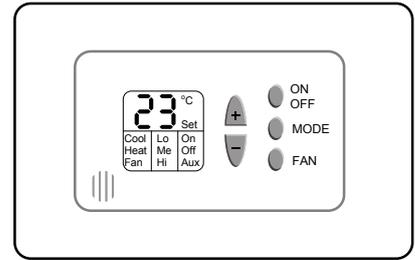


Installation

The FMH220 is designed for flush mounting in the room to be controlled. It should be located where the occupant can easily read the LCD display and use the controls. If the built in temperature sensor is being used to measure room temperature, the module should be placed where the temperature is representative of the general room conditions. Cold or warm air draughts; radiant heat and direct sunlight should be avoided.

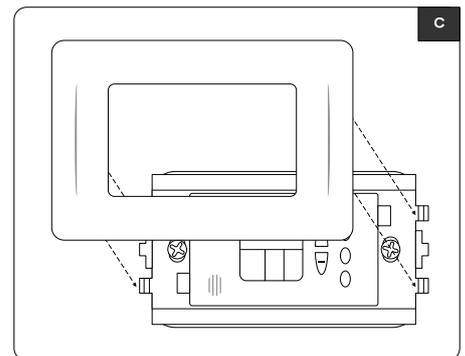
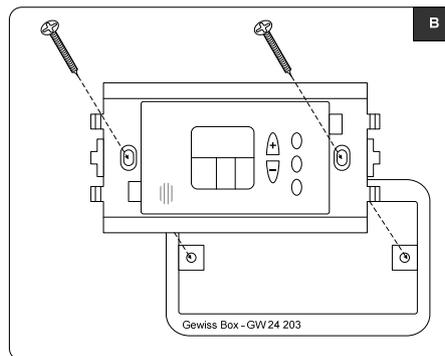
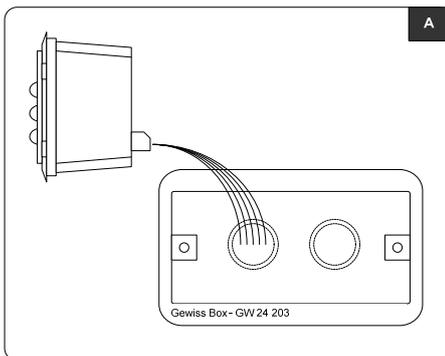


General points to follow:

- Disconnect power to the main board before installing the unit.
- The unit **MUST** be fitted into a standard electrical box (Gewiss Box - GW 24 203)
- The unit should not be installed on an outside wall or where there is an air draft.
- The unit must not be exposed to a direct sunlight.
- The standard height to install this unit is 1.5 meter (5 feet) from the floor.

Installation procedure:

- Connect the wires as shown in the enclosed wiring diagram. All terminals on accept 1x0.5 mm² /24 AWG.
- Place the thermostat in the electrical box and tighten up the 2 screws (Gewiss Box - GW 24 203).
- Adapt the front frame-panel into its place, by pushing it towards the wall.



File: FMHC220-FC-MDB03_reLo(8 pages).vsd

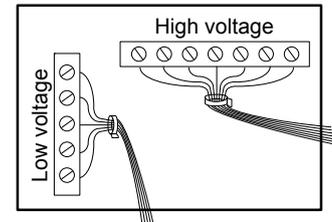
Wiring

Before connecting or disconnecting any wires, ensure that all power supplies have been switched off and all wires are potential-free to prevent equipment damage and avoid electrical shock.

