SERVICE MANUAL



DPC1S Dehumidifying Proofing Cabinet Installation Instructions

DPC1S **ML-132644**

- 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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1. GENERAL

IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL ELECTRICAL EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL

FOR YOUR SAFETY

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

WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

KEEP AREA AROUND OVEN CLEAR OF COMBUSTIBLES.

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 5 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

- Flooring:

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

NOTE: For units supplied without a cabinet floor, the equipment is to be installed on flooring materials that are corrosion resistant and cleanable. Flooring materials meeting these requirements may include masonry materials. If a floor drain is located inside the proofer, any exposed hardware should be constructed of non-ferrous material.

- Drain connection:

  1/2" FNPT (Female National Pipe Thread) 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.

  - 3/4" MGHT (Male Garden Hose Thread) water line connection at 95" above finished floor. Connection to solenoid requires 3/4" FGHT (Female Garden Hose Thread); 3/4" FGHT - to - 1/2" FNPT adaptor is provided.
  - 30-80 psi flow.
  - Cold water.

- Water Quality:
  - Hardness 2-4 GPG. 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 require 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 accessibility.

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

TOOLS

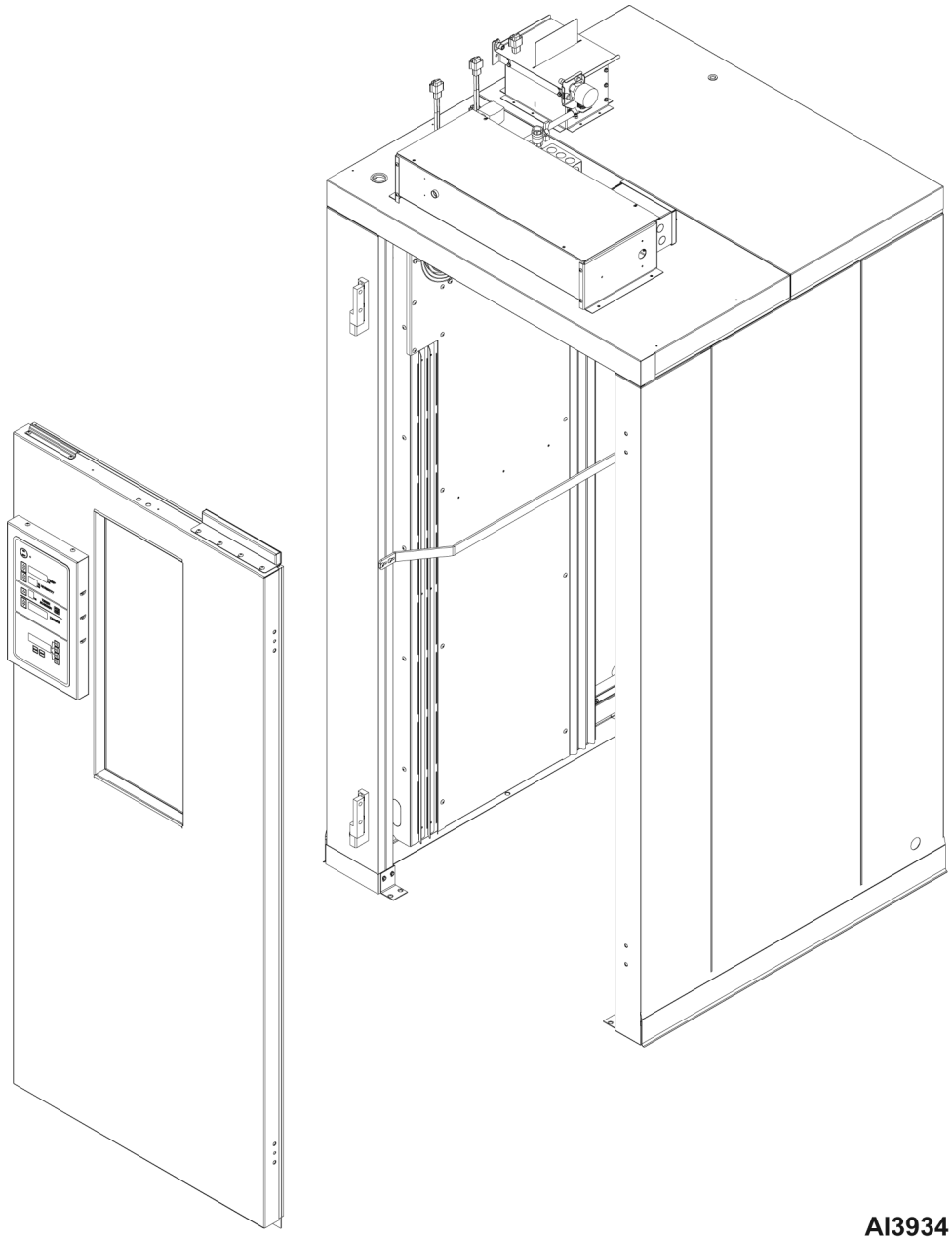
Standard Tools

- Standard set of hand tools.
- Metric set of hand tools.
- VOM with measuring micro amp current tester. Any VOM with minimum of CAT III 600V, UL/CSA/TUV/ETL certified. Sensitivity of at least 20,000 ohms per volt can be used. Ability to measure uF microfarads. In addition, meter leads must also be a minimum of CAT III 600V.
- Clamp-on type amp meter with minimum of NFPA-70E CAT III 600V, UL/CSA/TUV/ETL certified.
- Temperature tester (thermocouple type).
- Hygro-Thermostat (Extech SDL500).
- ESD (Electrostatic discharge) Protection Kit.

Special Tools

- CPVC pipe cutter.
- Glue, CPVC primer 01-100V17-0871P or equivalent.
- Glue, Orange medium CPVC cement 01-100V17-0871C or equivalent.
- 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.
- Tile Trowel (square notch) Grainger No. 5LG06.
- Roller tool (Laminate J Roller) to complete 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.
- Red high-strength thread locker.
- Torque wrench to tighten hinge bolts.

BASIC CABINET CONSTRUCTION



AI3934

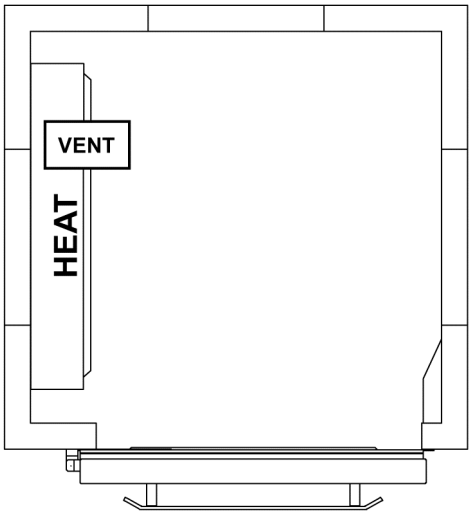
Fig. 1

WALL CONFIGURATIONS

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

DPC1S Cabinet Width = 42.00"

DPC1S WALL CONFIGURATIONS



1 WIDE 40.5” DEEP AI3933

Fig. 2

2. INSTALLING 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.

NOTE: 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.

NOTE: If necessary, place shims under walls to level cabinet.

ANCHOR POINT KIT INSTALLATION



⚠ 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. Locate the position for the anchor point on the top of the unit, using the locating instructions in PW PROOFER ANCHOR POINT LOCATIONS, and mark it.
2. Position one of the flat backer plates supplied with the kit so that its long side is parallel to the face of the unit, and the locating mark shows through the right-hand square hole in the plate. Mark the roof through the remaining square hole in the plate.

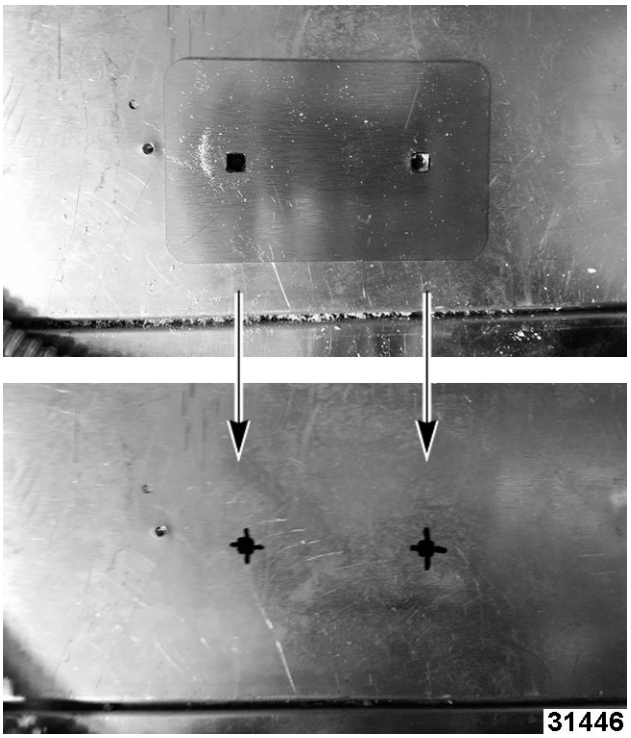


Fig. 3

NOTICE

Before drilling holes, verify that the marked locations do not overlap camlocks, ceiling ducts, refrigeration grills, drain lines, or flexible conduits. If there are interferences, move the shortest distance possible to locate a clear mounting area.

3. Using the 9/32" drill bit supplied with the kit, drill completely through the roof and ceiling at both of the marked locations.

NOTE: When drilling holes, the drill must be kept plumb all the way through the ceiling, or installation of the retaining bolts will be difficult.

4. From inside the unit, locate the two holes drilled in the previous step, and remove enough protective plastic from around the holes so that one of the backer plates can be installed without covering any plastic.

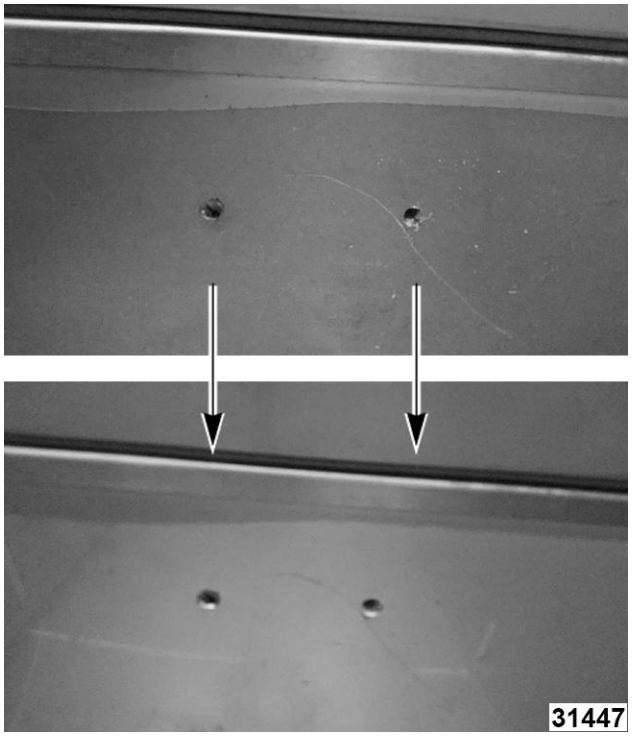


Fig. 4

5. Use provided 27/64" drill bit to expand inner ceiling holes.

NOTE: Use previously drilled hole as a reference to guide drill bit.

NOTICE

Do not drill deeper than 3/8" into the ceiling panel when boring out holes.

6. Deburr any sharp edges left from the boring of the two 27/64" holes.

7. Apply a bead of clear silicone caulk around each of the 27/64" holes.

NOTE: Keep silicone within 1/4" of the edges of the holes.

8. Apply a bead of clear silicone caulk around the perimeter of one of the backer plates, as well as to the underside of both carriage bolt heads.

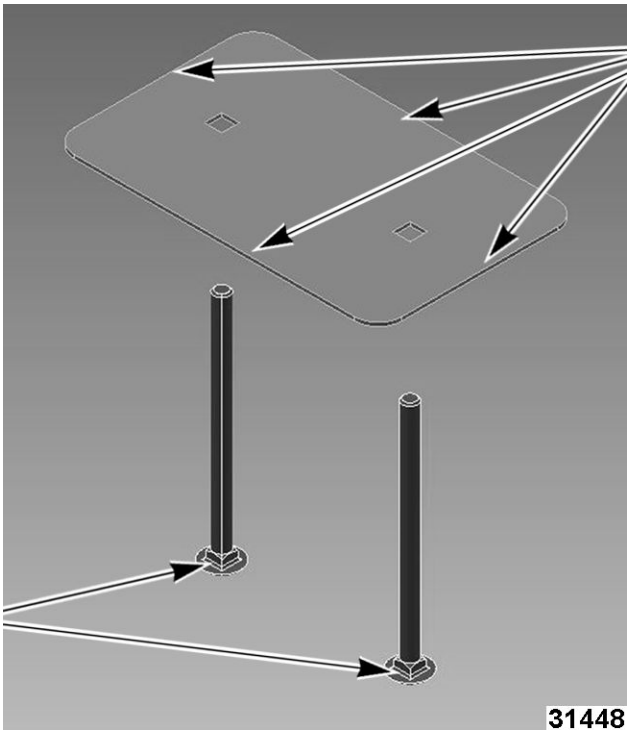


Fig. 5

9. Position backer plate with silicone applied to the inner ceiling over the holes, then insert the two carriage bolts through the backer plate and completely through the ceiling.

NOTE: Use 4" bolts for 3" thick ceilings, and use 5" bolts for 4" thick ceilings.

NOTE: Backer plate must seal to inner sealing skin all the way around its perimeter.

10. Temporarily secure both carriage bolts and backer plate to ceiling with tape.



Fig. 6

11. From the top of the unit, clean away all the metal and insulation debris. Position second backer plate, and then the anchor bracket over the carriage bolts. Place one flat washer onto each bolt, and secure with locknuts supplied with the kit.

NOTICE

Do not overtighten the locknuts. One to two turns after the locknuts contact the washers will be sufficient. Overtightening the locknuts can bow the ceiling panel.

