



INSTRUCTIONS FOR INSTALLATION OF UPGRADED FLAME DEFLECTOR ASSEMBLY

**FOR ALL GAS KETTLES
BUILT PRIOR TO
JANUARY 1996.**



SCOPE:

This set of instructions shows the disassembly of the gas kettle console which contains the gas mixer/burner, electrical box, water filler assembly and the steam generator. The steam generator is enclosed in an exhaust gas flue liner, both are enclosed in the insulation box.

These instructions cover the modification of the old flue liner to adapt the new flame deflector assembly. The overall kettle assembly instructions then follow.

Fabrication and fit-up skills are required.

Total time required: 5-8 hours.

TOOLS REQUIRED:

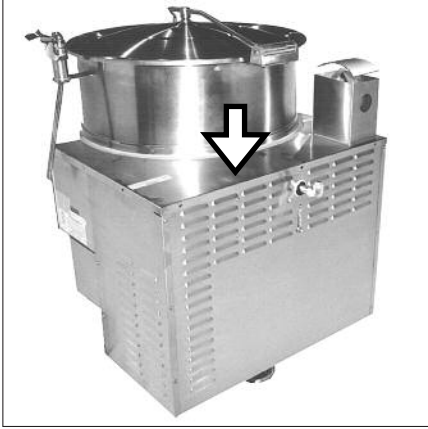
*Hand Tools Tape Measure
Drill Grinder
Protective Clothing and Eyewear*

CLEVELAND RANGE INC.

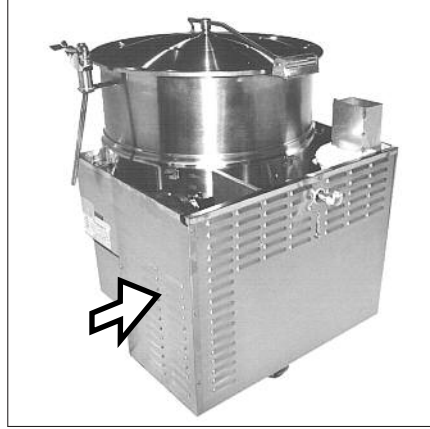
**1333 East 179th St.
Cleveland, Ohio
U.S.A. 44110
Toll Free 1-800-338-2204**

DISASSEMBLY INSTRUCTIONS

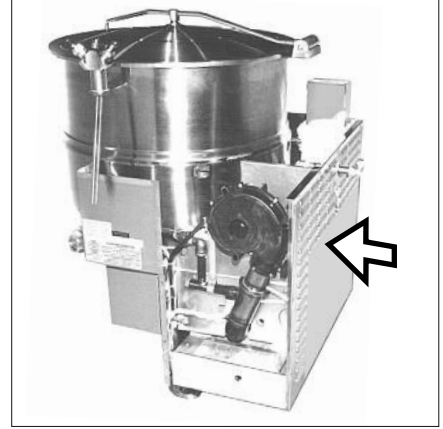
Note: Disconnect gas and electrical supplies to kettle before proceeding.



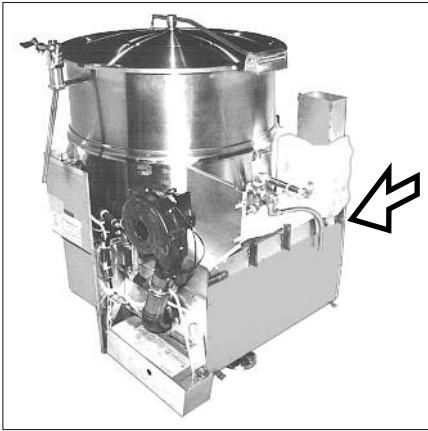
1. Remove top cover.



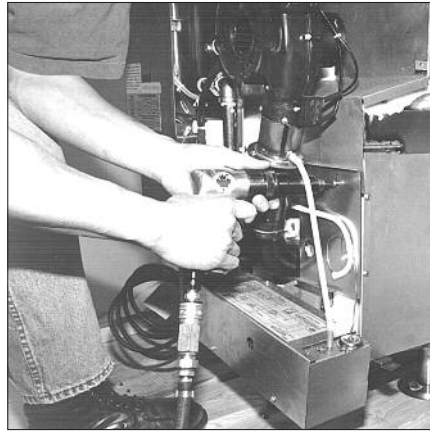
2. Remove side panel.



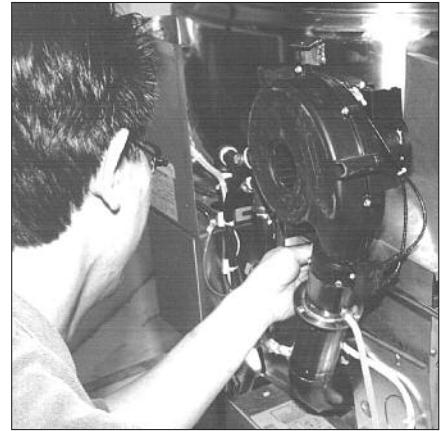
3. Remove back panel and temporarily support rear of electrical box either from underneath or with wire.



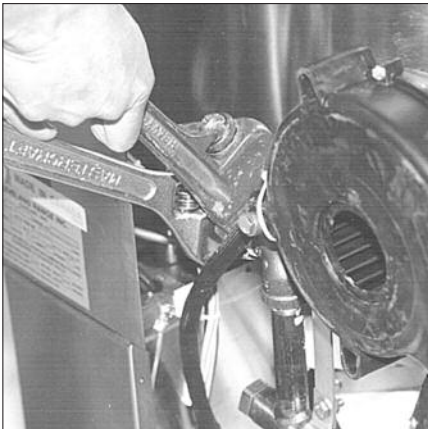
4. Remove side panel.



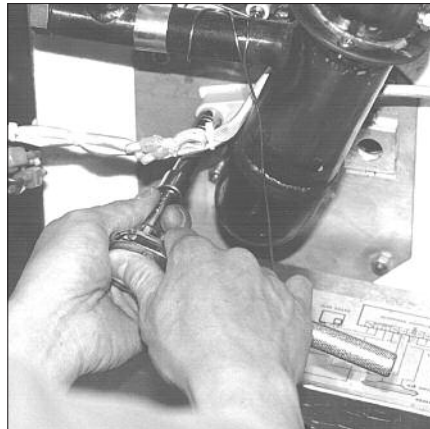
5a. Remove two side hold down screws for heat shield.



5b. Remove front hold down screw for heat shield.



