



# ETi® 250 HEAT EXCHANGER COIL CLEANING KIT (P/N 461109)

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## INSTALLATION INSTRUCTIONS



**FAILURE TO FOLLOW ALL INSTRUCTIONS AND WARNINGS CAN RESULT IN SERIOUS BODILY INJURY OR DEATH.** THIS PRODUCT SHOULD BE SERVICED ONLY BY A QUALIFIED POOL SERVICE PROFESSIONAL. INSTALLERS, POOL OPERATORS AND OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS IN THE HEATER.

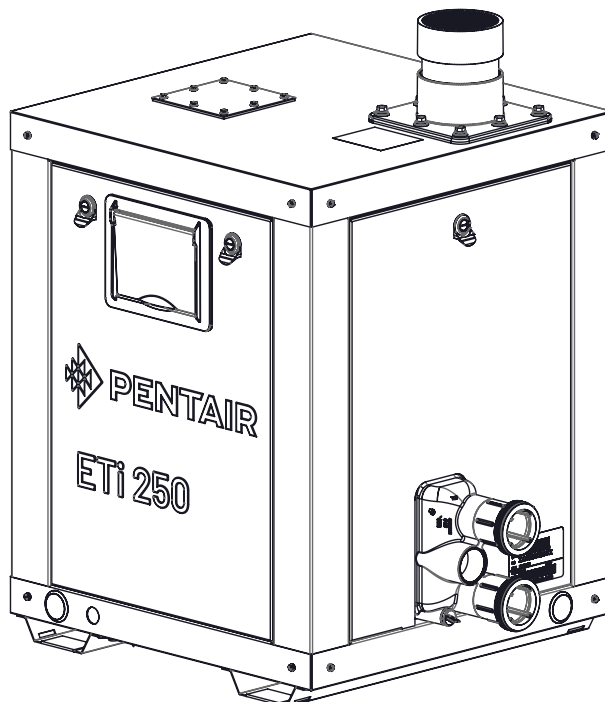
Pentair Water Pool and Spa heater related products are available at:  
<https://www.pentair.com/en/products/pool-spa-equipment/pool-heaters.html>  
Call (800) 831-7133 for additional free copies of these instructions.

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## IMPORTANT SAFETY INSTRUCTIONS

### READ AND FOLLOW ALL INSTRUCTIONS - SAVE THESE INSTRUCTIONS

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# ETi® 250 Heat Exchanger Cleaning Kit Instructions

**Basic safety precautions** should always be followed. Read and follow all instructions.

Required tools:

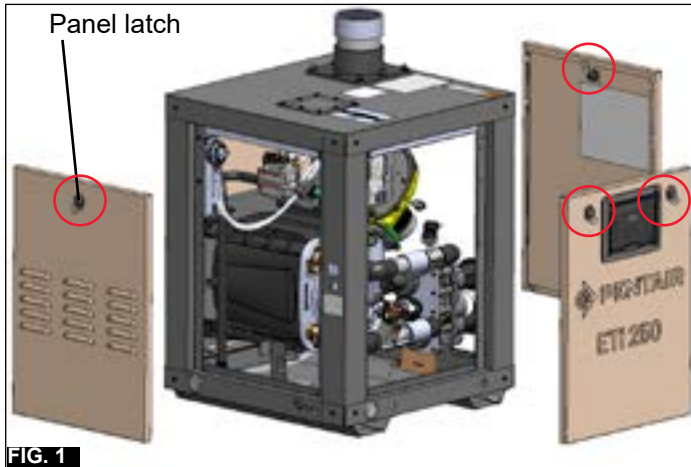
- Cordless drill equipped with a 3 jaw chuck
- 5/64 Allen wrench
- Ratchet with 10mm socket

**CAUTION! Before starting this procedure, verify that the heater is in a de-energized state and disconnect power and turn off the gas valve.**

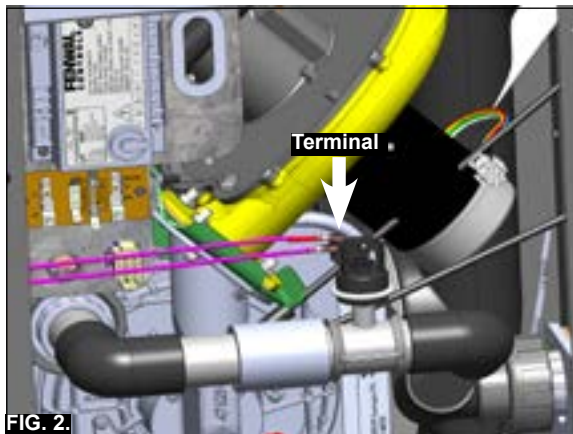
**CAUTION! Before starting: Always disconnect AC power to the heater before proceeding.**