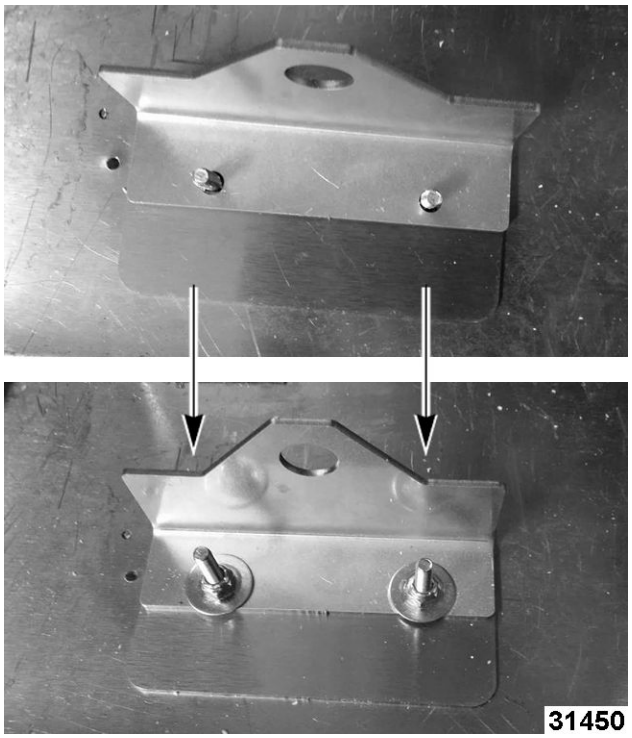


Fig. 7

12. Remove the tape from the inner backer plate and carriage bolts. Clean any tape residue from the plate and bolt heads.
13. Visually inspect the inner backer plate and carriage bolt heads, making sure there are no gaps between the plate and ceiling, or between the carriage bolts and plate. Exposed threads or any sharp edges are not permitted in the interior of the unit.



Fig. 8

14. Reconnect power, and check for proper operation.
15. Turn off unit's control, and allow the clear silicone to cure before using.

PW PROOFER ANCHOR POINT LOCATIONS

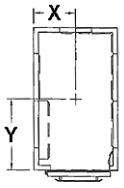


Fig. 9

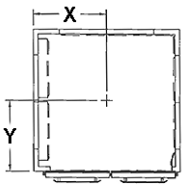


Fig. 10

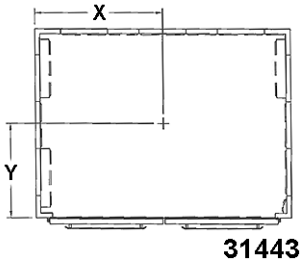
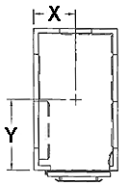


Fig. 11

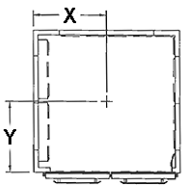
PW1E	X	Y	PW2E	X	Y	PW3S	X	Y
34.0" D	22.0"	20.0"	40.5" D	37.0"	26.0"	40.5" D	56.0"	26.0"
60.5" D	22.0"	30.0"	60.5" D	37.0"	30.0"	60.5" D	56.0"	30.0"
80.5" D	22.0"	50.0"	80.5" D	37.0"	50.0"	80.5" D	56.0"	50.0"
100.5" D	22.0"	50.0"	100.5" D	37.0"	50.0"	100.5" D	56.0"	50.0"
120.5" D	22.0"	70.0"	120.5" D	37.0"	70.0"	120.5" D	56.0"	70.0"
PW1S/DPC1S	**X**	**Y**	**PW2S**	**X**	**Y**			
40.5" D	23.5"	26.0"	40.5" D	39.0"	26.0"			
60.5" D	23.5"	30.0"	60.5" D	39.0"	30.0"			
80.5" D	23.5"	50.0"	80.5" D	39.0"	50.0"			
100.5" D	23.5"	50.0"	100.5" D	39.0"	50.0"			

PW PROOFER ANCHOR POINT LOCATIONS



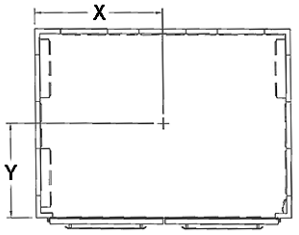
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Fig. 9



31442

Fig. 10



31443

Fig. 11

120.5" D	23.5"	70.0"	120.5" D	39.0"	70.0"	

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.

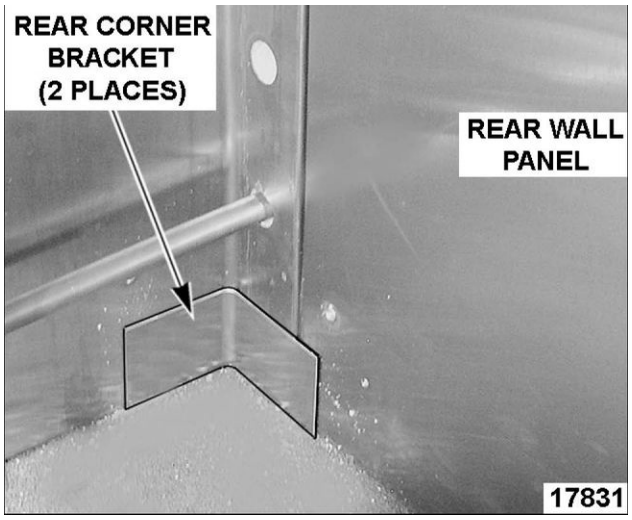


Fig. 12

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.

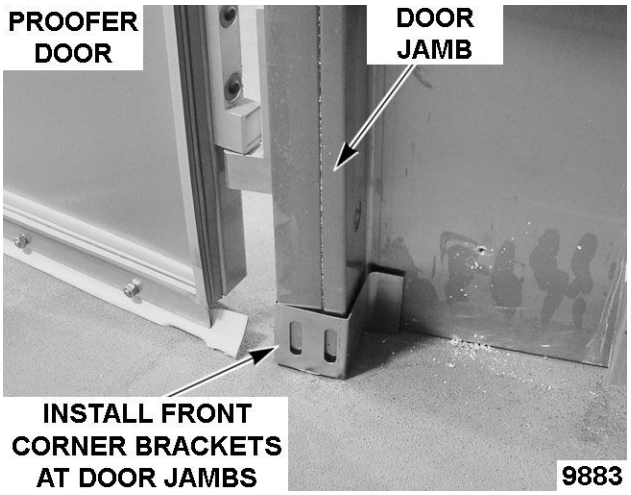


Fig. 13

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

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

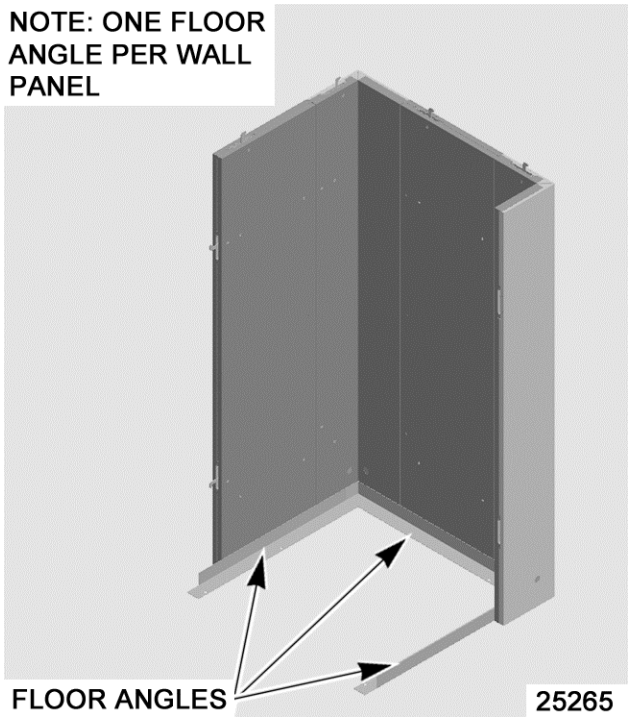


Fig. 14

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



Fig. 15

5. Place cabinet floor in final position.

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

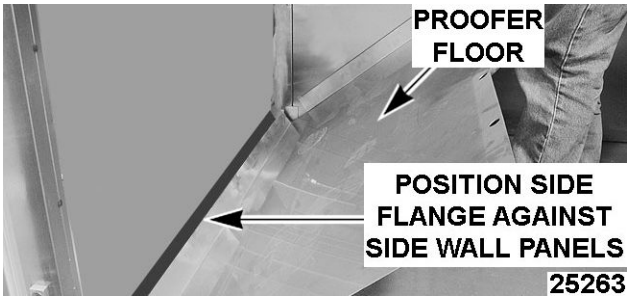


Fig. 16

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.

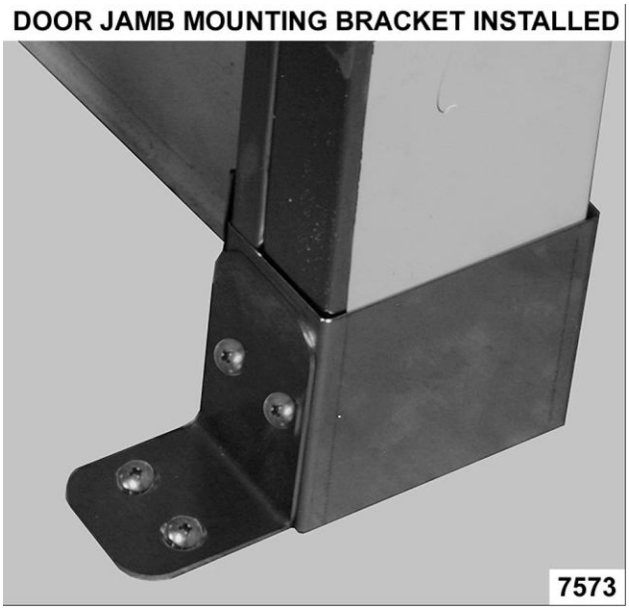
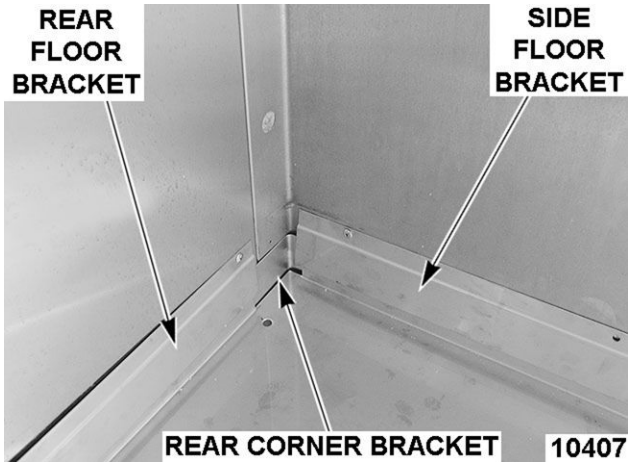


Fig. 17

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.



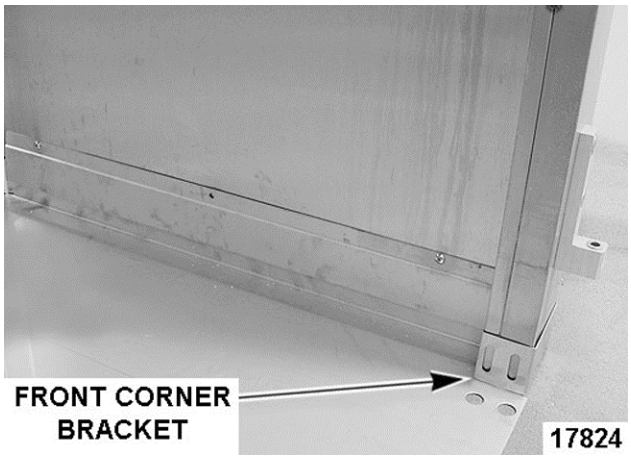


Fig. 19

2. Apply silicone to front and rear corner brackets, and position them at cabinet floor and wall panels.

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

3. 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.

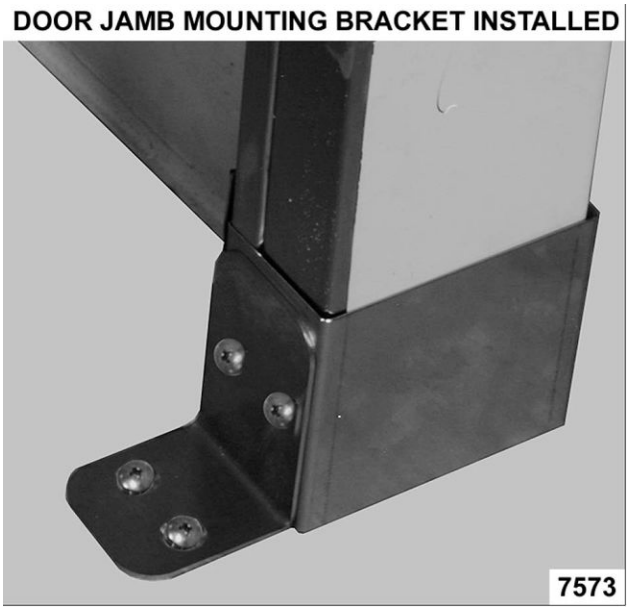


Fig. 20

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 degreaser.

6. Apply silicone to 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, **ensuring the neutral wire is connected at terminal #3 on terminal strip (Fig. 22 , Fig. 23)**.

NOTICE

Energizing power supply without a neutral connection could result in damage to circuit board.

NOTE: Damage resulting from failure to confirm neutral connection prior to energizing the equipment will **not be covered under warranty**.

NOTE: If 208-240 volt electrical supply does not have a neutral, a step-down transformer can be installed (see Fig. 21). Step down transformer must be installed into a leak tight housing supplied by customer.

