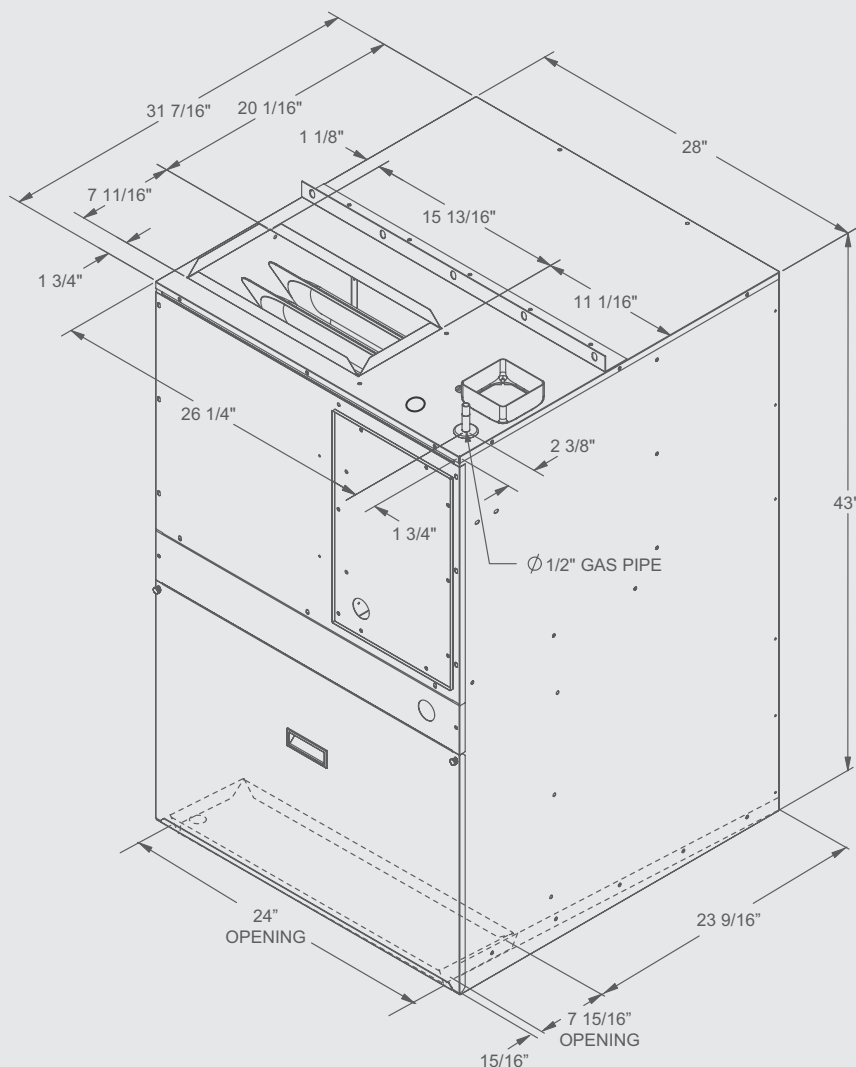


NATIONAL COMFORT PRODUCTS

HEATING & A/C EQUIPMENT

CPG SERIES - COMFORT PACK Heat Exchanger Replacement Instructions

(For Models 038, 051, 064)



10 YEAR
WARRANTY
HEAT EXCHANGER

National Comfort Products®

A Division of National Refrigeration & Air Conditioning Products, Inc.

539 Dunksferry Road • Bensalem, PA 19020 • (215) 244-1400 • 1-800-523-7138 • Fax: (215) 639-1674

Instructions are for a Comfort Pack that has been removed from wall space.

*See 4a for option Comfort Pack in wall space.

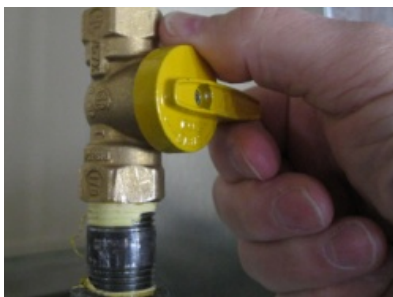
SAFETY WARNING!!!

Use of this instruction is intended for qualified individuals experienced in the proper installation and service of heating appliances. **Failure to properly inspect and restore appliance to proper operation may cause property damage, personal injury or loss of life.**

Before you start...