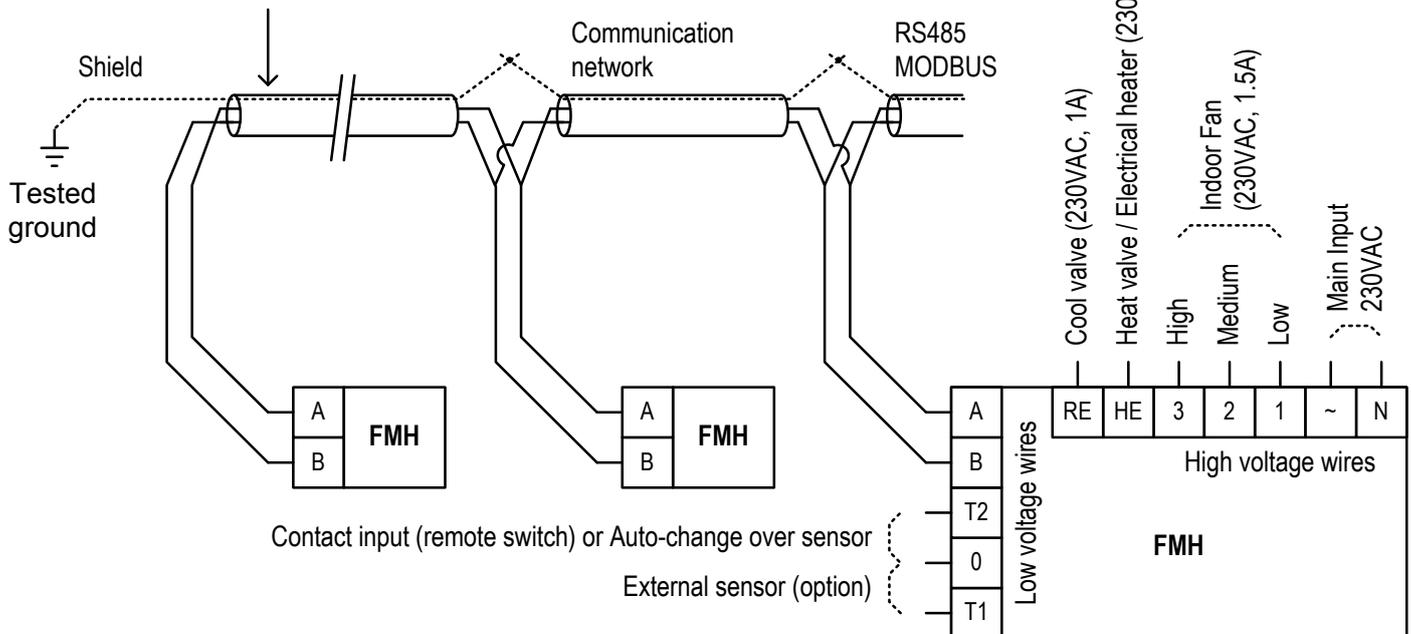
Do not run wiring close to transformers or high frequency generating equipment. Complete and verify all wiring connections before applying power to the controller to which the module is connected.

Do not run communication cables in the same conduit of high voltage (230VAC) electrical cables and if you cross an electrical cable, cross at a 90° angle. Mixing high and low voltage lines may cause serious communication problems.

In order to prevent any potential contact between high and low voltage wires, group the high voltage wires (RE, HE, 3, 2, 1, ~, N) together using a non-conductive cable clamp, as close as possible to the thermostat, and repeat the procedure on the low voltage wires (A, B, 0, T1, T2).

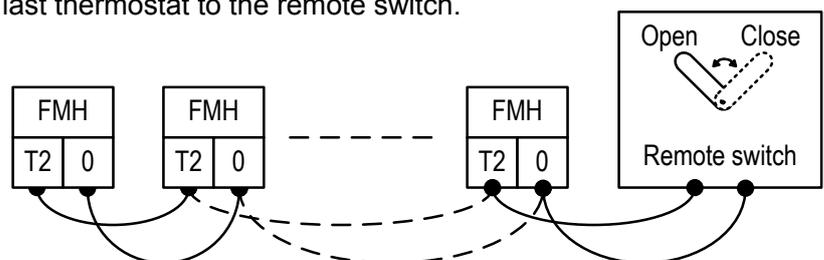


Twisted shielded pair cable
(SFTP 120Ω@1MHz), 22AWG
Connect the shield to ground at one end
of communication line



