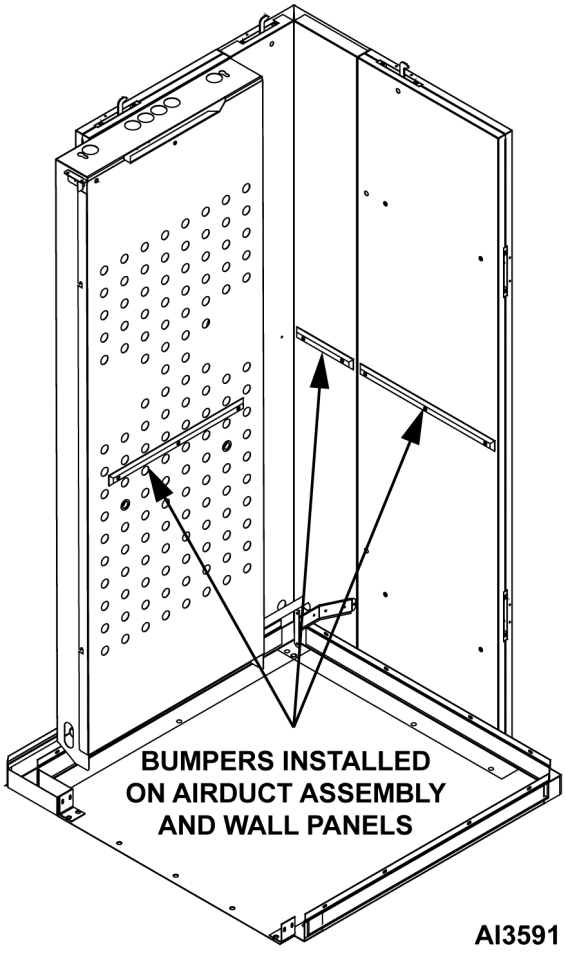


Fig. 31

4. Install bumpers onto bumper mounting bracket for right front corner.
   A. Install bumper mounting bracket to right front corner of cabinet.

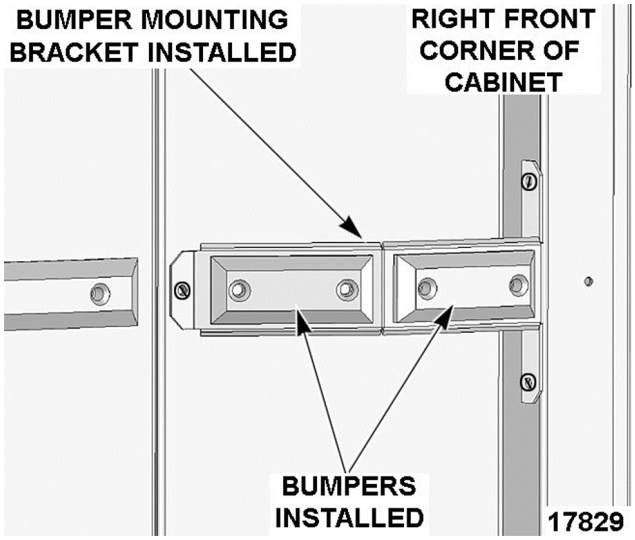


Fig. 32

INTERIOR DIFFUSER DUCT

1. Place duct in right rear corner and secure to ceiling (2 places) and to rear corner (8 places) using the provided drill tip screws.

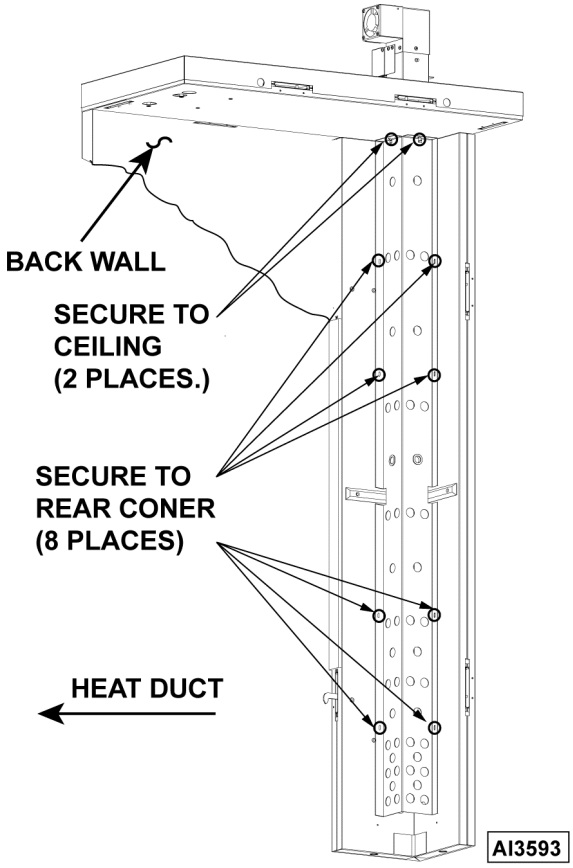


Fig. 33



Fig. 34

2. At time of start-up check the operation of the fan and vent by setting humidity to 70%. Once humidity reaches 70% change setting to 60%. Fan will turn on and vent will open. Change humidity to 70%, fan will turn off and vent will close.

