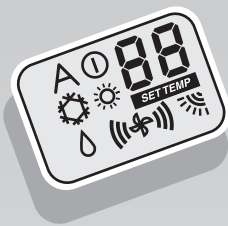
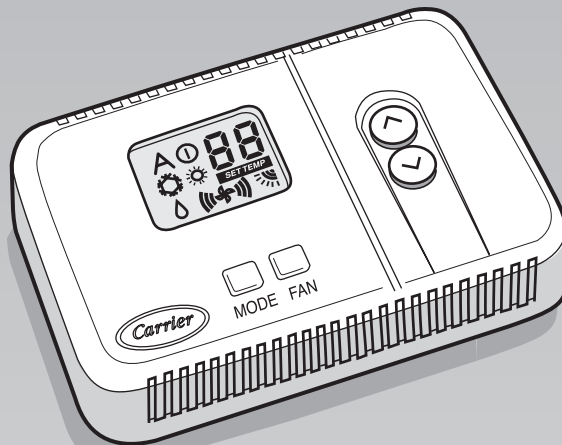
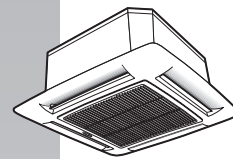




Room Controller



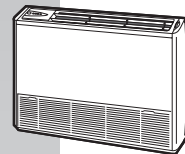
CE



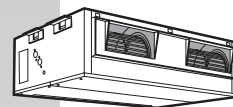
40GKX
40QKX



42HWS
42HWX



42VKX
42VRX



40JX

INSTALLATION MANUAL

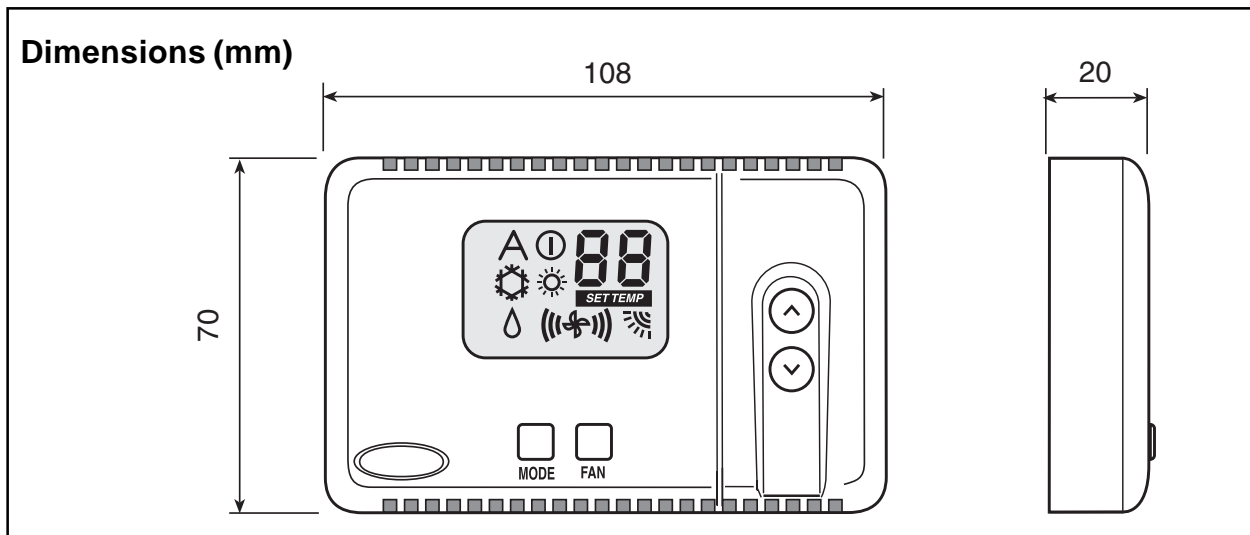
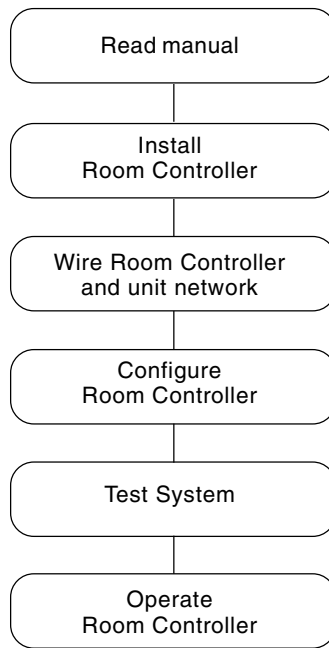
Room Controller

Installation manual

This control system only operates with indoor units of the following types:
 40 GKX and 40 QKX Cassette, 42 HWX and 42 HWS Hi-Wall, 42 VKX and 42 VRX Console, 40 JX Above ceiling.
For installation instructions of this unit, refer to the relevant manuals.