**To clean the Heat Exchanger:**

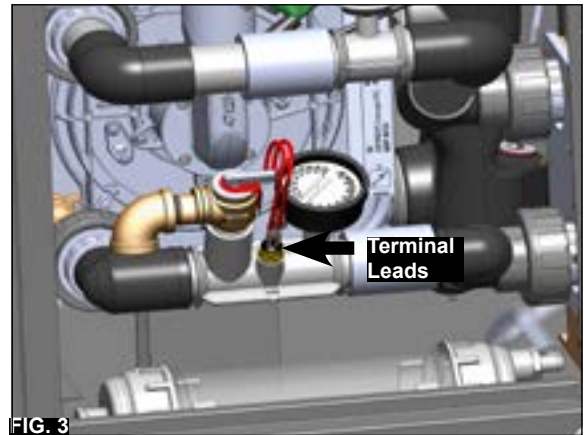
1. Use a Screwdriver to turn and unlock the door panels. Remove doors and set aside. (Fig.1).



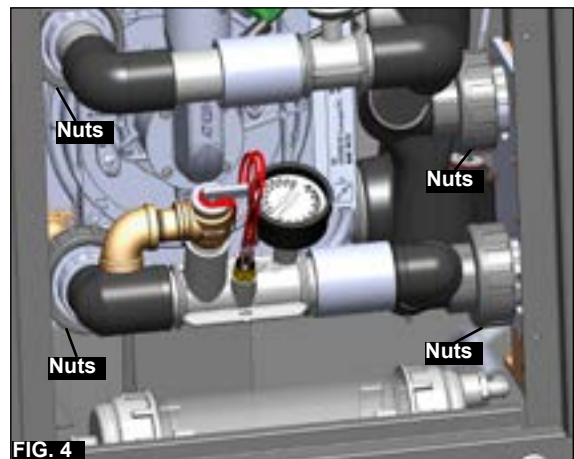
2. Disconnect the **electrical leads from the water pressure switch** located on the inlet plumbing assembly (Fig.2).



3. Disconnect the electrical leads on the AGS Hi-Limit Switch located on the outlet plumbing assembly. (Fig. 4).



4. Remove the inlet and Outlet plumbing assemblies by loosening the PVC nuts on each side of the assembly (Fig. 4).



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5. Removed inlet and outlet Assembly plumbing and set aside. (Fig. 5)



FIG. 5

6. Loosen the upper and lower Union nuts from the Blower and the Gas Valve. Disconnect the air Hoses (x3) (Fig. 6).

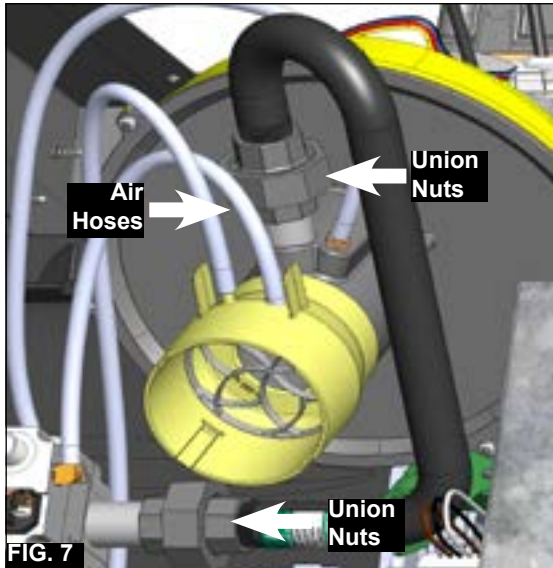


FIG. 7

7. Disconnect the ignition cables and flame sensor cable from the burner manifold assembly. See Fig. 8.

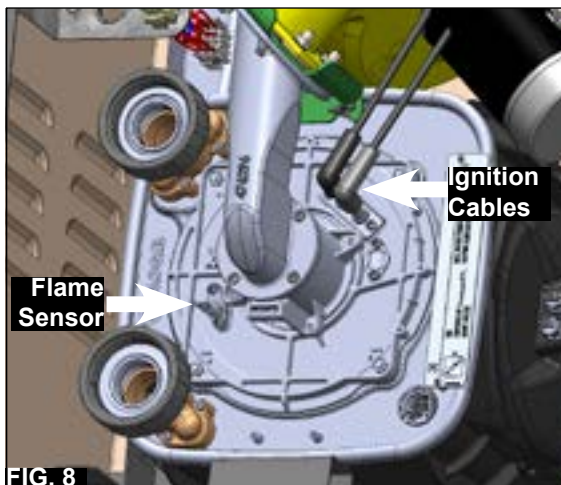


FIG. 8

8. Remove the 5/16" nuts (x4) and the 5/16" bolt (x1) that secure the air manifold (horn) to the blower bracket and the electrical panel. (Fig. 9).

