Triangle Tube PA Series Spark Ignition Kit Installation Guide

Contents

Triangle Tube PA Series Spark Ignition Kit

WARNING

Installation shall be performed by a qualified installer, service agency, or gas supplier.

Definitions

The following terms and symbols are used throughout this manual to bring attention to the presence of potential hazards or to important information concerning the product.

- **DANGER**
  - Indicates the presence of a hazardous situation which, if ignored, will result in substantial property damage, serious injury, or death.
- **WARNING**
  - Indicates a potentially hazardous situation which, if ignored, can result in substantial property damage, serious injury, or death.
- **NOTICE**
  - It indicates special instructions on installation, operation, or maintenance, which are important to the equipment but are not related to personal injury hazards.

 This symbol indicates that you need to make a picture (with your phone or other) for later reporting.

 This symbol indicates that an instructional “HOW TO” video is available from Triangle Tube’s website. A direct link to the library is available at the top left corner of the front cover.

Purpose

This kit (see Fig. 1 for details) replaces the existing igniter and its wiring, the 2-in-1 insulation, as well as the Control module, the display module and front cover of the control box, on PA-prefixed Prestige Solo and Excellence boilers.
Please also refer to the “How To” video in our Video library (QR code access is available in the top left corner of this page).

NOTICE

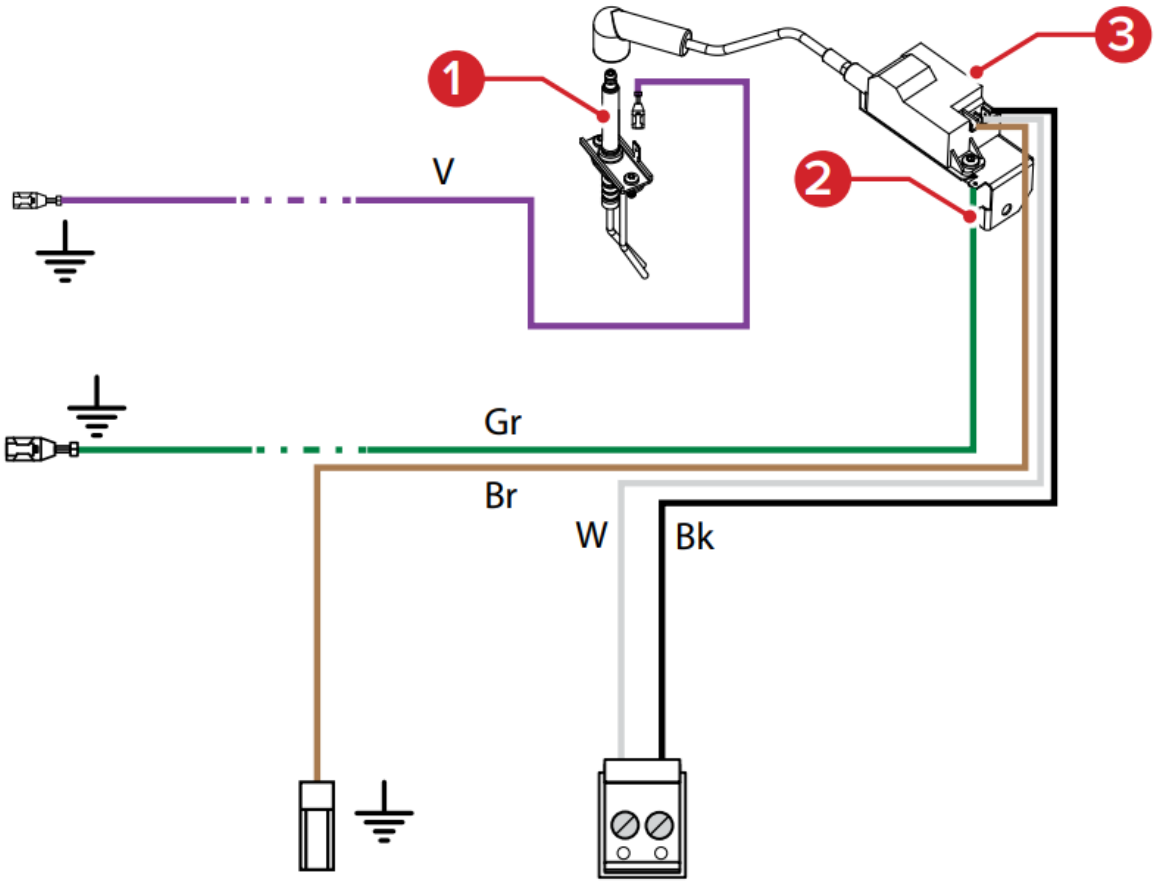
This modification disables the Alarm Relay function which is used in several system configurations. Therefore, to allow the heating system configuration to be operational, some wire connections must be modified and some Controller settings changed, as required.

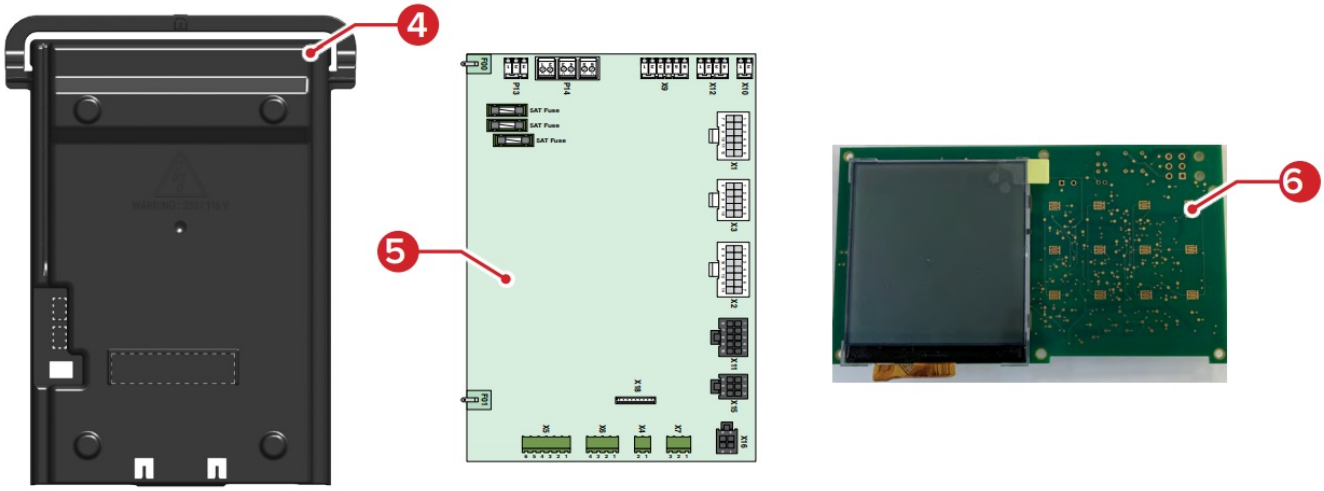
Applicability

Prestige Solo PA 80-110-155-175-250-299*-399* Prestige Excellence PA 110.

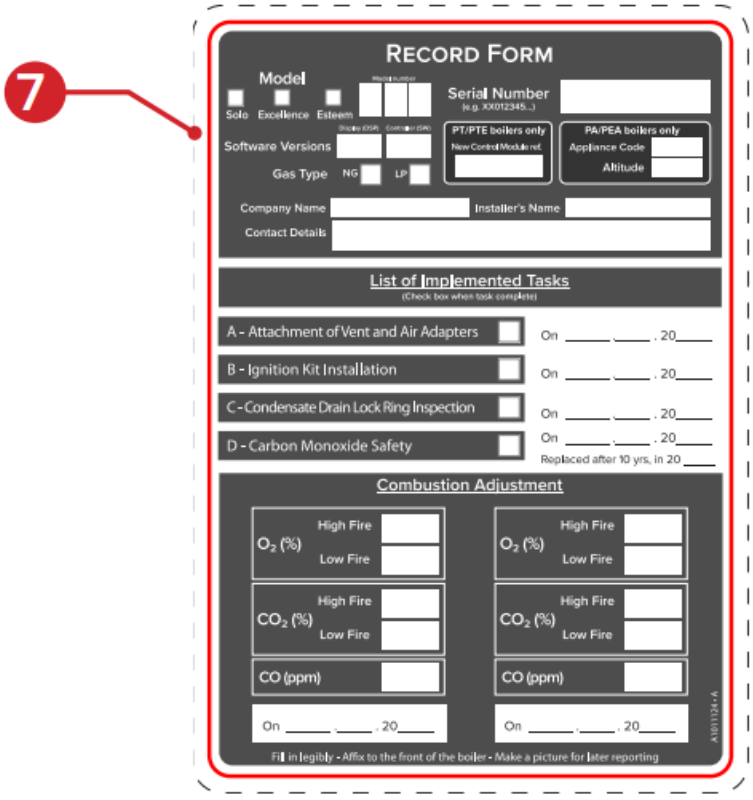
SPARK IGNITION KIT – INSTALLATION INSTRUCTIONS

- Bk. Black
- Br. Brown
- R. Red
- V. Violet
- W. White
- Gr. Green





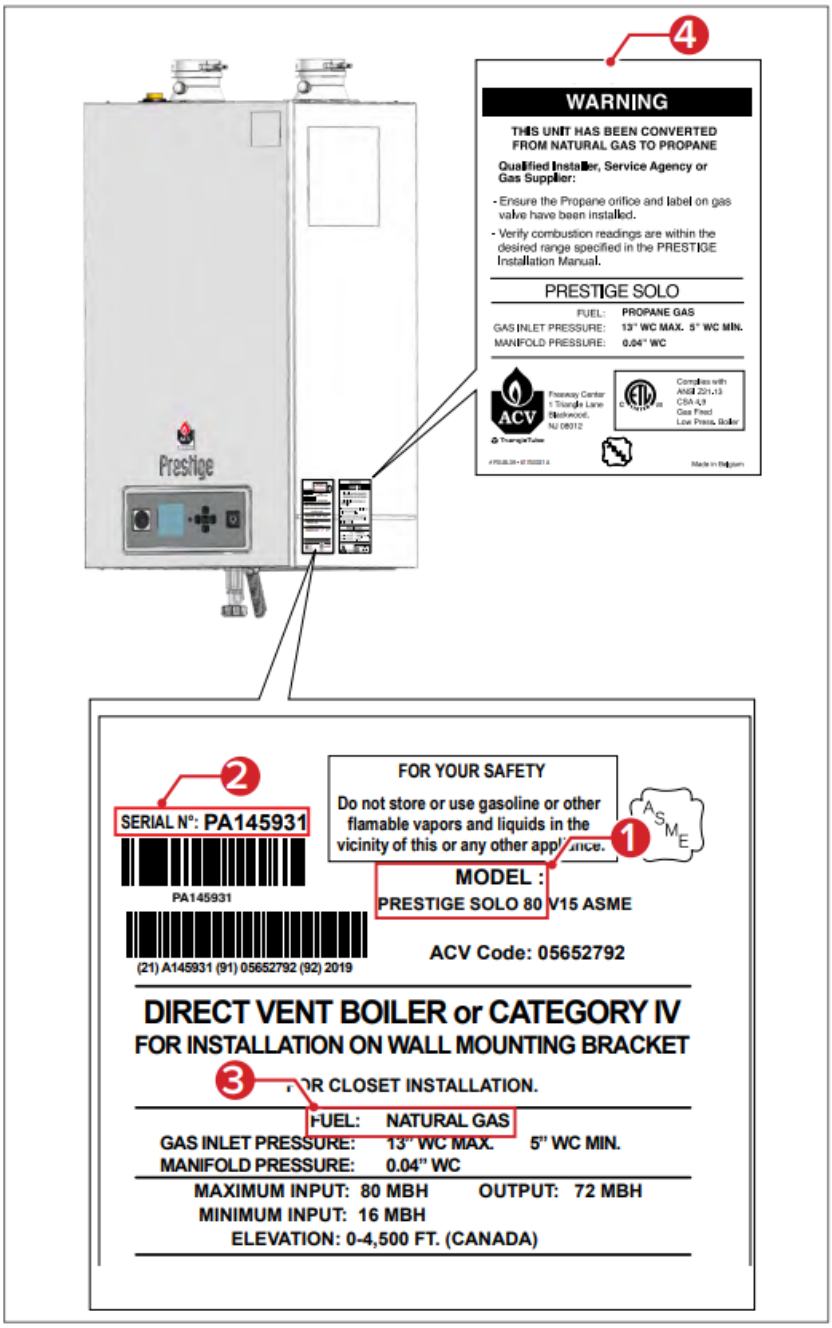
Item	Description	Qty
1	Igniter	1
	Screws, igniter	2
	Gasket, igniter	1
2	Bracket, spark generator	1
3	Spark generator	1
	Wiring, spark generator	1
4	Cover, front, control box	1
5	Control Module (Printed Circuit Board)	1
	Connector, Fast-on (not illustrated)	2
6	Display Module	1
	“PB” label, S/N adaptation (not illustrated)	1
7	Record Form label	1
	Combustion chamber 2-in-1 insulation (not illustrated)	1
	Condensate Drain Lock Ring Kit - PARKIT 522 (not illustrated)	1



Unit Identification

Refer to the rating label located on the right side of the unit and collect the following information:

- Boiler model (1)
- Serial Number (2)



- Type of gas (Check the rating label affixed to the right side of the boiler. If the propane rating label (4) is affixed, also confirm with the yellow label placed on the gas valve inside the boiler).
- For PA 299/399 only, determine if V1 or V2

NOTICE

For PA 299 and 399 units, two different blower/ venturi arrangements result in two different

Spark Ignition Kits:

- PA with Serial number < PA 117000, with a single piece blower/venturi, identified as V1 in this document.
- PA with serial number > PA 117000, with separate blower and venturi, is identified as V2 in this document.