DOOR HANDLE

1. Remove the necessary protective plastic.
2. Install door handle and door bumper.
   A. Install mounting screws through bumper.
   B. Attach bumper to inside of door.
   C. Using same screws, attach handle to front of door.

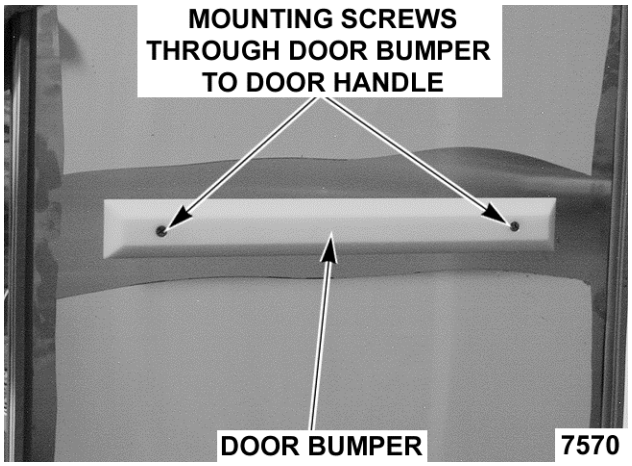


Fig. 35

DOOR HINGES

1. Install female half of hinges to cabinet. Ensure bushing is installed in hinge.

NOTE: Torque hinge bolts to 90 in. lbs. or 71/2 ft. lbs.



Fig. 36

2. Install male half of hinges to door.

NOTE: Do not stand door up on the door seal.

   A. Remove existing screws from hinge side of door and install hinge. Position post downward.



Fig. 37

   B. Remove screws from other side of door and replace with plug buttons if necessary.

3. Install plug buttons onto hinge screws on both door assembly and cabinet.

NOTE: Before installing plug buttons apply a dab of silicone on back side of plug buttons.

4. Install door onto cabinet.

DOOR MAGNET

1. Install magnet assembly to top of door.

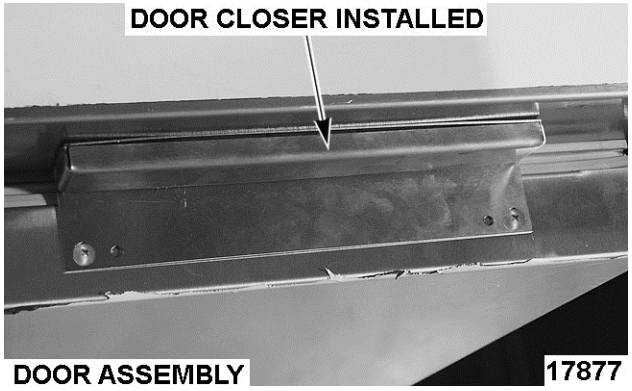


Fig. 38

COMPONENT & JUNCTION BOX

1. Install the component box assembly to top of ceiling panel at front of cabinet.

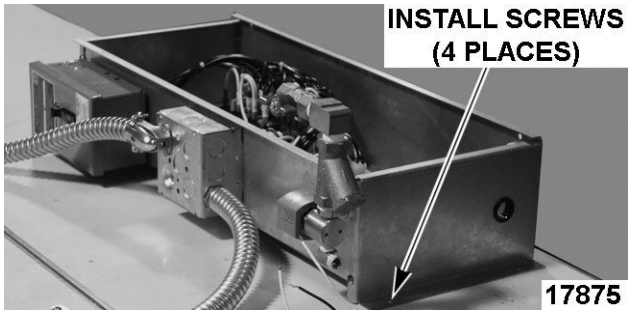


Fig. 39

2. Verify grommets installed into wire holes in ceiling panel above air duct.
3. Install junction box with self drilling screws.