6. Unthread coupling on gas supply plumbing.

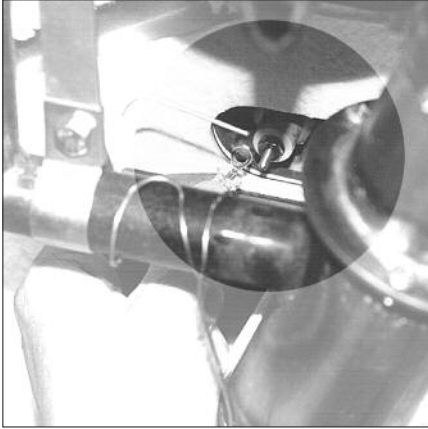


7. Remove 2 hold-down nuts for hot surface ignitor.



8. Carefully remove hot surface ignitor and move out of way.

DISASSEMBLY INSTRUCTIONS



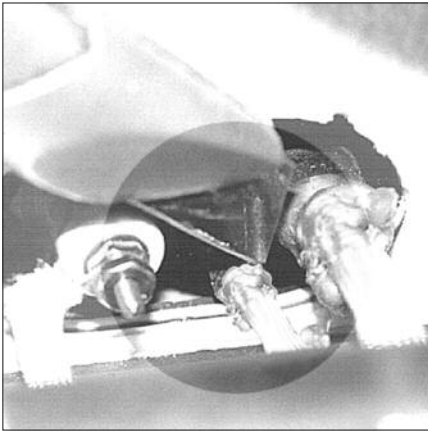
9. Unfasten water level probe connection.



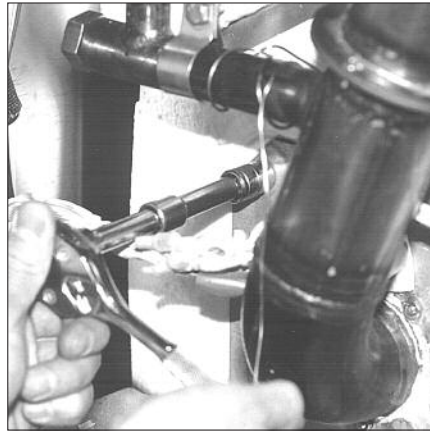
10. Disconnect air blower safety tubing at blower.



11. Cut electrical connections to thermistor (org. & blk., grn. & blk.) at butt connectors.



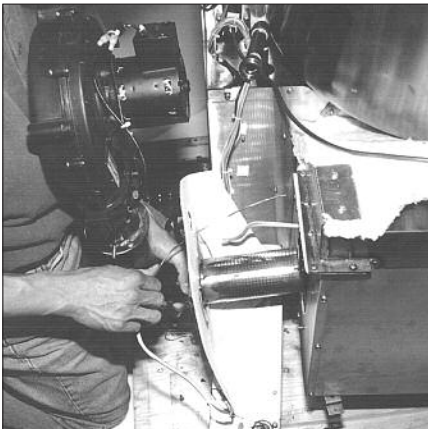
12. If necessary, cut away RTV silicone which secures the safety thermostat to its housing.



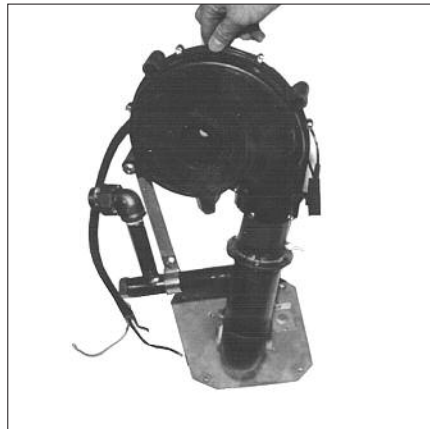
13. Unfasten 4 nuts which secure blower assembly.



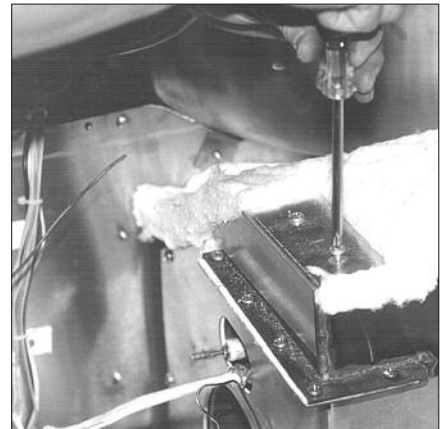
14. Carefully withdraw blower assembly.



15. Extract safety thermostat while removing blower assembly.



Blower assembly.

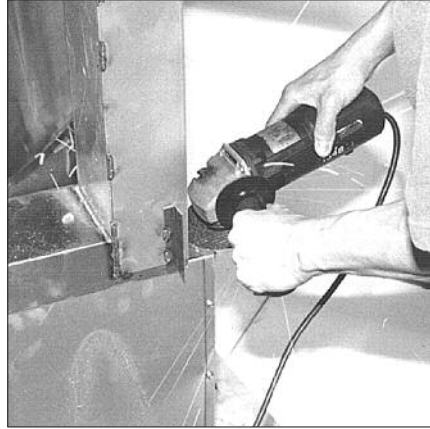


16. Remove flue stack insulation bracket.

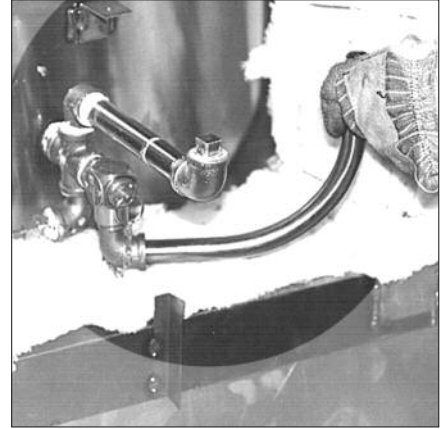
DISASSEMBLY INSTRUCTIONS



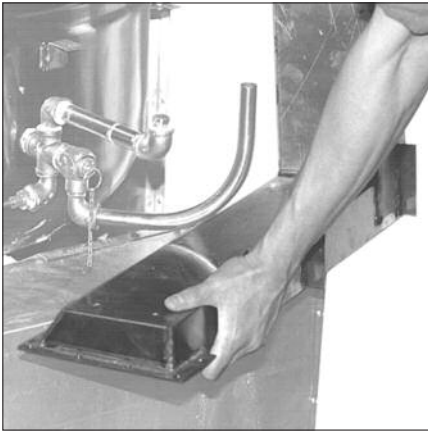
17. Cut off wire securing insulation. Remove insulation and save for template.



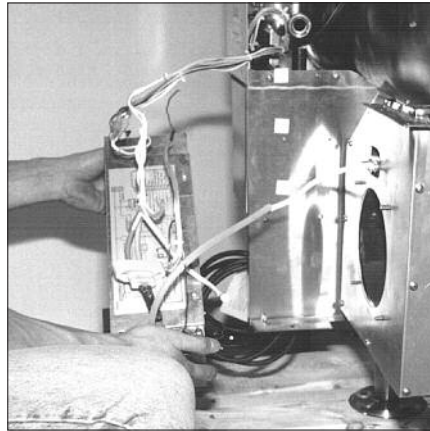
18. Remove flue stack. Remove screws or grind welds.



