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83012-1

Ti/Lx 150 ASME HX ASSEMBLY

c/w Burner Door and Flue Box

Applicable Boiler Models

- Ti100 ASME
- Ti150(C) ASME
- Lx150 ASME*
- Matrix M100 ASME
- Matrix M100V ASME

*Note: Not for use with Lx150E

Kit Contents

- 83012 Heat Exchanger Assembly
- 82054-2 CVI Venturi Gasket
- 82766 Blower Gasket Ti/Lx150
- 83291-1 (Ti100.3/150.3) Flue Adapter Assembly
- 83140 Flame probe wire (Ti boilers)
- Installation Instructions

Tools Required

- Pliers
- Phillips #2 screwdriver
- Flat screwdriver
- 1/4" nut driver or wrench
- 5/16" nut driver or wrench
- 7/16" wrench
- 10mm wrench
- Pipe wrench
- Torx T25 Screwdriver
- Saw for removing venting
- Adjustable wrench

Disassembly Instructions

- 1) Turn off power and gas to the boiler
- 2) Drain the boiler: using a wet/dry vacuum will help remove excess water
- 3) **Ti and Matrix boilers only** remove field wiring, refer to **Figure 2A**, and **2B**
- 4) **Lx boiler only**, lower display housing by removing the screws in the sides, then disconnect wires and remove the housing and display.
- 5) Disconnect supply and return piping from the heat exchanger

NOTICE

Pipe leakage: Failure to properly seal the boiler piping when reinstalling the heat exchanger will result in leakage which may cause property damage.

- 6) Remove Jacket top Refer to **Figure 3A/B, 3C or 3D** Note: **A new Top and Flue adapter are provided for Ti models see Figure 9.**

WARNING

Flue gas leakage: Failure to properly insert the flue adapter into the flue box on top of the heat exchanger during reassembly will result in flue gas leakage which may result in serious injury or death.

HX Assembly, Gaskets, Instructions



Flue Adapter Assembly



- 7) Remove wiring attached to burner door, combustion blower motor, gas valve and safety limits
- 8) Remove burner door, blower and gas valve as an assembly refer to **Figure 4A**
- 9) Remove heat exchanger hold down clips and brackets refer to **Figure 4B, 5A, and 5B**
- 10) Remove lower heat exchanger bracket refer to **Figure 6**
- 11) Remove upper heat exchanger mounts (nuts and washers). *Do not over tighten during reassembly* **Figure 7**
- 12) Transfer safety limits, combustion fan, gas valve, igniter, flame rod, condensate tubing, to the new heat exchanger refer to **Figure 1, Figure 8, and Figure 9**. *Note: A new blower and venturi gasket are provided.*



WARNING Safety limits: Failure to correctly install and wire the safety limits on the replacement heat exchanger may result in a boiler malfunction causing serious injury or death.

Reassembly is the reverse of disassembly. Refer to Figure 4B and Figure 8.

Figure 1: Safety limit wiring Ti 100-200 and Matrix boilers only.