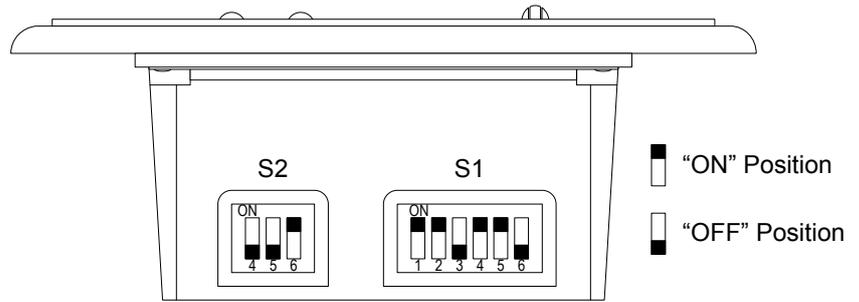
Installation of remote switch (option)

- Connect the "T2" and the "0" terminals of the thermostats as shown in the illustration below.
- Connect the "T2" and "0" terminals of the last thermostat to the remote switch.



DIP Switch Configuration

The DIP Switches are located on the top of the back side of the thermostat.



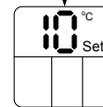
IMPORTANT: Disconnect power to the unit before changing the configuration of the DIP switches.

Switch	"ON" Position	"OFF" Position	Default
S1.1	Auto-Change Over Sensor	Contact Input (Remote switch)	ON
S1.2	4-Pipe system	2-Pipe system	ON
S1.3	1 Fan speed	3 Fan speeds	OFF
S1.4	With auto change over mode	Without auto change over mode	ON
S1.5	Set-point and Room temp. display	Set-point temp. display only	ON
S1.6	Always Auto fan	Auto fan selectable	OFF
S2.4	External sensor	Internal sensor	OFF
S2.5	External sensor	Internal sensor	OFF
S2.6	Internal sensor	External sensor	ON

Technician Settings (Temp. limits, Lock, Offset, "0", "T2" output, Beeper, MAC Address)

- Adjust the set point temperature to **10°C**. Wait until display stops flashing.
- Press and hold the [MODE] button (10 sec.) to **enter technician settings**.
- Use the [MODE] button to switch between different configurable parameters.
- Use the [+] and [-] buttons to make adjustments or switch between options.

Default



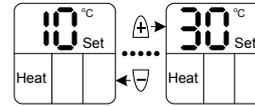
MODE (Press and hold)

Set point temperature limit for heating

Indication: "Heat" and the set point temperature limit for heating.

Range: 10...30°C, default 30°C.

Note: When the set-point adjusted is higher than the limit, "Aux" will appear on display.



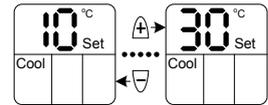
MODE

Set point temperature limit for cooling

Indication: "Cool" and the set point temperature limit for cooling.

Range: 10...30°C, default 10°C.

Note: When the set-point adjusted is lower than the limit, "Aux" will appear on display.



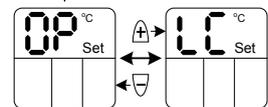
MODE

Lock the [MODE] and [FAN] buttons

Indication: "OP" - Unlock (default)

"LC" - Lock

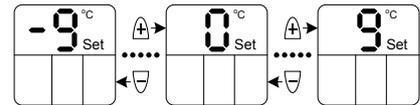
Note: When a locked button is pressed, "LC" appears on display.



MODE

Offset for calibration of measured temperature

Range: (-9)...(+9)°C, default 0°C.

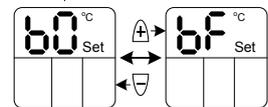


MODE

"0", "T2" input Enabled / Disabled

Indication: "bO" - Enabled (default)

"bF" - Disabled



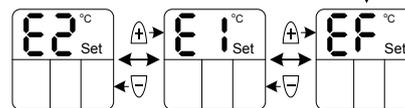
MODE

"0", "T2" output functionality

Indication: "EF" - Change over sensor (default),

"E1" - Remote switch (Off),

"E2" - Switch to EC Set point and Fan low

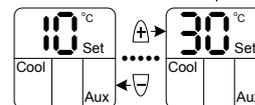


MODE

Set point temperature limit for cooling in Economy mode

Indication: "Cool", "Aux" and the set point temperature limit for cooling in economy mode.