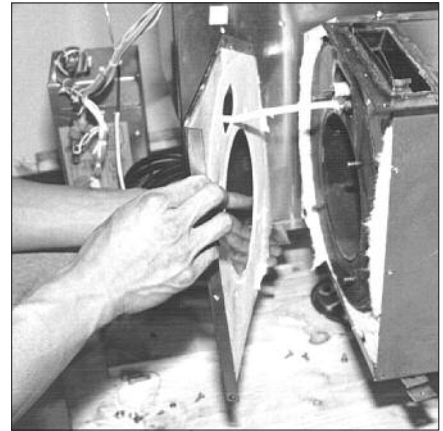
19. Turn blow down tube to position shown to allow clearance for removing flue stack.



20. Remove flue stack and discard.



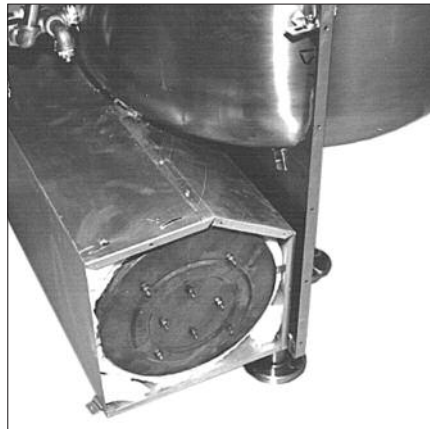
21. Unfasten (1) 10-32 screw, and remove electrical box. Set aside out of way.



22. Remove left side cover and discard.



23. Remove right side cover and insulation, discard both.

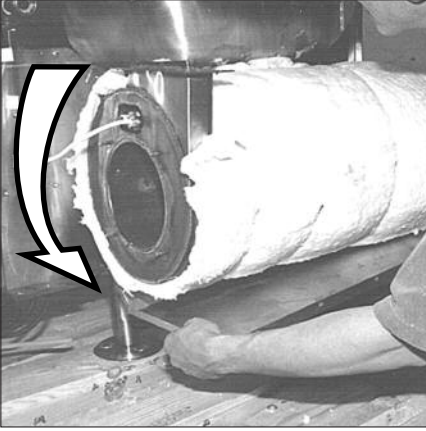


View of "old" flame deflector plate.



24. Remove rear half of insulation box body. Maneuver drain cap through hole in box. Discard.

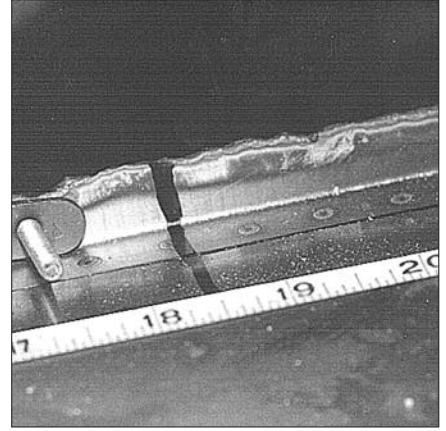
DISASSEMBLY INSTRUCTIONS



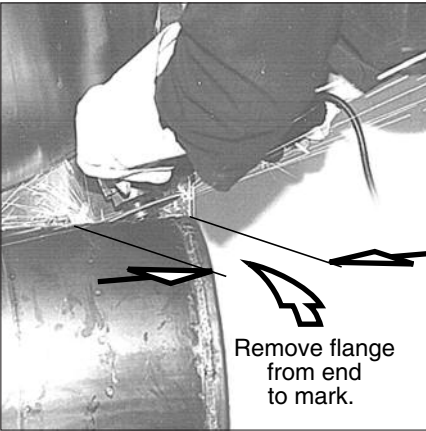
25. Remove front half of insulation box cover by rotating around to front of steam generator. Discard.



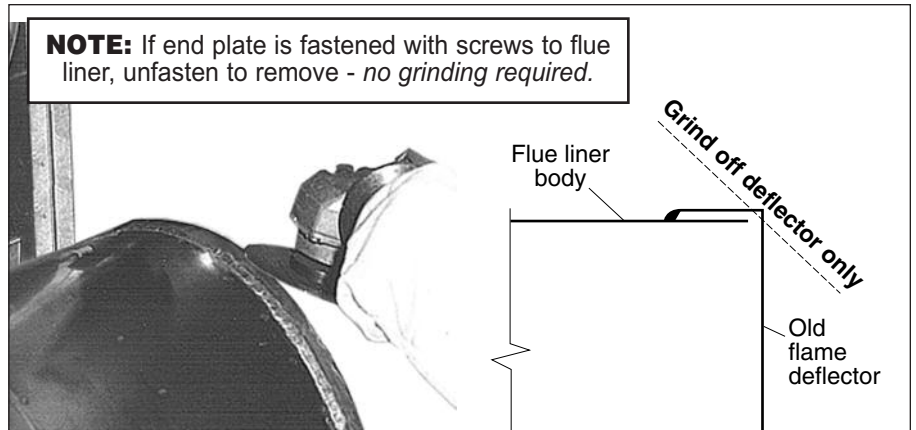
26. Cut insulation securing wires. Remove insulation and save for template.



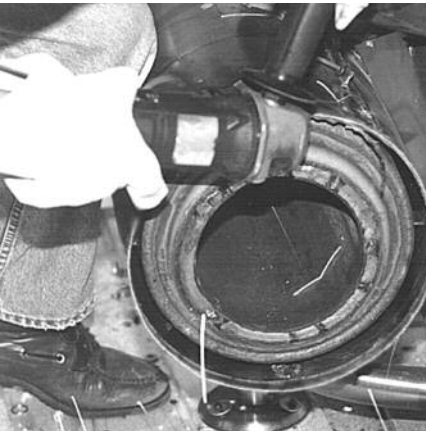
27. Mark off flange 18 1/2" from left end of generator.



28. Grind/cut flange off to mark.



29. Grind off end plate. Discard.

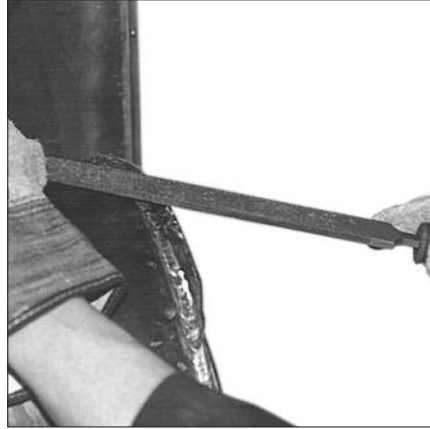


30. Clean up end of flue liner.

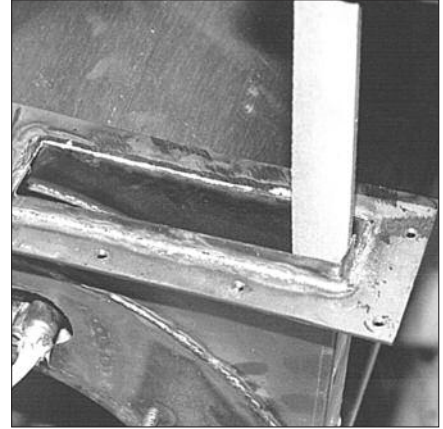
ASSEMBLY INSTRUCTIONS



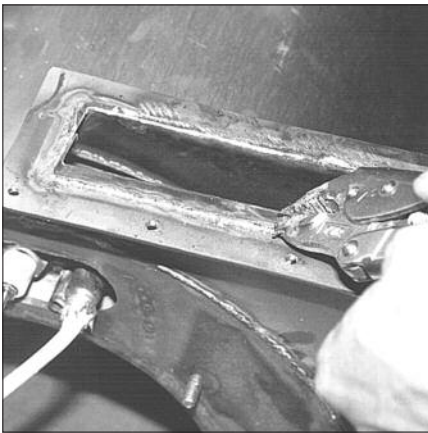
1. View of new flame deflector plate assembly and new mounting strap.