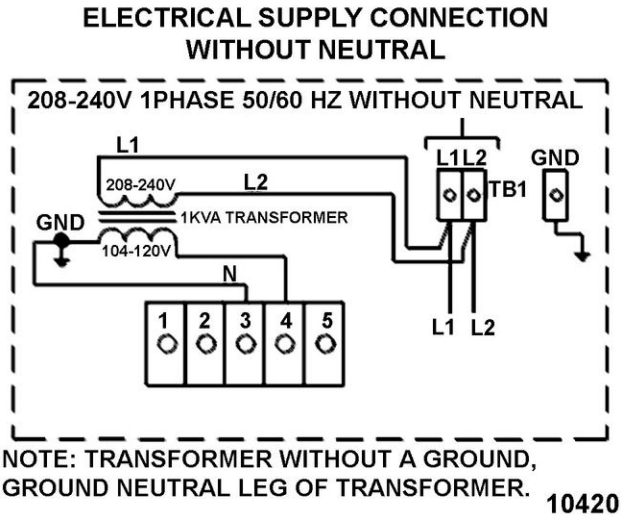


Fig. 21

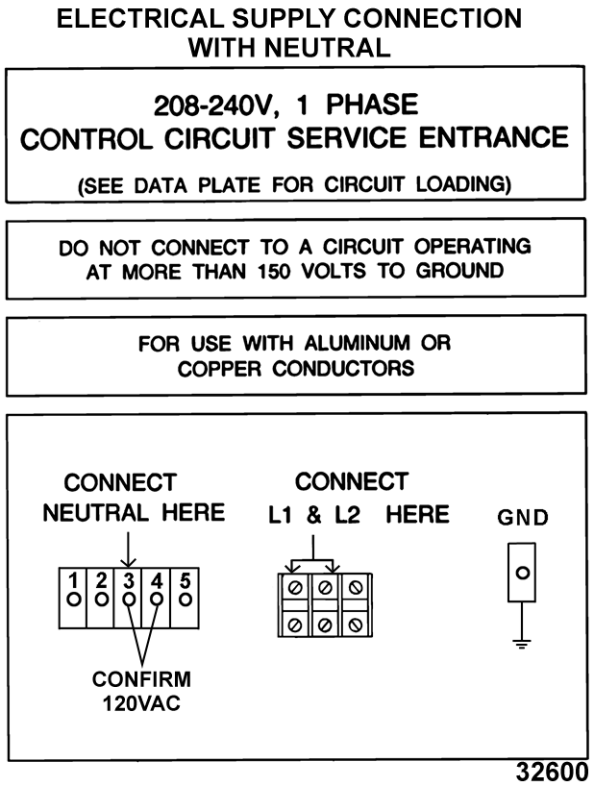


Fig. 22

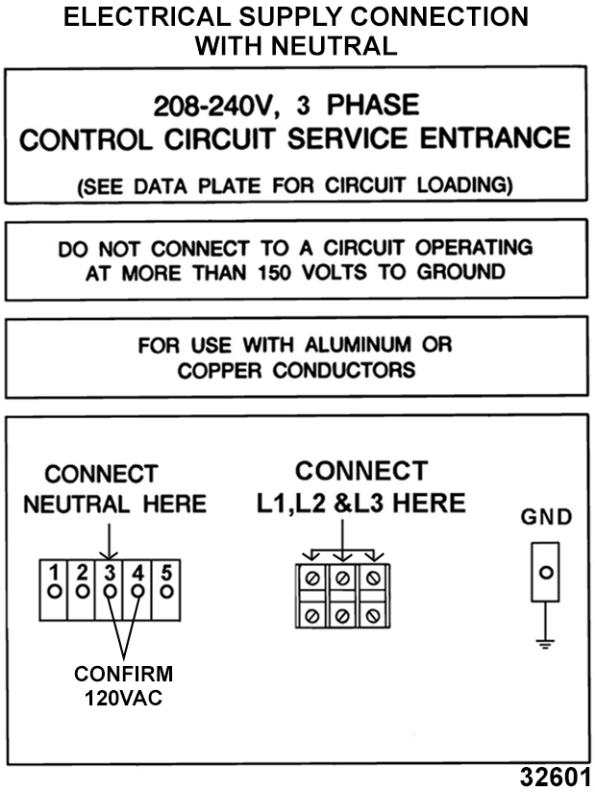


Fig. 23

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 through wall and 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.
6. Complete Installation Checklist and distribute copies per instructions on checklist.

3. INSTALLING UNASSEMBLED CABINETS

WALL PANEL

Refer to WALL CONFIGURATIONS 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 Clockwise and bottom cam Counter Clockwise 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.

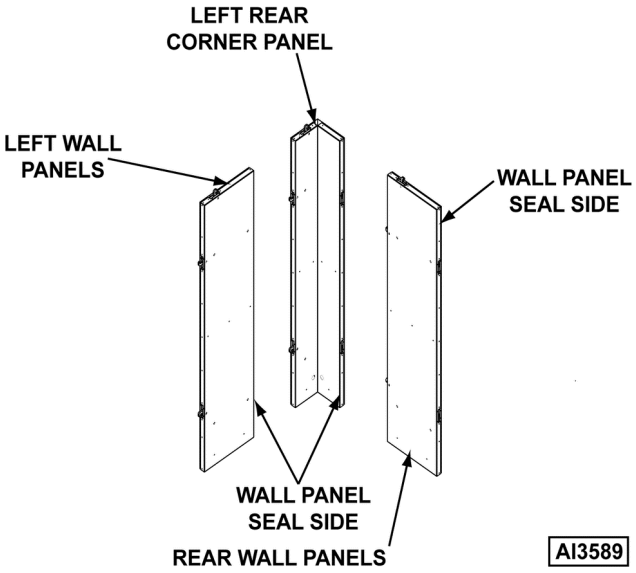


Fig. 24

CEILING PANELS

1. Start with rear ceiling panel with the square vent hole in it.
2. Position rear ceiling such that vent hole on left side of unit. Align edges of ceiling panel with rear wall and lock into place.

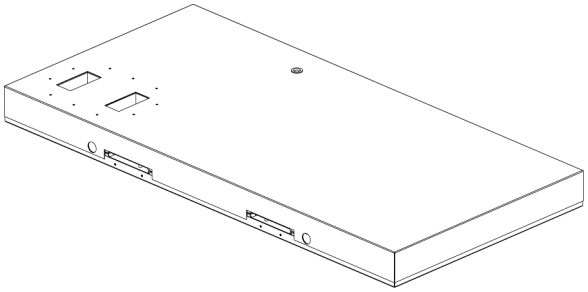


Fig. 25

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

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

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

ANCHOR POINT KIT INSTALLATION



⚠ 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. Locate the position for the anchor point on the top of the unit, using the locating instructions in PW PROOFER ANCHOR POINT LOCATIONS, and mark it.
2. Position one of the flat backer plates supplied with the kit so that its long side is parallel to the face of the unit, and the locating mark shows through the right-hand square hole in the plate. Mark the roof through the remaining square hole in the plate.

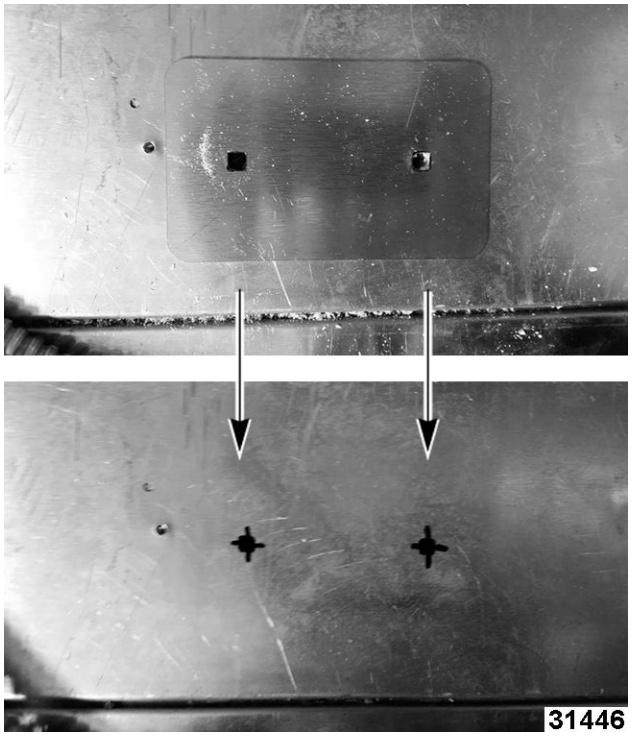


Fig. 26

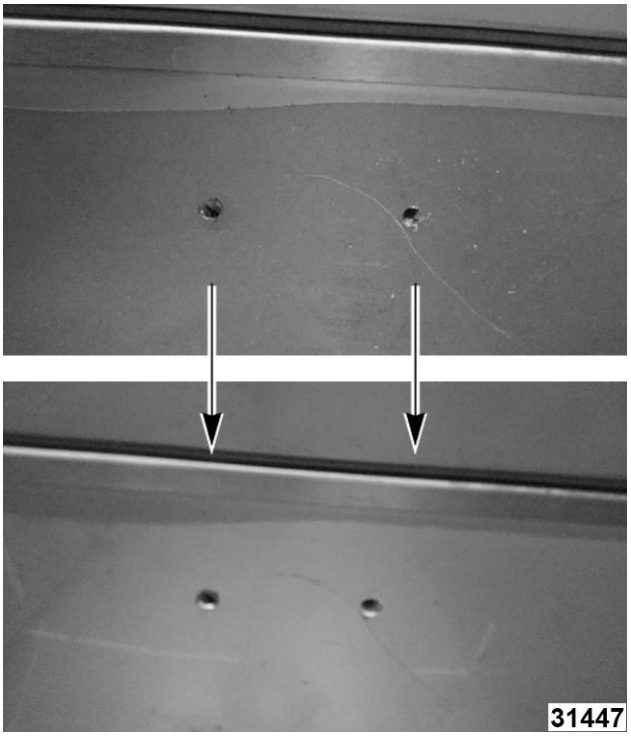


Fig. 27

NOTICE

Before drilling holes, verify that the marked locations do not overlap camlocks, ceiling ducts, refrigeration grills, drain lines, or flexible conduits. If there are interferences, move the shortest distance possible to locate a clear mounting area.

3. Using the 9/32" drill bit supplied with the kit, drill completely through the roof and ceiling at both of the marked locations.

NOTE: When drilling holes, the drill must be kept plumb all the way through the ceiling, or installation of the retaining bolts will be difficult.

4. From inside the unit, locate the two holes drilled in the previous step, and remove enough protective plastic from around the holes so that one of the backer plates can be installed without covering any plastic.

5. Use provided 27/64" drill bit to expand inner ceiling holes.

NOTE: Use previously drilled hole as a reference to guide drill bit.

NOTICE

Do not drill deeper than 3/8" into the ceiling panel when boring out holes.

6. Deburr any sharp edges left from the boring of the two 27/64" holes.

7. Apply a bead of clear silicone caulk around each of the 27/64" holes.

NOTE: Keep silicone within 1/4" of the edges of the holes.

8. Apply a bead of clear silicone caulk around the perimeter of one of the backer plates, as well as to the underside of both carriage bolt heads.

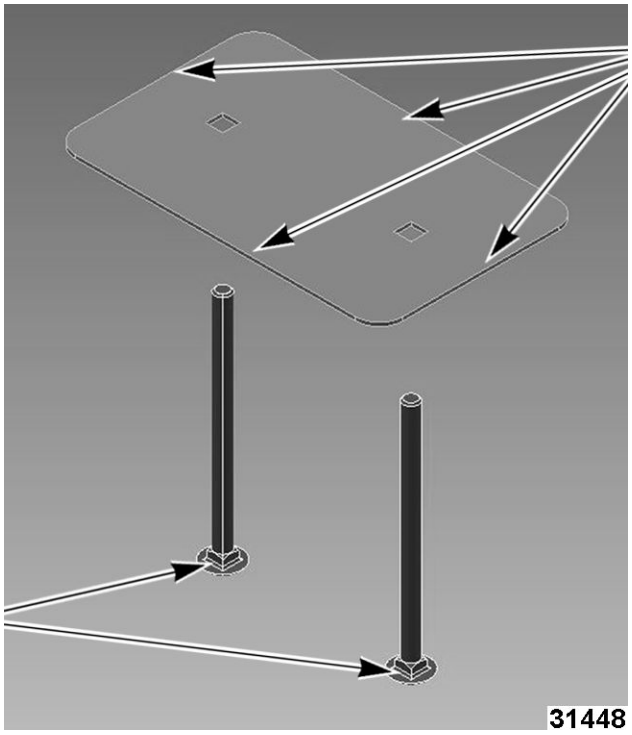


Fig. 28

9. Position backer plate with silicone applied to the inner ceiling over the holes, then insert the two carriage bolts through the backer plate and completely through the ceiling.

NOTE: Use 4" bolts for 3" thick ceilings, and use 5" bolts for 4" thick ceilings.

NOTE: Backer plate must seal to inner sealing skin all the way around its perimeter.

10. Temporarily secure both carriage bolts and backer plate to ceiling with tape.



Fig. 29

11. From the top of the unit, clean away all the metal and insulation debris. Position second backer plate, and then the anchor bracket over the carriage bolts. Place one flat washer onto each bolt, and secure with locknuts supplied with the kit.

NOTICE

Do not overtighten the locknuts. One to two turns after the locknuts contact the washers will be sufficient. Overtightening the locknuts can bow the ceiling panel.

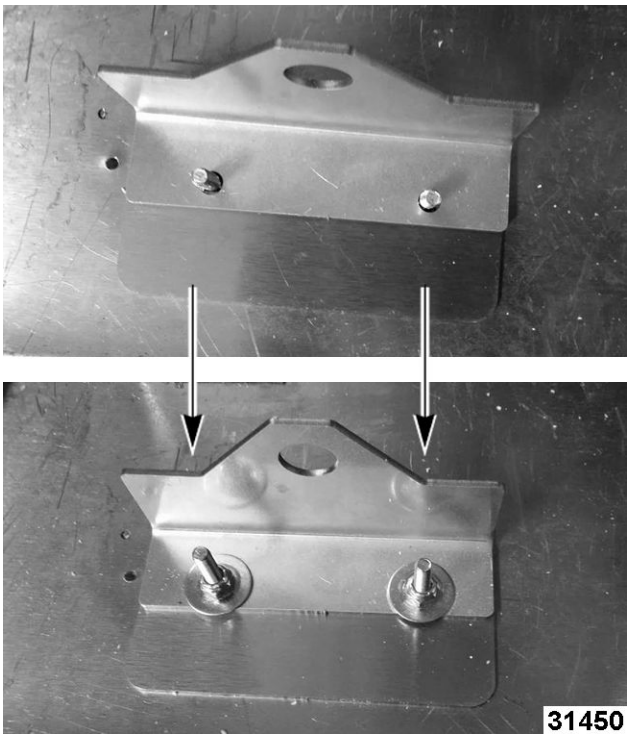


Fig. 30

12. Remove the tape from the inner backer plate and carriage bolts. Clean any tape residue from the plate and bolt heads.