Range: 10...30°C, default 30°C.

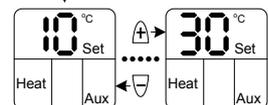


MODE

Set point temperature limit for heating in Economy mode

Indication: "Heat", "Aux" and the set point temperature limit for heating in economy mode.

Range: 10...30°C, default 10°C.

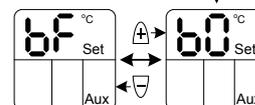


MODE

Beeper On or Off

Indication: "bF" - Beeper Off

"bO" - Beeper On (default)

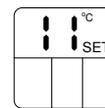


MODE

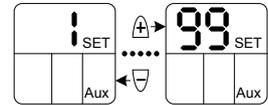
Technician Settings (MAC Address)

- Adjust the set point temperature to **11°C**. Wait until display stops flashing.
- Press and hold the [MODE] button (10 sec.) to **enter MAC Address settings**.
- Use the [+] and [-] buttons to change the MAC Address.

Default



MODE (Press and hold)



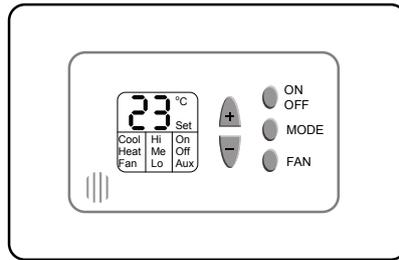
MODE

MAC Address

Indication: The MAC Address, "SET and "Aux"

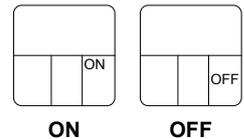
Range: 1...99

Operating instructions



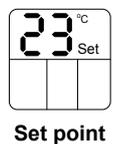
On/Off

- Press the [ON-OFF] button to turn the thermostat ON or OFF. "ON" or "OFF" will appear on display.



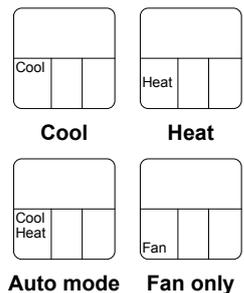
Set point

- Press the [+] or [-] button – "Set" and the set point temperature will appear on display.
- Adjust using the [+] and [-] buttons.



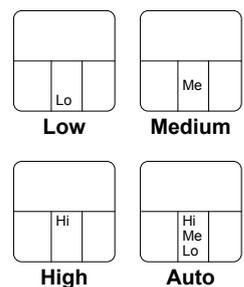
Modes

- Press the [MODE] button to switch between modes:
 - "Cool"..... Cooling
 - "Heat"..... Heating
 - "Cool" & "Heat"..... *Auto mode
 - "Fan"..... Fan only
- * The Auto mode can be disabled by technician.
- * The active mode will flash during demand for cooling or heating.



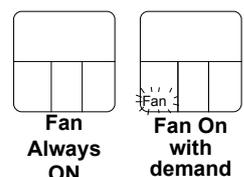
Fan speeds

- Press the [Fan] button to switch between fan speeds:
 - "Lo"..... Low speed
 - "Me".....Medium speed
 - "Hi"..... High speed
 - "Lo", "Me", "Hi".....Auto speed
- *The active speed will flash.