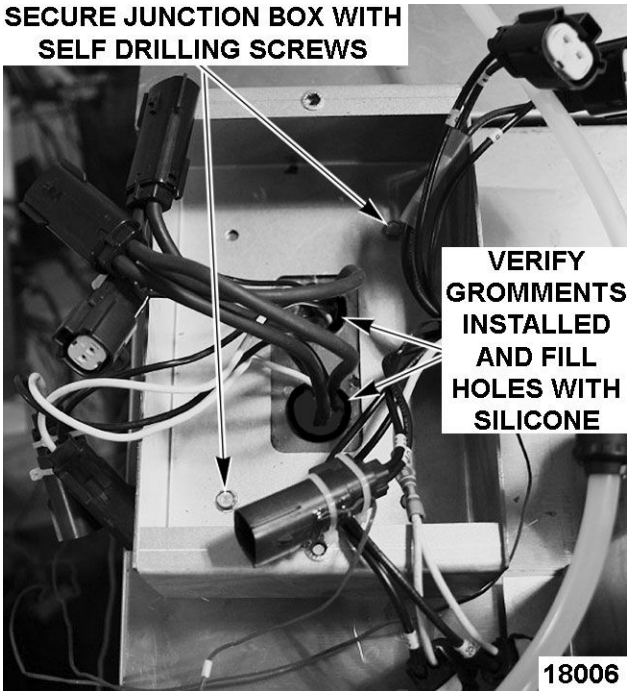


Fig. 40

4. Connect plugs from heater, fan, high limit and solenoid to plugs from component box.

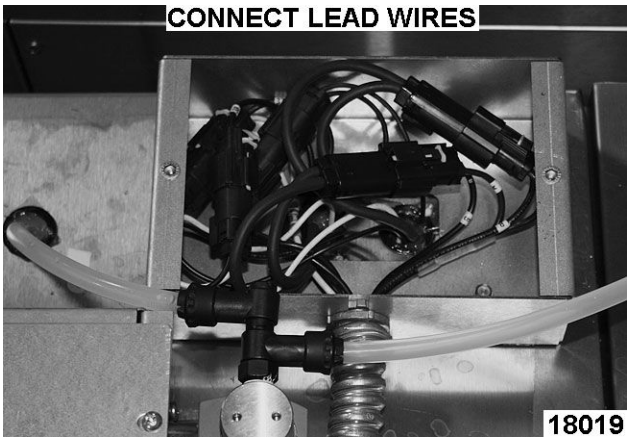


Fig. 41

   A. Seal holes in ceiling panels with silicone.
   B. Install cover on junction box.

REAR VENT

1. Confirm rear ceiling has been installed with the square vent opening in the right rear corner of the unit – furthest away from the heat duct.
2. Place vent assembly over the hole in rear ceiling panel and secure to ceiling through the four mounting brackets using the provided self drilling screws.
   A. Make sure fan is facing center of unit.

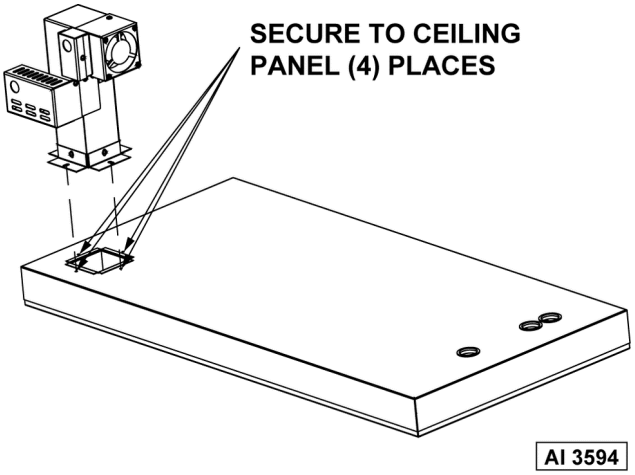


Fig. 42

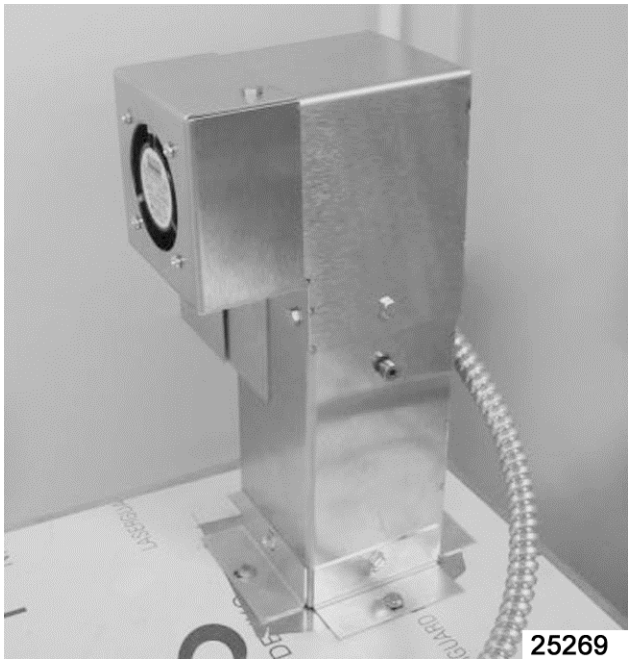


Fig. 43

3. Connect wiring to control box:

   A. Remove one knockout and insert conduit from vent assembly into back of control box.

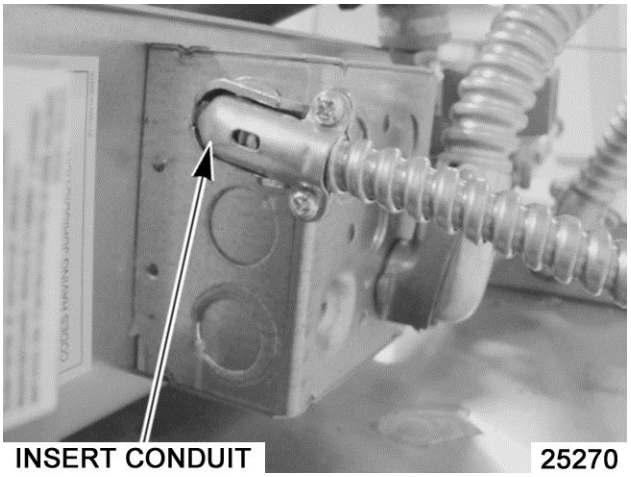


Fig. 44

   B. Inside the control box, locate the Molex housing on the power supply board.

      1) Connect pin on wire #20 to location #9 in the molex.