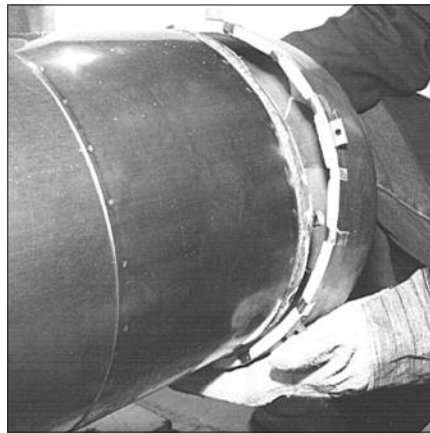
2. File/remove all burrs and jagged edges from the flue liner.



3. Inspect flue outlet for burrs and roughness and repair as required.

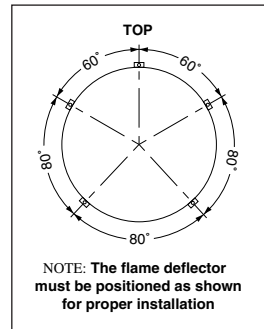


4. Inspect flue outlet for straightness and repair as required.



5a. Installing Deflector Assembly:

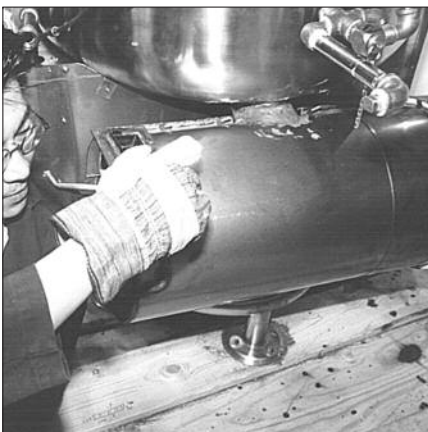
Place flame deflector plate in position as illustrated.



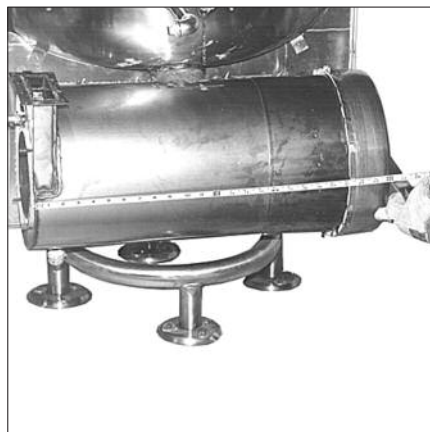
5b. Place bottom lip of flame deflector over flue liner.

Pull up

so that the insulation becomes compressed, thus providing greater clearance for the top half to slip over the flue liner. Then push flame deflector on evenly about 4" over liner.



6. Reach thru steam generator and manually feel for any insulation that may have collapsed. Repeat step 5 if necessary.



7a. Overall length:

Must be correct. Check and adjust.

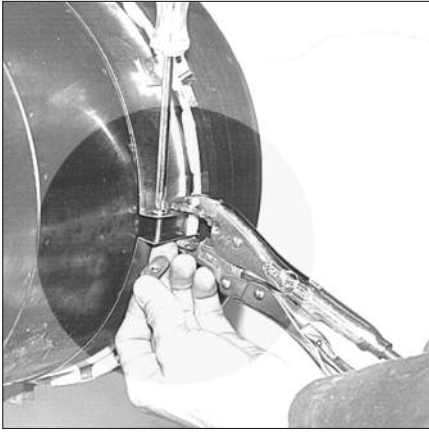


7b. 40 gal. kettles: 24 1/2" overall steam generator length.



7c. 60, 80 & 100 gal. kettles: 25 1/4" overall steam generator length.

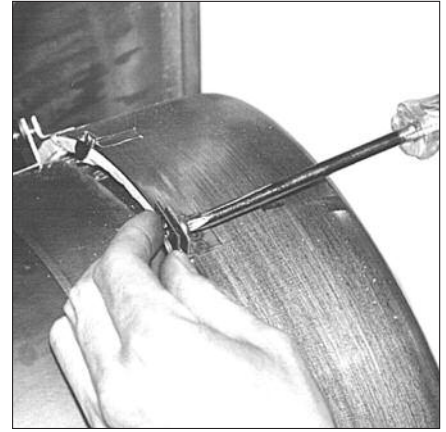
ASSEMBLY INSTRUCTIONS



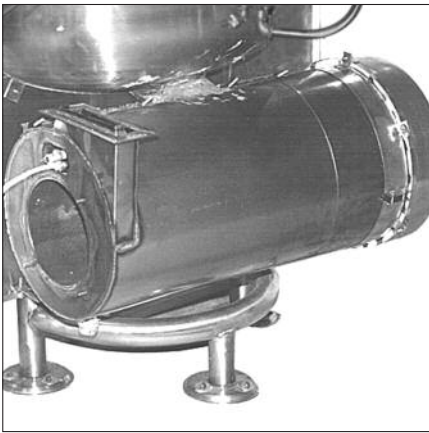
8. Install strap. Adjust for best alignment of holes. Secure with (2) 10-32x3/4" lg. screws and weld nuts.



10. Redrill holes if necessary.



11. Fasten flame deflector to mounting strap using 10-32x3/4" lg. screws and weld nuts.



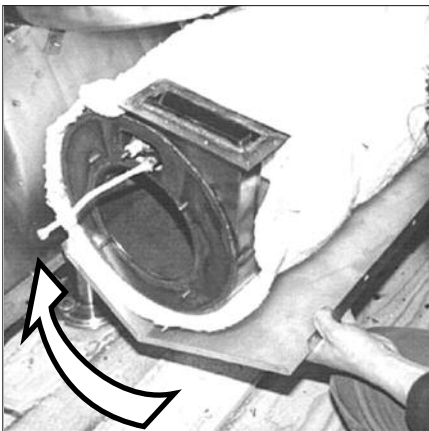
View of flue liner with flame plate deflector assembly installed.