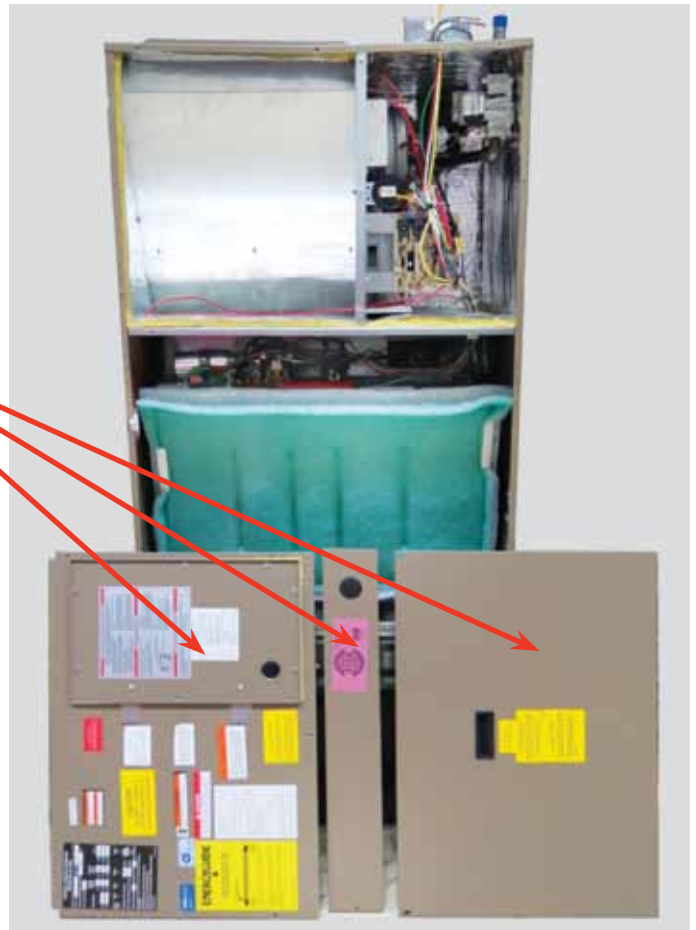
- Read these instructions thoroughly.
- Any questions, contact National Comfort Products.
- Inspect kit contents.
- Heat exchanger assembly packet with instructions.
- **Turn off gas to appliance**, Move gas control valve to off.
- **Turn off electrical supply**, Turn off breaker at electrical panel, Turn off thermostat.

Important: refer to the Template at the back of this manual for drilling (6) holes to accept the control board and gas valve bracket.

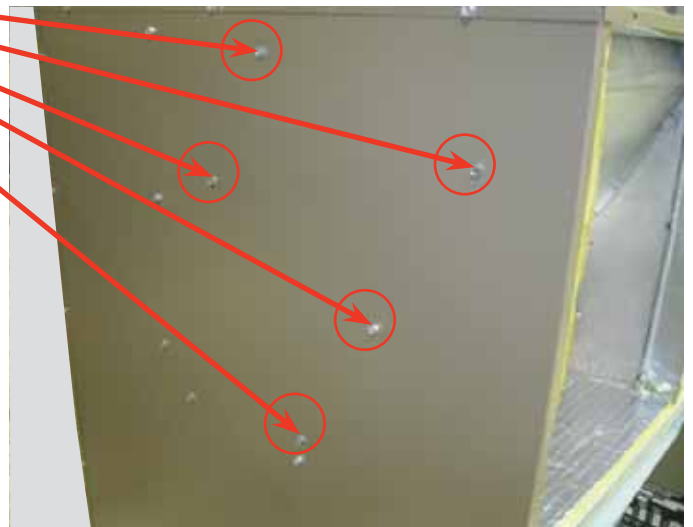


Removal Instructions...