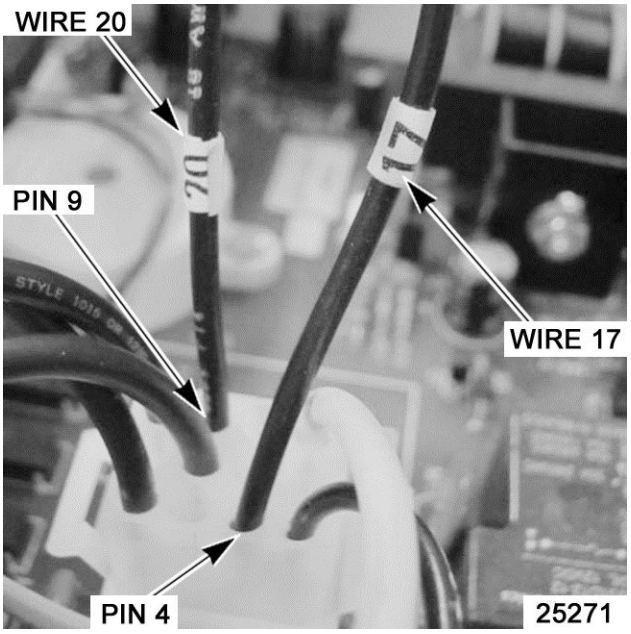


Fig. 45

      2) Connect pin on wire #17 to location #4.

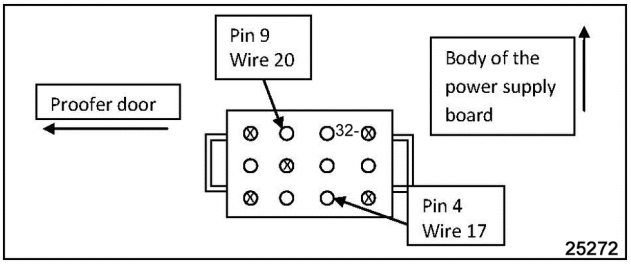


Fig. 46

3) Locate the 5 section terminal block and connect the white wire to the position labeled neutral.