Some V1 models may already have been converted to the V2 configuration.

Before installing the ignition kit, open the front panel (see Fig. 2) and confirm your blower/Venturiconfiguration for PA 299 and PA 399 by comparing with Fig. 3 and Fig. 4 below.

DANGER

Installation of the wrong replacement kit will cause the improper operation of the boiler resulting in substantial property damage, serious injury, or death.

WARNING

DO NOT proceed with the installation in case of doubt about any of the aforementioned. Contact Triangle Tube's Customer Support for assistance, at **856-228-8881**, ext: 575.

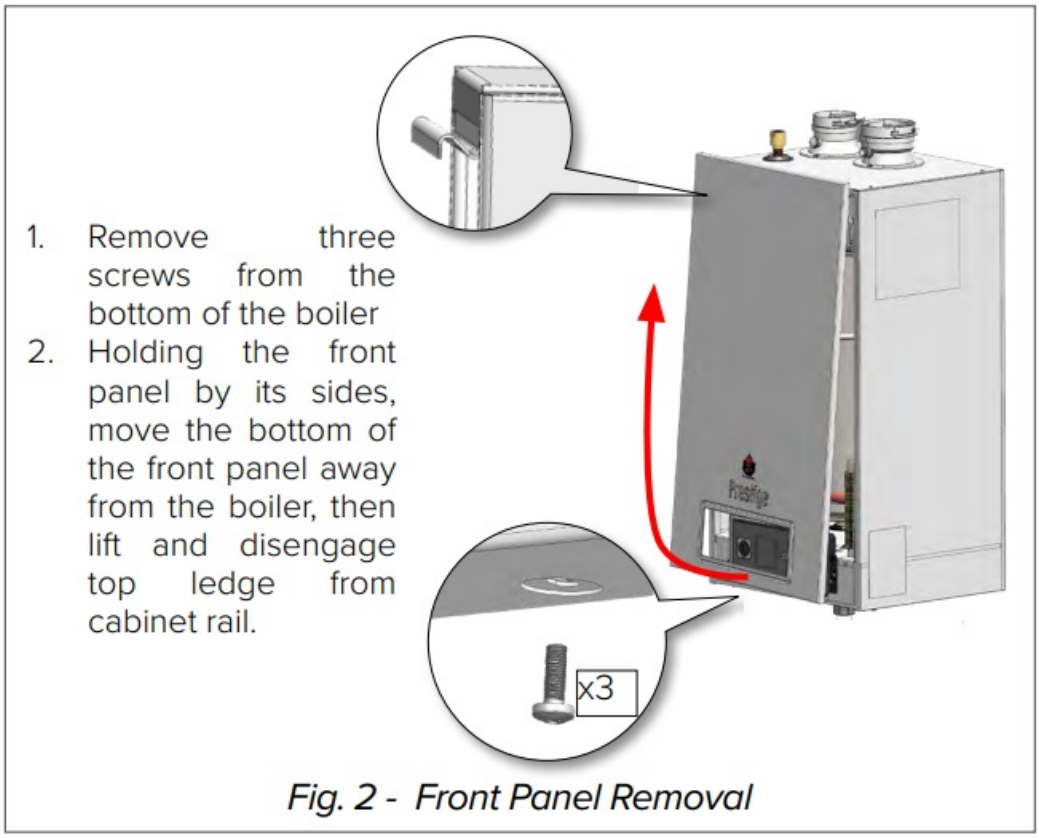


Fig. 2 - Front Panel Removal

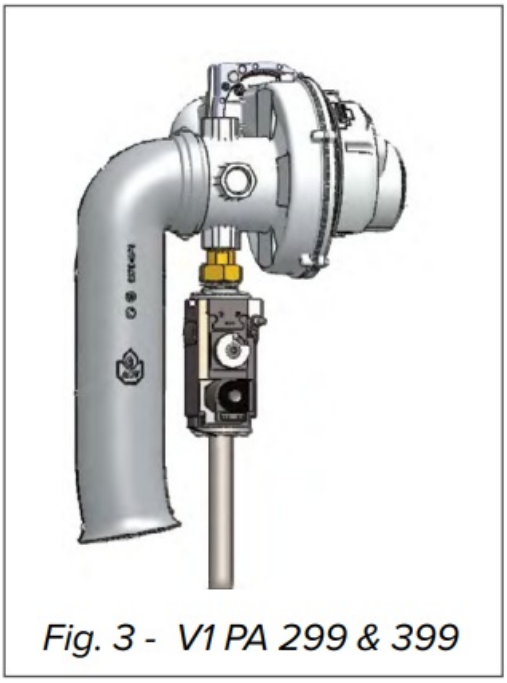


Fig. 3 - V1 PA 299 & 399

Fig. 4 - V2 PA 299 & 399

Kit References

Kit numbers vary according to boiler size. See Fig. 1 on for the Kit contents. Use the table below to confirm that you have the correct replacement kit before installing on the boiler.

Model	Kit reference
PA 80 - 110 (Solo/Excellence)	PARKIT242
PA 155	PARKIT243
PA 175 - 250	PARKIT244
PA 299 V1*	PARKIT248
PA 299 V2*	PARKIT246
PA 399 V1*	PARKIT249
PA 399 V2*	PARKIT247

To identify the 299 and 399 model versions, please refer to Section 4

Recording the Current Settings

This procedure includes the replacement of the control module and the display module. It is therefore essential to make note of all the necessary settings that will allow later reconfiguration of the boiler. Also, write down the Pump configuration for reference before bringing any change to the appliance. A Configuration Record table is provided

Boiler Modification

Before starting any task, check that you have the correct Kit reference for your boiler type and model. Refer to Section 5 The Ignition kit is shipped with a new combustion chamber 2-in-1 insulation/gasket that will also be

installed with the new ignition kit. Therefore, be aware that the gas train will be removed, as well as the burner assembly.

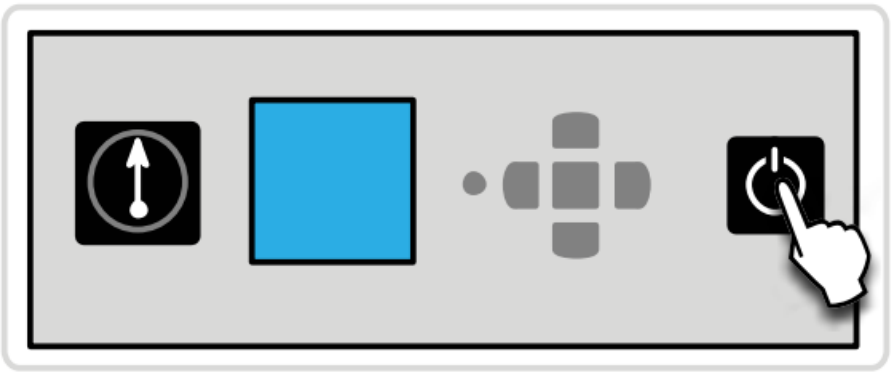
Igniter and Spark Generator Installation

Required Tools and Material

- Screwdriver, flathead
- Screwdriver, cross-head
- Wrench, Torx 25
- Screwdriver, socket, 10 mm

Removing the Burner

1. Turn the boiler OFF using the ON/OFF service switch at the front of the boiler.



2. Disconnect electrical power to the boiler with the relevant circuit breaker at the external electric box.
   DANGER
   Avoid electric shock by disconnecting the power supply to the appliance at the circuit breaker in the external electric box prior to performing any operation on the boiler. Before any operation on the internal components of the appliance, allow the appliance to cool down to room temperature. Some components can be very hot. Failure to comply will result in substantial property damage, serious injury, or death.
3. Shut off the gas supply to the boiler at the main manual shut-off valve.
4. Remove the boiler front panel to access the burner (See Fig. 2).
   NOTICE
   Before disconnecting any wire connections, mark and label all connections and the location of the connections.
5. Disconnect all plugs from the blower and gas valve (Fig. 5, ref. 5 and 7). Note gas valve wiring connections.
6. Disconnect the ignition cable from the front of the electronic box (See Fig. 11).
7. Disconnect the gas pipe connection (Fig. 5, ref. 6) at the bottom of the gas valve (Fig. 5, ref. 7).
8. Disconnect the air intake tube from Venturi (Fig. 5, ref. 8). Retain for reinstallation
9. Release the blower clamp nut (Fig. 5, ref. 4) using the 10 mm socket screwdriver.
10. Holding the blower/venturi/gas valve assembly with one hand, unscrew the blower clamp nut by hand and remove it with the blower clamp. Retain for reinstallation.
11. Remove blower/venturi/gas valve assembly from the burner plate (Fig. 5, ref. 1).
    NOTICE
    The burner illustration in Fig. 5 is shown as an example. Appearance can differ according to the boiler model.
12. Remove burner plate nuts securing the burner plate (Fig. 5, ref. 1) to the heat exchanger using a socket

wrench.

13. Remove burner plate from heat exchanger, carefully prying open with a flat screwdriver under the blower to burner plate connection.
14. With the Torx wrench, release two screws and remove the igniter (Fig. 5, ref. 2) and gasket from the burner mounting plate (Fig. 5, ref. 1). Discard all.

    NOTICE

    If the gasket is stuck to the igniter support on the burner plate, use a flat head tool and release it carefully from the surface. Be careful not to scratch the surface.

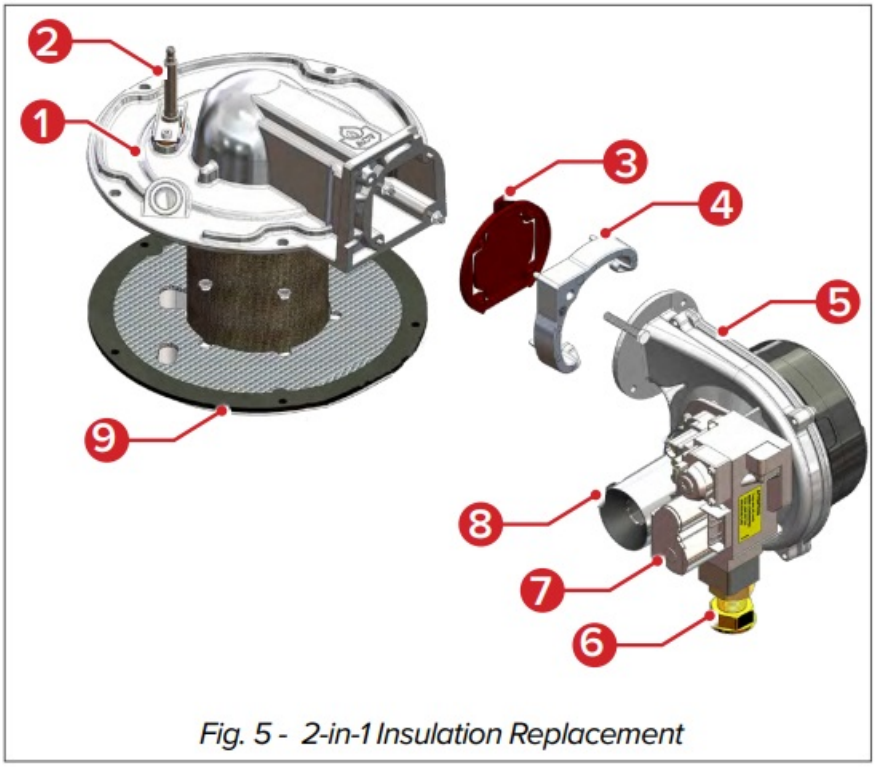


Fig. 5 - 2-in-1 Insulation Replacement

Replacing the Insulation

1. Remove insulation (Fig. 5, ref. 9) from burner. Discard according to applicable local regulations.
2. Brush and vacuum-clean combustion chamber.
3. Use compressed air or vacuum-clean the burner head.
4. Visually inspect the burner head for deterioration.
5. If the burner head surface is pitted, corroded or torn, the burner head should be replaced. Make a picture and report to Triangle Tube's Customer Support for assistance, at 856-228-8881, ext: 575.
6. If necessary, replace the burner head and gasket with the appropriate replacement part, according to the repair procedure available on Triangle Tube's website (access using the QR code below).

