

# Cleaning & Replacing Ignition Group

**Models:** C1210ESC, C1210ES, C1050ES, C950ES, 940ES, 940ESO, 830ES



# BOSCH

## Introduction

- The ignition group consists of two ignition electrodes and one flame sensing rod. These components may need to be cleaned or the entire group replaced if the heater has frequent EC or EA error codes or fails to produce a spark.

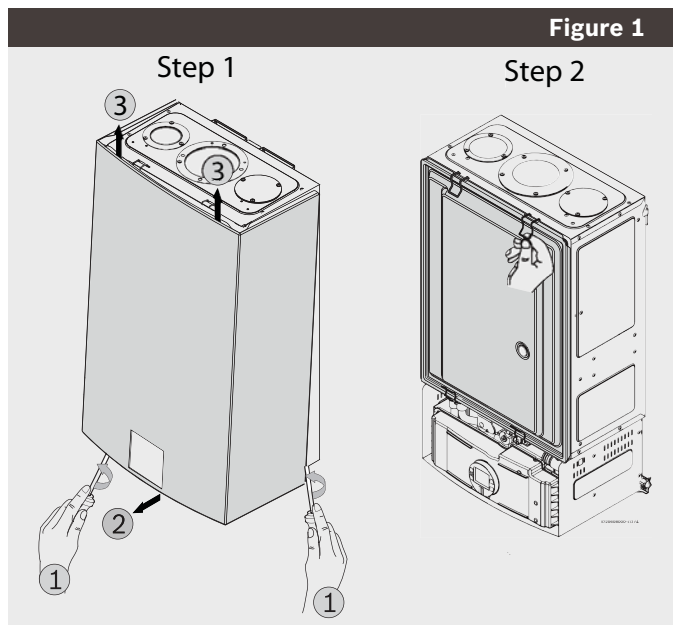
### Tools needed:

- Phillips head screwdriver
- 8mm wrench or small adjustable wrench
- Fine steel wool for cleaning

## Preparation

1. Unplug water heater and turn off gas to heater using installer supplied manual shut off valve.
2. Loosen two Phillips head screws located at bottom rear of cover. (Fig. 1, step 1, pos. 1).
3. Lift front cover upward and remove. (Fig. 1, step 1, pos. 2 & 3)
4. Remove combustion cover by unclipping two upper and two lower clips securing cover. (Fig. 1, step 2)