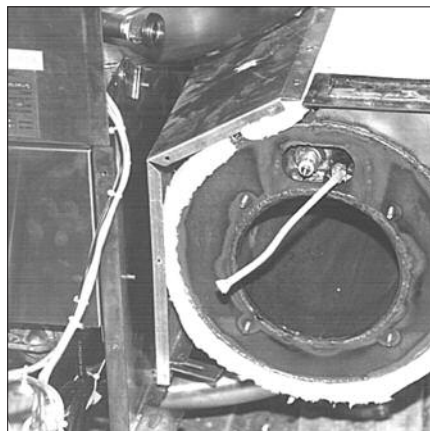
12. Wrap flue liner with new insulation. Make cuts and folds where necessary (use old insulation for template).



13. Secure insulation with copper wire.



14. Install new front insulation box cover around flue liner.

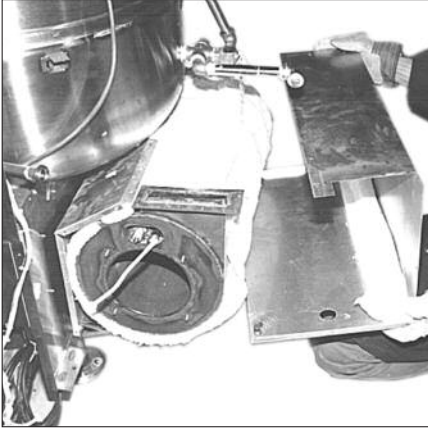


View of front insulation box cover in position.

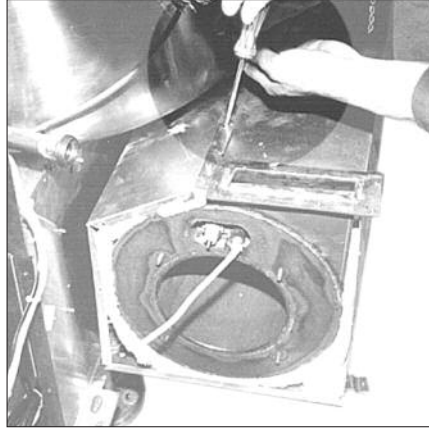


15. Put two new strips of corner insulation in new rear insulation box as shown.

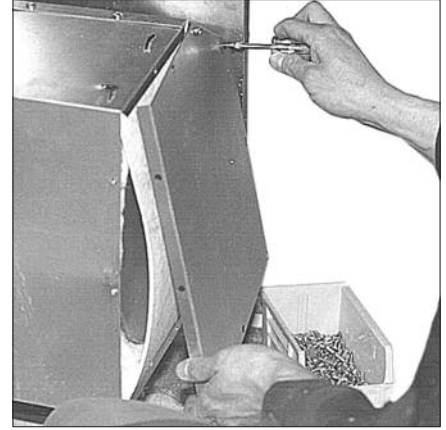
ASSEMBLY INSTRUCTIONS



16. Install insulation box, insure drain is positioned through hole.



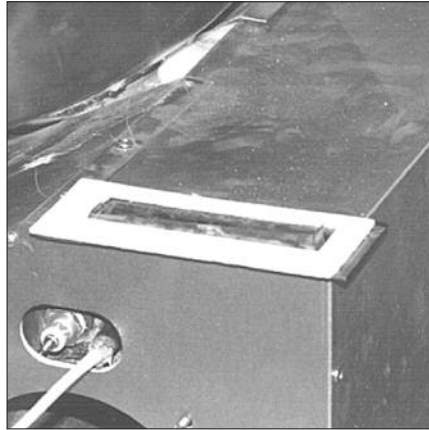
17. Fasten cover to box with 10x3/8" lg. self tapping screw.



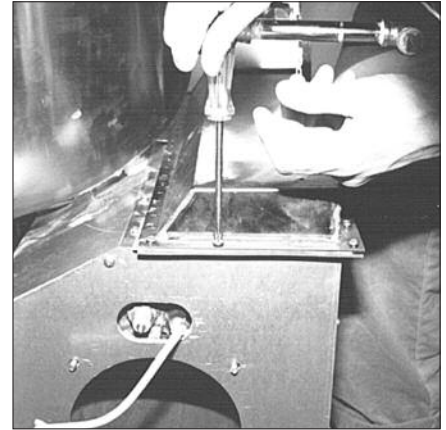
18. Install new right side cover with new 1/8" thick gasket.



19. Install new left side cover with new 1/8" thick gasket.



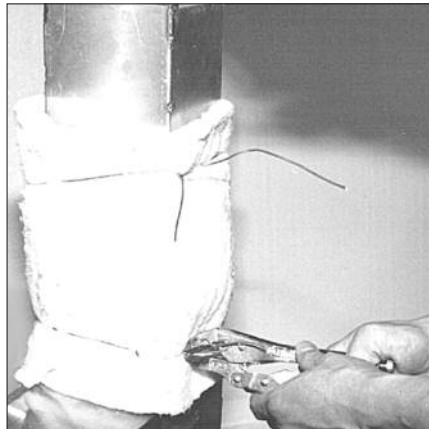
20. Place new flue outlet gasket in position.



21. Place new flue stack in position. Secure with 10-32x3/8" lg. machine screws.



22. Position flue stack insulation (use old insulation for template).

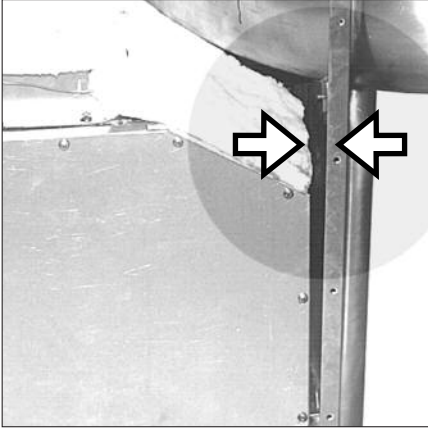


23. Secure flue stack insulation.

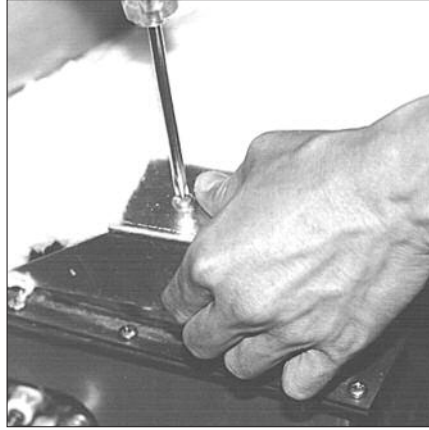


24. Position new insulation for flue stack and box.

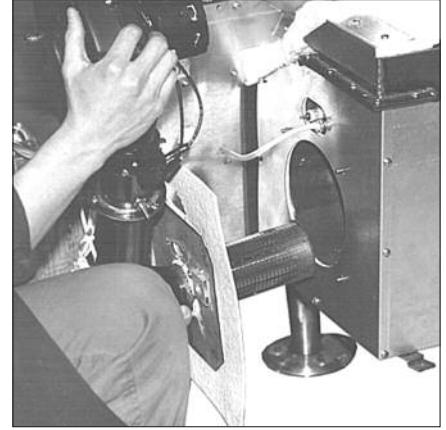
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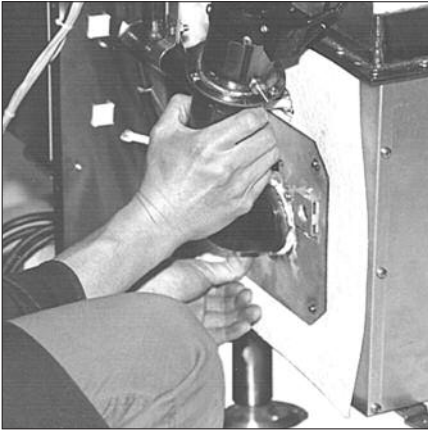
25. Insure air gap between front wrap and insulation.



