Introduction

- If the heat exchanger has developed a leak, please contact Bosch technical support if you have not already done so.

**NOTE:** For models C800ES, C920ES, C920ESC, the condensing heat exchanger must be removed prior to removing the copper heat exchanger. Model C800ES refer to bulletin G3-21 and models C920ES/ESC refer to bulletin G3-25 for instructions on removing the condensing heat exchanger.

**Tools needed:**
- Phillips head screwdriver
- Adjustable pliers or adjustable wrench

Preparation

**NOTE:** Models C800ES, C920ES, C920ES skip this section

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).

Removing the heat exchanger

**NOTE:** Models C800ES, C920ES, C920ES proceed directly to step 3 once condensing heat exchanger has been removed.

1. Remove venting from exhaust collar. Remove four Phillips screws and remove exhaust collar with gasket from the water heater.
2. Remove overheat sensor/ECO wires from heat exchanger. (Fig. 2, pos. 1). Ensure wires are out of the way for heat exchanger removal and reinstallation.
3. Lift front cover upward and remove. (Fig. 1, step 1, pos. 2 & 3)
4. Remove secondary combustion cover by unclipping two upper and two lower clips securing cover. (Fig. 1, step 2)
5. Close installer supplied inlet isolation or shut off valve and open a hot water tap to release pressure and drain. If water flows continuously from the tap, a plumbing crossover is present and must be corrected.
6. Disconnect inlet and outlet piping to the water heater to facilitate draining. Have a bucket ready to catch water.

**Tools needed:**
- Phillips head screwdriver
- Adjustable pliers or adjustable wrench

**Preparation**

**NOTE:** Models C800ES, C920ES, C920ES skip this section

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).

**Removing the heat exchanger**

**NOTE:** Models C800ES, C920ES, C920ES proceed directly to step 3 once condensing heat exchanger has been removed.

1. Remove venting from exhaust collar. Remove four Phillips screws and remove exhaust collar with gasket from the water heater.
2. Remove overheat sensor/ECO wires from heat exchanger. (Fig. 2, pos. 1). Ensure wires are out of the way for heat exchanger removal and reinstallation.
3. Disconnect two large yellow ignition wires and small black flame sensor wire from ignition group. (Fig. 2, pos. 2).
4. Release clips on hot and cold piping connecting to the heat exchanger. Dripping water is likely. Place a clean rag over the heater’s control unit for protection. (Fig. 2, pos. 3).
5. Release flue gas collector clamp levers (Fig. 2, pos. 4) by lifting up and over towards the rear of the heater. (Fig. 3, pos. 1).
6. Release bottom of clamp lever shafts by pressing them downward towards the rear of the heater and pulling them up through key hole slots in heater chassis. (Fig. 3, pos. 2).
7. The flue gas collector on top of the heat exchanger can now be removed. Please note flue collector shown is for 715ES, 2400ES, and 2700ES only. The C800ES, C920ES/ESC has a different design not shown in figures.
8. Gently lift up on left hand side of heat exchanger to separate piping connections. Dripping water is likely. Protect control unit with clean rag. Tilt top of heat exchanger outwards while pulling lower piping through grommets in heater chassis. (Fig. 3, pos. 3). Remove heat exchanger from water heater.

**Note:** Grommets may come out with heat exchanger when removing. Remove and reinstall them on replacement heat exchanger.

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**Preparing new heat exchanger**

1. Inspect new heat exchanger for signs of shipping damage. Small dents in piping are normal. Call supplier if damage is questionable.
2. Install new o-rings supplied with heat exchanger. (Fig. 4, pos. 1).
3. Set aside new clips provided with replacement heat exchanger for reinstallation. (Fig. 4, pos. 2).
4. Remount grommets on lower heat exchanger piping. (Fig. 4, pos. 3).
5. Check upper and lower gaskets installed on new heat exchanger. (Fig. 4, pos. 4). Ensure proper seating of gaskets as this will seal the combustion chamber and prevent exhaust gases from leaking into the building.

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**Installing new heat exchanger**

1. Feed lower piping for heat exchanger through grommet holes in chassis and gently roll top inwards until seated on burner.
2. Press hot and cold piping from heat exchanger down into pipe connections. Top lip of heat exchanger pipes must be even with top lip of lower piping.
3. Reinstall clips on piping. (Fig. 2, pos. 3). The top (smaller) part of the clip must contact copper pipe and be completely above heat exchanger pipe lip. Improper seals will create water leaks.
4. Push grommets (Fig. 3, pos. 3) into grommet holes in chassis.
5. Ensuring upper and lower gaskets are still in place (Fig. 4, pos. 4), place flue gas collector on top of the heat exchanger.
6. Guide bottoms of clamp shafts into front of keyhole slots. (Fig. 3, pos. 2). Reinstall top clamp levers if they came loose during removal and pull up then forward to tighten.

**Note:** Model C800ES refer back to bulletin G3-21 and models C920ES/ESC refer back to bulletin G3-25 for assembly completion.

7. Reinstall exhaust collar with gasket and reattach vent piping.
8. Reconnect 2 white wires to overheat sensor/ECO (Fig. 2, pos. 1).
9. Reconnect two large yellow igniter wires and small black flame sensor wire (far left) to ignition group. (Fig. 2, pos. 2).
10. Reconnect inlet and outlet piping to bottom of water heater.
11. Slowly open inlet water shutoff valve while checking for leaks. If any leaks are detected, close valve and correct the source of leak before continuing.
12. Plug in power cord and press On/Off button to “ON”.
13. Reinstall combustion and front covers.
14. Open manual gas shutoff valve and return heater to service.