User Guide

THS04 wall thermostat

RT-SVU010B-GB

1. Wiring

Please refer to wiring diagram for details

a. Bus

Communication between CH536 and THS04 is done by Modbus on RS485.

On CH536 a bus is dedicated to that communication: J9 FBus1

This is based on three wires: plus ; minus ; reference (circle)

Vout is not used. (cf Figure.1)

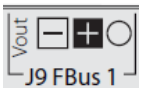

Figure 1

On THS04, those three signals are: Rx+/Tx+ ; Rx-/Tx- ; GND (cf Figure.2)

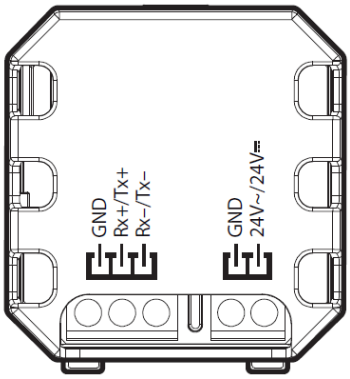

Figure 2

b. Power supply

In addition to communication signals, THS04 requires power supply.

X201 to be connected to GND of THS04

X200 to be connected to 24V~ of THS04

2. Display

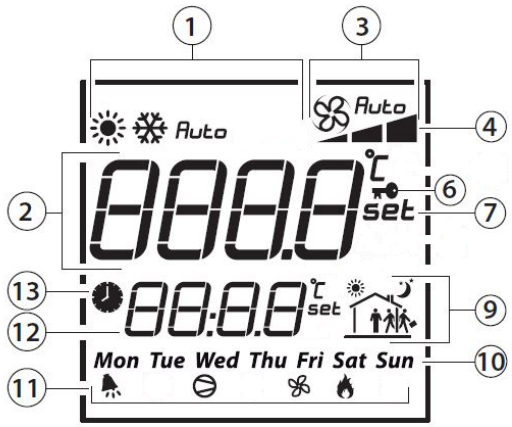

Figure 3

Display is splitted in different areas, providing information about:

1. Unit mode (Heat, Cool, Auto). We can have combination of symbols Auto+Cool or Auto+Heat indicating the actual running status

2. Zone Temperature

3. Fan mode (On, Auto).

4. Fan speed (min, intermediate, nominal)

6. Key on: logged as user

7. Set on: modification of temperature setpoint (will be taken in account when Set switches off)

9. Occupancy of current Timeband (scheduler)

10. Current day

11. Unit status: Alarm, Compressors On/Off, Indoor Fans On/Off, Auxiliary Heating On/Off

12. “hh:mm” (time) if unit is in local control.

“BAS” if unit is controlled by BAS.

“Off” if unit is switched off

13. Occupancy override

1. Control

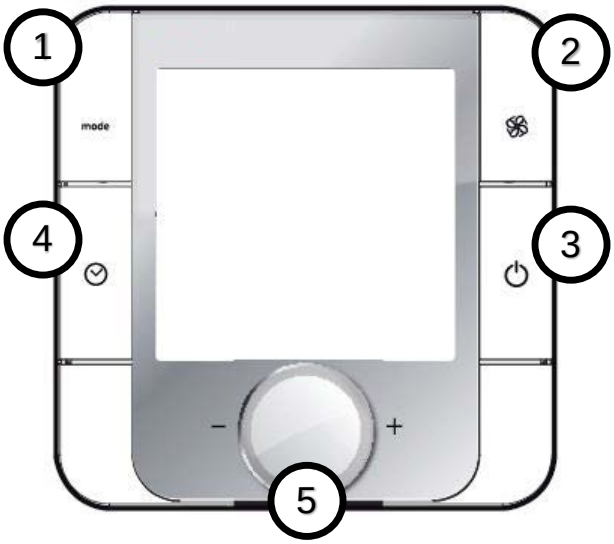

Figure 4

Four main buttons on THS04 are available (cf Figure.3)

1 - Mode button: Simple push to switch the unit mode (AUTO/COOL/HEAT) **when unit is OFF**

2 - Fan button: Simple push to switch the fan mode (AUTO/ON) **when unit is OFF**

3 - Power button: 3 seconds push to stop/start the unit

4 - Clock button: Simple push to switch occupancy (fresh air management) (Occupied/Unoccupied) **when unit is ON.** In case of scheduler enabled, the simple push switch the unit fresh air occupancy mode temporary during override timer.