7. Slide the 2-in-1 insulation provided with the kit onto the burner head, making sure to align the opening with the igniter and sight glass locations.

Installation of Igniter and Spark Generator

1. Install the new igniter, with its new gasket, on the burner mounting plate support (See Fig. 6).
2. Tighten 2 igniter screws by hand, then torque screws between 13 and 18 in-lbs.

   NOTICE

   Do not exceed the recommended max. torque value for the igniter attachment screws to prevent the igniter stems from distorting.
3. Place burner/burner plate/insulation assembly carefully in position. Do not secure the assembly just yet.

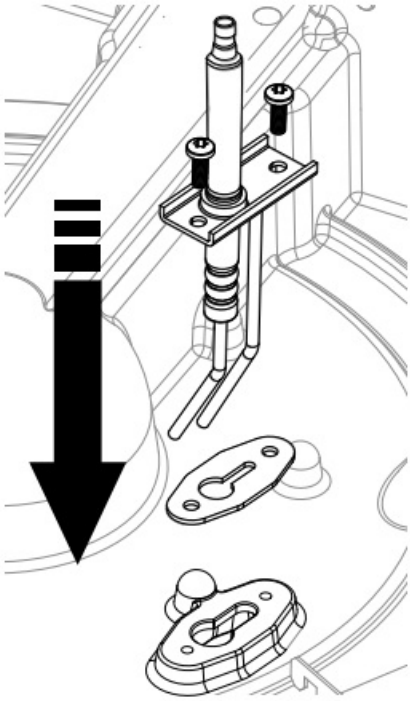


Fig. 6 - New igniter Installation

4. Install spark generator on a provided bracket with 2 screws.
5. Connect the ignition wire to the spark generator (1). Slide the protection sleeve (2) over the connector (See Fig. 7).

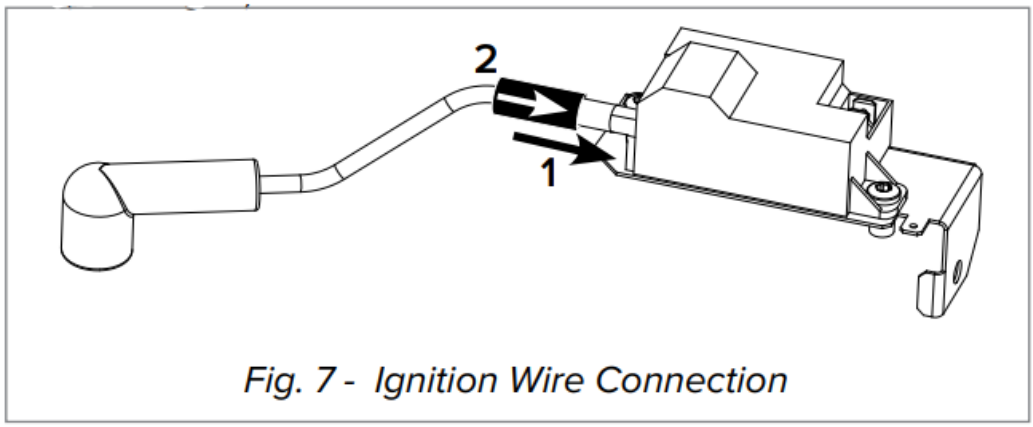


Fig. 7 - Ignition Wire Connection

6. Locate the spark generator with bracket (B) on the blower clamp (A), aligning bracket hole with blower clamp hole. (See Fig. 8).
7. Reinstall the blower/venturi/gas valve assembly with the retained gasket and clamp, ensuring that the spark generator bracket is correctly positioned.
8. Reinstall the blower clamp screw (A) to secure the spark generator bracket to the blower clamp. Torque screw between 62 and 71 in-lbs.
9. Secure burner plate using the retained nuts. Torque at 44 to 53 in-lbs.
10. Connect the spark generator connector (C) to the new igniter.

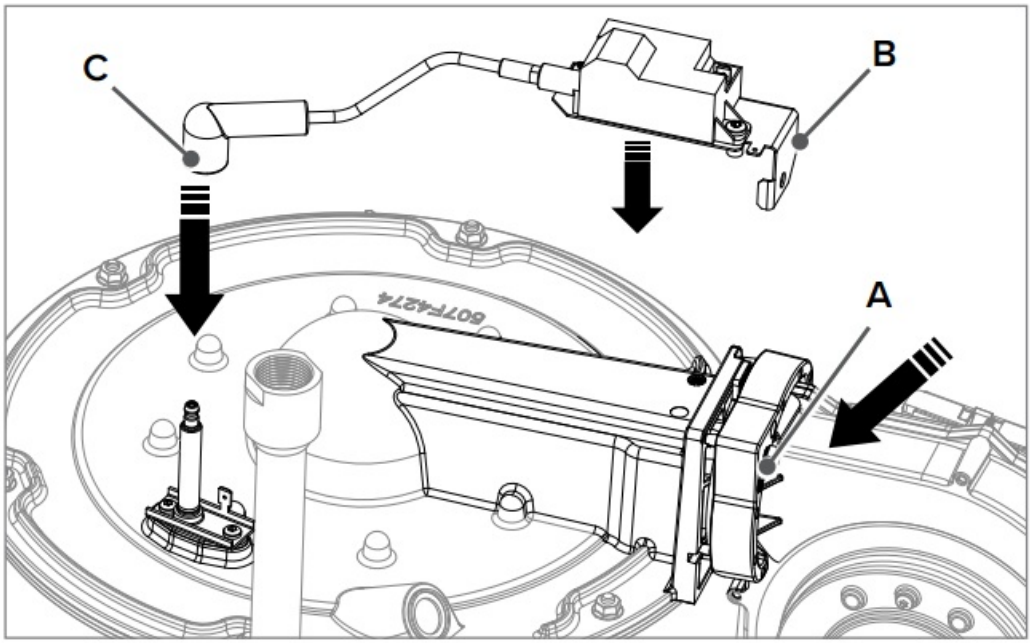


Fig. 8 - Spark Generator Installation

11. Reference Fig. 8 to Fig. 10 for installation and correct position.
12. Connect the power supply connector (3-wire connector) to the spark generator socket (D). Make sure that the brown wire is to the left.
13. Reconnect the gas pipe to the gas valve connection.
14. Reconnect plugs to the gas valve and blower.

    Make a picture of the spark generator and igniter assembly after installation for later reporting.

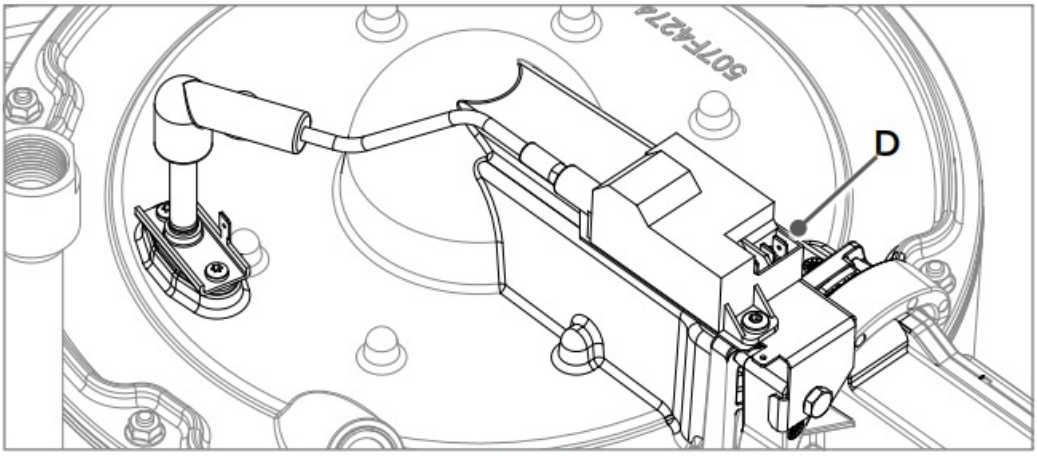


Fig. 9 - Igniter Kit Installed

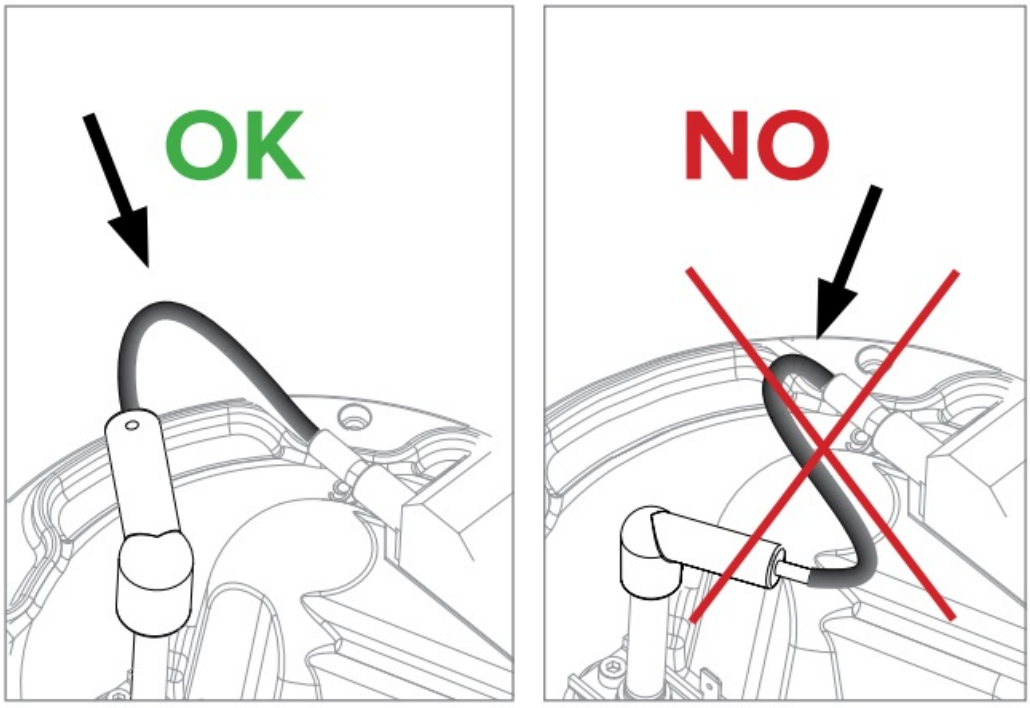


Fig. 10 - Igniter Cable Installation

Control Module Replacement

1. Open the front cover of the electronic box (See Fig. 11). Discard the cover.

   NOTICE

   Before disconnecting any wire connections, mark and label all connections and the location of the connections.
2. Disconnect violet wire (ionization current return) (See Fig. 17) from the circuit board ground connection. Discard the wire.
3. Disconnect all wire terminals from the board.
4. Remove the circuit board and discard it according to applicable local regulations (See Fig. 12).