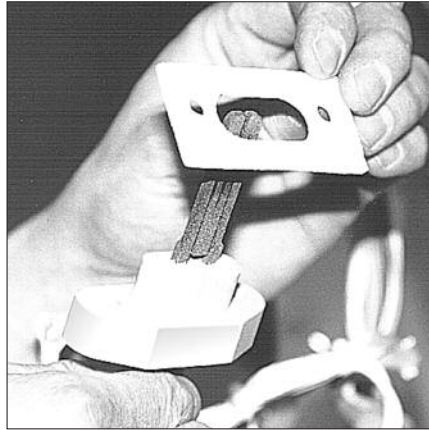
26. Install new insulation hold down bracket using (2) #10-32x1 1/4" lg. screws.



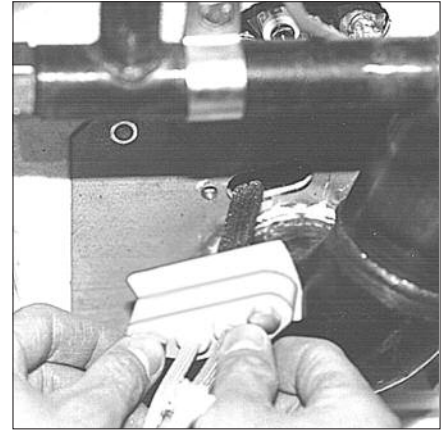
27. Mount blower assembly with new gasket`.



28. Fasten blower assembly using (4) 1/4" nuts.



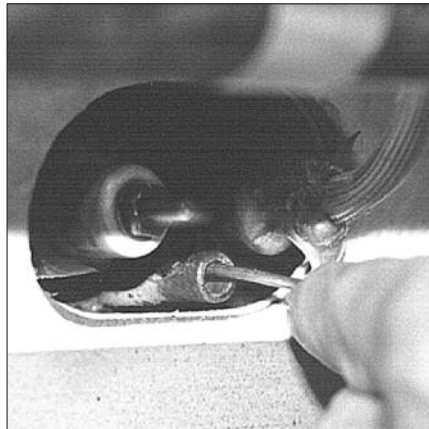
29. Position new gasket over hot surface ignitor.



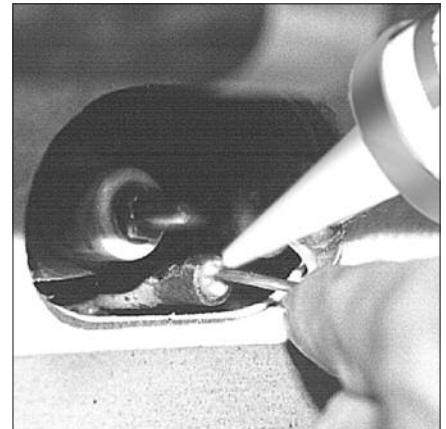
30. Mount hot surface ignitor with 2 hex head 1/4"-20x1" lg. bolts.



32. Put electrical box in position. Fasten front with #10-32x3/8" lg. machine screw. Use wire to temporarily support box.

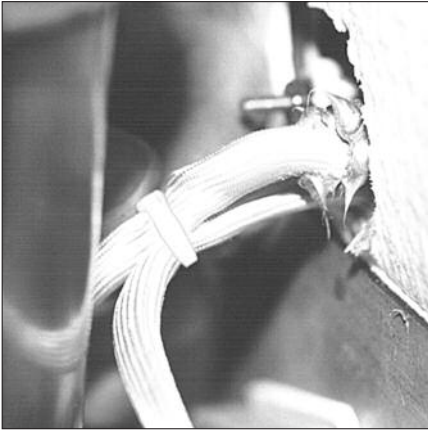


32. Insert safety thermostat into housing.



33. Silicone thermistor in place.

ASSEMBLY INSTRUCTIONS



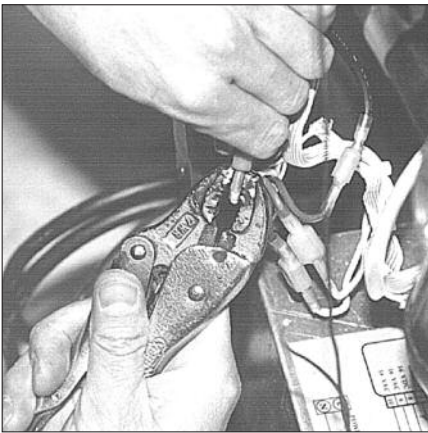
34. Pull sleeve to caulking and tie wrap both sleeves together.



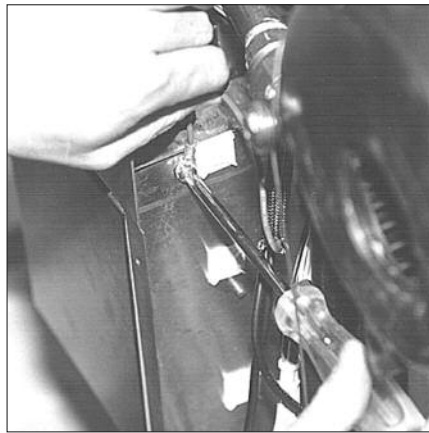
35. Make electrical connections for thermostat and crimp on butt connectors (org. & blk., grn. & blk.).



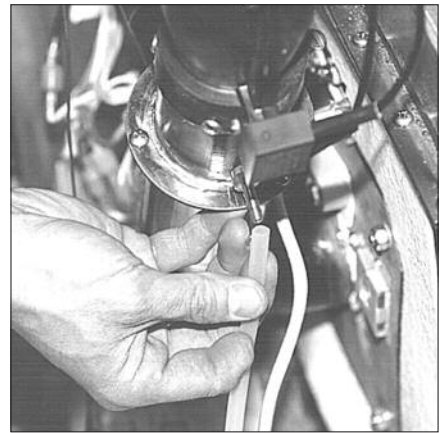
36. Secure water level probe connection.



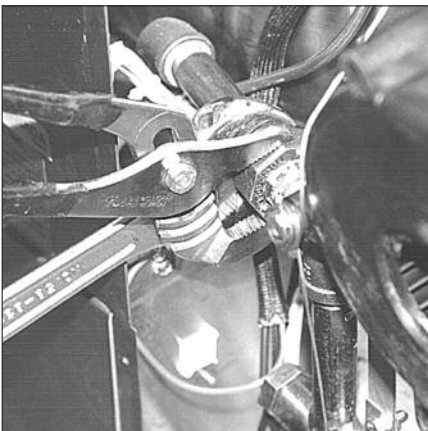
37. Connect 2 blower power leads.



