

The Bosch CRC200 (part number 7738111034) is an optional controller that can enhance boiler operation when used with third-party controls to manage all zones. The CRC200 controller is necessary for enabling outdoor temperature reset control; it replaces the discontinued Bosch FW200 controller.

i This guide is intended ONLY for quick start of outdoor reset when used with a third-party zone/thermostat system.

1 Installation

Make all wiring connections before powering up the boiler. Install the CRC200 controller near the boiler using the included base. Do not mount the CRC200 in the living space when a non-Bosch thermostat or zone controller is managing all zones. Manufacturing date code of CRC200 must be 960 (Dec. 2019) or newer.

Control Wiring

The terminal strips vary on wall vs. floor models. Wall boiler terminals are inside the Heatronic control panel; floor terminals are in an electrical box on the rear of the boiler. Refer to figures 1 and 2 below.

- ▶ **Terminals “BB” (BUS1)** are for Bosch accessories only: CRC200, CZM100, CT100
- ▶ **Terminals “2 & 4” (TT2)** are thermostat/zone box dry contacts dry contacts for all third-party controls
- ▶ **Terminals “A & F” (Out Sen3)** are for the Bosch outdoor temp sensor kit (PN 87472071010)

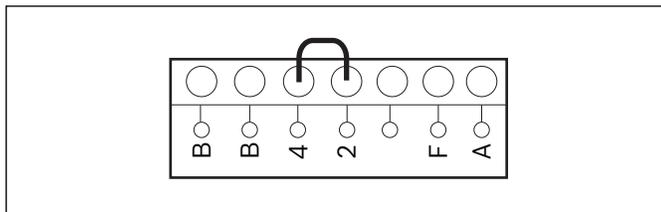


Figure 1 Greenstar Wall Boiler

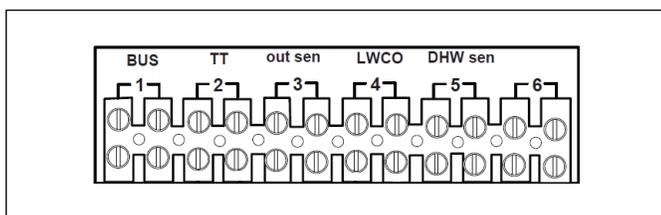


Figure 2 Greenstar Floor Boiler

1. Connect the CRC200 to terminals “BB” on the wall boiler (BUS1 on the floor boiler) using 18-2 wire, not longer than 100 ft.
2. Remove the jumper from terminals 2 & 4 (TT2) and connect the third-party thermostat or zone controller here. Note: The Greenstar will not run if the jumper is removed and nothing is connected to 2 & 4 (TT2). Terminals 2 & 4 (TT2) take priority over “BB” (BUS1), but they work together to manage the boiler & zones when using outdoor reset.
3. Connect the outdoor temperature sensor to “A & F” (Out Sen3) on the boiler.
4. Open the temp sensor housing using a screwdriver; pry gently to avoid damage. Once wired, install it on the north wall of the building, away from all heat sources & sunlight. The temp sensor must be connected to the boiler or the CRC200 will not display the outdoor reset menu during setup.

Configuring the CRC200

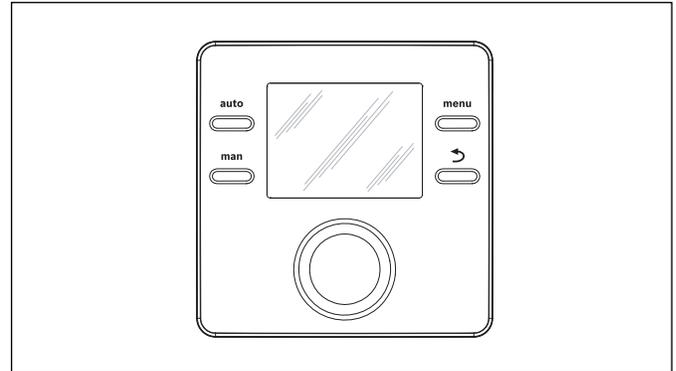


Figure 3

i Press the “back” button  to redo the last step or last data entry if needed).