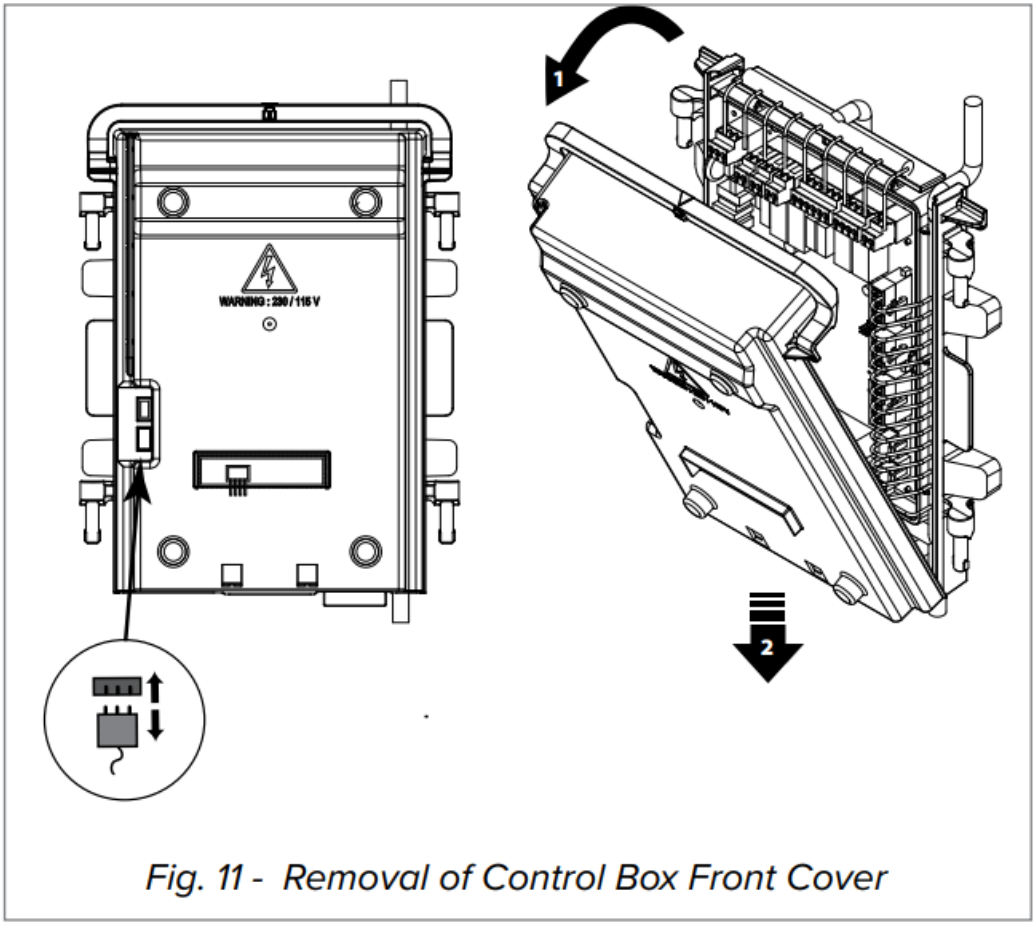


Fig. 11 - Removal of Control Box Front Cover

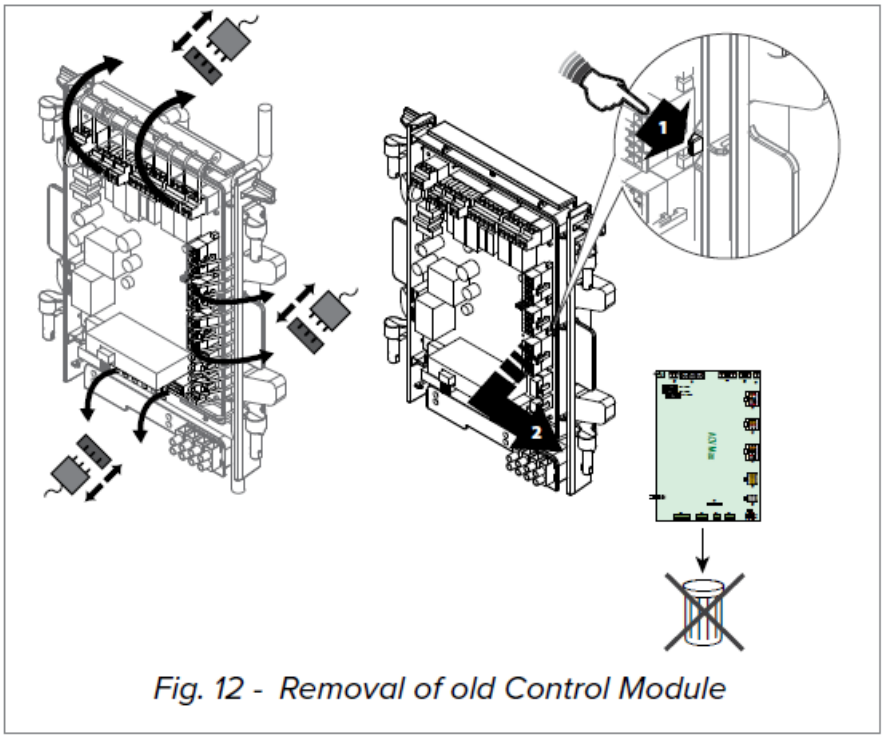


Fig. 12 - Removal of old Control Module

NOTICE

When handling the new Control Module board, do not touch the printed circuits. Make sure to hold the board by its edges. Failure to comply can damage the new Control Module.

5. Install new circuit board, making sure it is secured in the retaining clips (See Fig. 13).
6. Reconnect all wire terminals to the new circuit board terminals, except P14, 1&2 (See Fig. 18).
7. Route the kit wiring over the top of the control box.

8. Connect the spark generator power supply connector to the free receptacle of the P14 terminal (pins 1&2) of the Control Module (See Fig. 18).
9. Connect the violet ground wire to the ground connection on the Control Module, and on the ground lug located on the igniter bracket (See Fig. 18).

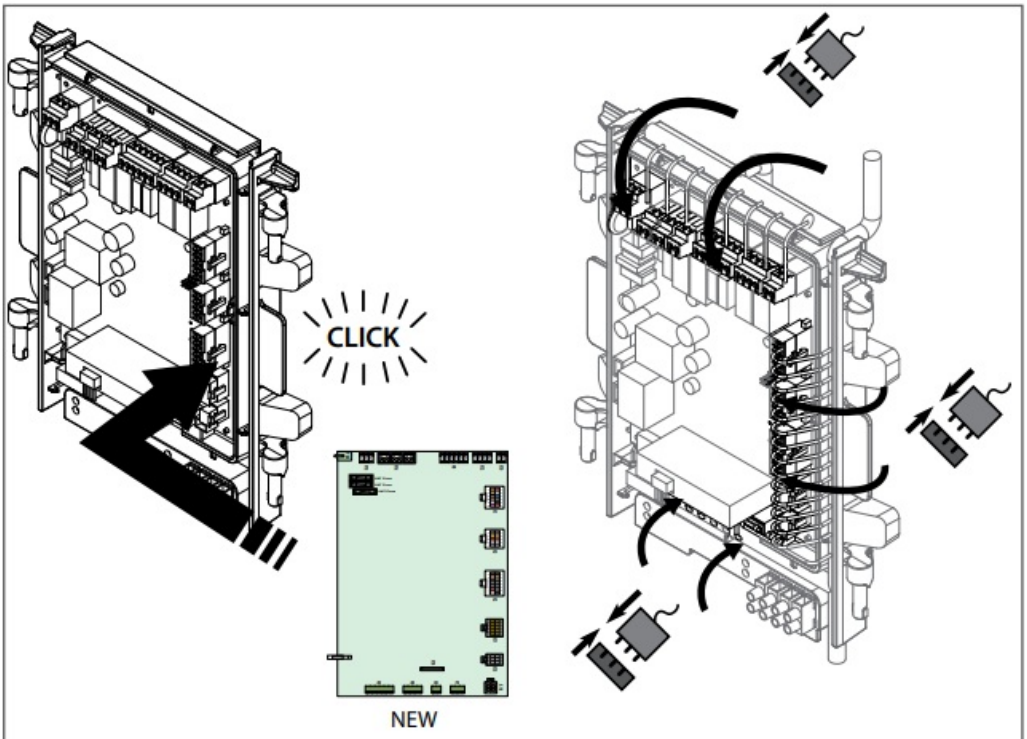


Fig. 13 - Installation of new Control Module

10. Connect the green ground wire to the spark generator bracket ground tab and to the ground tab located atthe bottom left hand side of the chassis (See Fig. 18).
11. Protect the bare pins of former P14 connector using 2 Fast-on connectors.
12. Route the wiring (unconnected former P14 connector included) in the plastic retaining clip located at the rear of the control box.
13. Install the new control box front cover (See Fig. 14).
14. Connect the brown ionization cable at the front of the control box (See Fig. 14).

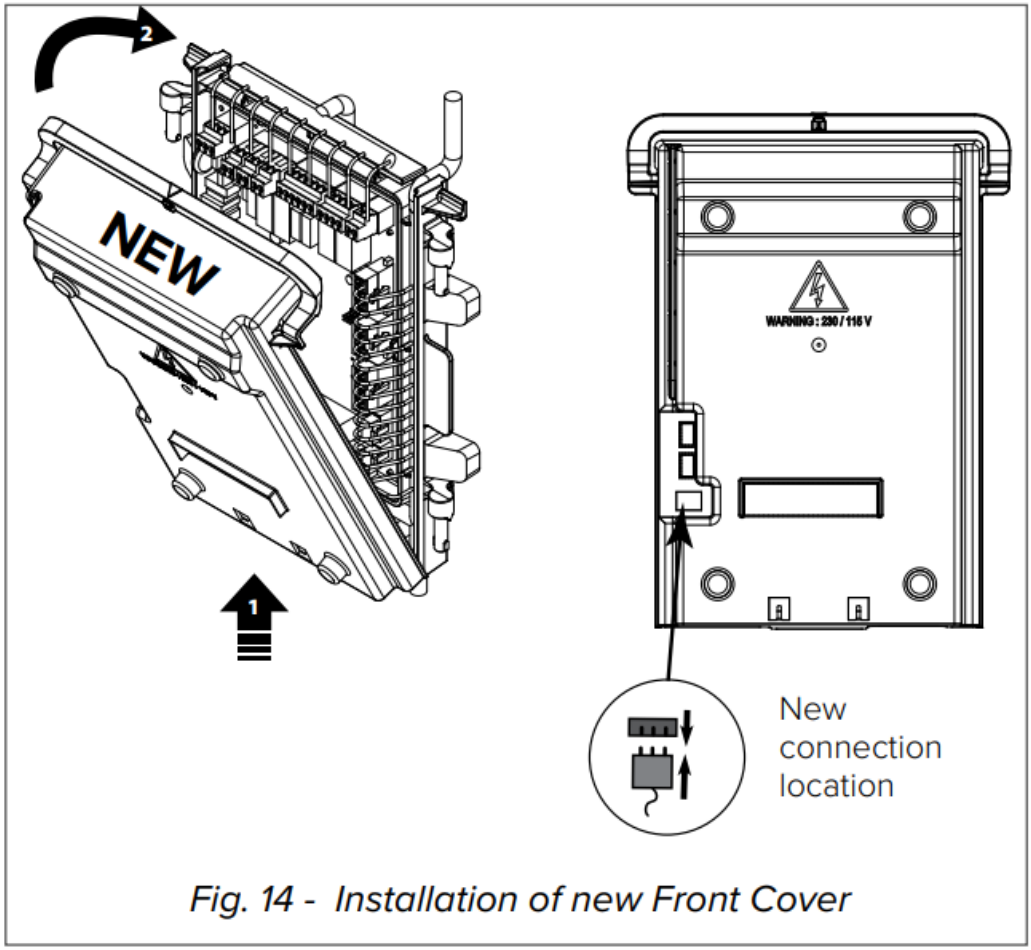


Fig. 14 - Installation of new Front Cover

Display Module Replacement

Required Tools and Material

- Screwdriver, cross head, small

Procedure

1. Unlock both tabs (1) at the top of the display box (2) and lower the front panel on its hinges.
2. Disconnect the connector from the display module socket (3).
3. Remove six screws (4). Retain for reinstallation
4. Remove the display module (5) and discard it according to applicable local regulations.

   NOTICE

   The display module holds the keypad in position. When removing the display module, the keypad is no longer held and likely to fall. Make sure that it remains in position before installing the new display module.