13. Visually inspect the inner backer plate and carriage bolt heads, making sure there are no gaps between the plate and ceiling, or between the carriage bolts and plate. Exposed threads or any sharp edges are not permitted in the interior of the unit.

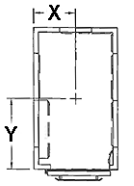


Fig. 31

14. Reconnect power, and check for proper operation.

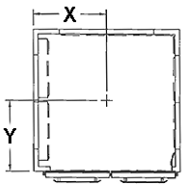
15. Turn off unit's control, and allow the clear silicone to cure before using.

PW PROOFER ANCHOR POINT LOCATIONS



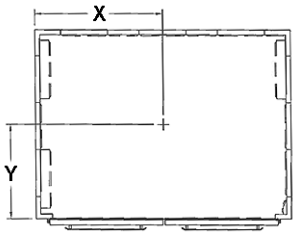
31441

Fig. 32



31442

Fig. 33



31443

Fig. 34

PW1E	X	Y	PW2E	X	Y	PW3S	X	Y
34.0" D	22.0"	20.0"	40.5" D	37.0"	26.0"	40.5" D	56.0"	26.0"
60.5" D	22.0"	30.0"	60.5" D	37.0"	30.0"	60.5" D	56.0"	30.0"
80.5" D	22.0"	50.0"	80.5" D	37.0"	50.0"	80.5" D	56.0"	50.0"
100.5" D	22.0"	50.0"	100.5" D	37.0"	50.0"	100.5" D	56.0"	50.0"
120.5" D	22.0"	70.0"	120.5" D	37.0"	70.0"	120.5" D	56.0"	70.0"
PW1S/DPC1S	**X**	**Y**	**PW2S**	**X**	**Y**			
40.5" D	23.5"	26.0"	40.5" D	39.0"	26.0"			
60.5" D	23.5"	30.0"	60.5" D	39.0"	30.0"			
80.5" D	23.5"	50.0"	80.5" D	39.0"	50.0"			
100.5" D	23.5"	50.0"	100.5" D	39.0"	50.0"			
120.5" D	23.5"	70.0"	120.5" D	39.0"	70.0"			

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.

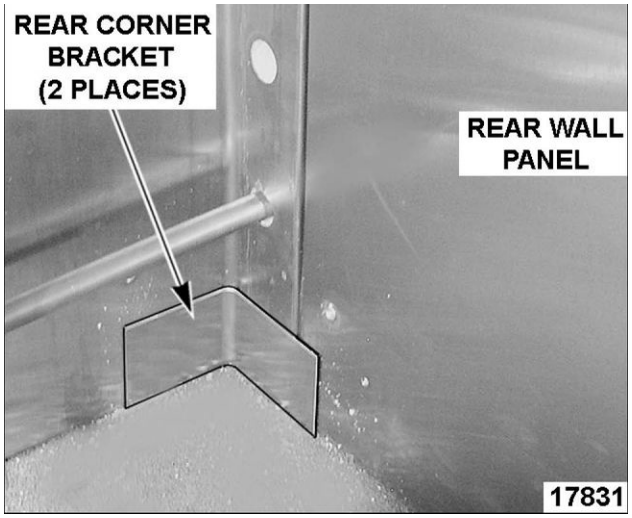


Fig. 35

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.

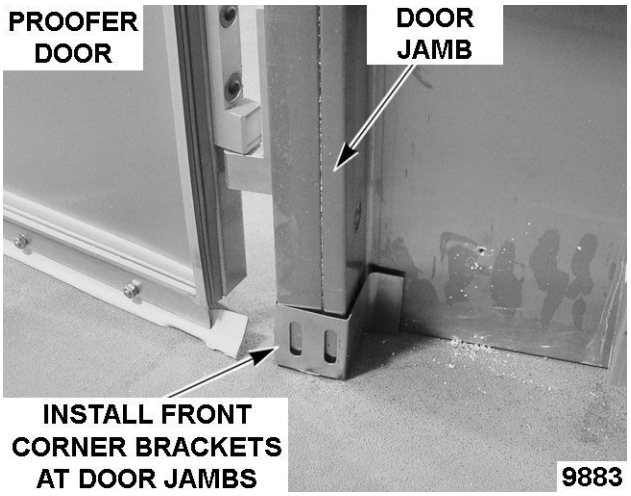


Fig. 36

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

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

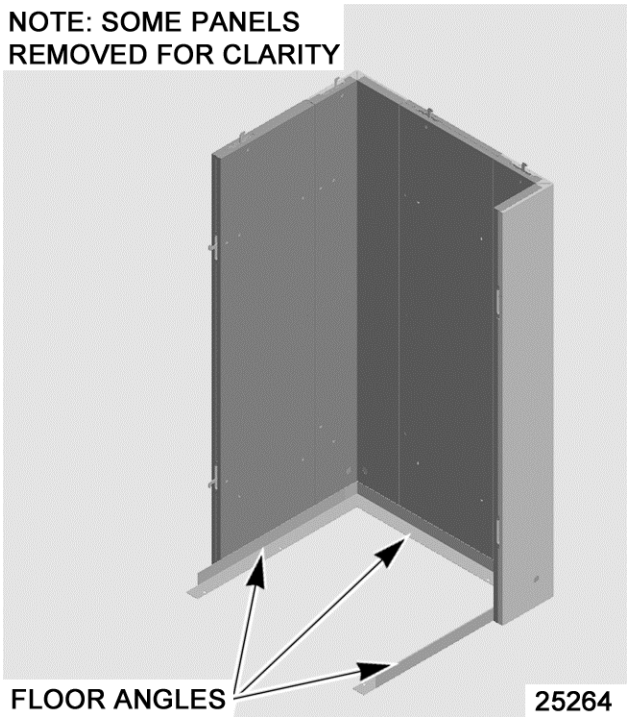


Fig. 37

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



Fig. 38

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.

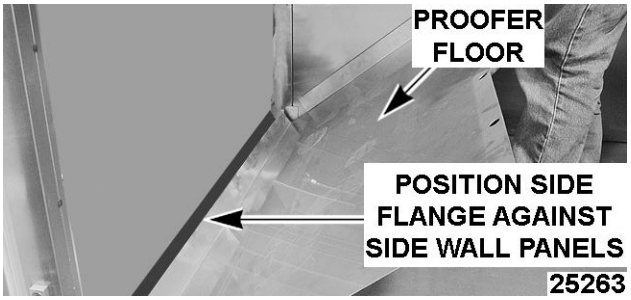


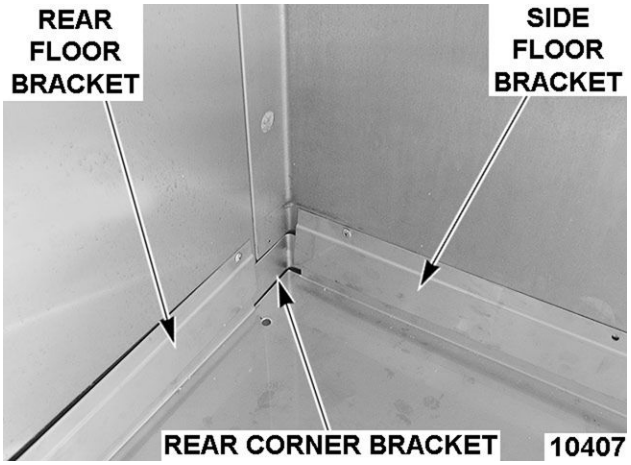
Fig. 39

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.



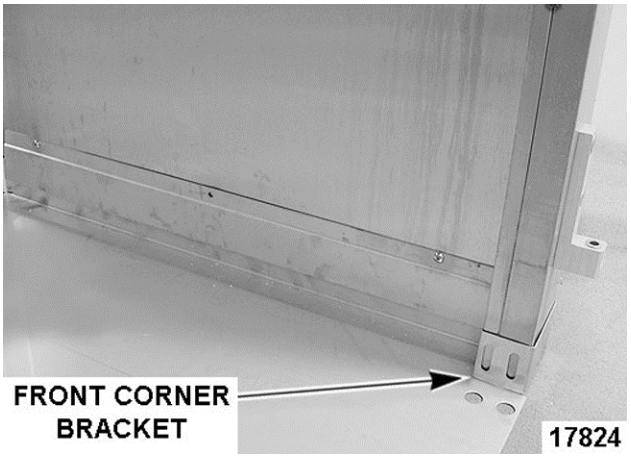


Fig. 41

2. Apply silicone to front and rear corner brackets, and position them at cabinet floor and wall panels.

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

3. 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. 42

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 degreaser.

6. Apply silicone to 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.

AIR DUCT ASSEMBLY

1. Install plug buttons into unused holes that would be behind air duct assembly.
2. Install grommets into routing holes in ceiling panel.

NOTE: Insert in top and bottom of ceiling panel.

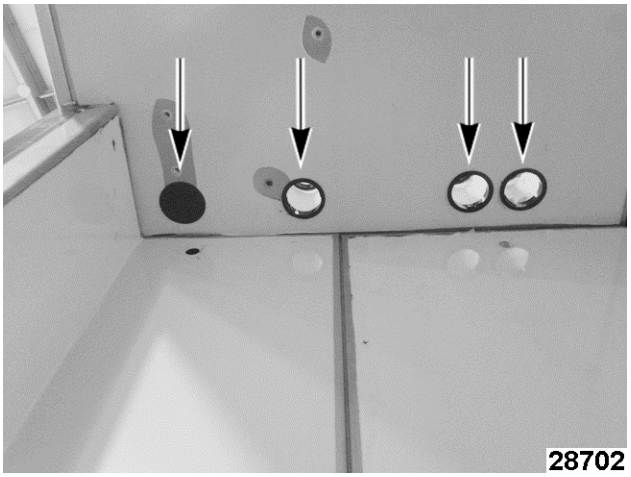


Fig. 43

3. Remove air intake cover from air duct assembly.
4. Install air duct bolts loosely into nutserts in ceiling panel.
5. Hang air duct assembly onto bolts using key holes in air duct assembly.

NOTE: Do not fully tighten bolts into ceiling panel.

6. Secure air duct assembly to wall panel in 4 locations (3, Fig. 44) and tighten ceiling bolts.

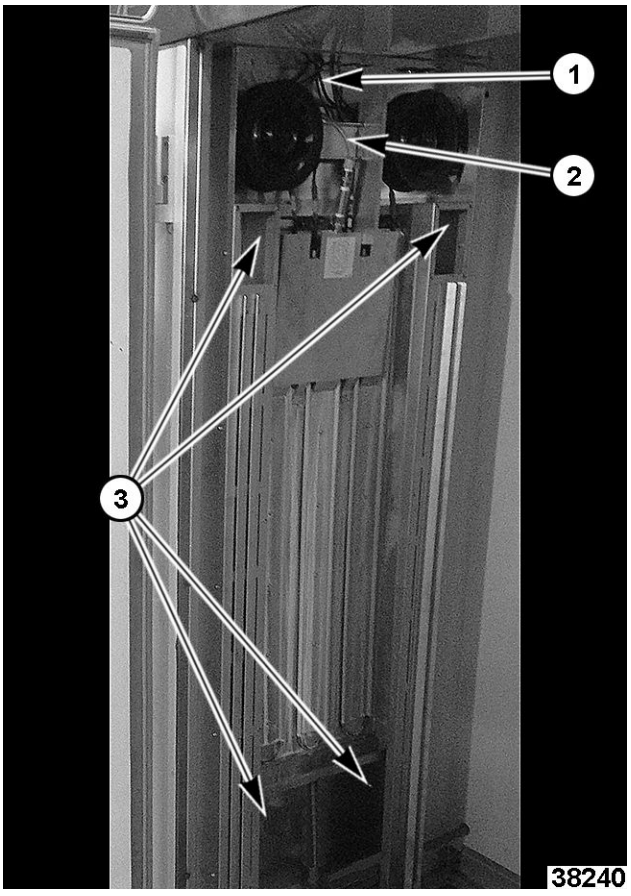


Fig. 44

NOTE: Insulation may need to be cleaned out of holes so heater wires (1, Fig. 44) can be routed through.

7. Route heater, fan, and high limit lead wires through appropriate access hole in ceiling. Install a 40-inch long, 1/4" diameter piece of poly tubing from spray nozzle, out through an access hole in ceiling. There will be a grommet around both the inner and outer skin access holes.
8. Install water line (2, Fig. 44) from solenoid to spray nozzle using shallow radius bends.

NOTICE

Do not kink the water line.

NOTE: After all water lines and wiring are run up through access holes, fill access holes with silicone to prevent moisture from escaping the cavity.

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

DRAIN CONNECTION

See Engineering Drawing DPC1S Dehumidifying Proofer Drain Specifications & Instructions for more details.

NOTE: Following these instructions will result in meeting the requirement of 1/4" per foot slope on drain lines.

1. Determine pipes required for model. See illustration DPC1S Dehumidifying Proofer Tube & Pipe Configuration, "1 DUCT PW MODELS" (Fig. 45).