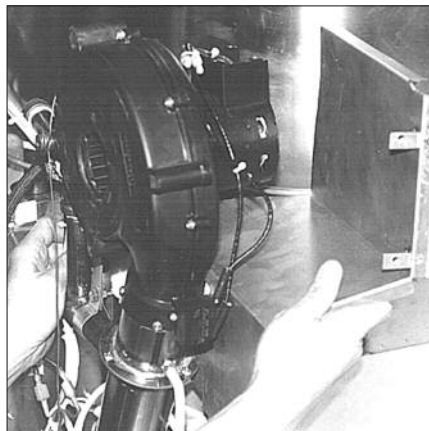
38. Secure blower ground lead.



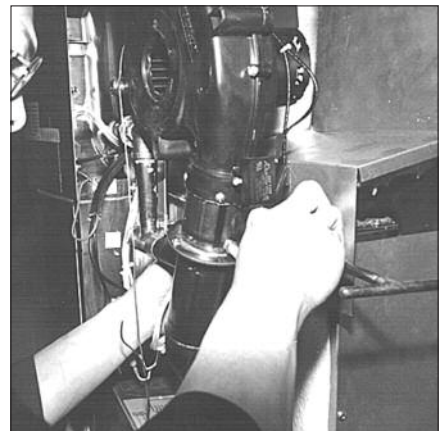
39. Insert blower safety air tubing.



40. Tighten gas supply coupling.

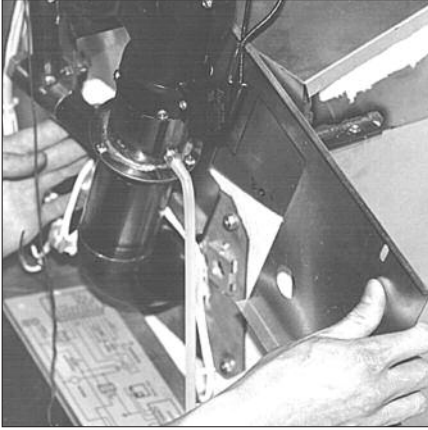


41. Install upper heat shield.

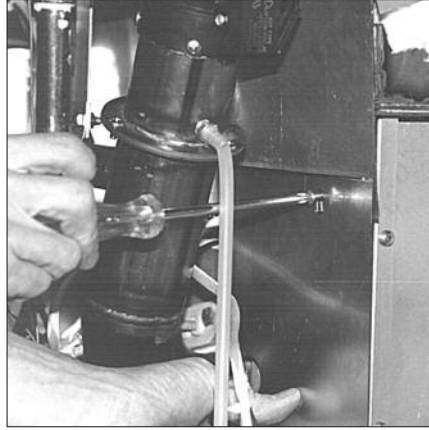


42. Secure upper heat shield with (1) 10-32x3/8" lg. screw.

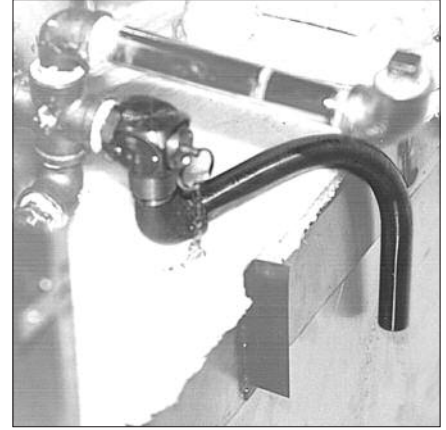
ASSEMBLY INSTRUCTIONS



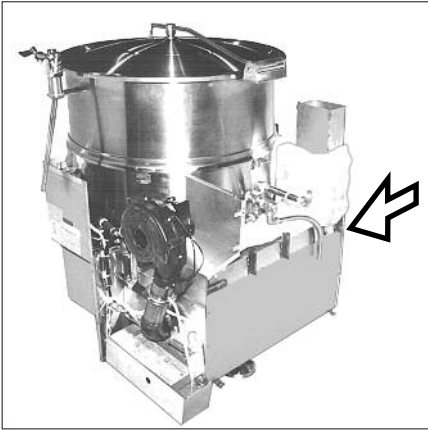
43. Install lower heat shield.



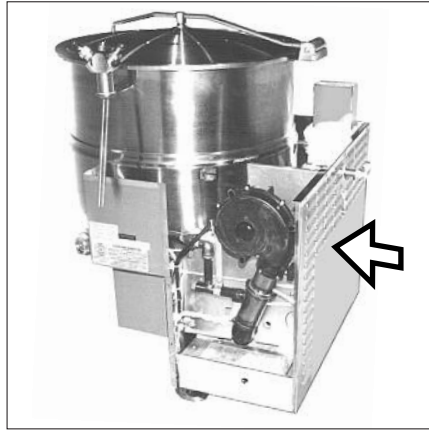
44. Secure lower heat shield with (2) 10-32x3/8" lg. screws.



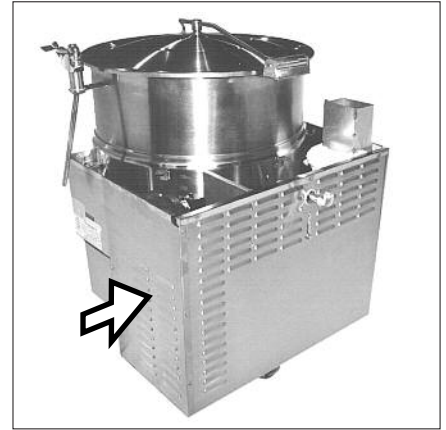
45. Return valve blow down tube to position shown.



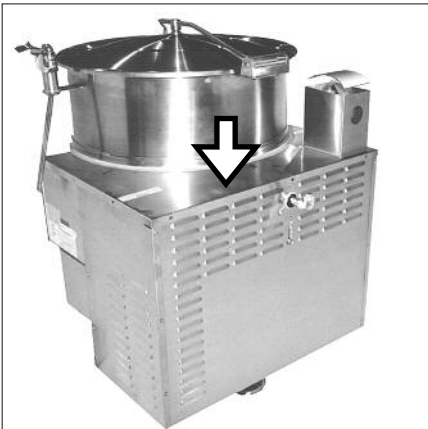
46. Replace side panel.



47. Replace back panel.
Fasten electrical box and remove temporary wire.



48. Replace side panel.



49. Replace top cover. Use #10-32x3/8" lg. machine screws for top and #10-3/8" lg. self tapping screws for side fastening.