Contents	Page
General information	2
Characteristics	2
Choosing the installation site	2/3
Installation	2/3
Wiring	4/5
Unit configuration	5/6
Room controller configuration	6/7
Troubleshooting	8

INSTALLATION FLOW CHART



Room Controller

General information and characteristics

IMPORTANT:

Read the entire instruction manual before starting the installation.

- For trouble-free installation, which should be carried out by a qualified installer, follow the installation chart sequence.
- Follow all current national safety code requirements. In particular ensure that a properly sized and connected ground wire is in place.
- After installation thoroughly test the system operation and explain all system functions to the owner.
- Leave this manual with the owner for consultation during future periodic maintenance.
- Dispose of packaging material in accordance with local requirements.
- The manufacturer denies any responsibility and warranty shall be void if these installation instructions are not observed.
- Inspect equipment for damage due to improper transportation or handling: file an immediate claim with the shipping company. Do not install or use damaged units.
- In case of any malfunctioning turn the unit off, disconnect the mains power supply and contact a qualified service engineer.

Models

There is only 1 model, which is easily configurable for all installations.

Products that the Room Controller can interface with

40 GKX and 40QKX	CASSETTE
42 HWX and 42HWS	HI-WALL
42 VKX and 42 VRX	CONSOLE
40 JX	ABOVE CEILING

Wiring

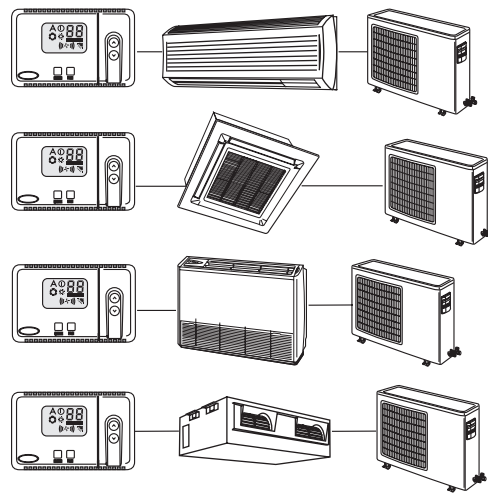
- The Room Controller has to be connected to the unit.
- If the Room Controller is to use its room sensor the controller has to be located in the same area as the unit.

Power

Note that the Room Controller requires no batteries and is not "power stealing". It requires **12 VDC** to be connected for proper operation, which is easily obtained from the Unit connected to it.

The Room Controller will not operate without this connection.

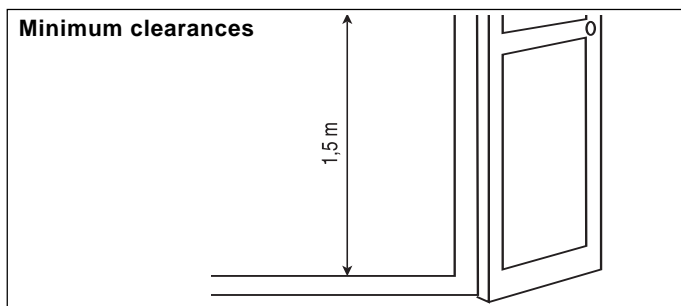
Room Controller



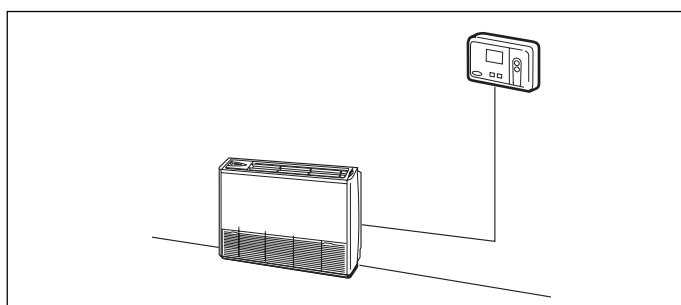
Choosing the installation site and installation

The Room Controller Location

The Room Controller can be located anywhere. However, if the installation requires the system in the location to use the air sensor on the Room Controller; then, the controller should be mounted:



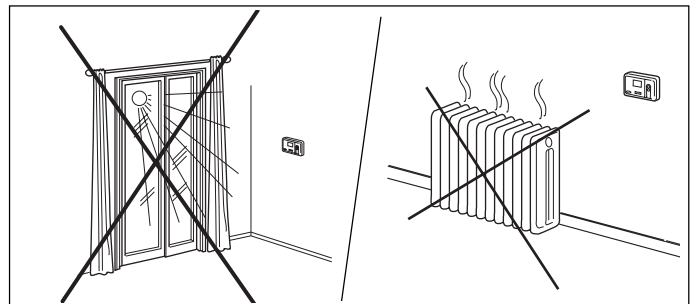
- Approximately 1.5 m from floor.



- In the same area where the unit is located, preferably on an inside partitioning wall.
- On a section of wall without pipes or duct work.