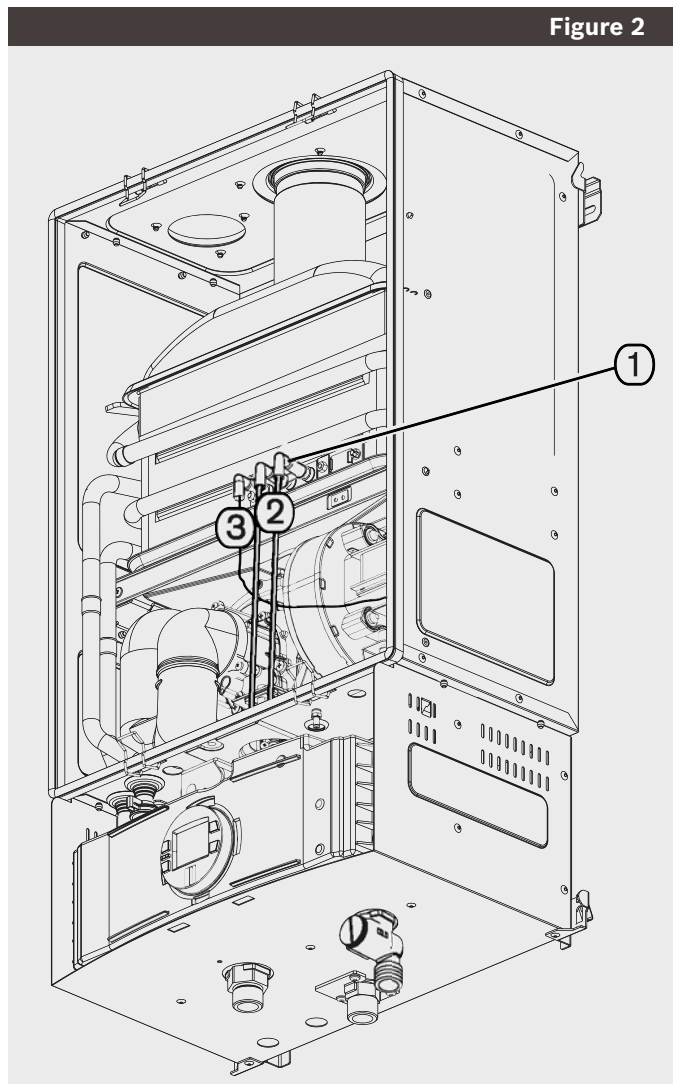
Figure 1



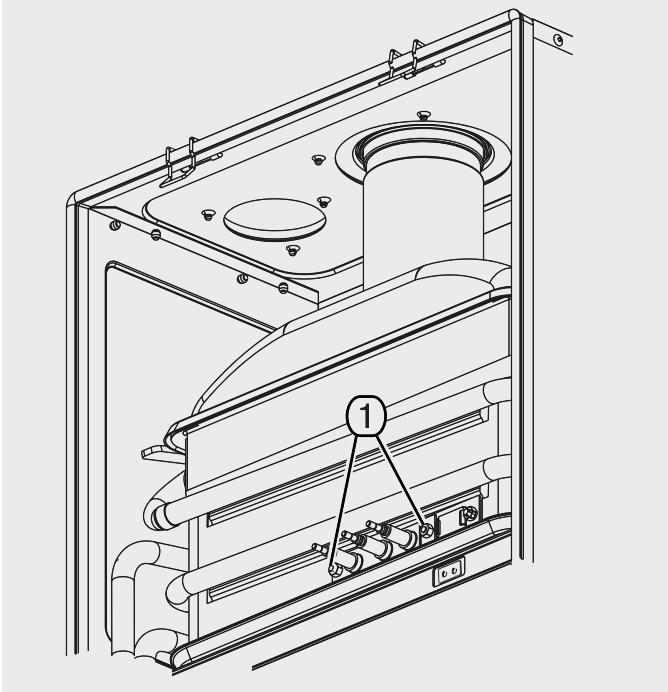
## Removing the ignition group

1. Locate ignition group. (Fig. 2, pos. 1).
2. Disconnect two large yellow ignition wires from ignition group. (Fig. 2, pos. 2)
3. Disconnect small black flame sensor wire from ignition group. (Fig. 2, pos. 3).

Figure 2

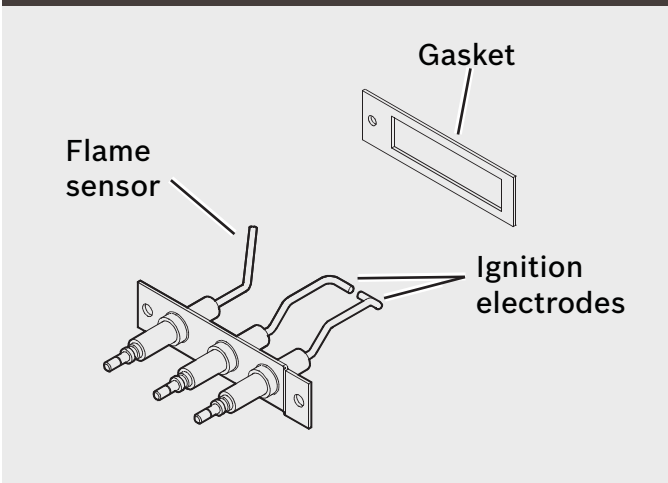


4. Remove two 8mm nuts from ignition group. (Fig. 3, pos. 1).
5. Remove ignition group and gasket from the water heater. Leave the observation window in place.

**Figure 3**

### Cleaning ignition group

1. If the ignition group gasket is discolored or torn, replace with a new gasket. (Fig. 4)
2. Using steel wool, gently polish all metal surfaces of the flame sensor and the ignition electrodes. (Fig. 4)

**Figure 4**

### Replacing ignition group

1. Gently place ignition group gasket over left bolt stud for 8mm nut. The stud will hold the gasket in place. (Fig. 3, pos. 1)
2. Carefully feed tips of ignition group into heat exchanger ensuring that the flame sensor rod is on the far left.
3. Ensure a proper seal between the heat exchanger and ignition group.
4. Replace and tighten two 8mm retaining nuts. (Fig. 3, pos. 1).
5. Reconnect two large ignition wires to the right and center igniter terminals. (Fig. 2, pos. 2).
6. Reconnect small black flame sensor wire to the left terminal. (Fig. 2, pos. 3).
7. Ensure that all three wire connections fit securely on the terminals.
8. Replace combustion cover and front cover. (Fig. 1).
9. Plug in water heater's power cord and press On/Off button to "ON". Reset any error that is displayed.
10. Open manual gas shutoff valve.
11. Return water heater to service.



### WARNING

FAILURE TO PROPERLY SEAL THE IGNITION GROUP WITH GASKET MAY CREATE A HAZARDOUS CONDITION CAUSING SEVERE PERSONAL INJURY OR DEATH.



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