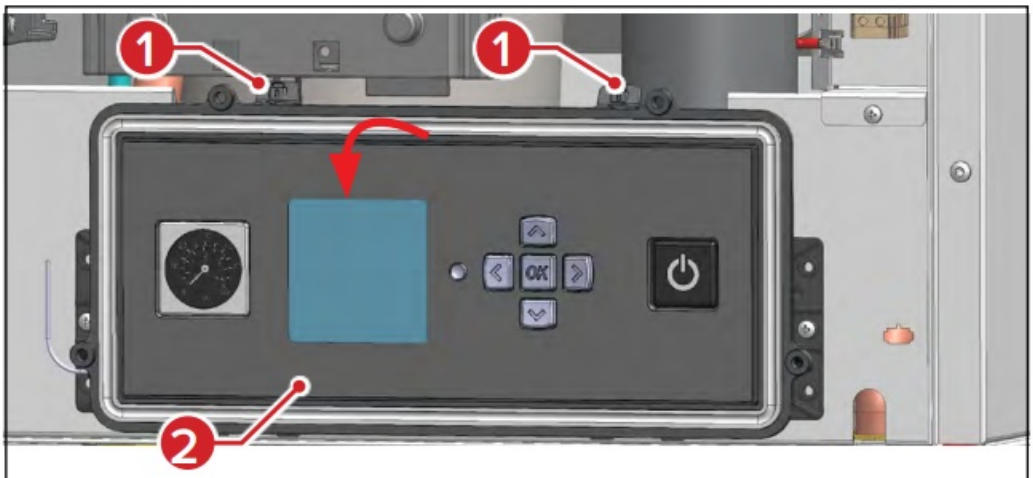


Fig. 15 - Opening the Display Box

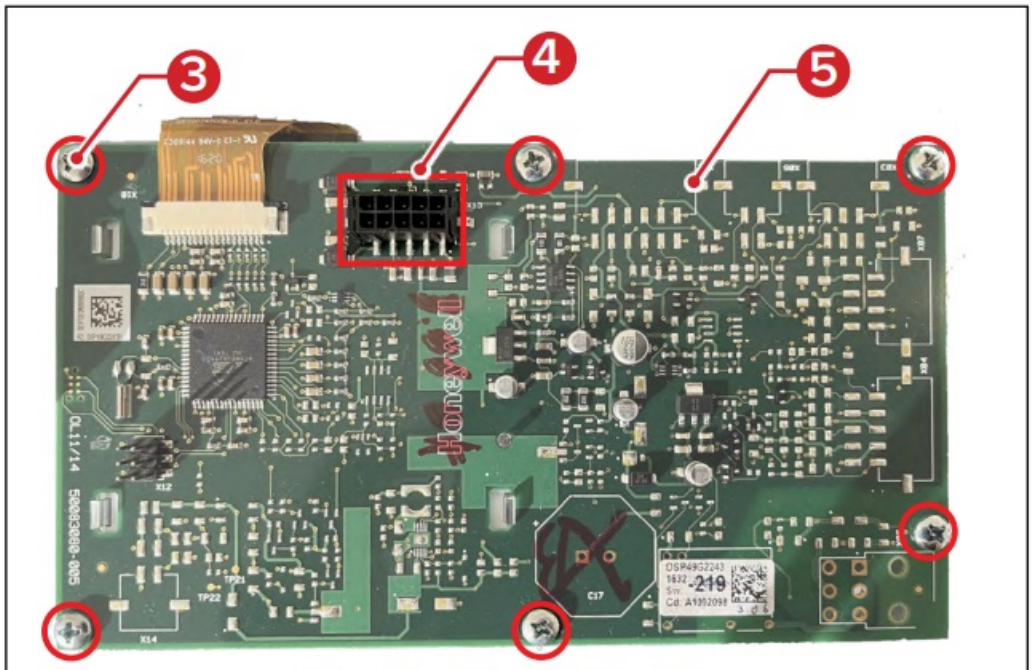


Fig. 16 - Display Module

NOTICE

When handling the new display module, do not touch the printed circuits. Make sure to hold the module by its edges. Failure to comply candamage the module.

5. Remove protective film from the new display module screen.
6. Position the new display module (5) into the front panel of the display box (2).
7. Secure with six retained screws (4).
8. Reconnect connector to display module socket (3).
9. Close the display box (2).

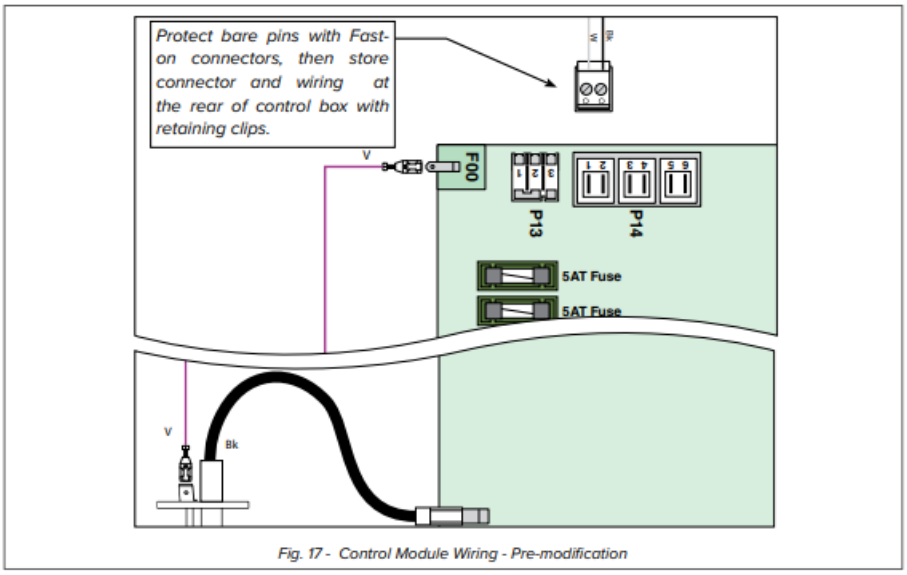


Fig. 17 - Control Module Wiring - Pre-modification

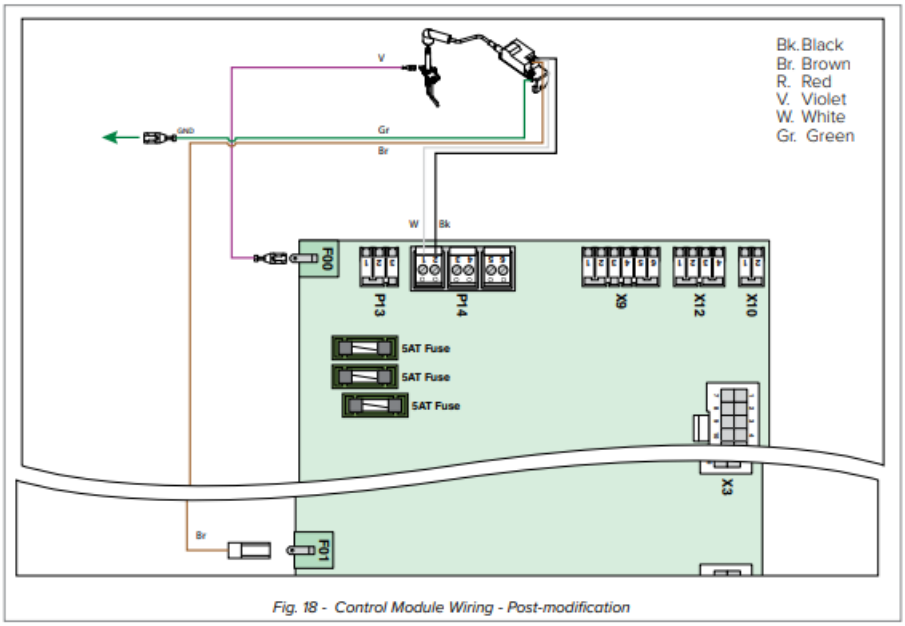


Fig. 18 - Control Module Wiring - Post-modification

Configuration Updates

Configuration Record

	Preset Pump Config	Flex Relays Functions					
		Flex Relay 1	Flex Relay 2	Flex Relay 3	Flex Relay 4	Flex Relay 5	Flex Relay 6
Pre-Modification Configuration							
Post-Modification Configuration							

Wiring

Following the printed circuit board replacement and wiring changes, the ALARM relay function is no longer available for the configurations that use it. Therefore, anything wired to the Alarm relay needs to be rewired to a different relay if required (see table below).

NOTICE

In some configurations, the Error function will no longer be available. Please contact your Triangle Tube assistance.

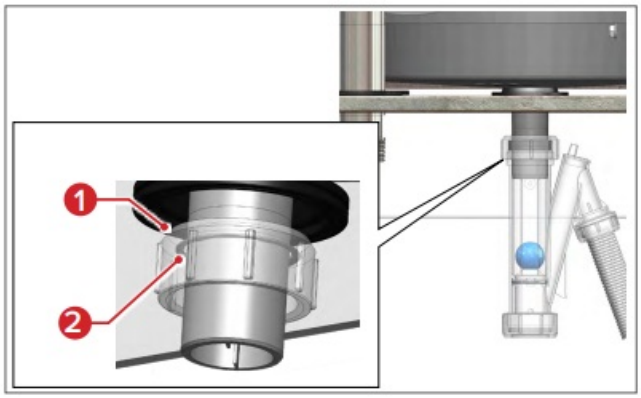
Preset config	Page *	Connected to	Reconnect to	Controller setup (Flexible pump config)	Remark
1	18	ALARM	FLAME	Flex. Relay 5 to be set to ERR : FLAME: OFF ERROR: ON	
2	19				
3	20				
4	21				
5	22				
6	23				
8	25				
10/11**	24**	ALARM	Pump 3	Flex Relay 3 to be set to MIX OPEN: MIX OPEN: ON	ONLY if no additional pump is connected to Flex Relay 3 (P3). If a pump is connected, please contact your Triangle Tube assistance.
7	–				Error function not available anymore
9	26				Error function not available anymore
10	27	These configurations are no longer available (no available relay for the motor open function that was implemented by the Error relay). Please contact your Triangle Tube assistance.			
11	28				
12	29				
13	30				Error function not available anymore

- Refer to the manual “Prestige Control Application Supplement – ACVMax”, 2015-10
- The configuration mentioned on this page in the manual is mistakenly identified 7. It should be 11 (or possibly 10)

Boiler Set-up

Inspect Condensate Drain Assembly

1. Inspect and ensure the Condensate Drain Assembly is properly installed, as follows :
    - Unscrew condensate drain (3) from the retainingnut.
    - Check if the metallic lock ring (2) is installed under the retaining nut cap (1).



NOTICE

If the metallic lock ring is not present in the retaining nut, a new lock ring must be installed to ensure that the condensate drain is securely installed. A Condensate Drain Lock Ring Kit is provided with this kit, which includes a new lock ring and an installation tool.

2. Install a new lock ring with the provided tool, in accordance with the Condensate Drain Lock Ring Kit instructions.
3. Remove the plug from the Condensate Drain Assembly and fill with fresh water, if required.

   WARNING

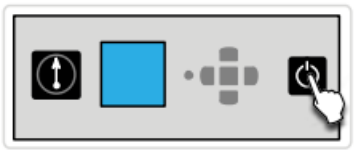
   The condensate drain assembly must be filled with water when the boiler is in operation. The condensate drain assembly prevents flue gas emissions from entering the condensate line. Failure to ensure the condensate drain is filled with water can result in serious injury or death.
4. Re-Install plug in condensate drain assembly.

Setup

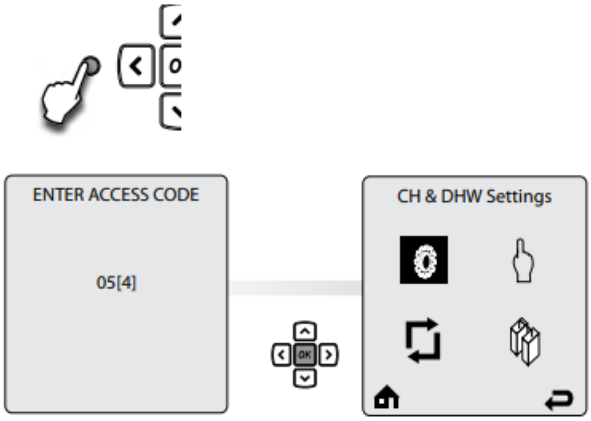
Appliance Code Setting

Following the replacement of the Control module and Display module, the appliance needs to be set-up to the correct parameters.

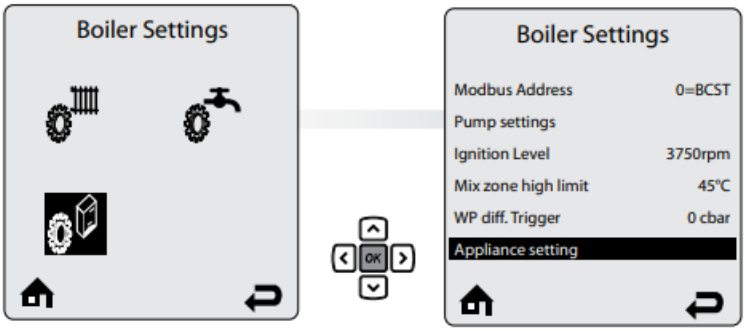
1. Set room thermostat(s) to lowest setting
2. Restore power supply to the boiler at the breaker in the external electric box.
3. Open gas supply at the main manual gas valve
4. Turn the boiler ON by depressing the ON/OFF service switch at the front of the boiler.