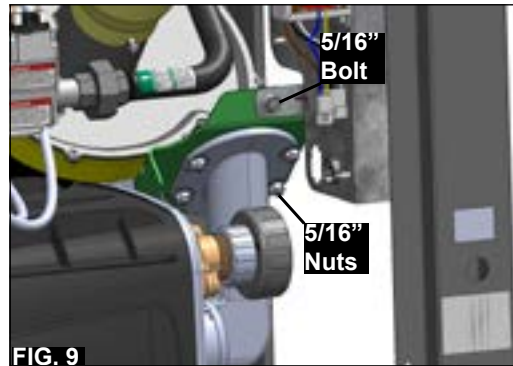


FIG. 9

9. Loosen the Wing Nuts (x2) on the blower bracket. Remove the Blower Motor and set aside. Next, Using an Allen wrench, Remove the socket head Cap screws (x4) that secure the Air Manifold (horn) to the burner manifold assembly and Remove. Set aside. (Fig 10, 11).

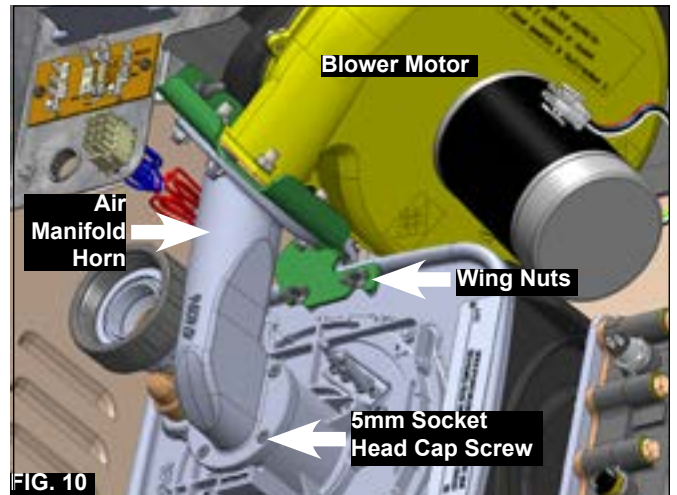


FIG. 10

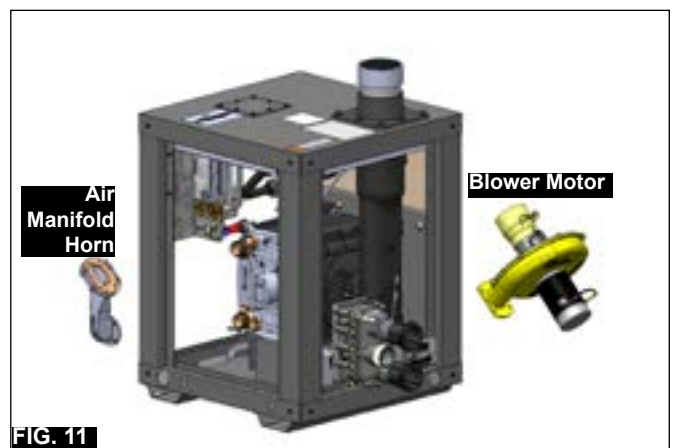


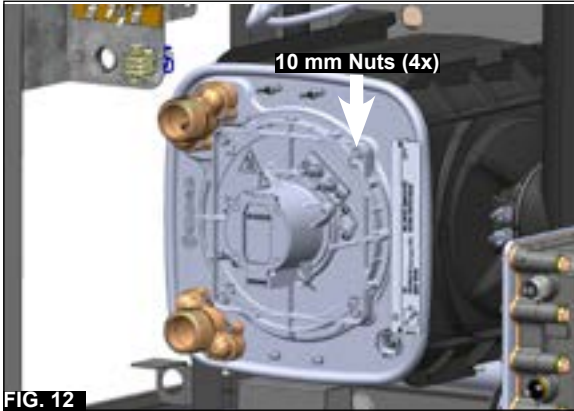
FIG. 11

**IMPORTANT:** The images on the following pages show the heat exchanger removed from the unit. This was done for illustration purposes only. **DO NOT REMOVE THE HEAT EXCHANGER FROM THE UNIT.**