5 - Push&Rotate button: menu navigation and temperature setpoint change. In case of scheduler enabled, the setpoint change switch the unit Heating / Cooling zone temperatrure setpoint during override timer.

2. Menu Navigation

Navigation through menus is done by the “push & rotate” button (button 5 on Figure 3).

The way to use that button is: rotate to modify a setpoint or a value, then wait 3s for that setpoint or value to be automatically registered. The symbol “Set” disappears.

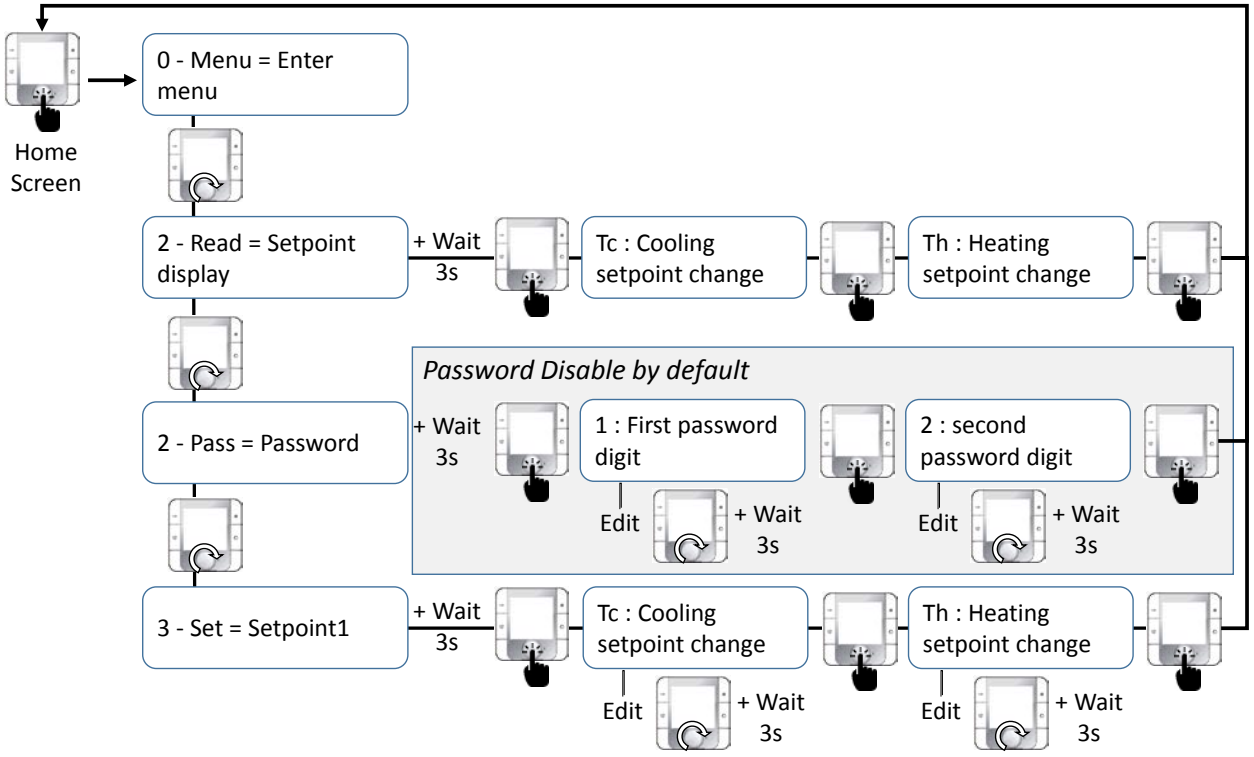

Figure 5

3. Protect setpoints and mode modification by password

The THS04 factory default level is set in PGD1 setting : THS04 – Acces Level = Disable

It means a that there is no need of password to change unit and fan mode or edit setpoint and occupancy state.

However, it is possible to enable the password by changing setting in PGD1 : Setting-THS04 : Access Level ➔ Enable.

When activated, the password has to be entered on the THS04 under Menu 2 (See Figure 5).

4. Local Unit shutdown, Local fan and operation mode change

The THS04 is able to switched OFF⇔ON unit by pressing during 3seconds the ON/Off button (button 3 Figure4)

Fan mode can be switched AUTO ⇔ ON by pressing during 3seconds the Fan button (button 2 Figure4).

