# **Technical Service Bulletin:**

# **RS to ZS Sensor Replacement Procedure**

Current Models: LV/EP/ES/LM/LM Splits/CA/EC/MC
Legacy Models: AP/AU/EV/GT/EM/GS/CW/ES Single Stage/EC ½ Ton to 6 Ton/ES Splits/
GT Splits/EC Splits/EM Splits/LV Splits





### **WARNING:**

 Improper servicing could result in dangerous operation, injury or property damage. The operations described below must be performed by qualified personnel.

#### NOTICE:

 Do not directly touch the components on the main board to avoid static electricity damage.

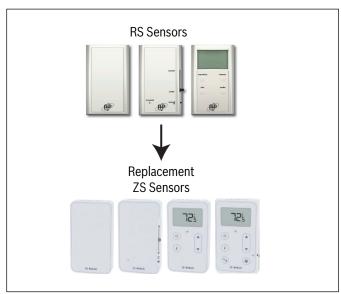


Figure 1

# **Sensor Replacement Procedure**

- Power off the CA5600/CA5830/CA6120 controller.
- Remove the RS sensor/s module from the wall and separate from the backplate by lifting the wiring harness. Do not remove the individual wires from the housing yet.

## NOTICE:

 Use a screw driver instead of an electric screw driver/drill or damage may occur.

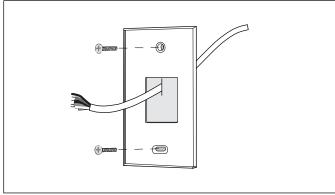


Figure 2 Back Plate

- 3. Unscrew the back plate screws and remove the backplate from the wall.
- 4. Install the new ZS sensor backplate and screw in to the wall using the provided screws.
- 5. Separate the wire housing from the ZS sensor module.
- Unscrew one wire at a time from the RS sensor wire housing and screw in to the corresponding location on the new ZS sensor wire housing. For more information on wiring the ZS sensor, please refer to this document online: <a href="https://www.bosch-climate.us/files/ZS\_Series\_Zone\_Sensors\_R1\_IOM\_02.2018\_US.pdf">https://www.bosch-climate.us/files/ZS\_Series\_Zone\_Sensors\_R1\_IOM\_02.2018\_US.pdf</a>
- Once all 4 wires have been swapped, set the dip switch address (refer to next section 'Addressing Sensors') on the ZS sensor module. Now connect to ZS sensor module and attach to backplate.
- If more than one sensor is connected to the controller repeat the above procedure for each.
- 9. Power on the CA5600/CA5830/CA6120 controller.
- To download the provided software (.clipping) from BOSCH technical support onto the controller, please refer to the AppLoader 6.5 Instruction Manual online: <a href="https://www.bosch-climate.us/files/AppLoader\_6.5\_">https://www.bosch-climate.us/files/AppLoader\_6.5\_</a> IOM\_03.2020\_US.pdf

## **Addressing Sensors**

When multiple ZS Series Zone Sensors (up to 5 max) are connected to the DDC controller, each sensor on the Rnet must have a unique address associated with it, and the addresses have to be sequential. If the sensors are not addressed sequentially the DDC Controller reads any gaps as faulty sensors and a sensor wiring alarm is generated.

The DIP switches located at the back of the sensor (next to the Rnet connector block) may be used to set an address from 1 to 5 (the factory default address for all Bosch branded ZS Series sensors is "1").

There are four (4) DIP switches (numbered 1 through 4) used to address the ZS Series sensors. Each DIP switch has a value assigned to it for addressing the sensors as shown in the table

DIP Switch Number	DIP Switch Value
1	1
2	2
3	4
4	8

Table 1

Turn on as many DIP switches as needed so that their total value equals the required address. In the example shown in Figure 3, DIP switches #1 and #4 are ON (to the right position). Their values (1 + 8) total 9, so the sensor's address is 9.

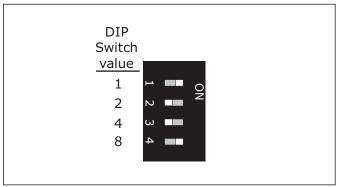


Figure 3



While the DIP switches may be used to address the sensor for any value from 0 to 14, the DDC Control Air 5600, 5830, and 6120 controllers ONLY recognize values from 1 to 5, and any other address will result in the sensor(s) not functioning properly.



Bosch Thermotechnology Corp. 65 Grove Street Watertown, MA 02472

Tel: 1-866-642-3198 Fax: 1-954-776-5529 www.bosch-thermotechnology.us