1. Language selection appears. English (EN) starts flashing. Press the dial to confirm, or rotate the dial to the desired language and press to confirm. If the CRC was already programmed, skip to step 14.
2. Date appears. Turn the dial to set month/day/year, and press dial to accept each field.
3. Time appears. Turn the dial to set the time (hours/minutes) and then press the dial to proceed.
4. Heating zone (HC) assignment appears. Press the dial to confirm the setting of “HC1”.
5. Auto Config. appears. Turn the dial and select “Yes”. Wait a few seconds while the CRC200 searches for connected devices. The menu will automatically move to “DHW” menu when configuration is finished (or directly to LLH menu if it is a combi boiler).
6. DHW appears (for heat-only boilers; DHW is not displayed on combi models). Turn dial & select the right choice for your system (Yes, pr. pump, 3-way valve, no DHW).
7. LLH appears. Select “Yes on Mod.” for the included supply temp sensor, or “No” if no sensor exists.
8. Recirculation appears. Select “No”.
9. Heat system appears. Select “low temp” for in-floor radiant, “high temp” for radiators or baseboards.
10. Design temp appears. The defaults shown in the chart below are 113°F for low temp and 167°F for high temp systems. Adjust the set points as needed for your specific application. You will set the correct outside temp for your region later in this quick-start guide.

CRC Defaults	Low Temp.	High Temp.
Outside temperature	14 °F	14 °F
Design temperature	113 °F	167 °F
Max. supply temperature	118 °F	167 °F

Table 1

11. Max supply temp appears. Defaults are in the chart above. Set for the maximum heating temperature of the boiler. This setting does NOT reduce DHW output for a combi boiler or indirect tank.
12. Frost protect appears. Set to “by room” to prevent system freezing; the boiler will run automatically when indoor air temp falls below a default temp of 41°F.
13. Heating start appears. Select “Yes” and press the dial, and the main menu appears.

The CRC200 can also be used with other Bosch NSC controls (CZM100, CRC100) to manage up to 8 zones without the need for third-party controls. The CRC200 can be used as a programmable room thermostat in a single zone home; it can perform simple or optimized outdoor reset, indoor reset, or a combination of indoor and outdoor reset if desired. It will display fault and system messages from the boiler. Contact your distributor or Bosch for more details.

Configuring Outdoor Temp Reset

1. Activate the hidden service menu by pressing the “Menu” button for 3 seconds; then press the dial to confirm entering the service menu.
2. Turn the dial to select “system data” and then press dial to confirm.
3. Heating zone (HC) assignment appears. Turn the dial to get to “Control type” & press dial to confirm.
4. Select “External simple” and press dial. This is the default outdoor reset program built into the controller.
5. Turn the dial & scroll past a few other menu items to select “Min Outside temp”; press the dial to confirm.
6. Turn the dial & press to set the outdoor design temp for your area; see chart below (or look up temps online for your coldest average city temperature).

Cities	Design Temp.
Seattle/Portland	20 °F
Boston/New York/Washington	0 °F
St. Louis/Kansas City	0 °F
Chicago/Detroit/Buffalo/Montreal	-9 °F
Denver/Salt Lake City	-15 °F
Minneapolis/Fargo/Green Bay	-20 °F

Table 2

7. Press the dial to confirm the setting.
8. Press the “back” button  three times to exit setup.
9. Turn the dial to 70°F and press “Manual” mode; do not leave it in “Auto” mode. The CRC200 uses 70°F indoor temp as a default for outdoor reset, even when not used as a thermostat in conditioned space

The CRC200 will now control outdoor temp reset. The third-party thermostats and zone controllers on terminals “2 & 4” (TT2) will control the zone(s). The CRC200 configuration is complete.