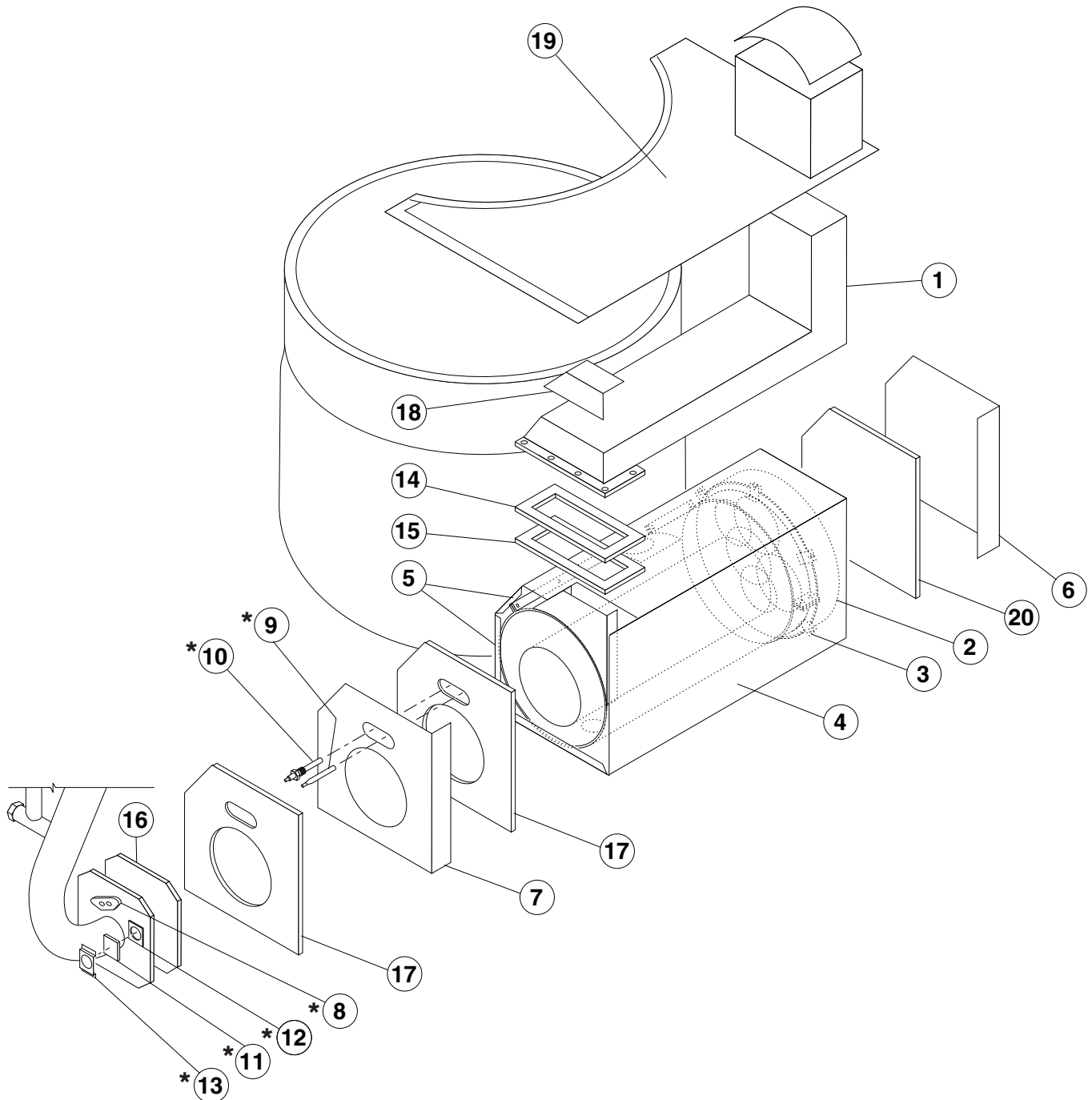
50. Drill front hole (1/8"). Apply silicone seal to screw hole. Secure top cover with one #10-3/8" lg. self tapping screw.

To insure proper operation perform start-up and kettle operation tests (see INSTALLATION, OPERATION AND REPAIR MANUAL).

PARTS LIST - DOMED FLAME DEFLECTOR REPLACEMENT PARTS

Domed Flame Deflector Assembly Retrofit Kit (per unit)

KIT NO.	DESCRIPTION
SE50430-1	for 40 gal.
SE50430-2	for 60 gal.
SE50430-3	for 80 gal.
SE50430-4	for 100 gal.



PARTS LIST - DOMED FLAME DEFLECTOR REPLACEMENT PARTS

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1		<i>Flue stack assembly</i> . . . . .	.1 per unit
	KE01434-4	for 40 gal.	
	KE01434-1	for 60 gal.	
	KE01434-2	for 80 gal.	
	KE01434-3	for 100 gal.	
2		<i>Domed flame deflector plate assembly</i> . . . . .	.1
	KE01519-1	for 40 gal.	
	KE01519-2	for 60, 80 & 100 gal.	
3	KE02018-2	Deflector mounting strap assembly for retrofit kit . . . . .	.1
4		<i>Insulation box</i> . . . . .	.1
	KE01495-1	for 40 gal.	
	KE01495-2	for 60, 80 & 100 gal.	
5		<i>Insulation box cover</i> . . . . .	.1
	KE02020-1	for 40 gal.	
	KE02020-2	for 60, 80 & 100 gal.	
6	KE53465	R.H. side cover . . . . .	.1
7	KE53464	L.H. side cover . . . . .	.1
8	KE53437-3	Hot surface ignitor . . . . .	.1
9	KE00515	Thermistor . . . . .	.1
* 10	KE50556-2	Water level probe . . . . .	.1
* 11	KE53617	Sight glass . . . . .	.1
* 12	KE53618	Sight glass gasket . . . . .	.1
* 13	KE53619	Sight glass retainer . . . . .	.1
* 14	KE54350	Flange gasket . . . . .	.1
* 15	KE54341	Flange . . . . .	.1
* 16	KE53397	Burner gasket . . . . .	.1
* 17	KE53414	L.H. side cover gasket . . . . .	.2
18	KE53902	Insulation hold down bracket . . . . .	.1
19		<i>Top cover</i> . . . . .	.1 per unit
	KE01479	for 40 gal.	
	KE01479-1	for 60 gal.	
	KE01479-2	for 80 gal.	
	KE01479-3	for 100 gal.	
20	KE53414-1	R.H. side cover gasket . . . . .	.1
		Assorted hardware	
	KE50541	14 gauge copper wire . . . . .	.20 ft.
	FA11145	10-32 x 3/8" lg. screw . . . . .	.20
	FA11148	10-32 x 3/4" lg. screw . . . . .	.5
	FA95061	10 x 1/2" lg. sheet metal screw . . . . .	.20
	FA10360	10-32x1 1/4" lg. screw . . . . .	.5
	FA10515	1/4-20x1" lg. hex head bolt . . . . .	.5
	FA25507-2	10-32 weld nuts . . . . .	.20
	FA21008	1/4-20 nuts . . . . .	.10
		Insulation	
	KE55005-1	Around flue . . . . .	.1
	KE55005-2	Top of flue . . . . .	.2
	KE55005-3	Inside corners of insulation box . . . . .	.2
	KE55005-4	Wrap around flue . . . . .	.2
	KE55005-5	Wrap around flue . . . . .	.1

* Parts not included