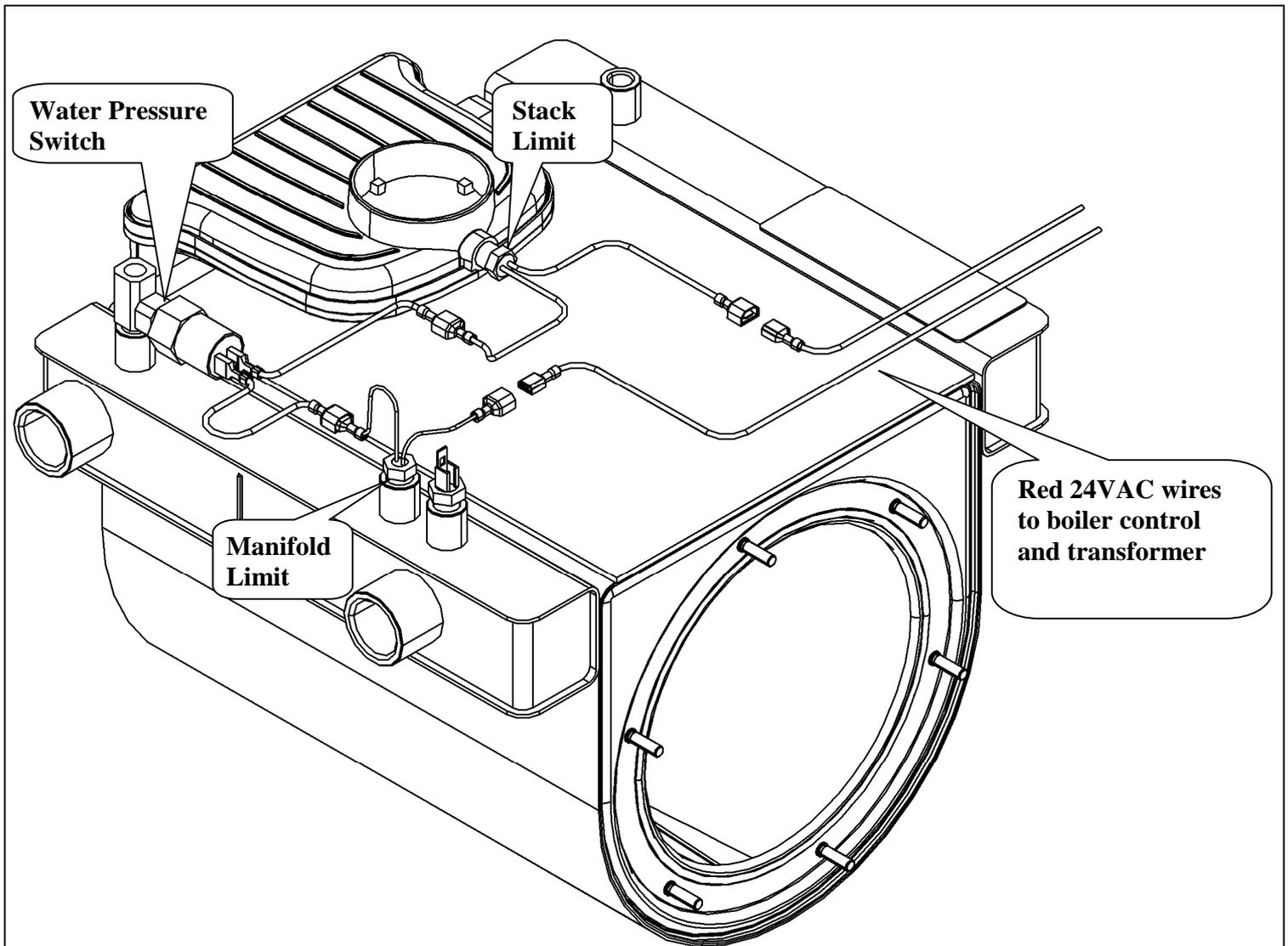


Figure 2A: Ti Boiler Field Wiring

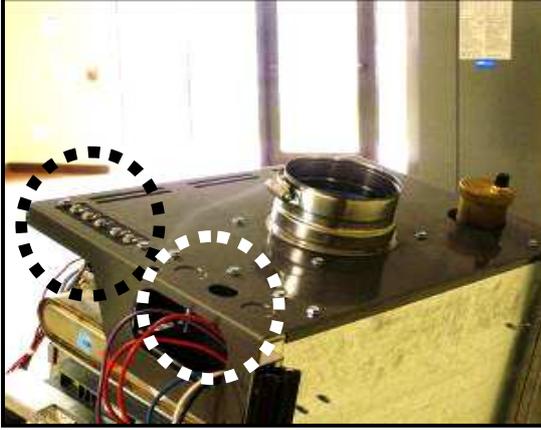


Figure 2B: Matrix Boiler Field Wiring

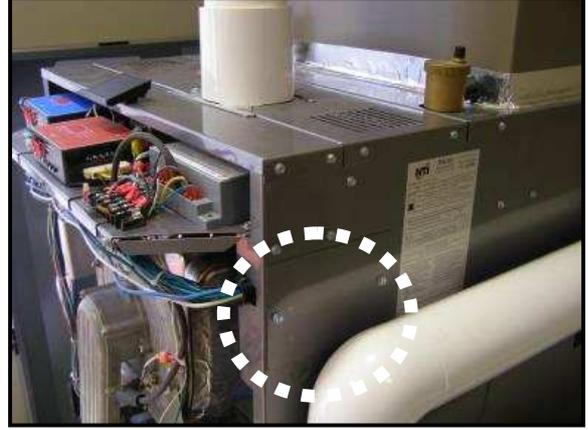


Figure 3A: Trinity Ti Side Cover & Figure 3B: Trinity Ti Top Panel

