WT830 and ZN020 Wireless Zone Thermostat

Instruction Manual

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

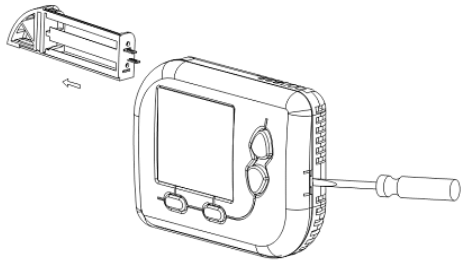
Room Sensor unit installation

Installation Location

The room sensor should be mounted on an inner wall ~1.5m above the floor in a position where it is readily affected by changes of the general room temperature with freely circulating air.

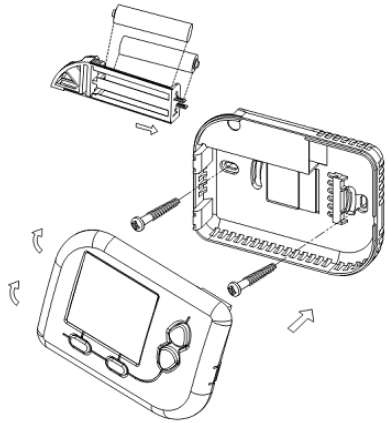
Opening the Cover

Pull out the battery drawer and use a screwdriver to press on the spot shown below in order to detach the front shell from its base as shown in the below Figure.



Mounting

Ensure that the surface is level.
Drilling 2 holes at wall and fix the wall anchor.
Fasten the thermostat with 2 pcs of long screws through the 2 mounting holes.



Insert two fresh AAA alkaline batteries into the drawer according to the polarity marked inside, then slide the drawer back into the place as shown in the above Figure.

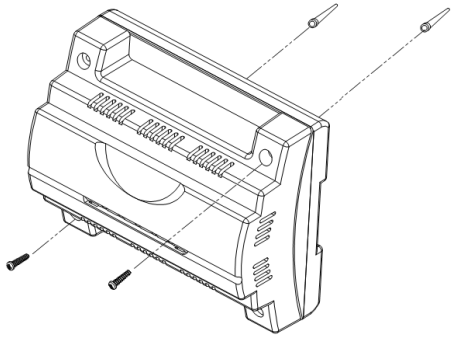
If there are any display or functional errors, please remove the batteries for about 30 sec to reset the thermostat.

Zone output unit installation

Mounting

ZN020 can be mounted on Din rail or mounted on wall directly

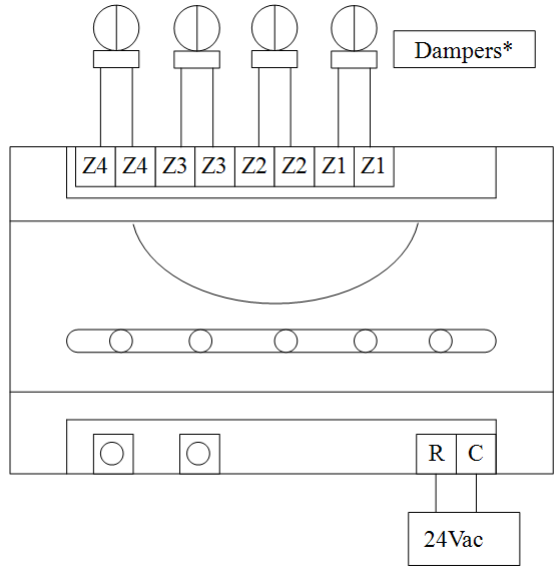
Drilling 2 holes at wall and fix the wall anchor.
Fasten the Zone output unit with 2 pcs screws at top housing.



Wiring connection

Wiring power and device according to the label

R	**24Vac input**
C	**24Vac common input**
Z1	**Zone 1 dry contact**
Z2	**Zone 2 dry contact**
Z3	**Zone 3 dry contact**
Z4	**Zone 4 dry contact**



All damper outputs are dry contact

Add Room sensor to Zone output unit

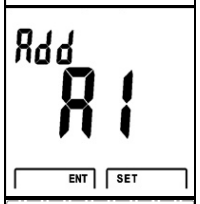
1. Use dip switch to select system option

Pole	Selection
1	RF channel address 1
2	RF channel address 2
3	RF channel address 3
4	RF channel address 4
5	Reserved
6	Reserved

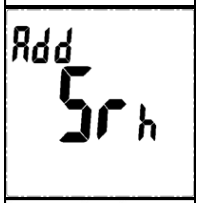
2. Select any combination of RF channel from pole 1st to 4th
3. Power up ZN020 with 24Vac
4. Press and hold <SW1> button to enter add/drop mode Release button until all LED flashing
5. Power up Room sensor unit, the room sensor should be not added or finished dropping.