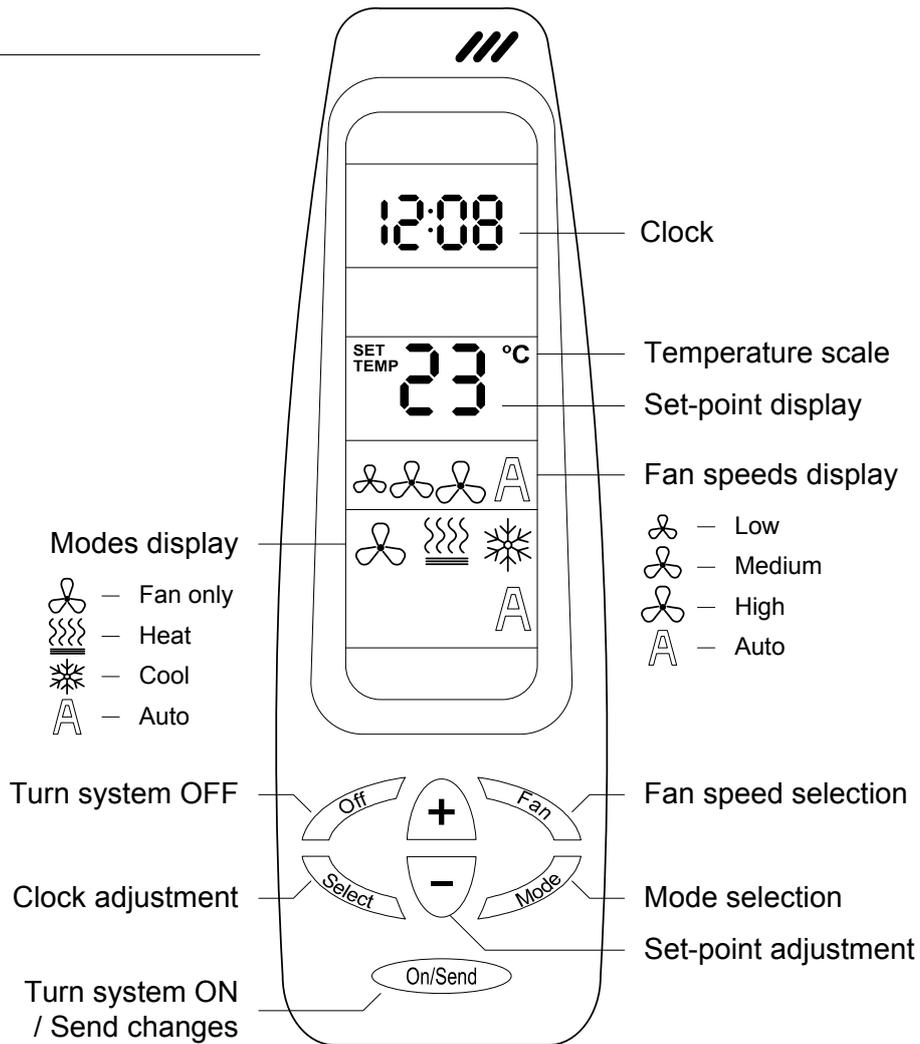
Auto fan

- Press and hold the [Fan] button (10 seconds) to select *Auto fan configuration:
 - "Fan" flashes on display..... *Auto fan - Fan cycles on with demand
 - "Fan" does not flash.....Fan is on continuously
- * The Auto fan function can be disabled by technician.



RT03 – Infra-Red Remote Control Unit (option)

General



Real Time Clock and Day

- Press the [Select] button – “CLOCK SET” will flash.
- Press the [+] or [-] buttons - the hours will flash. Adjust the hours using the [+] or [-] buttons.
- Press the [Select] button again – the minutes will flash. Adjust the minutes using the [+] or [-] buttons.
- Press the [Select] button again to return to normal display.
- Press the [On/Send] button to send information to the thermostat.

Batteries Replacement

When the batteries are low, the display of the remote control will dim. If the batteries will not be replaced the display will turn off completely.

Batteries replacement:

- Pull the batteries cover down to reveal the batteries.
- Remove the old batteries.
- **Wait for 10 minutes before installing the new batteries.**
- Install two new AAA batteries – Pay attention to the polarity.
- Return the batteries cover to place.

Important: The remote control will not operate unless at least 10 minutes pass between removing the old batteries and installing the new ones.



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