1. Remove 3 front access panels, total of 17 screws and 2 thumb screws.

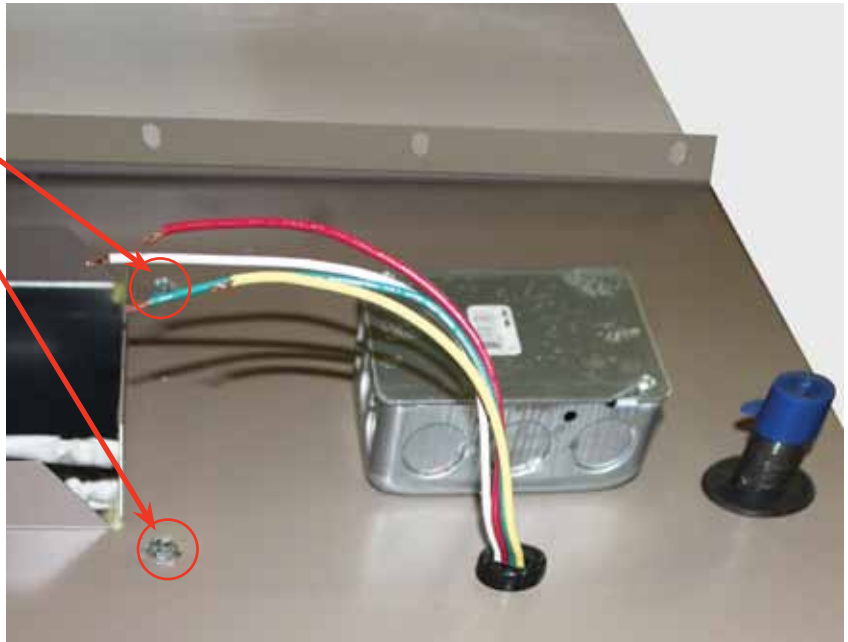


2. Remove 3 screws securing front heat exchanger baffle and 2 screws securing back heat exchanger baffle. Total of 5 screws on left side of cabinet.

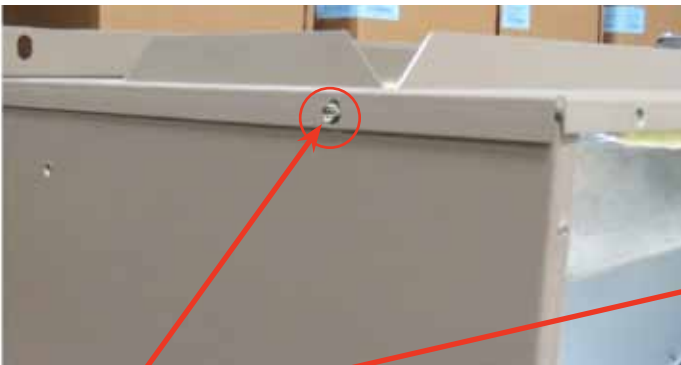


CPG SERIES - COMFORT PACK

3. Remove 2 screws on top panel located to the right of discharge duct.



4. Remove 8 screws holding top panel to cabinet.



***4a.** If Comfort Pack is to remain in wall space only remove 1 screw from right and 1 screw from left sides securing top panel to cabinet. This will allow you to lift top panel enough to remove heat exchanger assembly. **Caution must be taken as to not damage top panel or duct work.**

5. Remove 1 screw holding horizontal deck to heat exchanger vertical partition. This screw is accessible below from cooling chassis section.