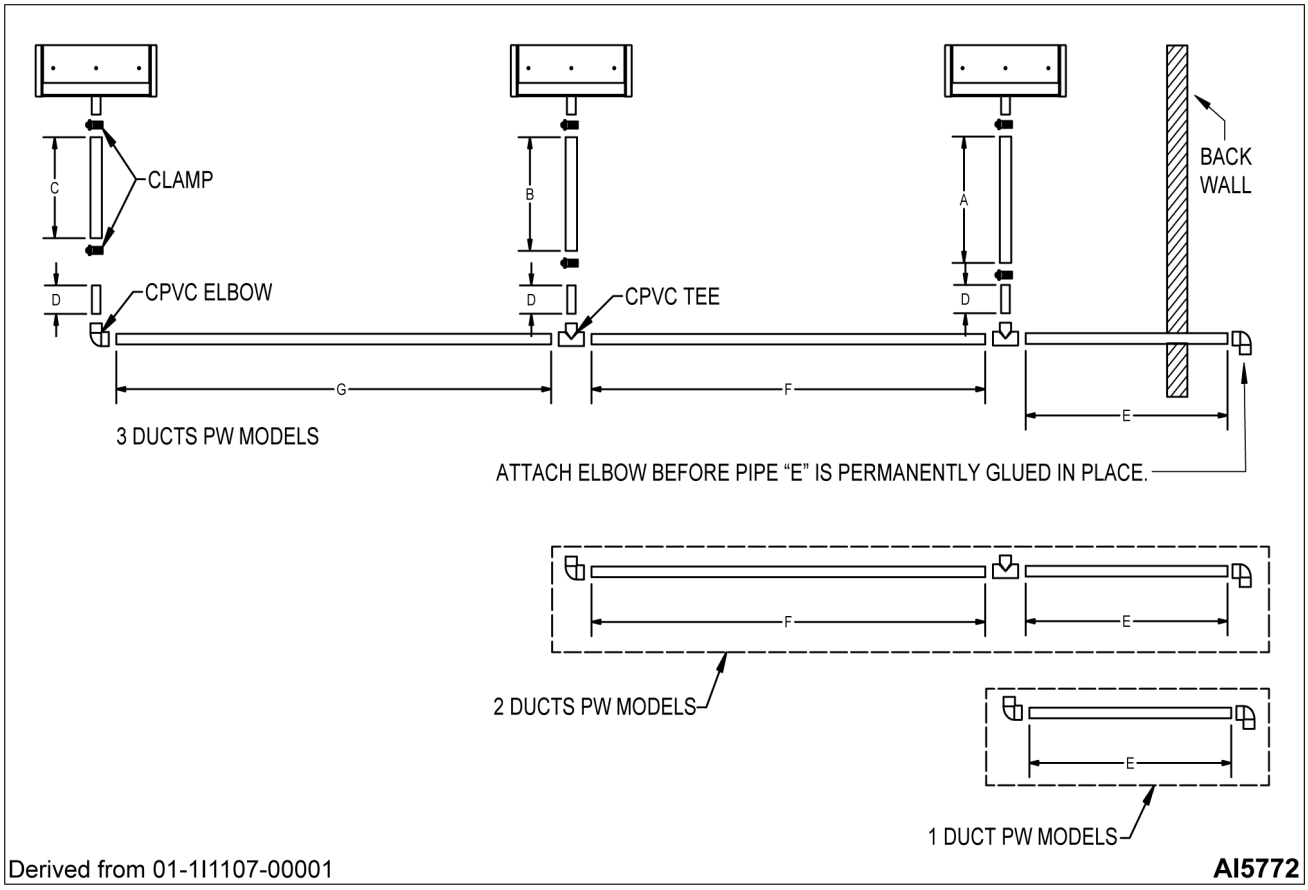


Fig. 45

2. Cut **clear tubes** and **CPVC pipes** to appropriate length. See chart DPC1S Dehumidifying Proofer Pipe Lengths (Fig. 46).

PROOFER, DEHUMIDIFYING PROOFER DRAIN PIPES, TUBES, & FITTINGS																
Depth	Model	Ducts per Wall	Duct Location	Supplied 10" Clear Tube Qty	Clear Tube Cut Length			Supplied CPVC Pipe Length	CPVC Pipe Cut to Length				Supplied Fittings Qty			
					A	B	C		D	E	F	G	Clamp	Elbow	Tee	Adapter Elbow
34”	PW1E	1	L Wall	1	10			24	1 x 2.25	19.5			2	1	0	1
40”	DPC1S, PW1S, PW2E, PW2S	1	L Wall	1	10			36	1 x 2.25	26			2	1	0	1
40”	*PW3S	1	L Wall	2	10			36	1 x 2.25	26			4	2	0	2
		1	R Wall		10			36	1 x 2.25	26						
60”	PW1E, PW2E, PW1S	1	L Wall	1	9			48	1 x 2.25	45.5			2	1	0	1
60”	PW2E, PW2S	2	L Wall	2	10	9		60	2 x 2.25	19.5	25.5		4	1	1	1
60”	*PW3S	1	L Wall	2	9			60	1 x 2.25	45.5			4	2	0	2
		1	R Wall		9			36	1 x 2.25	26						
80”	PW1E, PW2E, PW1S, PW2S	2	L Wall	1	10	9		71	2 x 2.25	19.5	45.5		4	1	1	1
80”	*PW3S	2	L Wall	3	10	9		71	2 x 2.25	19.5	45.5		6	2	1	2
		1	R Wall		10			36	1 x 2.25	26						
100”	PW1E, PW2E, PW1S, PW2S	2	L Wall	2	10	8.5		24		19.5			4	1	1	1
								71	2 x 2.25		65.5					
100”	*PW3S	2	L Wall	3	10	8.5		24	2 x 2.25	19.5			6	2	1	2
								71			65.5					
		1	R Wall		10			36	1 x 2.25	26						
120”	PW1E, PW2E, PW1S	2	L Wall	2	10	8		24	2 x 2.25	19.5			4	1	1	1
								85.5			85.5					
120”	PW2S	3	L Wall	3	10	9	8	71	3 x 2.25	19.5	39		6	1	2	1
								48				45.5				
120”	*PW3S	2	L Wall	3	10	8		24	2 x 2.25	19.5			6	2	1	2
								85.5			85.5					
		1	R Wall		10			36	1 x 2.25	26						

* Devices with duct placement on Right AND Left walls.

39243

Fig. 46

3. Add primer to all CPVC connections (1, Fig. 47).
4. Add cement to all CPVC connections (1, Fig. 47).

   NOTE: Both primer AND cement must be applied.
5. Fully insert clear tubing onto pipe fittings.

   NOTE: This illustration (2, Fig. 47) shows tube fully inserted **after** having been cut to appropriate length.

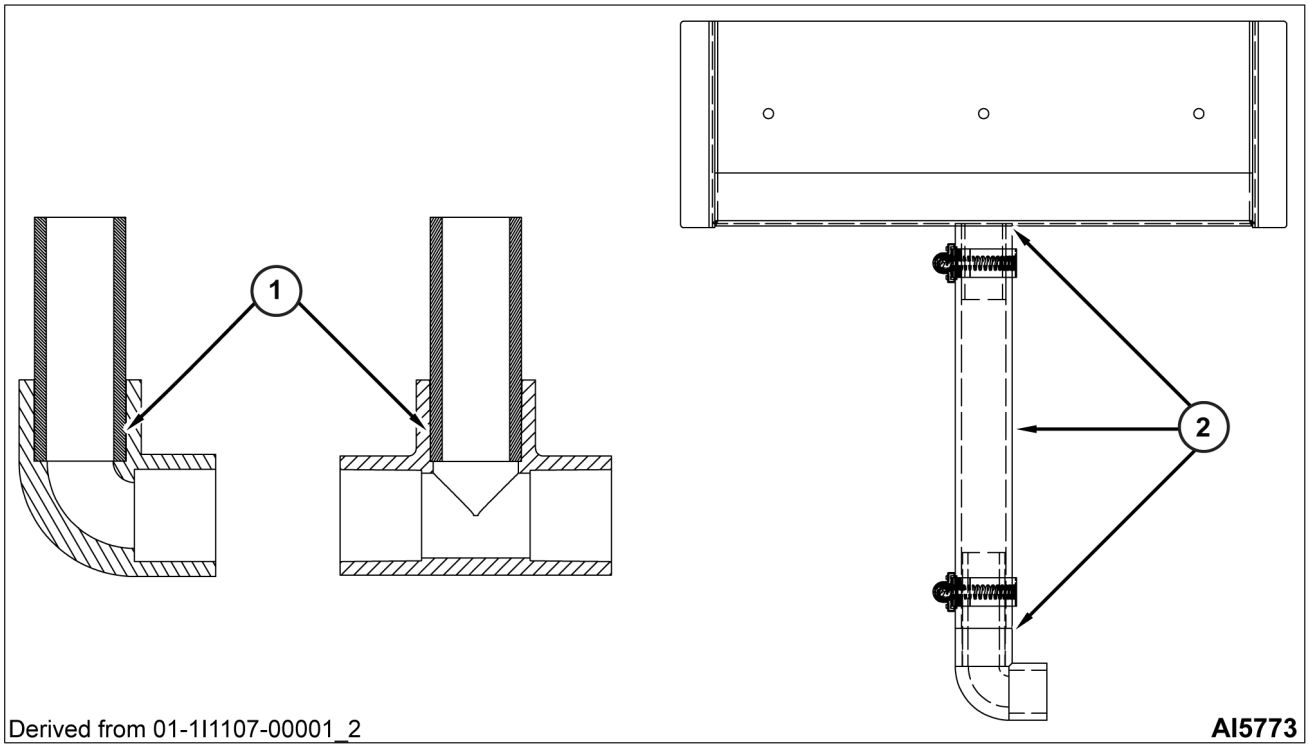


Fig. 47

AIR INTAKE COVER

1. Install air intake cover onto air duct assembly. Air intake cover fits over air duct assembly.
2. Secure cover with 16 screws.



Fig. 48

GUIDE RAIL

1. Remove the necessary protective plastic.
2. Install rear guide rail to rear wall.
3. Install left and right guide rail(s) to rear guide rail and wall(s).

NOTE: Right and left guide rails have slotted holes for proper fitting.



Fig. 49

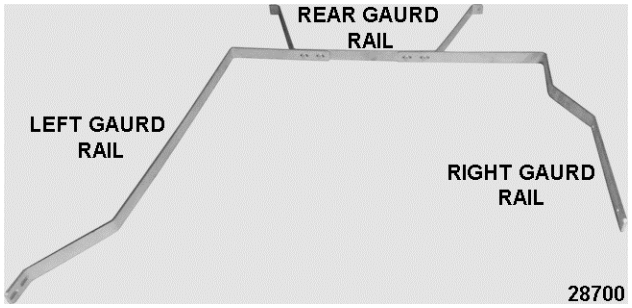


Fig. 50

DOOR HANDLE

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

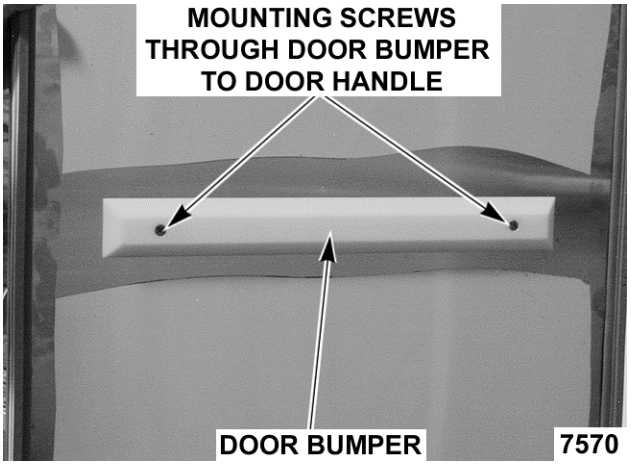


Fig. 51

DOOR HINGES

NOTICE

Failure to follow this updated procedure may cause irreparable damage to the front corner panels, making them unusable. Following this procedure will retain the backer plates within the corners, and not allow them to possibly separate inside the corners.

NOTE: On double door units, the door with the control opening will mount to the left side.

NOTE: Use Red High strength thread locker on all hinge bolts.

NOTE: Torque all hinge bolts to 90 in-lbs or 7½ ft-lbs.

First Time Install Of Hinges

NOTE: Single door units can be hinged from either corner panel to obtain door swing required.

1. Remove upper hinge bolts from upper and lower hinge locations in the desired front corner section.
2. Apply thread locker to both bolts and loosely secure female halves of hinges to both hinge locations.
3. Remove both lower hinge bolts from corner.
4. Rotate hinges to a vertical position.



Fig. 52

5. Apply thread locker to bolts and reinstall through hinge.
6. Secure hinges by tightening all 4 hinge bolts.
7. Repeat process, if necessary, for opposite front corner if the unit has two loading doors.

NOTE: Ensure bushings (Fig. 53) are installed in female halves of hinges.



Fig. 53

Door Hinge Mounting

1. Remove upper hinge bolts from hinge locations at top and bottom of door.
2. Apply thread locker to both bolts and loosely secure male halves of hinges to both hinge locations.

NOTE: Be sure to position male half of hinge with post positioned downward (Fig. 54).

3. Remove both lower hinge bolts.
4. Rotate hinges to a vertical position.
5. Apply thread locker to bolts and reinstall through hinge.
6. Secure hinges by tightening all 4 hinge bolts.
7. Repeat process, if necessary, for other loading door if the unit has two loading doors.

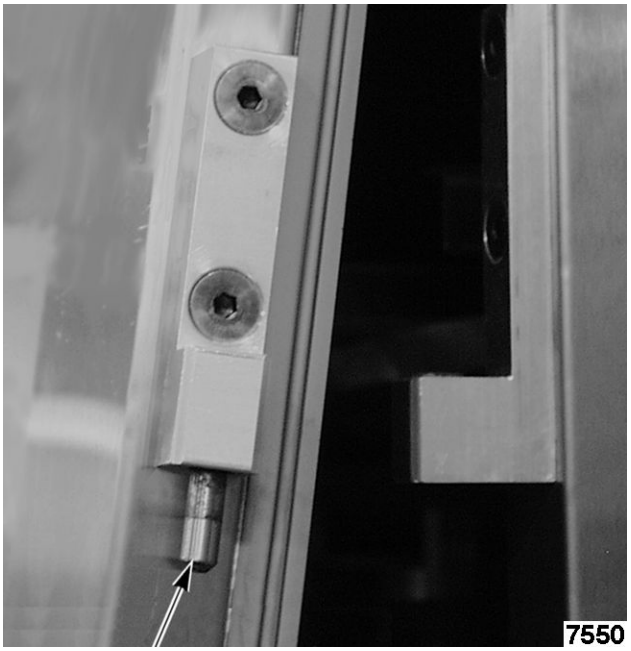


Fig. 54

8. Remove unused hinging screws provided for alternate door swing from opposite front corner panel, and replace with plug buttons provided in the unit assembly hardware package.

NOTE: Do not stand door up on door seal at any time.

9. Install plug buttons into hex sockets of all flat-head hinge bolts in loading doors and front corner panels.

NOTE: If button-head screws were removed from the loading door to reverse hinging on single door unit, fill socket in button-head screws with silicone caulk and wipe smooth.