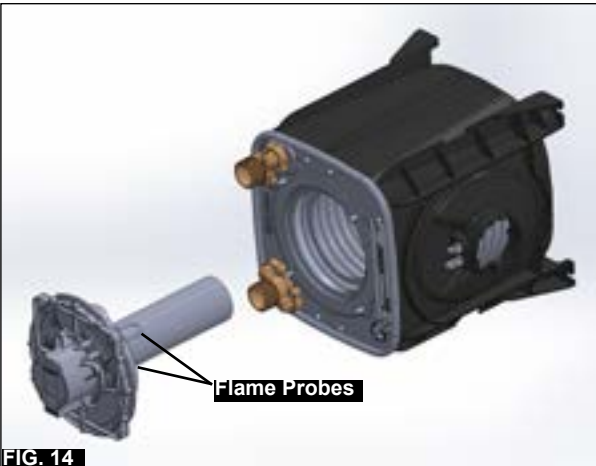
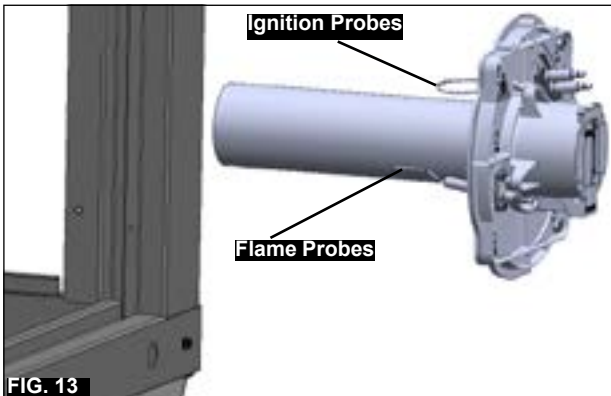


## ETi® 250 Heat Exchanger Cleaning Kit Instructions

10. Remove the 10 mm nuts (x4) from the burner manifold (FIG 12).



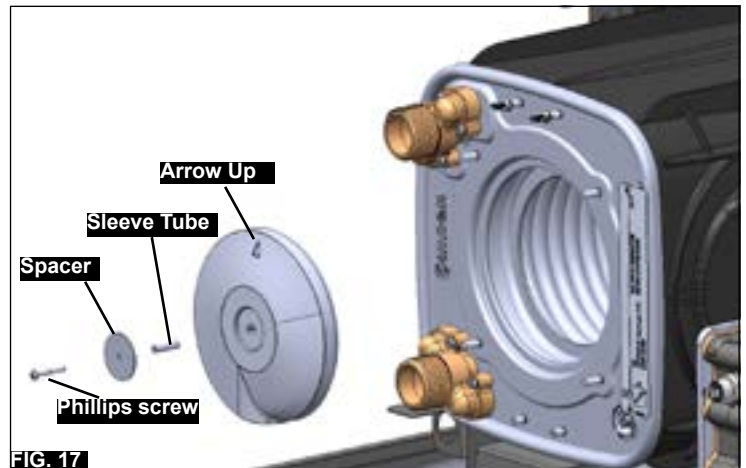
11. Remove the 'burner and manifold' together. NOTE: BE CAREFUL NOT TO BEND OR DAMAGE THE IGNITION PROBES. (Fig.13-14)



12. Locate the Phillips screw inside the heat exchanger coils and remove it. (Fig. 15).



13. Using a hook, or a long screwdriver, carefully pull the insulating disk from the interior of the heat exchanger (Note the orientation of the disk for reinstallation). (FIG. 16-17).



**IMPORTANT:** The images on the following pages show the heat exchanger removed from the unit. This was done for illustration purposes only. DO NOT REMOVE THE HEAT EXCHANGER FROM THE UNIT.

## ETi 250 Heat Exchanger Cleaning Kit Instructions

14. Install the Cleaning Brush assembly. See Fig. 17.



15. Mount the Cleaning Brush flange to the heat exchanger using the 10 mm nuts (x4) that were removed in step 9. The drain plug should be in the 6'o clock position. (Fig. 18-19).



16. Attach a cordless drill (equipped with a 3-jaw chuck) to the Cleaning Brush shaft. (Fig. 20).
17. Connect the supplied water hose to the cleaning brush and begin flowing water through the Cleaning Brush assembly. When using the Cleaning Brush make sure to follow the manufacturers' instructions. Also make sure that the drain valve is open and draining without any blockage. (Fig 20).



18. Cycle the Cleaning Brush shaft in and out using full strokes while rotating the shaft using the cordless drill. You may have to grip the water supply hose with one hand to keep it from rotating with the shaft.(Fig. 21).



19. Reassemble the unit in reverse order.

The cleaning procedure is complete.



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