5. Press the round INSTALLER button.
6. Enter the installer access code “054”, using the LEFT and RIGHT buttons to select a digit and the UP and DOWN buttons to change the digit. Press the OK button to validate the access code



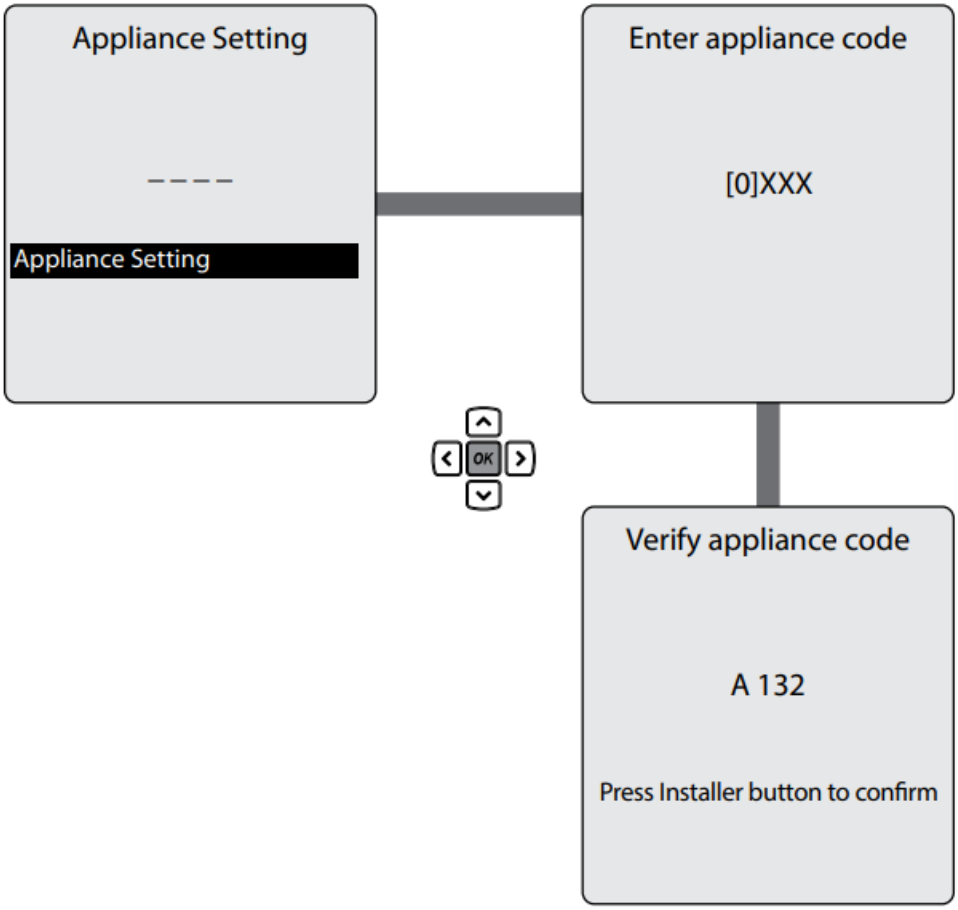
7. Using the arrow keys, select the Boiler Settings icon.
8. In the Boiler Settings menu, move down the list, to the “Appliance Setting” function



9. In the Appliance Setting menu, enter the appliance code corresponding to your appliance.

   NOTICE

   The appliance code is provided on the back cover of this document.
10. Validate the code by pressing the OK button.
11. Follow the instructions on the screen until the process is complete.

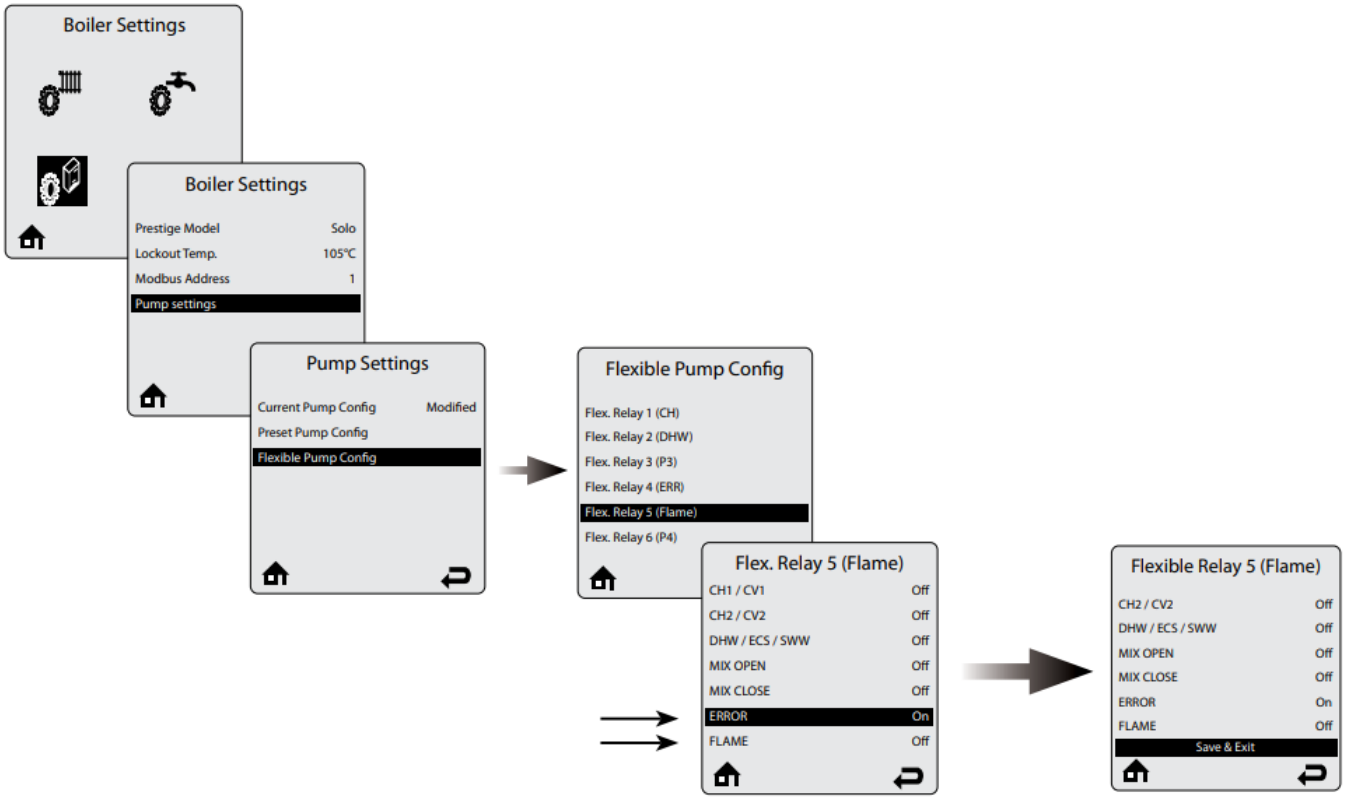


Alarm Relay Setup

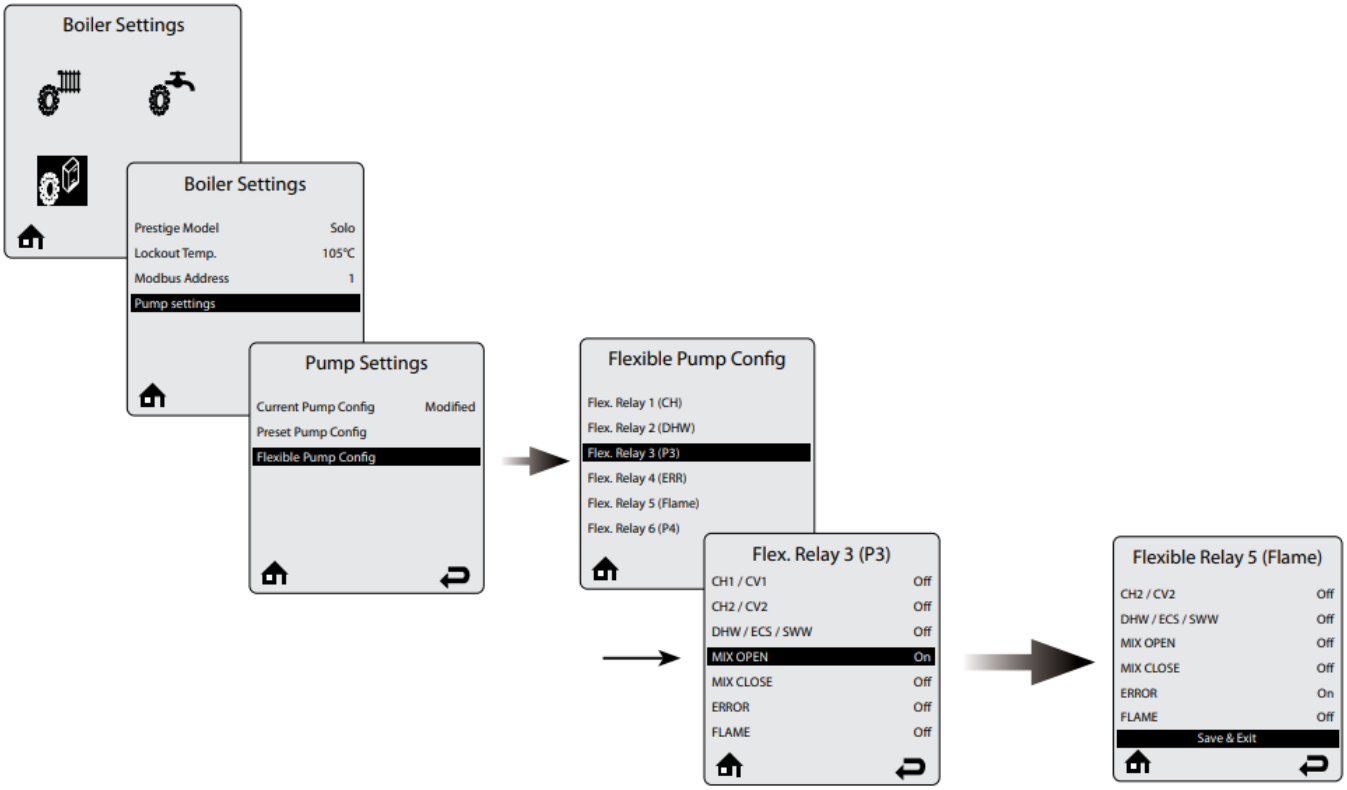
If the Alarm relay function (Flexible Pump Config) was used in the initial configuration and you need to set the appliance back to the original configuration, be awarethat the following changes are required.

Alarm relay function moved to the Flex relay 5 (Flame)

Starting from the Installer menu (see above), perform the following:



Alarm Relay function moved to the Flex Relay 3 (P3)

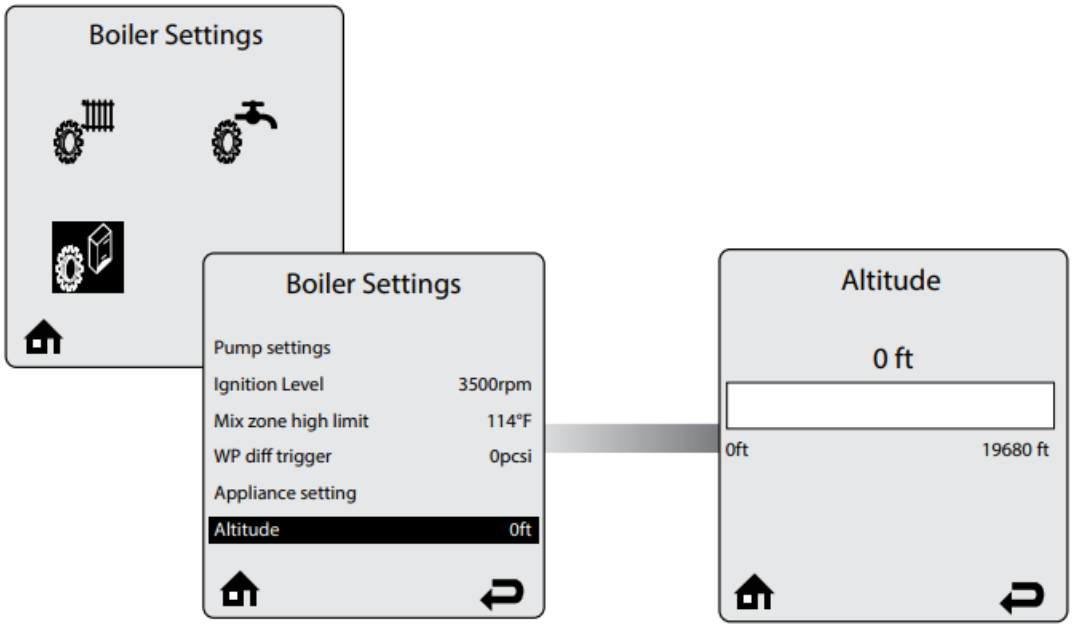


Altitude Setting

For optimal operation, set the altitude at which the appliance is installed.