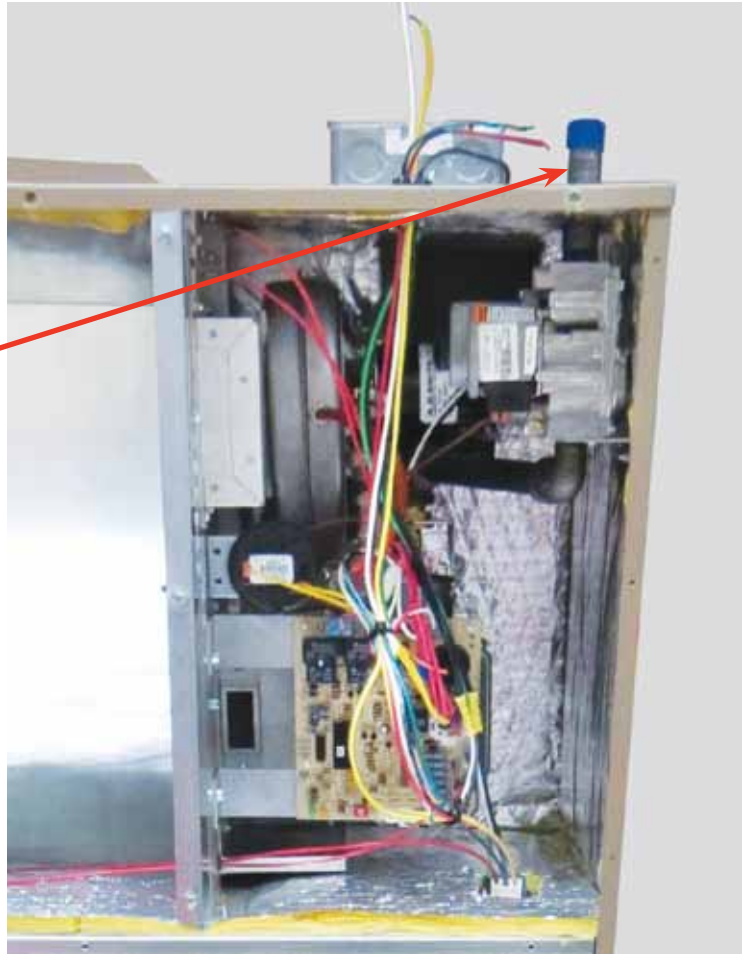


6. The last screw to remove is located on the inside back panel visible above the inducer assembly.

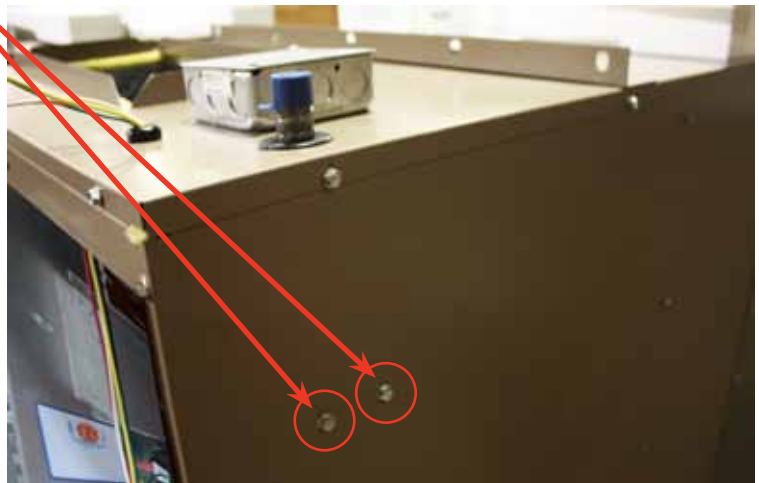


CHECK THAT THE GAS SUPPLY IS SHUT OFF BEFORE NEXT STEP.

7. Disconnect gas supply connection, If top panel is removed completely then pipe nipple does not have to be removed from gas valve.

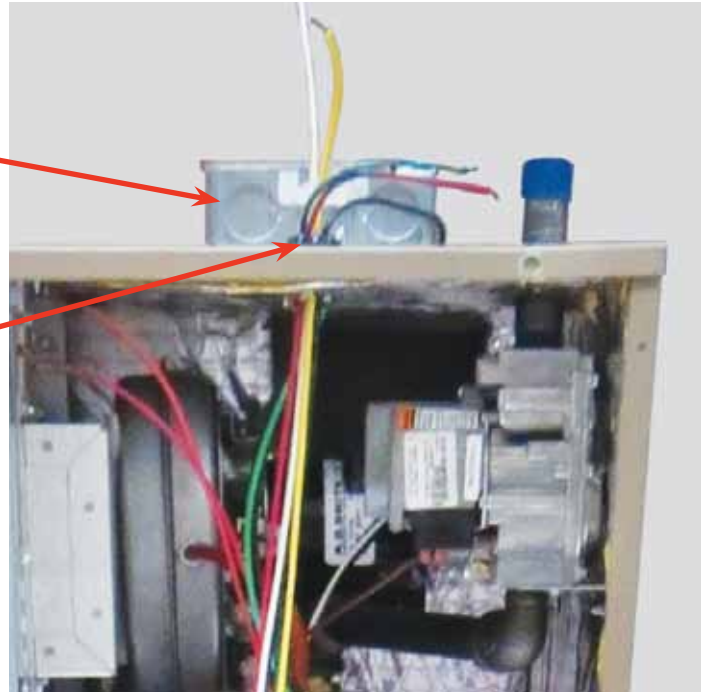


8. If top panel is to remain then pipe nipple must be removed, remove two screws on right side panel securing gas valve to cabinet only after nipple is removed.