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

10. Install door onto cabinet.

DOOR MAGNET

1. Install magnet assembly to top of door.

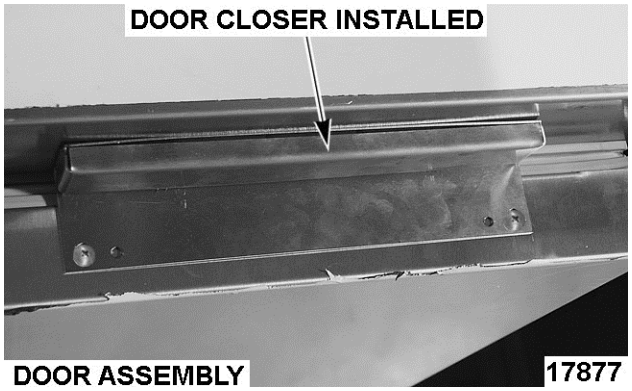


Fig. 55

DOOR SWEEP

1. Remove rubber door sweep from bottom of door sweep bracket by removing seven nuts & bolts.

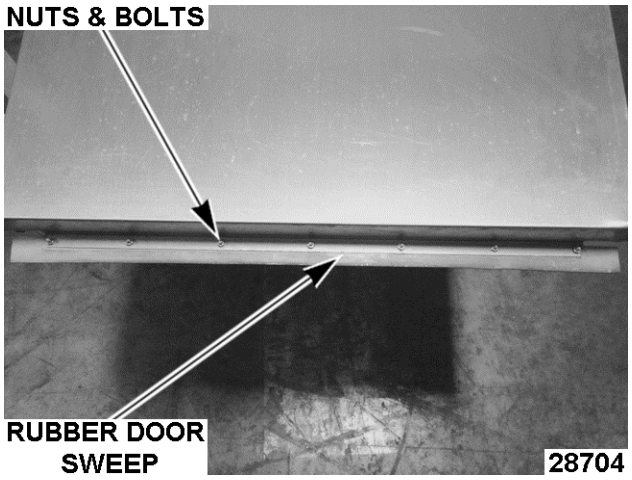


Fig. 56

2. Replace rubber door sweep.
3. Evenly align rubber door sweep to bottom of door sweep bracket.
4. Secure rubber door sweep to bottom of door sweep bracket using seven nuts and bolts.

NOTE: Holes on door are elongated in order to properly adjust placement of door sweep.

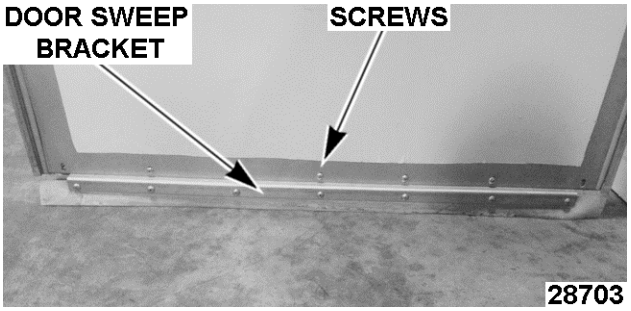


Fig. 57

COMPONENT & JUNCTION BOX

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

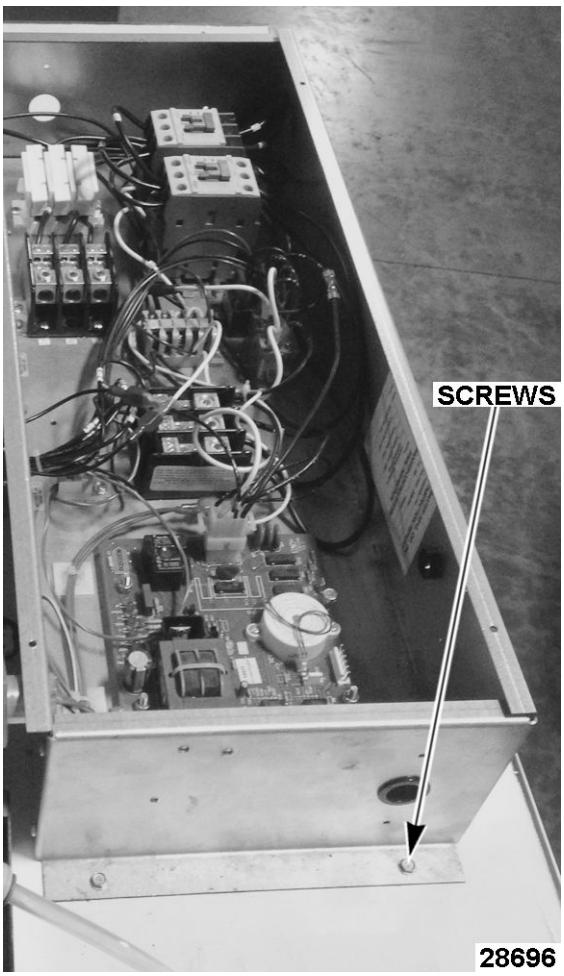


Fig. 58

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

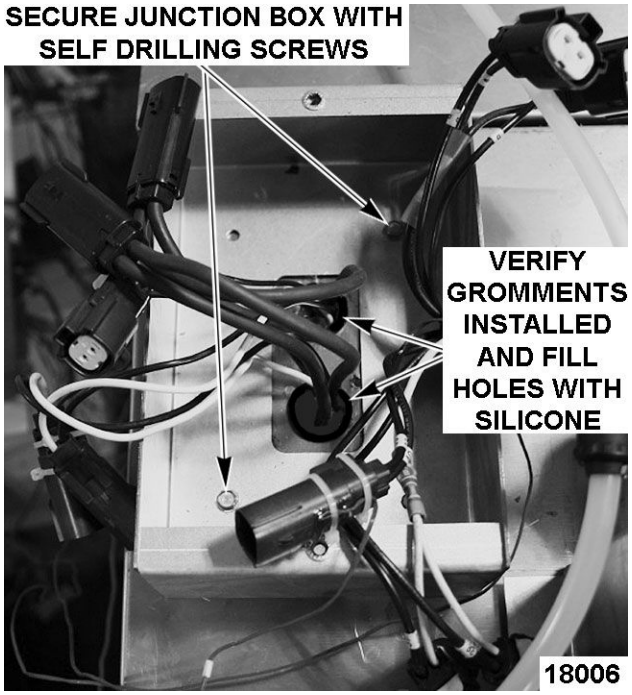


Fig. 59

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

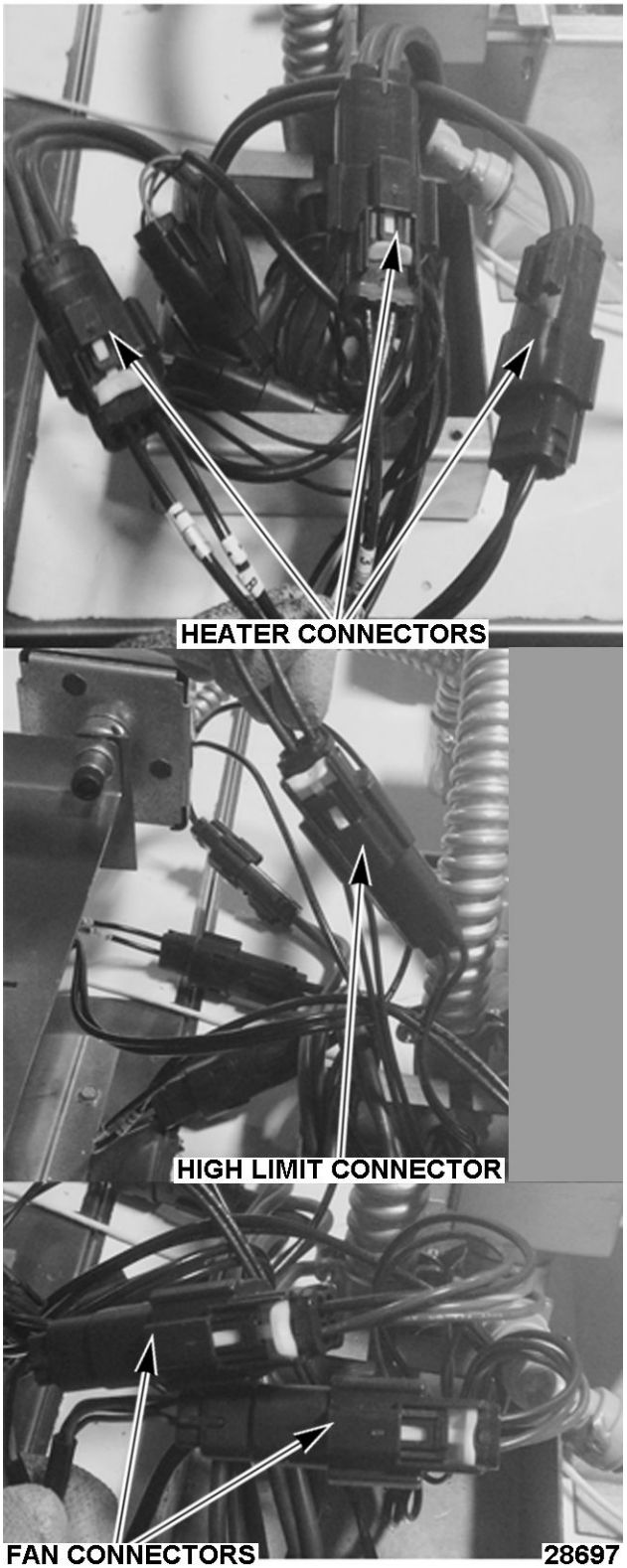


Fig. 60

5. Connect water line to solenoid
6. Seal holes in ceiling panels with silicone.
7. Install cover on junction box.

HUMIDITY/TEMPERATURE SENSOR

1. Route sensor through ceiling panel. Plug will not fit through ceiling hole.
2. Install sensor bracket onto back panel.

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

3. Install humidity/temperature sensor into clamp on sensor bracket in middle of back panel, inside cabinet.

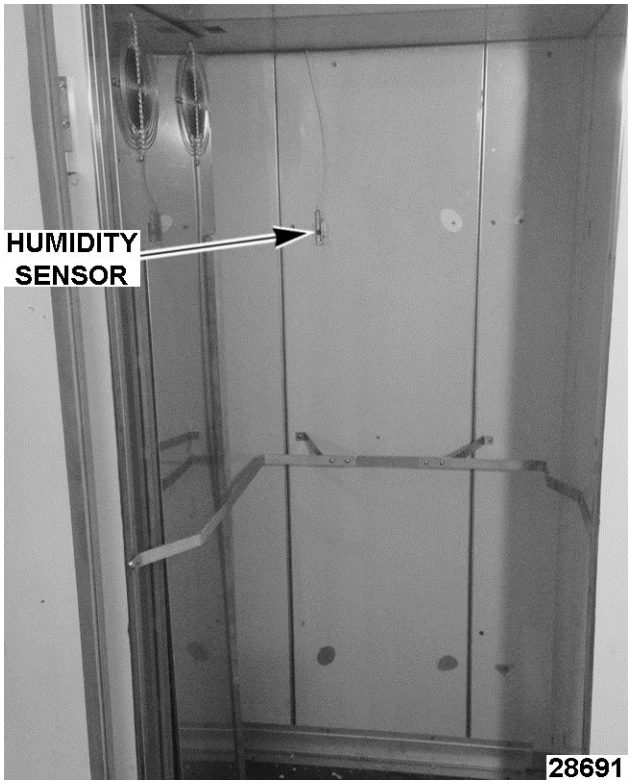


Fig. 61

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

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

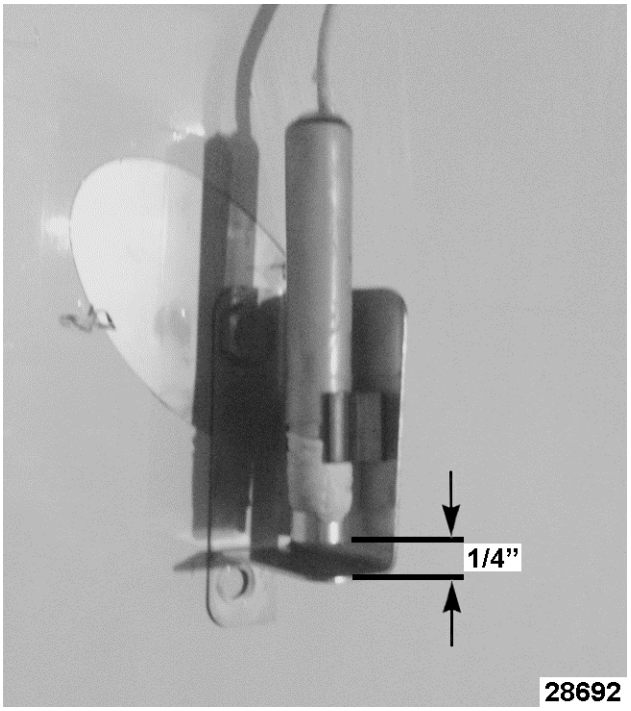


Fig. 62

5. Connect humidity/temperature sensor to control board.
6. Seal hole in ceiling panel with silicone.

VENT

1. Confirm rear ceiling has been installed with the square vent opening on the left side of the unit.
2. Place vent assembly over the hole in rear ceiling panel and secure to ceiling through the mounting brackets using the provided self drilling screws.

NOTE: Make sure vent lid is facing rear of unit.