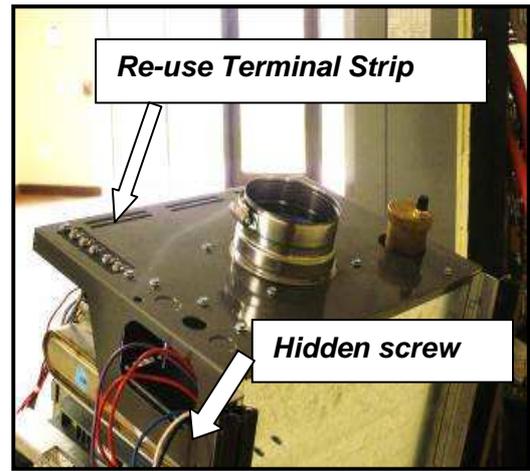
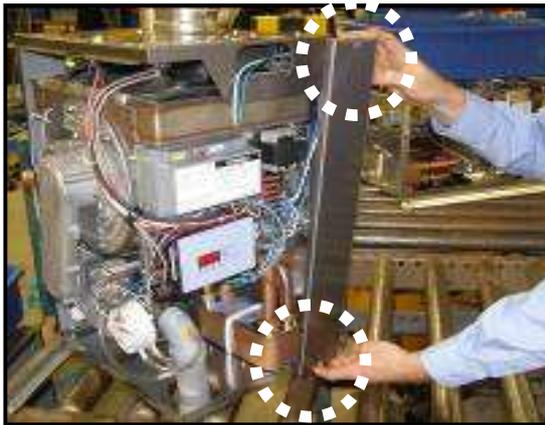


Figure 3C: Matrix Top Panels

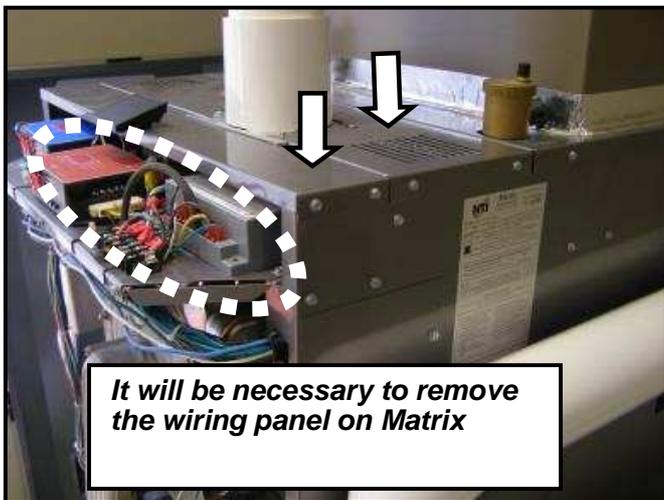


Figure 3D: Lx Top Panel



Figure 4A: Typical Burner Door Assembly:



Figure 4B: Support Clip Detail

During reassembly place long edge of clip on the heat exchanger



Figure 5A: Trinity Ti and Matrix Brackets

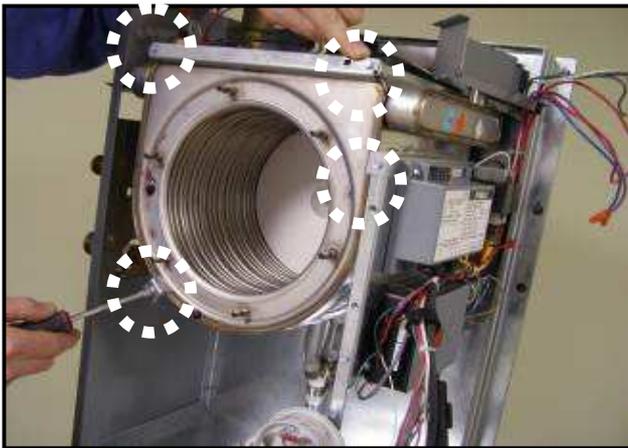


Figure 5B: Lx Brackets:

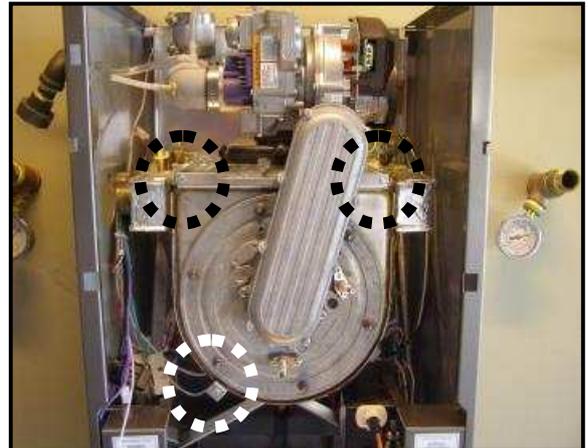


Figure 6: Lower Heat Exchanger Support Bracket (all models)

Lx boilers Only: Remove condensate tubing from the connection at the bottom of the Y fitting

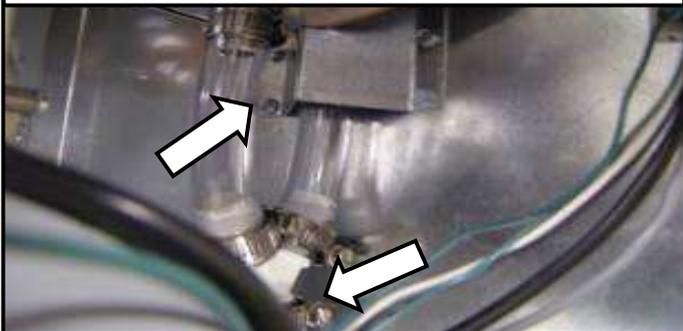


Figure 7: Upper Heat Exchanger Mounts

Warning: Do not over tighten upper heat exchanger mounts

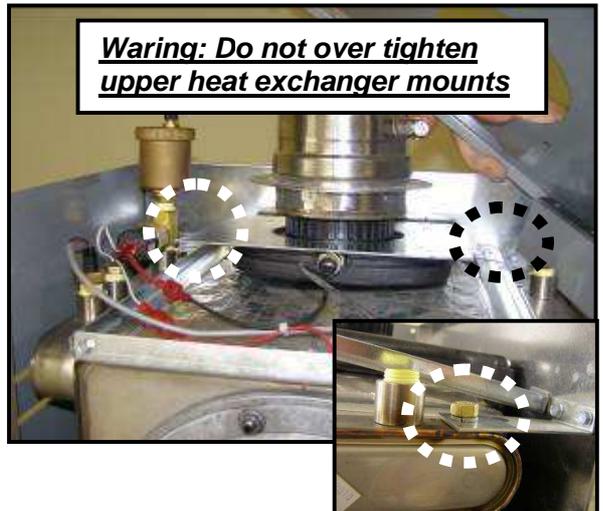


Figure 8: Condensate Tubing detail All models



Figure 9: Ti 100/150 Top and flue adapter assembly