9. Open Electrical junction box and disconnect main power supply to Comfort Pack and pull wires into cabinet.

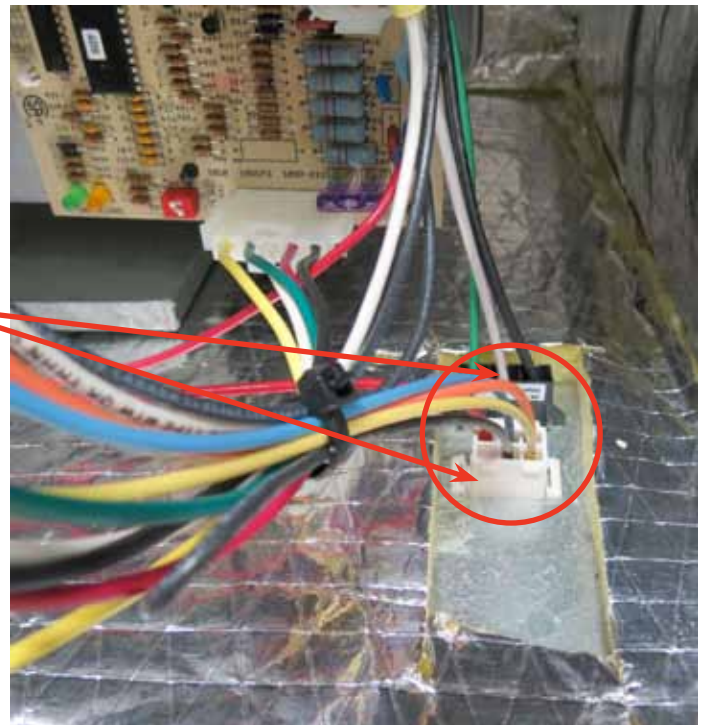
Disconnect Low voltage Thermostat wires from main control board. Remove black Heyco connector holding thermostat wires to top panel and remove wires from top panel access hole and pull wires into cabinet.



10. Disconnect black and white Molex connecting cooling chassis section to horizontal deck.

Then remove black power connectors from horizontal deck. Remove by pushing in tabs on both sides and lifting out from deck.

On white Molex connector carefully push one side of plastic tab with flat blade screwdriver and lift plug up out of deck.



11. Remove 2 red wires that connect door switch in cooling chassis section to main control Board and white Molex connector.



12. Before heat exchanger removal is possible cut away any caulk securing the assembly to the cabinet. Caulk is located at the bottom of the deck at the front heat exchanger baffle. Cut caulk carefully so as not to tear or damage insulation.



13. To remove assembly it is required to lift assembly to disengage drain plug located under burner box from horizontal deck. At the same time the inducer flue connector pipe must be pulled through the back of cabinet.



To do this grasp the vertical heat exchanger partition firmly with your left hand. With your right hand reach under the burner box and lift the drain pan to release the drain plug. Then lift and pull the assembly forward to remove heat exchanger assembly.



Place both new and old assembly side by side so components can be removed from old assembly and installed to new.

Removal of Components for Reuse:

Before the new assembly can be installed, it is necessary to exchange the following components from the old assembly to the new.

- Main control board and wire harness
- Burner and gas valve assembly.
- Inducer motor and housing must be removed from flue box to access screws securing flue box to partition.
- Primary limit switch.
- Heat exchanger baffles, front and back.
- All associated wiring.

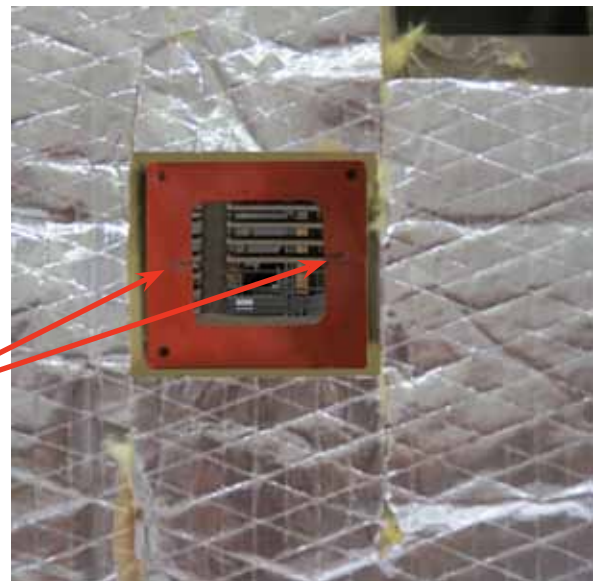
It is important that all gaskets be carefully removed for later reuse. If gaskets are damaged they must be replaced with new gaskets of the same material and ratings. High temperature silicon sealant may be substituted if gaskets are not reusable.