6. Room sensor display “no C” when it is not connected

7. Press Up /Down to select Zone area 1 to Zone area 4
   Please select Area 1 for the first adding.



8. Press SET to confirm, room unit will search the Zone output unit

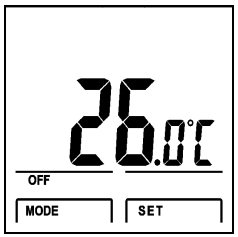


9. LCD shows “done” and the zone area, press Next for initial internal setting.

10. Repeat step 4 to 9 for other Room unit

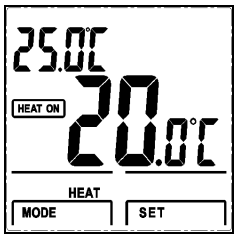
On/ Off mode

User can press <MODE> key to select OFF or ON mode



OFF mode:
Zone damper will be off and Room unit only display room temperature, set point cannot be changed in this mode

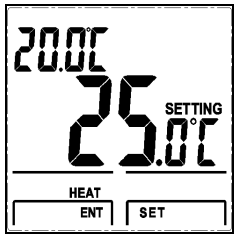
On mode:
HEAT will be activated, this is based on the operation mode setting in Area 1 room unit



Room unit display the set point value at the top left corner

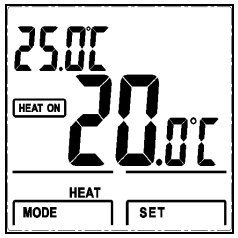
User can press up/down to change set point.

When user enter setting mode, room unit display SETTING icon. The top left corner value will be room temperature.



Press <SET> key to confirm the changes and back to normal page

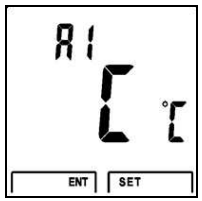
Press<ENT> key back to normal page without changing set point



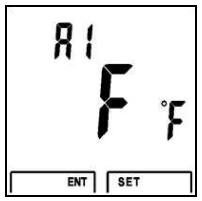
Internal Setting

Hold <SET> Key to enter internal setting mode

Press <Up/Down> to select C scale of F scale

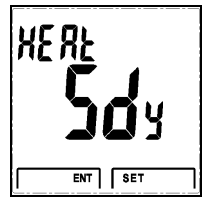


Press <SET> to confirm



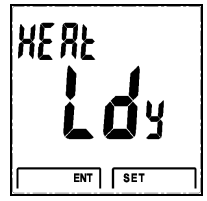
Press Up/Down to select heater delay time.

Sdy: 10 seconds
Ldy: 3 minutes



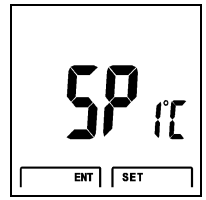
If selected Ldy and heater is off, damper output cannot be turned on within 3 minutes.

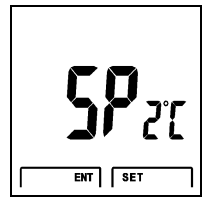
Press SET to confirm



Press Up/Down to select the span 1°C(2°F) or 2°C(4°F)

Press SET to confirm and back to normal mode





Drop Room sensor from Zone output unit

1. Press and hold SW1 button to enter add/drop mode
   Release button until all LED flashing

2. Press<MODE> and <SET> key to enter drop mode

3. Press <SET> to confirm

   Press<ENT> to cancel and exit drop mode

4. Room unit display “done” and “no c” after finish the dropping

5. Press “Next”, the room unit is ready for adding

Specification:

Room unit sensor	
Input Voltage:	3Vdc, 2* 1.5V AAA alkaline batteries
Transmit Frequency:	918-924MHz
Operating Temperature:	32 – 122 °F / 0 – 50 °C
Storage Temperature:	23 – 140 °F / -5 – 60 °C
Operating Humidity:	5-95% RH non-condensing
Temperature Accuracy:	+/- 1 °F / 0.5 °C
Zone output unit:	
Input Voltage:	24Vac +/- 20%
Relay Contact Voltage:	24 Vac +/-20%
Rated Current:	24Vac,1A (each output)
Terminals:	18-24AWG
Transmit Frequency:	918-924MHz
Operating Temperature:	32 – 122 °F / 0 – 50 °C
Storage Temperature:	23 – 140 °F / -5 – 60 °C
Operating Humidity:	5-95% RH non-condensing