Unit mode can be switched AUTO ⇔COOL ⇔HEAT by pressing during 3seconds the Mode button (button 1 Figure4)

Important: Fan mode or Unit mode switch can only be performed after switching the unit in OFF (pressing during 3seconds the ON/Off button)

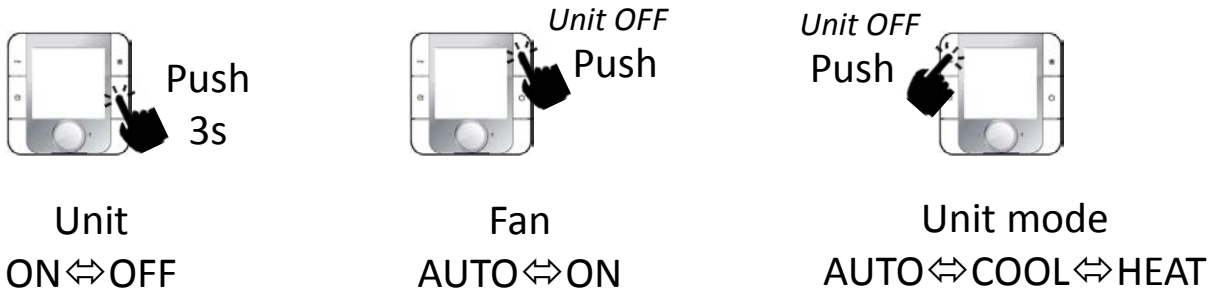

Figure 6

5. Occupancy mode change

When Time/Day scheduler is activated under PGD1, it is possible to temporary override scheduler occupancy mode with THS04.

THS04 Occupancy override will switch unit to occupied state if scheduler active time band has set it in unoccupied and vice-versa.

When Time/Day scheduler is not activated, the THS04 Occupancy override will switch temporary unit from unoccupied to occupied.

To override minimum fresh air occupancy mode, a simple push on button 4 (Figure. 4) will move the state of the unit from unoccupied to occupied. THS04 displays active occupied / unoccupied minimum fresh air state with the logo of figure 7

Figure 7

Occupied mode override will remain active until override timer expires. It is possible to edit the override timer under PGD1: Setting-THS04 : Occupancy Override timer ➔ 60 minutes (default value).

If Occupancy Override timer value is set at zero. It will disable the timer function and let unit fresh air occupancy state unchanged if no other actions are performed on button 4.

6. Active temperature setpoint override command

It is possible with THS04 to override the active temperature setpoint by an offset of +/- 2°C. Turning the button 5 (Figure.4) will offset the active setpoint (Cooling or Heating depending of current mode of unit).

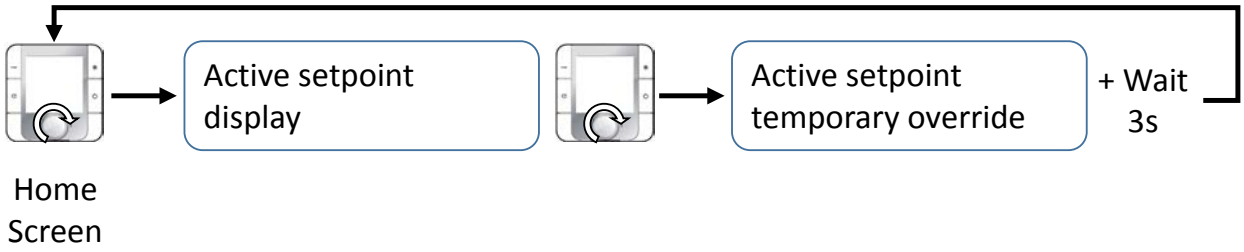

Figure 8

The temperature setpoint override command will remain active until Occupancy override timer expires. It is possible to edit the override timer under PGD1: Setting-THS04: Occupancy Override timer ➔ 60 minutes (default value). If Occupancy Override timer value is set at zero, it will disable the timer function and let modified setpoint unchanged if no other actions are performed on button 5 (Figure 4).

Note : The amount of offset applied to the active setpoint is also applied to the opposite mode setpoint. For instance, an offset of +1.5K on Heating setpoint (Active Heating setpoint 20°C→ 21.5°C) will move the cooling setpoint with the same magnitude (Active Cooling setpoint 24°C→ 25.5°C)

7. Real time clock adjustment

It is possible to adjust the controller time and date under PGD1: Setting- Clock and password: Time and Date settings.

Version History

- Oct-2017: Simplify default level and remove password to change mode, occupancy and setpoint . Implementation started with CH536 release 1.52.

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RT-SVU010B-GB_1217
supersedes RLC-SVU010A_1116