Heat Exchanger Assembly Reinstallation Instructions:

Once all components have been installed on the new heat exchanger assembly it can now be reinstalled into the Comfort Pack.

- 1.** Lift assembly and place carefully on horizontal deck. Be sure rubber gasket is in place and aligned properly with slits in horizontal position.

(continued next page...)



Heat Exchanger Assembly Reinstallation Instructions: *(continued...)*

- 2.** Lift front of assembly and line up flue vent pipe with back vent hole of cabinet. Carefully fit vent pipe into back cabinet hole and slide assembly into place. At the same time be aware of the drain fitting under the burner assembly must be raised as not to tear the insulation on the deck. Also, that the heat exchanger baffles on the left of the assembly do not contact the insulation and tear it.
- 3.** Once the assembly is securely in place replace single screw located on the inside back panel visible above the inducer assembly. At this time check that gasket around flue vent pipe is secured to back of cabinet and sealing air gap.
- 4.** Replace screw holding horizontal deck to heat exchanger vertical partition. This screw is installed from cooling chassis section.
- 5.** Replace 3 screws securing front heat exchanger baffle and 2 Screws securing back heat exchanger baffle, total of 5 screws on left side of cabinet.
- 6.** Replace 8 screws holding top panel to cabinet, If top panel was completely removed. If option 4a you will need to replace only 2 screws.
- 7.** Replace 2 screws on top panel located to the right of discharge duct.
- 8.** Reconnect the two red wires that connect door switch in cooling Chassis Section to main control board. Be sure to replace the two rubber grommets in the horizontal deck and in the Vertical panel the wires must be threaded through the holes one wire at a time.

9. Replace the black power connectors into the horizontal deck. Replace white Molex connector. Carefully push into place, carefully push both into place and make sure they are secure. Reconnect black and white Molex connecting coil chassis section of Comfort Pack.

10. Replace two screws on right side panel securing gas valve to cabinet. If gas pipe nipple was removed replace at this time, being sure to use thread sealant suitable for the application. Tighten so that only three to four threads are visible.

11. Reseal the bottom of the deck at the front heat exchanger baffle. Use a caulk suitable for application. At this time Comfort Pack rebuild is complete and can be placed back into wall space

12. Reconnect gas supply to gas valve pipe.

Reconnect main power supply to electrical junction box of Comfort Pack. Reconnect low voltage wires from main control board to thermostat. Replace black Heyco connector securing thermostat wires to top panel.

Turn On Gas to Appliance. At this time leak check all pipe joints with suitable leak detector before continuing. If no leaks are found, move gas control valve to on position. Check that all electrical connections in cooling and heating section are secure.

13. Replace bottom and filler access panels, total of 2 screws and 2 thumb screws. Leave burner access panel off at this time.

- Turn on electrical supply
- Turn on breaker at electrical panel
- Main control board should energize and green LED light will glow steady

Heat Exchanger Assembly Reinstallation Instructions: *(continued...)*

14. Turn on thermostat and set to heat mode. Increase temperature range so that furnace has a call for heat. Main control board green LED light will flash fast. When burner ignites the yellow LED light will glow showing flame has been sensed.

15. Check flame stability thru sight glass, in 30 seconds the fan motor will be energized. At this time again check flame for stability.

It is recommended to run furnace for 10 to 15 minutes after startup to confirm normal operation.

16. Replace burner access panel, 15 screws and installation is complete.

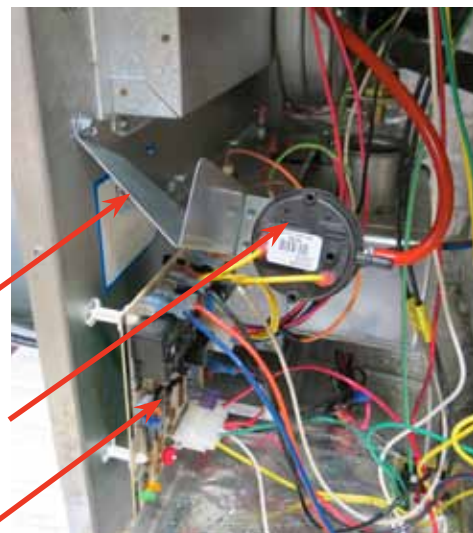
17. Early model gas Comfort Packs require 6 holes to be drilled to accept the control board and gas valve bracket... a template is provided for you (see next page). **NOTE!** You must drill these holes before installing the new heat exchanger. Align the template with the arrows lining up with the left edge and bottom edge of the face side of the heat exchanger.