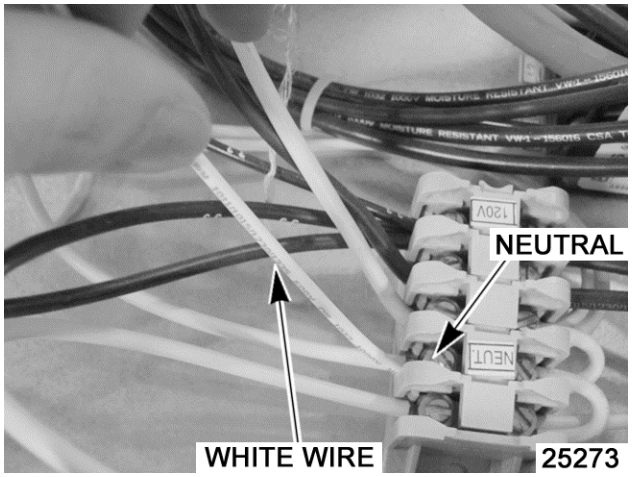


Fig. 47

WATER SUPPLY LINE CONNECTION

1. Connect water line to solenoid.

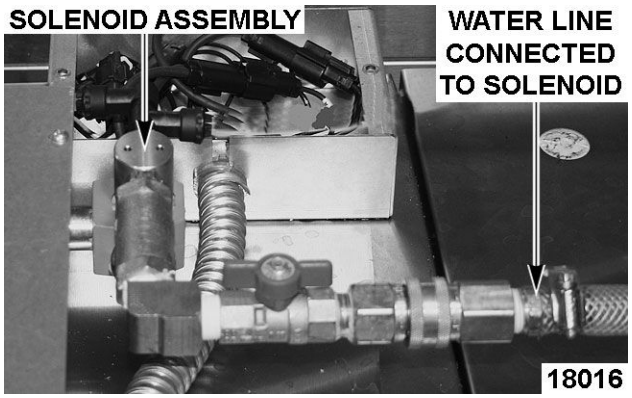


Fig. 48

2. Connect water line from air duct assembly to output of solenoid using elbow and tube assembly shown in photo below.



Fig. 49

A. Seal water line hole in ceiling panel with silicone.

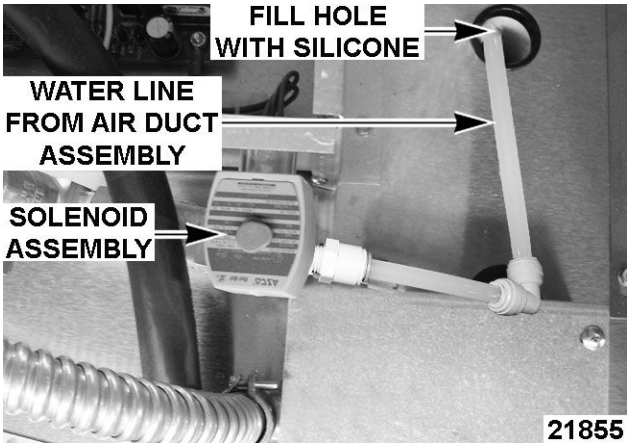


Fig. 50

TRIM PANELS

1. Install both forward side trim panels.

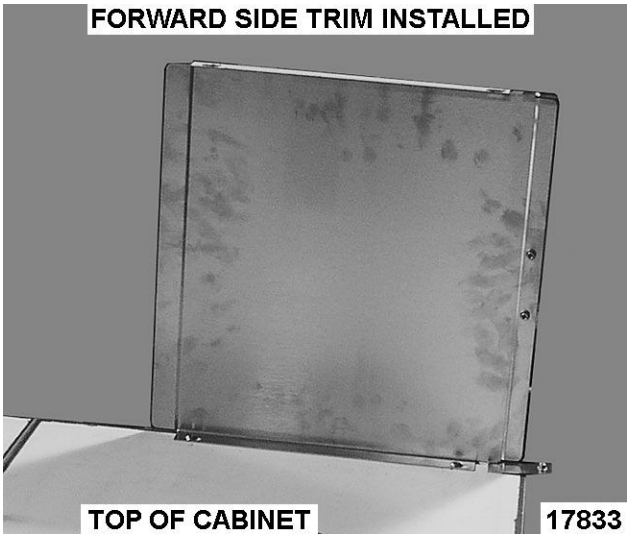


Fig. 51

2. Install lower front trim and secure with top screws to both side trims.

NOTE: Lower front trim installed during controller to component box connection procedure.

NOTE: Upper front trim installed during electrical supply connection procedure.

NOTE: Upper, lower and side trim panels can be assembled together before installing onto cabinet.

CONTROLLER TO COMPONENT BOX CONNECTION

Install wiring that connects controller to component box.

NOTE: The lead wires are routed through the 90 degree conduit from factory. One wire is marked with red. Connect this wire to board connections marked with red.

1. Install conduit clamp loose on top of the door.
2. Insert longer side of the 90 degree conduit under conduit clamp on top of door.
3. Finger tighten conduit clamp screws on top of door.
4. Insert control cables through top of door and into control compartment. Gently pull any slack excess control cable from the top of the unit through and into the control compartment.

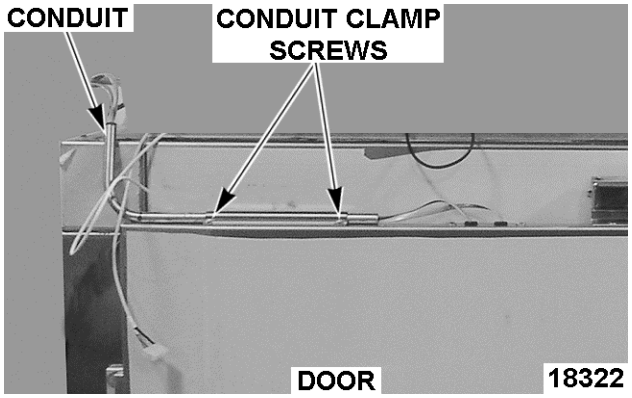


Fig. 52

5. Install strain relief bushings at top of door around each control cable. Seal with clear silicone to obtain water tight seal around cables.

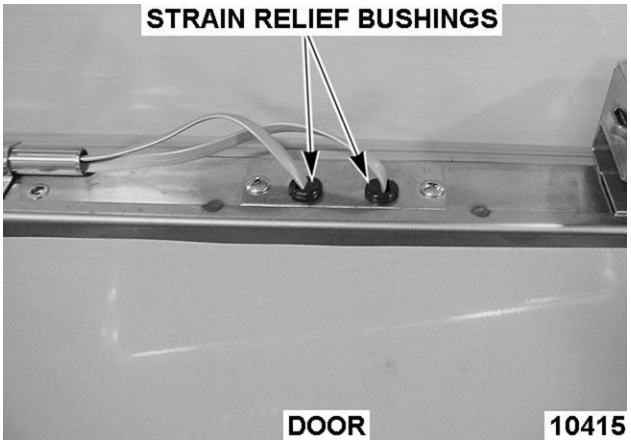


Fig. 53

6. Slip grommet for front trim over lead wires and short leg of conduit..

NOTICE

Use care not to damage the control harness during lower front trim installation.