1. Starting from the Installer menu (see page 10), perform the following:
2. In the Boiler Settings menu, move down the list, to the Altitude function. Validate with the OK button.
3. Using the LEFT and RIGHT buttons, adjust the altitude value.

4. Validate by pressing the OK button.



Starting Up

Tools and Material

- Gas detector
- Leak Detection fluid

Check for Gas Leaks

WARNING

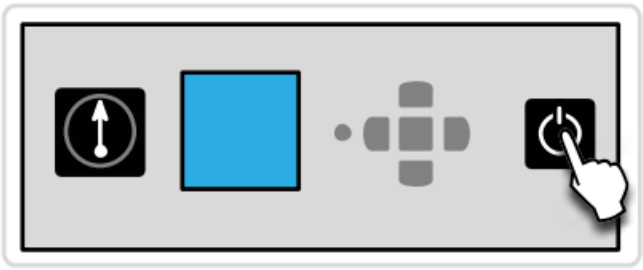
Prior to start-up and during initial operation, check for a gas leak using a combustible gas detector. Do not proceed with the start-up if there is any indication of a gas leak. Any leaks found must be repaired immediately. Propane installations only – The propane suppliermixes an odorant with the propane to make its presence detectable. In some cases, the odorant can fade and the gas may no longer have an odour. Prior to the start-up of the unit and periodically after the start-up have the propane supplier check and verify the odorant level. Failure to comply with these instructions can result in substantial property damage, serious injury, or death.

Perform OPERATING INSTRUCTIONS

NOTICE

The OPERATING INSTRUCTIONS are also available in Chapter 11 of the Installation and Maintenance Manual and are affixed to the side of the boiler.

- Set room thermostat(s) to the lowest setting. Turn the external manual gas valve handle clockwise  to “CLOSE” (valve handle must be perpendicular to gas piping).
- Turn the boiler OFF using the ON/OFF service switch at the front of the boiler.



- Remove the front panel of the unit, if not done yet.
- Wait five (5) minutes to clear out any gas. If you then smell gas in the jacket enclosure or around the unit,

  STOP!

  WHAT TO DO IF YOU SMELL GAS

  Do not try to light any appliance. Do not touch any electric switch; do not use any phone in your building Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions. If you cannot reach your gas supplier, call the fire department.
- If you don't smell gas, check that there are no leaks of combustion gases. See below.

Condensate Pan Leak Test

1. Disconnect the signal harness plug (low voltage) from the blower.
2. Turn the boiler ON using the ON/OFF service switch at the front of the boiler.

   NOTICE

   The fan will start operating at full speed, creating the necessary pressure to detect any damage at the seals and possible combustion gas leaks.
3. With the boiler in operation, spray leak detection fluid around the condensate pan and the vent pipe to the condensate pan connection at the bottom of the heat exchanger.
4. If bubbles are forming at the junction of the heat exchanger and the condensate pan, or vent pipe and condensate pan, the seal(s) or condensate pan may be defective and need to be repaired.

   WARNING

   DO NOT proceed with the installation in case of doubt about the tightness of the condensate pan. Contact Triangle Tube's Customer Support for assistance, at **856-228-8881**, ext: 575.

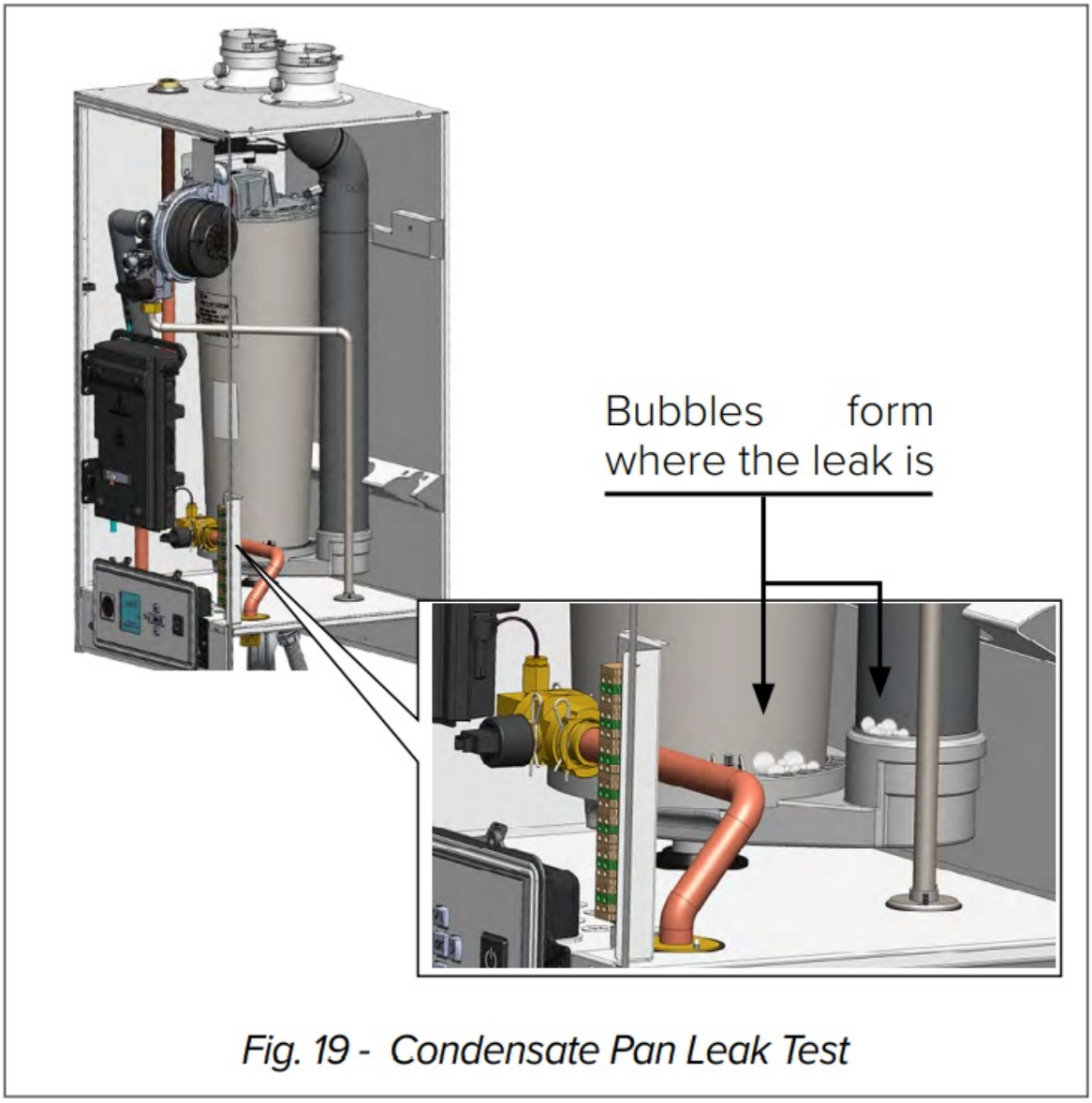


Fig. 19 - Condensate Pan Leak Test

5. If no bubbles have formed at the sprayed locations, Turn the boiler OFF using the ON/OFF service switch at the front of the boiler.
6. Wipe off the remaining fluid.
7. Reconnect the signal harness plug to the blower.
8. Close the front panel.

Starting the Boiler

9. Turn the external manual gas valve handle counterclockwise to “OPEN” gas supply (valve handle shall be parallel to gas piping).
10. Turn the boiler ON using the ON/OFF service switch at the front of the boiler.
11. Set room thermostat(s) to desired setting(s).
12. The appliance control panel display will show the current operating status on the Status Line at the bottom of the screen. “Standby” means there isno call for heat (all thermostats are satisfied). “CH Demand” indicates a space heating call has been received. “DHW Demand” indicates a domestic hot water call has been received. A flame icon will be displayed when the unit is fired.
13. If the unit will not operate:
    - Set the room thermostat to the lowest setting.
    - Turn the service switch on the appliance control panel to “OFF”
    - Turn the external manual gas valve handle clockwise to “CLOSE”.

NOTICE

If ignition problems occur, please contact Triangle Tube Customer Support for assistance.

Checkout Tasks

Combustion Setting

WARNING

Combustion testing and adjustments must be performed by a qualified installer, service agency or the gas supplier. A wrongly adjusted unit can in substantial property damage, serious injury, or death

NOTICE

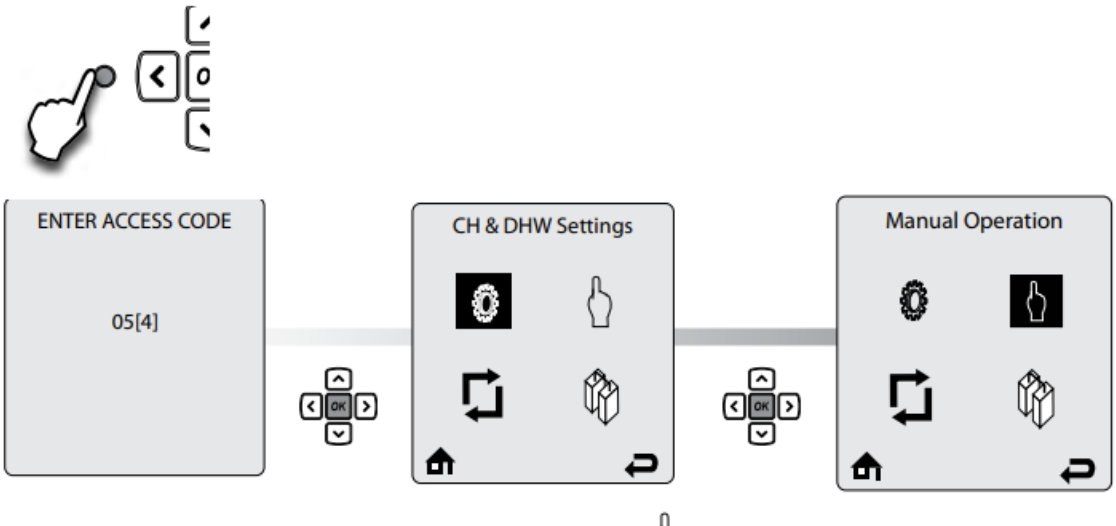
All combustion measurements must be performed with recently calibrated equipment (1 year max.) to ensure proper reading and accuracy.

Required Tools and Material

- Torx T25 screwdriver/4 mm Allen wrench
- Torx T40 screwdriver
- Flat head screwdriver (for PA 299-399 V1 only)
- Calibrated gas analyzer.

Test for O2 (or CO2) and for CO at high firing rate.

1. Remove front panel.
2. Perform the following procedure to manually place the burner into high fire.
3. Press the round INSTALLER button.
4. Enter the installer access code “054” by using the LEFT and RIGHT buttons to select a digit and the UP and DOWN buttons to change the digit. Press the OK button to validate the access code.

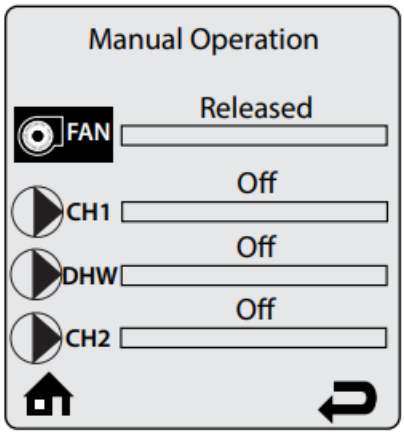


5. Press the RIGHT button to highlight the Manual Operation icon then press the OK button.
6. Press the OK button while the FAN icon is highlighted to manually fire the burner and power the CH circulator(s).

NOTICE

An adequate CH load must be present to dissipate the heat generated during the combustion test. If an adequate CH load is not available, an indirect water heater can be used to dissipate the heat by creating a DHW call which will enable the DHW circulator.

7. Press the RIGHT button to adjust the firing rate from 1% to 100%. Hold down the RIGHT button to rapidly increase the firing rate.



8. Press the OK button while the FAN icon is highlighted to shut down the burner.
9. Compare the results with values in Table 1; they should correspond to the target values.
10. If the combustion levels during high fire (100%) are outside the target values, adjust the THROTTLE SCREW (1):
    - Using the T25 screwdriver/4mm Allen wrench (or flat screwdriver with PA 299-399 V1), rotate the screw by 1/16th of a turn to the left or to the right to increase or decrease the O2 value displayed on the gas analyzer. Refer to Table 2 for the direction of rotation.
    - Wait about 30 seconds for the value to stabilize.
11. Repeat steps 10 until values are satisfactory.