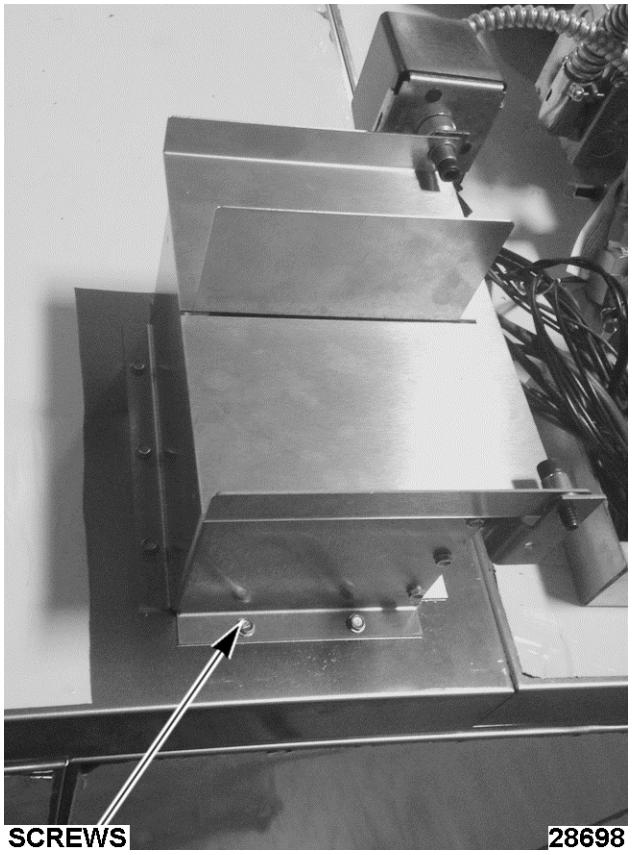


Fig. 63

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

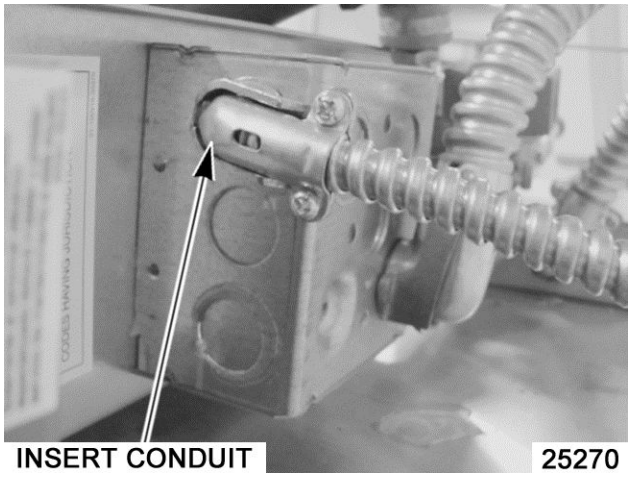


Fig. 64

4. Inside the control box, locate black wire #20 and connect to slide connector (black wire #20).
5. Locate white wire #32 and connect to slide connector (white wire #32).

WATER SUPPLY LINE CONNECTION

NOTE: See APPENDIX 1 - Water Supply Fitting Connections for detailed push-to-connect instructions.

1. Modify one black ceiling hole plug by drilling a 1/4" access hole through its center.
2. Run 1/4" poly tube from the spray nozzle assembly through the modified plug, and install into ceiling access hole (Fig. 65).



Fig. 65

3. Insert 1/4" poly tube through grommet on side of solenoid cover, and connect to the Push-to-Connect elbow attached to the bottom of the solenoid (Fig. 66).

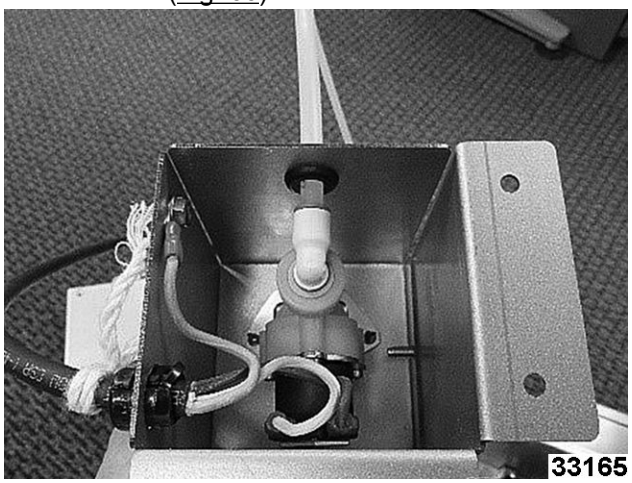


Fig. 66

NOTE: Do not kink the tubing.

4. Use the four provided self-drilling screws to secure solenoid cover to proofer ceiling next to service entrance, making sure that it does not interfere with air duct power conduits (Fig. 67).

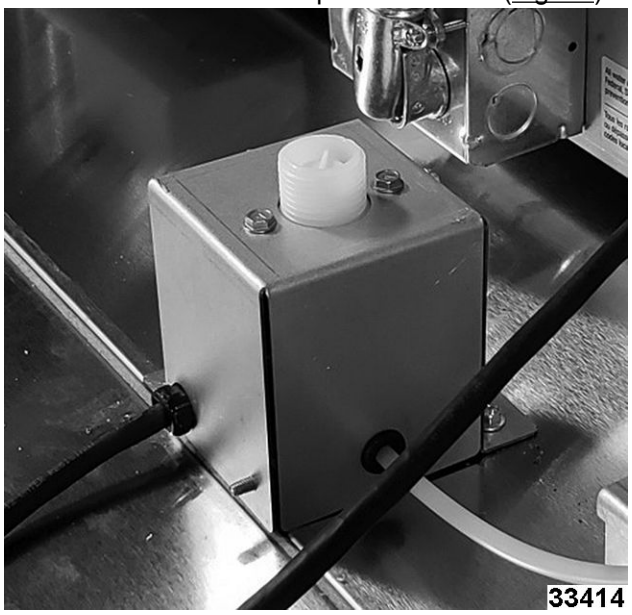


Fig. 67

TRIM PANELS

1. Install both forward side trim panels.

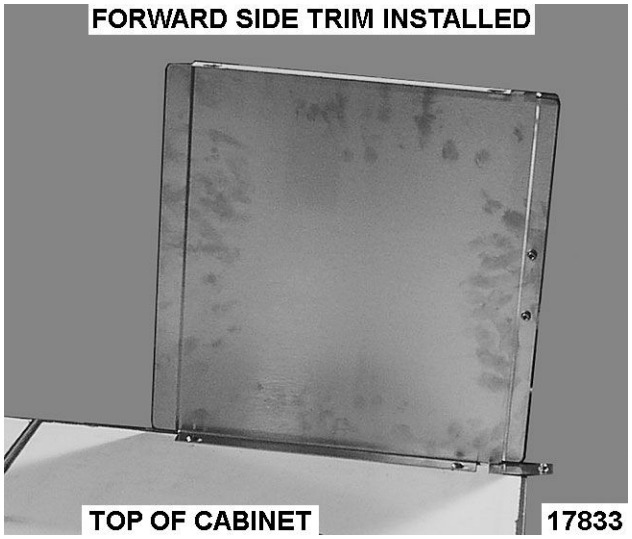


Fig. 68

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

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.

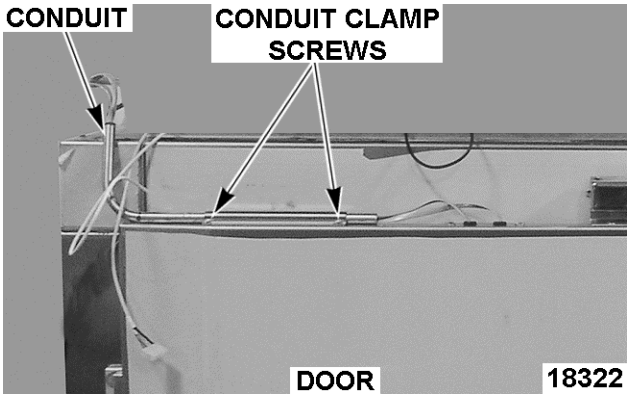


Fig. 69

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

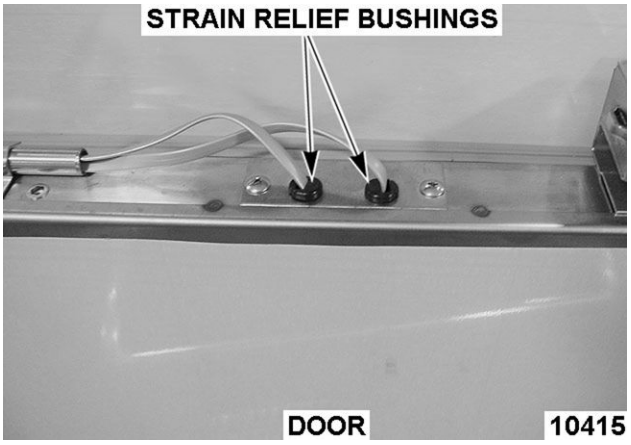


Fig. 70

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.

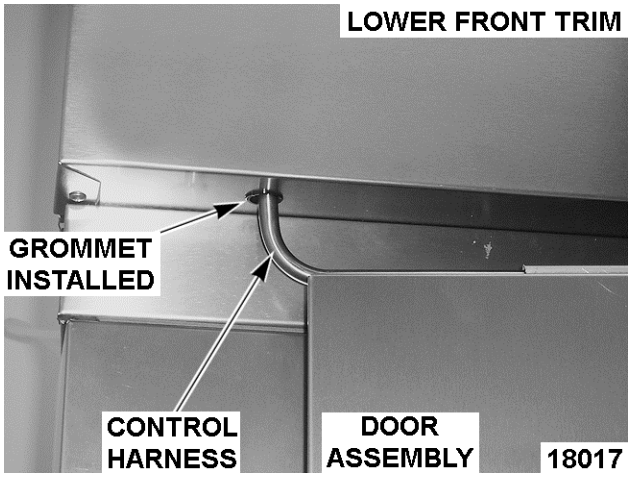


Fig. 71

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

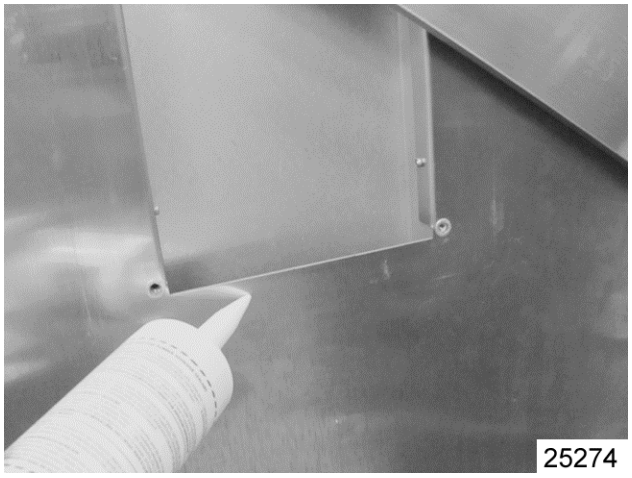


Fig. 72

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.

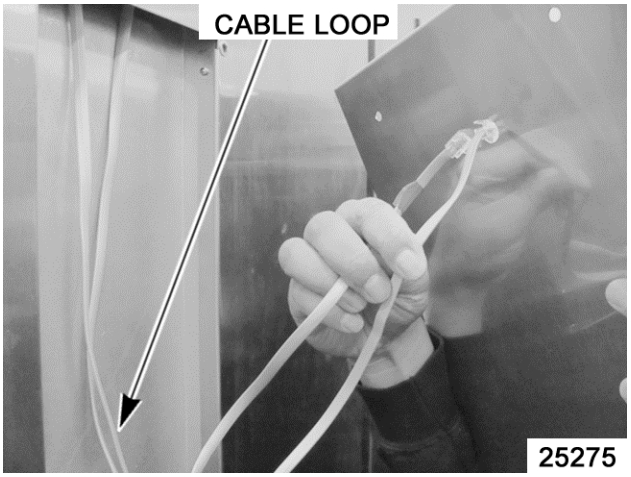


Fig. 73

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

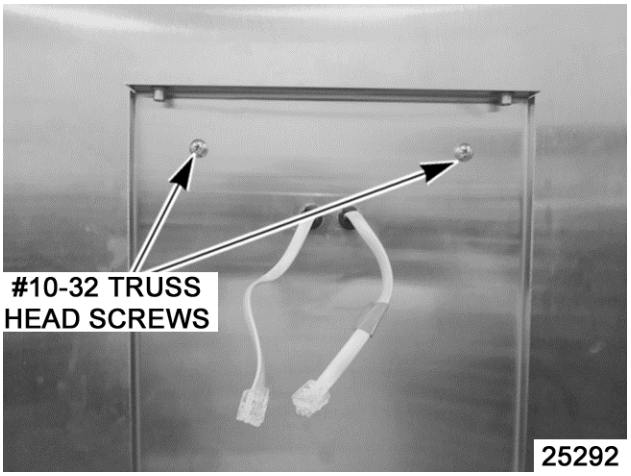


Fig. 74

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.

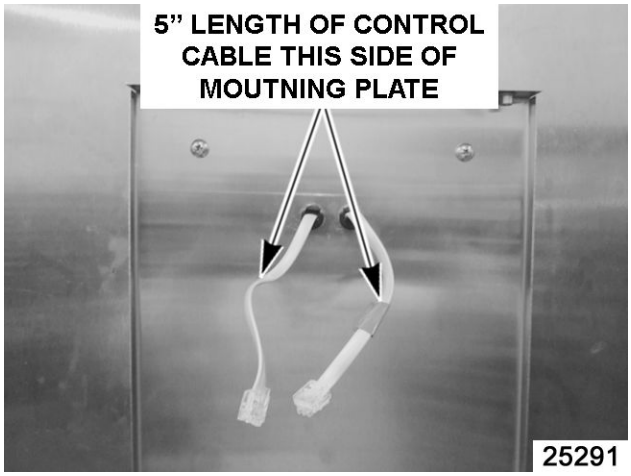


Fig. 75

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.