7. Carefully feed control wires and end of conduit through hole in lower forward trim. Install grommet into lower front trim.
8. Install lower front trim and secure to both side trim pieces. Center short leg of conduit in bushing in lower front trim and open and close loading door to assure the conduit does not bind. Fully tighten conduit clamp on top of door.

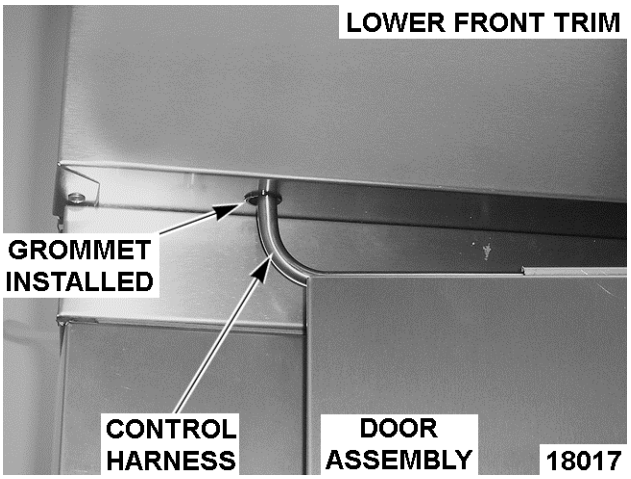


Fig. 54

9. Apply clear silicon caulking around the perimeter of the control opening in the control door.

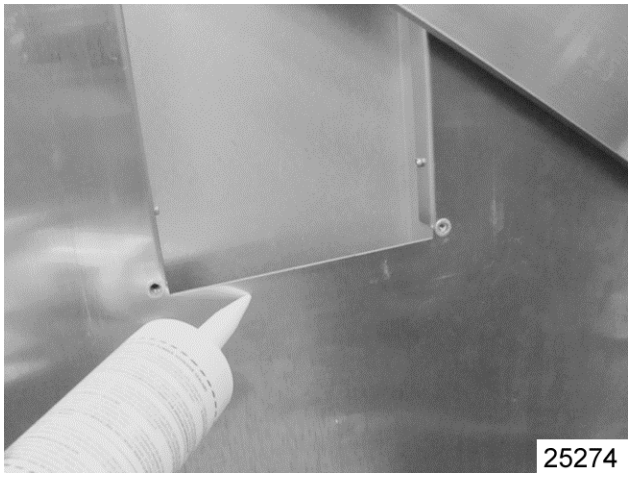


Fig. 55

10. Feed the control cables through the access holes in the mounting plate leaving sufficient cable in the control compartment such that the control cables loop below the access holes in the mounting plate.

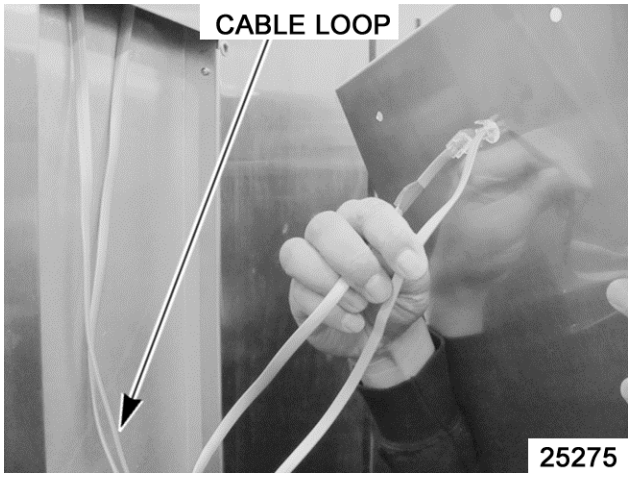


Fig. 56

11. Attach mounting plate to door face with #10-32, Stainless Truss head screws (4 places).

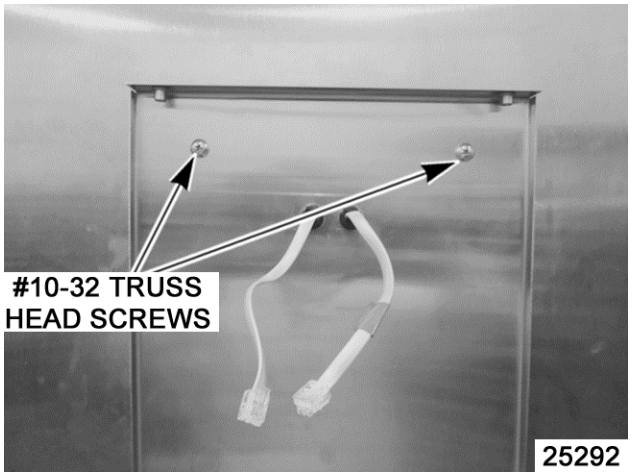


Fig. 57

12. Adjust cables so that 5 inches extend through the mounting plate. Install strain relief bushings around cables and press into holes in mounting plate. Seal bushings and cables with clear silicone caulk.
13. Connect lead wires to controller.