18. Install the condensate drain channel to the divider wall. Mount the air pressure switch to the condensate drain channel.

Condensate Drain Channel

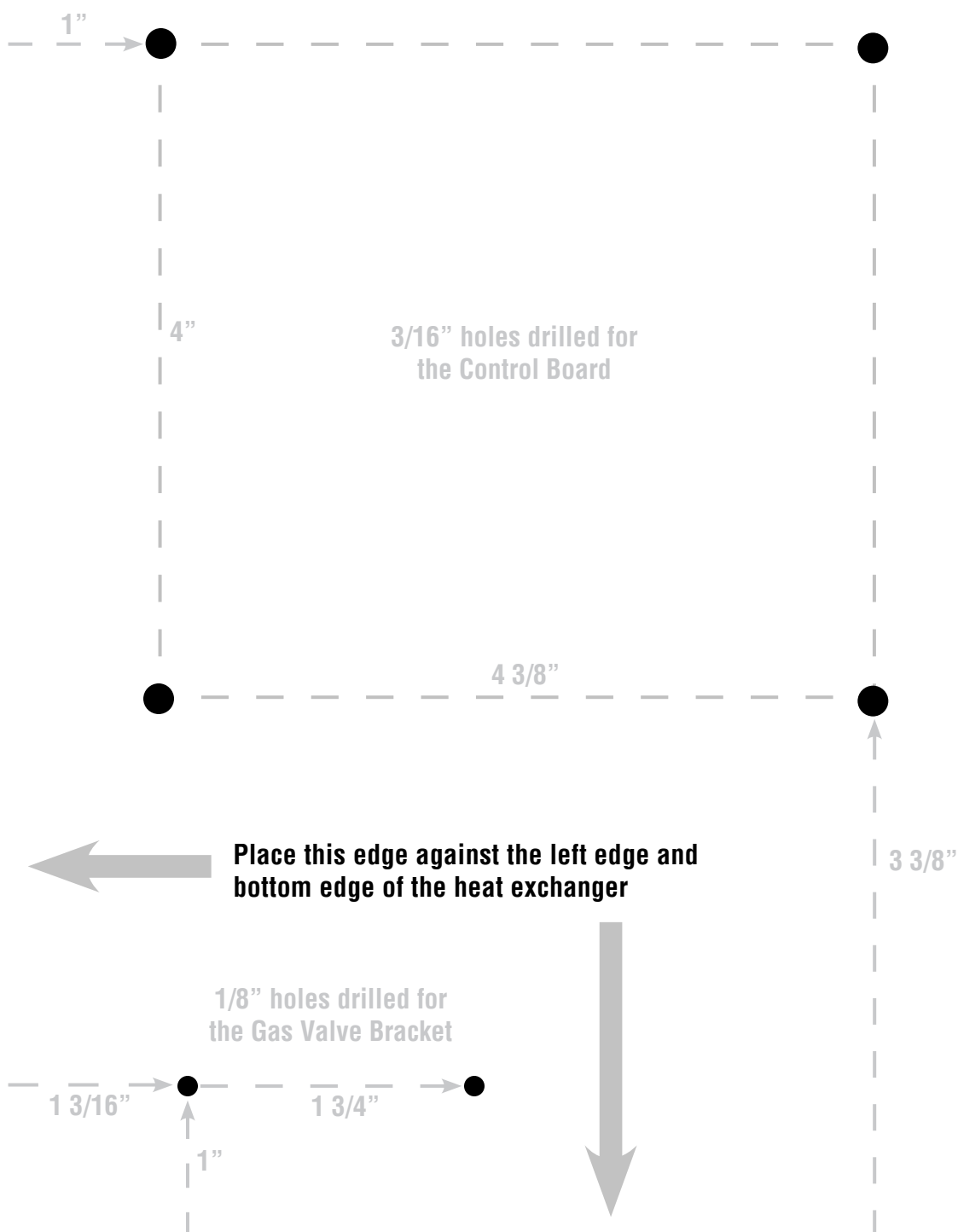
Air Pressure Switch

Control Board



Template

NOTE! You must drill these holes before installing the new heat exchanger.



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