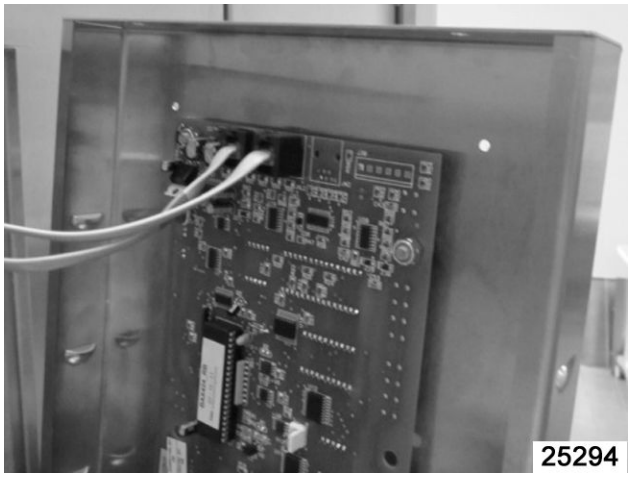


Fig. 76

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

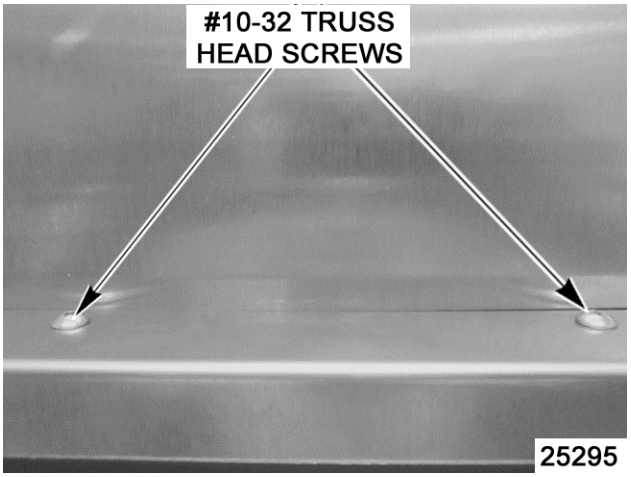


Fig. 77

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

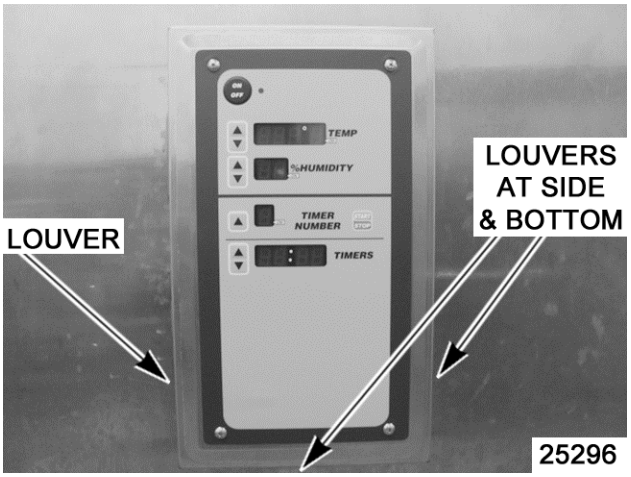


Fig. 78

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, **ensuring the neutral wire is connected at terminal #3 on terminal strip (Fig. 80 , Fig. 81)**.

NOTICE

Energizing power supply without a neutral connection could result in damage to circuit board.

NOTE: Damage resulting from failure to confirm neutral connection prior to energizing the equipment will **not be covered under warranty**.

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.

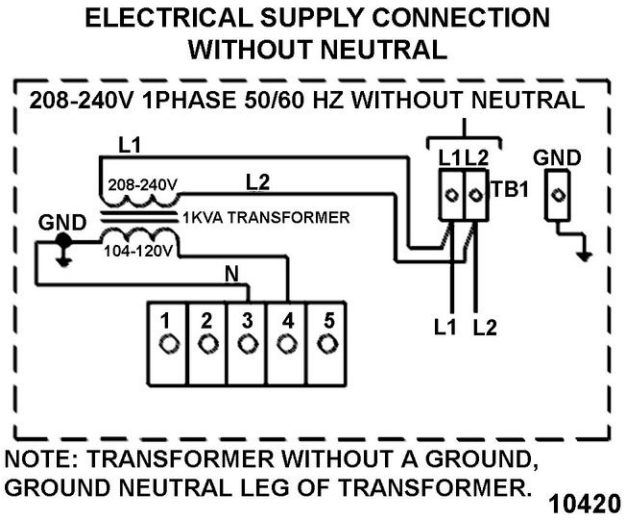


Fig. 79

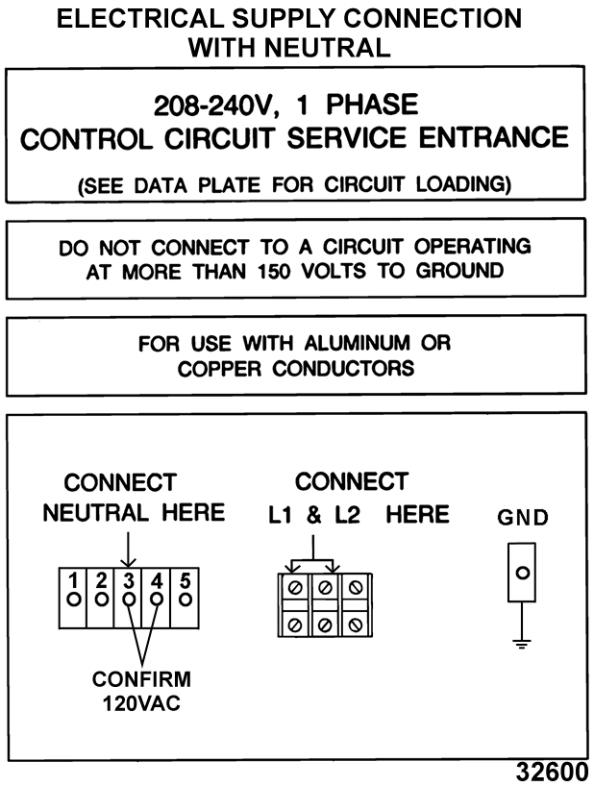


Fig. 80

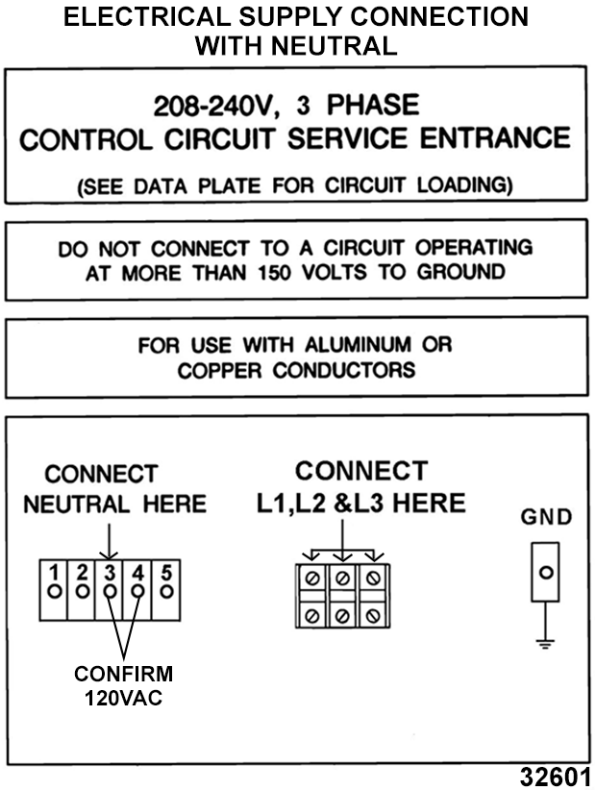


Fig. 81

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 through wall and 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.
6. Complete Installation Checklist and distribute copies per instructions on checklist.

APPENDIX

APPENDIX 1 - Water Supply Fitting Connections

The following is a general overview for properly connecting water supply fittings on Proofer and Retarder/Proofer models.

NOTE: These instructions are for 1/4" supply tubing only.

Fittings: GHT fitting, water solenoid, supply tube, push-to-connect tee fitting, push-to-connect spray nozzle assembly.

Tools Required: measuring tape, marker, Teflon tape or NSF-61 approved thread sealant.

Attach GHT Fitting to Solenoid Valve

1. Hand-tighten GHT fitting to water solenoid valve (2, Fig. 82).

   NOTE: No sealant or Teflon tape is required on the valve end of fitting (1, Fig. 82) as it has a rubber washer preinstalled.

2. Apply NSF thread sealant or Teflon tape to the male NPT fitting (not shown) that attaches to the NPT side (3, Fig. 82) of the GHT fitting.

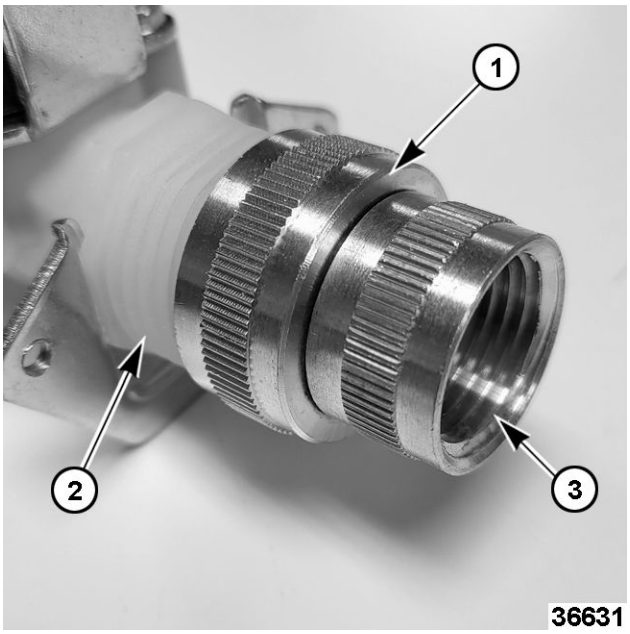


Fig. 82

Mark Supply Tubes

1. Measure and mark 9/16" from the end of tubes (Fig. 83).

   NOTE: Make sure the ends are cleanly cut.

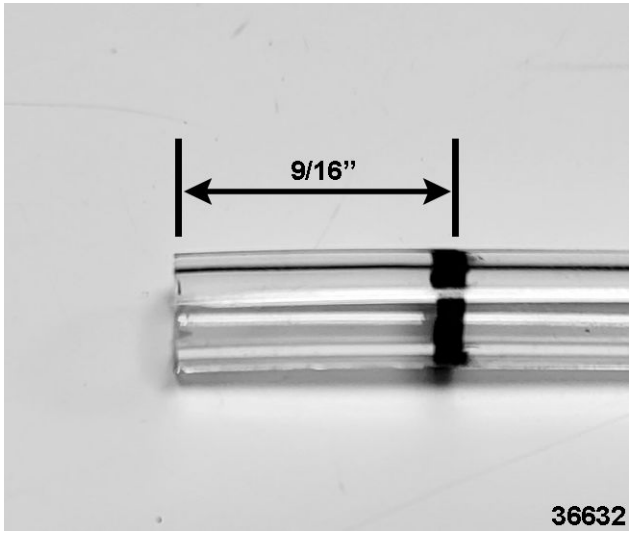


Fig. 83

Connect Supply Tubes

1. Connect marked end of supply tubing to push-to-connect solenoid (Fig. 84) and tee (Fig. 85) fittings.

   NOTE: When fully inserted into the solenoid and tee fittings, tube marking (1, Fig. 84 & Fig. 85) is visible and aligns with the fitting's release ring (2, Fig. 84 & Fig. 85).

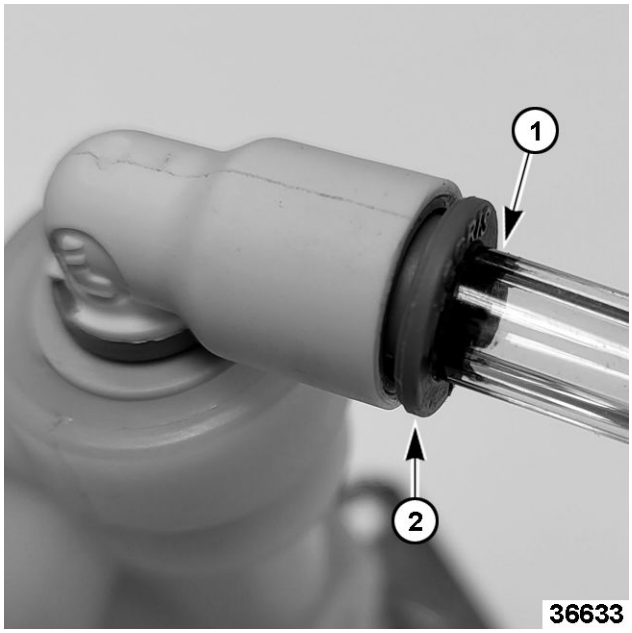


Fig. 84

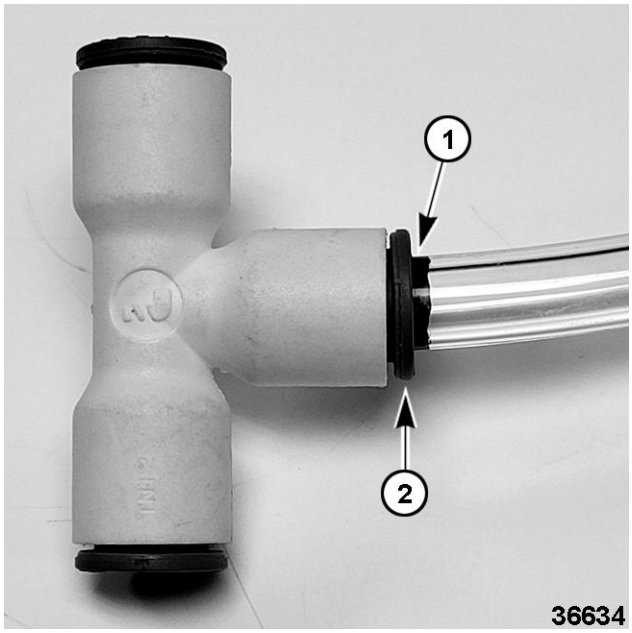


Fig. 85

2. Connect marked end of supply tubing to push-to-connect spray nozzle.

   NOTE: When fully inserted into the spray nozzle, tube marking is NOT visible (Fig. 86).

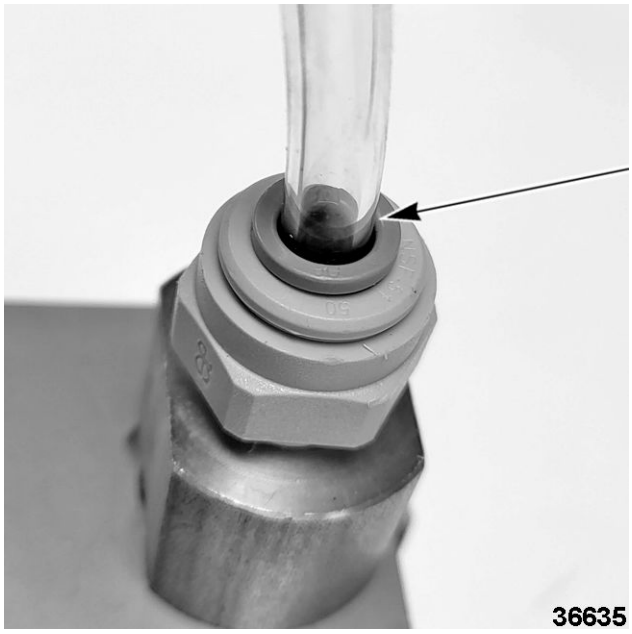


Fig. 86