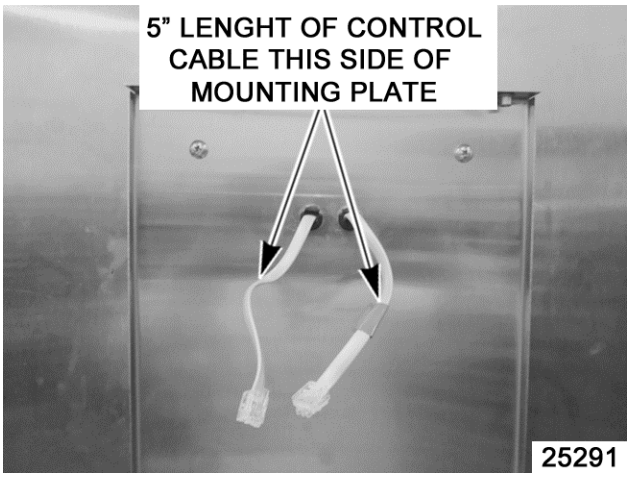


Fig. 58

14. Connect lead wires to power board in component box

NOTE: The cable with the red tape should be plugged into the PCB socket with the same color tape on it.

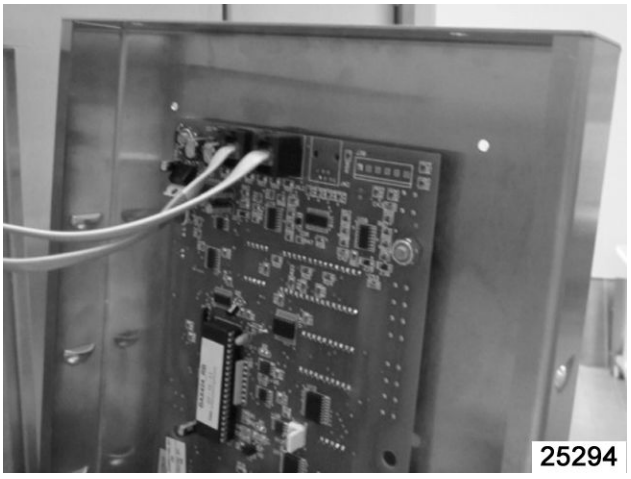


Fig. 59

15. Mount Standoff cover to mounting plate using #10-32 Stainless Truss head screws supplied (4 places).

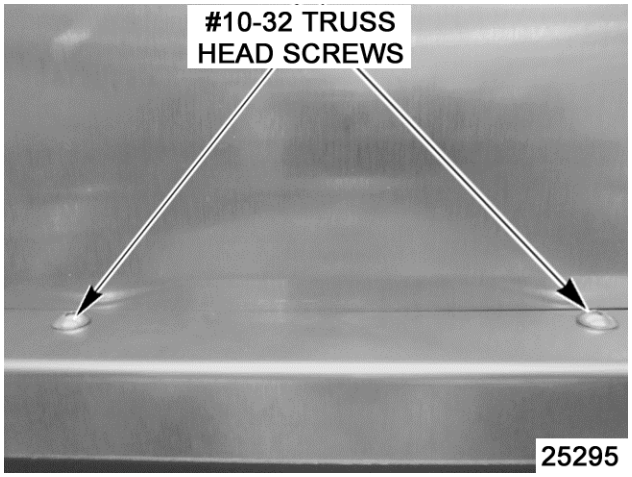


Fig. 60

NOTE: Louvers should be located at the sides and bottom of the cover.

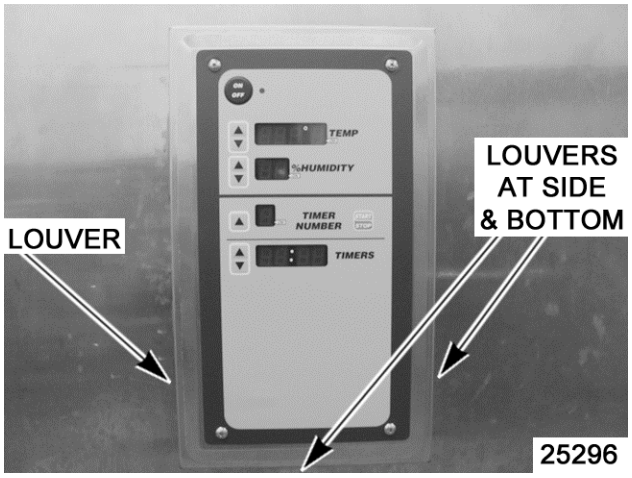


Fig. 61

ELECTRICAL SUPPLY CONNECTION



⚠ WARNING

Disconnect the electrical power to the machine and follow lockout / tagout procedures. There may be multiple circuits. Be sure all circuits are disconnected.