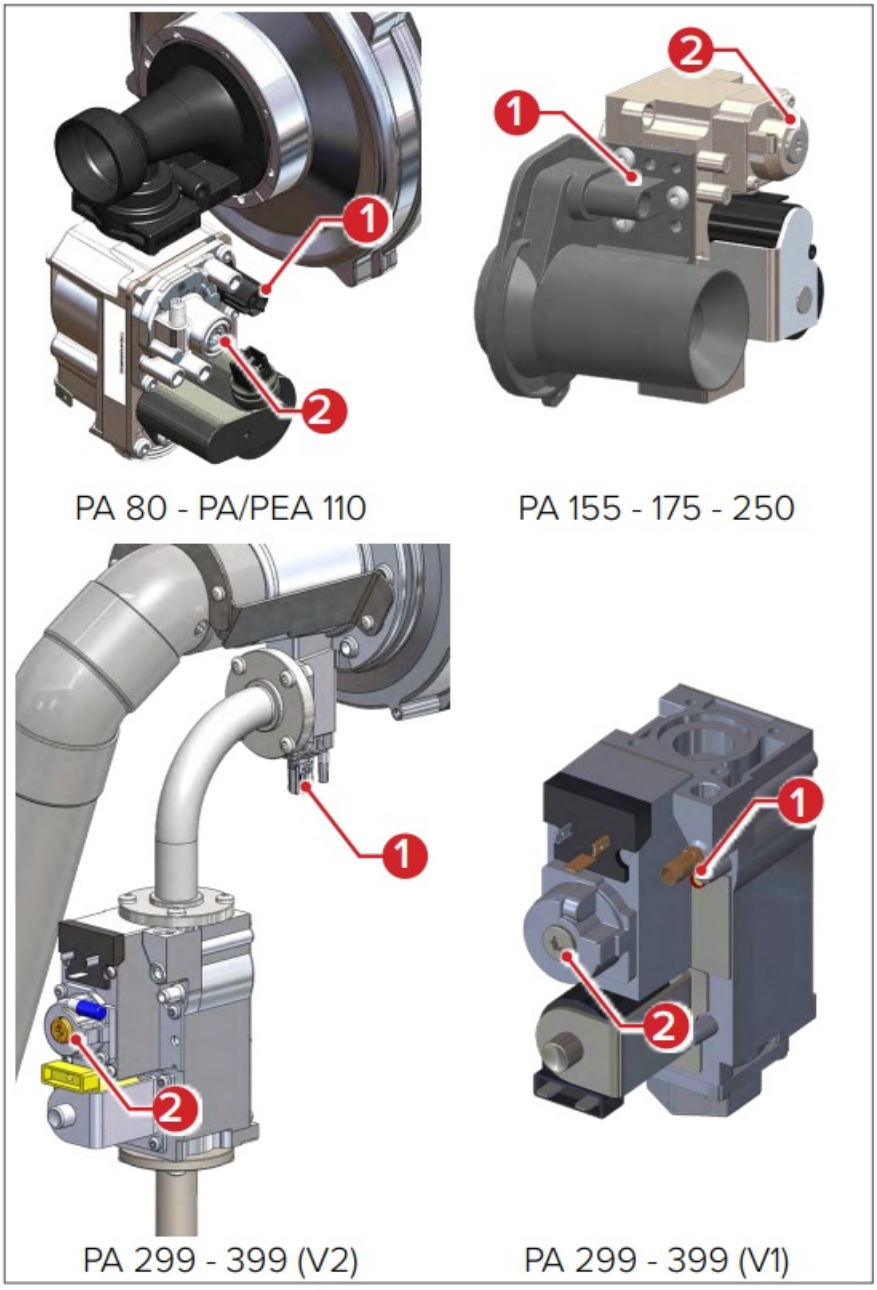


Fig. 20 - Position of Throttle and Offset Screws

Test for O2 (or CO2) and for CO at low firing rate.

1. Once the combustion level is set at high fire (100%), manually place the boiler into low fire (1%) mode by pressing the LEFT button to adjustthe firing rate down.
2. Compare the results with values in Table 1; they should correspond to the target values.
3. If the combustion levels during low fire (1%) are outside the acceptable values, adjust the OFFSETSCREW (2):
   ♦ Using the T40 screwdriver, remove the offset screw cap.
   ♦ Rotate the screw by 1/16th of turn to the left or to the right to increase or decrease the CO2 value displayed on the gas analyzer.
   ♦ Always wait a few seconds for the value to stabilize.
4. Repeat steps 3 until values are satisfactory.
5. Reinstall offset screw cap.
6. Repeat steps 6 to 8 of the test at High Fire to ensure that the values have not changed.

   WARNING

If the combustion levels at low fire (1%) do not reach the target values given for natural gas/ propane in Table 1, shut the boiler down and contact Triangle Tube Technical Support. Failure to comply with this requirement can result in substantial property damage, serious injury, or death.

7. Close the front panel and recheck the combustion values at high and low fire. Make sure that they are still within the range set out in Table 1.

Table 1 - Required Combustion Settings - All Models

	Target values	O_2	CO_2	CO
Natural Gas	High Fire (HF)	4.6%	9.2%	100 ppm
	Low Fire (LF)	5.6%	8.6%	0 ppm
Propane Gas	High Fire (HF)	4.2%	11.0%	150 ppm
	Low Fire (LF)	5.1%	10.4%	0 ppm

Table 2 - Throttle Screw Adjustment

Rotation	PA 80/110/299/399	PA 155/175/250
Clockwise	Increase CO_2 Decrease O_2	Decrease CO_2 Increase O_2
Counter-Clockwise	Decrease CO_2 Increase O_2	Increase CO_2 Decrease O_2

8. Print the gas analyzer report and make a picture, or make pictures of the gas analyzer screens (High and Low fire screens) for later reporting to Triangle Tube.
9. Note the combustion values on the Record Form label.

Verifying the Flame Pattern

1. Open the front panel.
2. Check the flame pattern through the observation port of the heat exchanger.
3. Confirm that the flame is blue and stable.
4. Confirm that the flame is over the length of the burner head

Record and Report

Recording

1. Fill in the Record Form label (Refer to Fig. 21.) with all required information :
    - Fill in all data about the boiler
    - Record the Display (DSP) and Control Module (SW) software version. They are visible at boiler startup when the screen illuminates.
    - Check the boxes corresponding to the task(s)implemented with a date of completion.

- Enter the values obtained during the combustion adjustment procedure.

Labels

1. Affix the Record Form label to the front panel of the boiler

   Make a picture of the filled-in Record Form label.

NOTICE

If no Record Form label is affixed yet to the front\panel of the boiler, fill in the blank label provided with this kit, then affix to the front panel of the boiler. If one is already present and has been filled in by another installer/company, proceed as indicated above and affix next to the first one with your details. If one is already present that you/your company filled in previously, fill in the label present on the front panel with all the relevant information for this repair kit.

NOTICE

Whenever a repair kit from the list is installed, the label should be filled in with whatever information is relevant, and a picture made then sent to Triangle Tube for reporting.

Top Section :

Fill in all information to identify the boiler in its current condition (after installation of this ignition kit) and the details of the person who implemented the change.

Center Section :

Check the box(es) to identify the repair kit(s) applied to the boiler and note the date of completion.

Bottom Section :

Fill in all the values obtained after combustion adjustment requested when installing the kits.

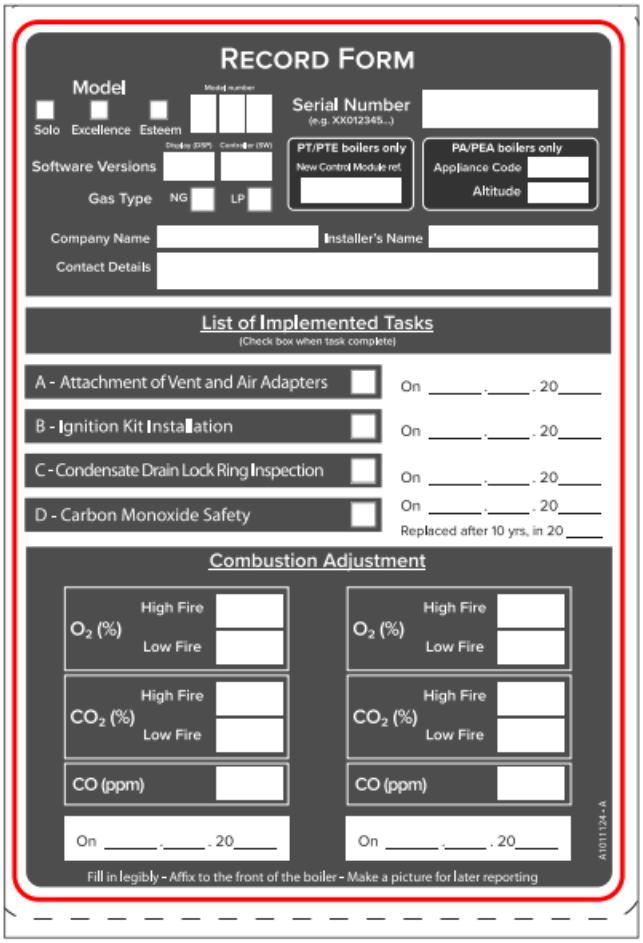


Fig. 21 - Record Form Label

On the rating label of the appliance, cover the “PA” of the Serial Number with the “PB” label providedwith the kit. This will indicate that the boiler has been upgraded with the ignition kit, for future reference(See Fig. 22).

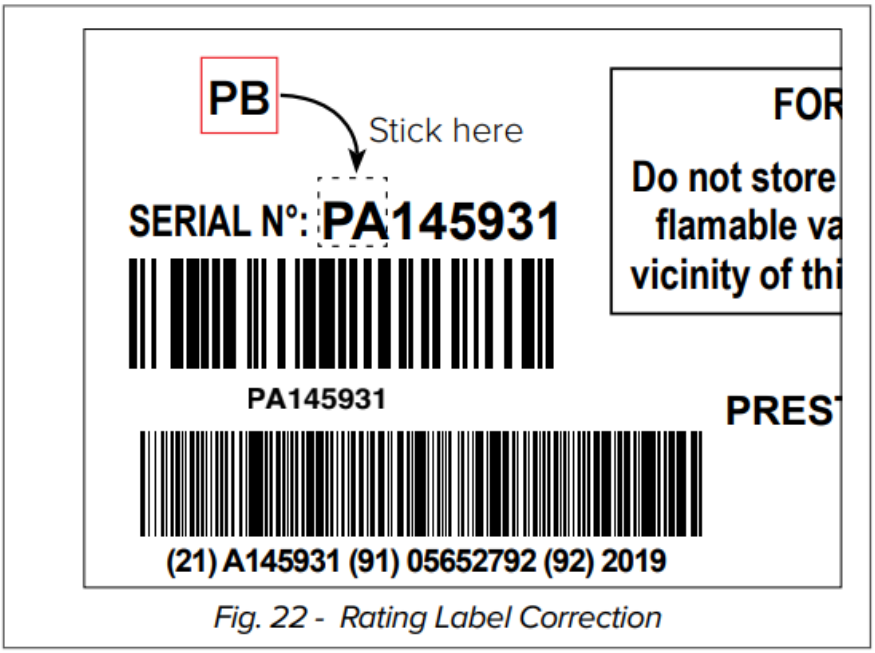


Fig. 22 - Rating Label Correction

Reporting

1. Connect to the portal (**https://r2rportal.triangletube.com**)

2. Login to your account.
3. Open the Dashboard menu (located at the top of the screen) and select the current job.
4. Fill in all requested information and upload the following pictures as evidence where required.

- Picture of the new ignition assembly.
- Picture of the gas analyzer report or screens.
- Picture of the filled in Record Form label.

NOTICE

If you need assistance, you can call Triangle Tube freephone **877-574-5036** 8 a.m. to 5 p.m. ET Monday through Friday or contact by E-Mail at **productrecall@triangletube.com**.

APPLIANCE CODES

Model	NG	LP
Solo 399 V1	B191	B192

FAQ

- **Q: What should I do if I encounter difficulties during installation?**
  - **A:** If you face challenges during installation, please contact a qualified installer, service agency, or gas supplier for assistance.
- **Q: Can I revert the modifications made by installing this kit?**
  - **A:** The modification disables the Alarm Relay function; reverting it may require reconnection of wires and adjustments to controller settings as needed.

Documents / Resources

	Triangle Tube PA Series Spark Ignition Kit [pdf] Installation Guide PA 80, PA 110, PA 155, PA 175, PA 250, PA 299, PA 399, PA Series Spark Ignition Kit, PA Series, Spark Ignition Kit, Ignition Kit, Kit

References

- Triangle Tube
- User Manual