1. Connect electrical supply per label on the component box cover or back side of lower front trim.

NOTE: If 208-240 volt electrical supply does not have a neutral, a step-down transformer can be installed (see following diagram). Step down transformer must be installed into a leak tight housing supplied by customer

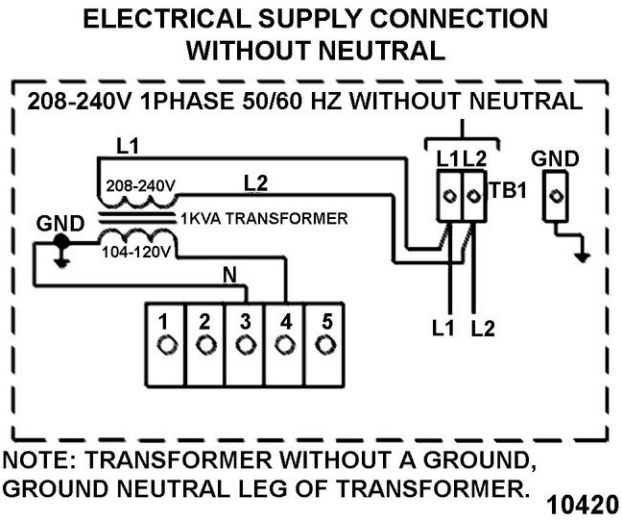


Fig. 62

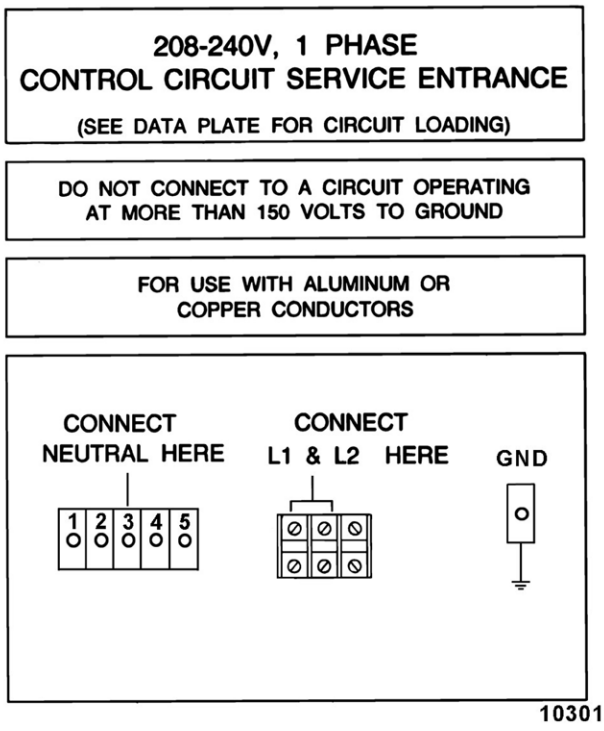


Fig. 63

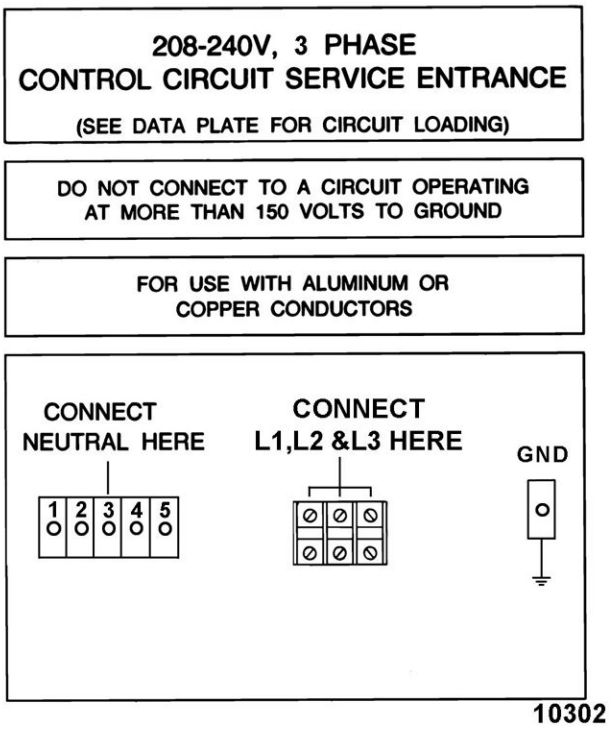


Fig. 64

FINAL CHECKS

1. Remove all remaining protective plastic.
2. Install plug buttons in unused holes i.e. wall and ceiling panels.
3. Ensure all holes with wiring / tubing thru wall & ceiling panels are filled with silicone.
4. Test for proper operation.

NOTE: The fans of each proofing system will run continuously for 20 minutes after power has been shut off at the controller.

5. Calibrate cabinet for temperature and humidity following instructions supplied. Dunkin Donuts Calibration or Standard Proofer Calibration
6. Complete Installation Checklist and distribute copies per instructions on checklist.