If the air sensor on the Room Controller has been selected, it should NOT be mounted:

- Close to a window, on an outside wall, or next to a door leading to the outside.
- Exposed to direct light and heat from a lamp, sun, fireplace, or other temperature-radiating object which may cause a false reading.



- Close to or in direct airflow of a heating or cooling supply.
- In areas with poor air circulation, such as behind a door or in an alcove.

Maximum of 150 m of total network wiring.

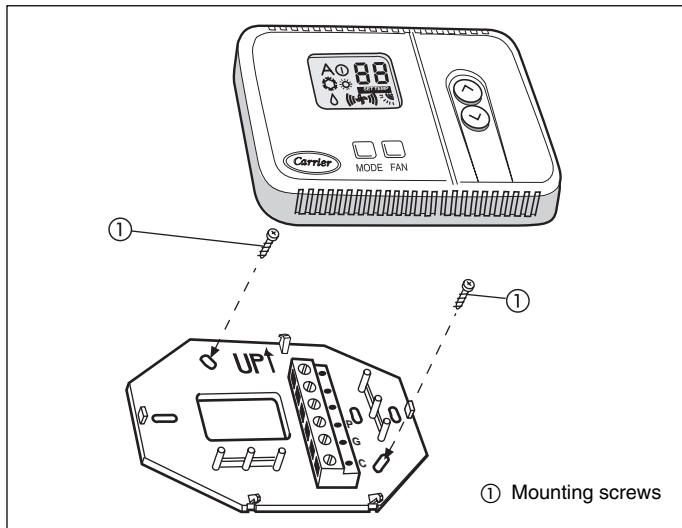
Room Controller

Choosing the installation site and installation

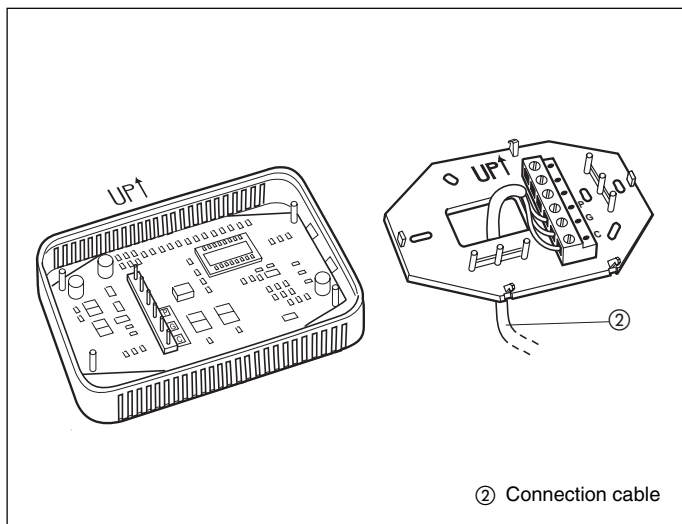
Mounting

WARNING:
Before installing the Room Controller, turn off all power to the Unit that will supply power to the Room Controller. Electrical shock can cause personal injury or death.

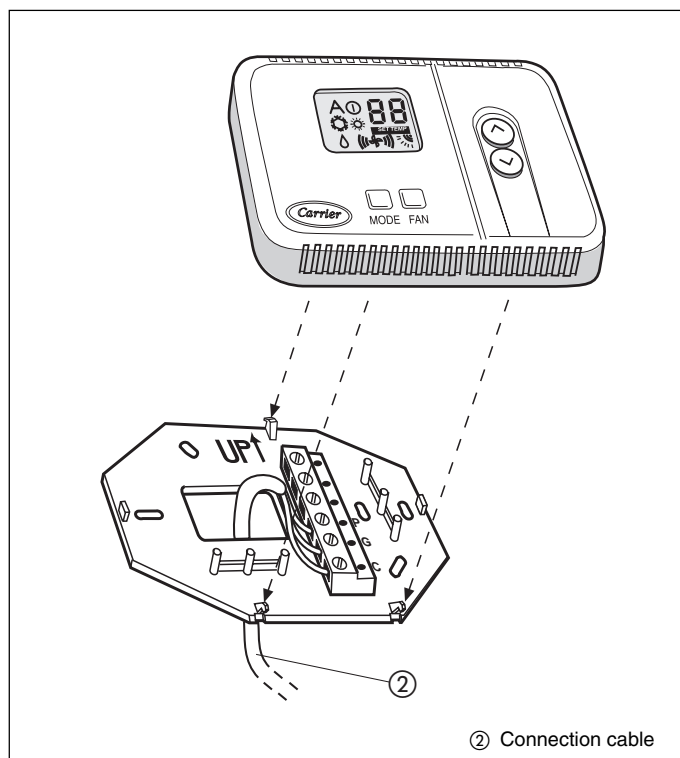
- Turn OFF all power to unit.



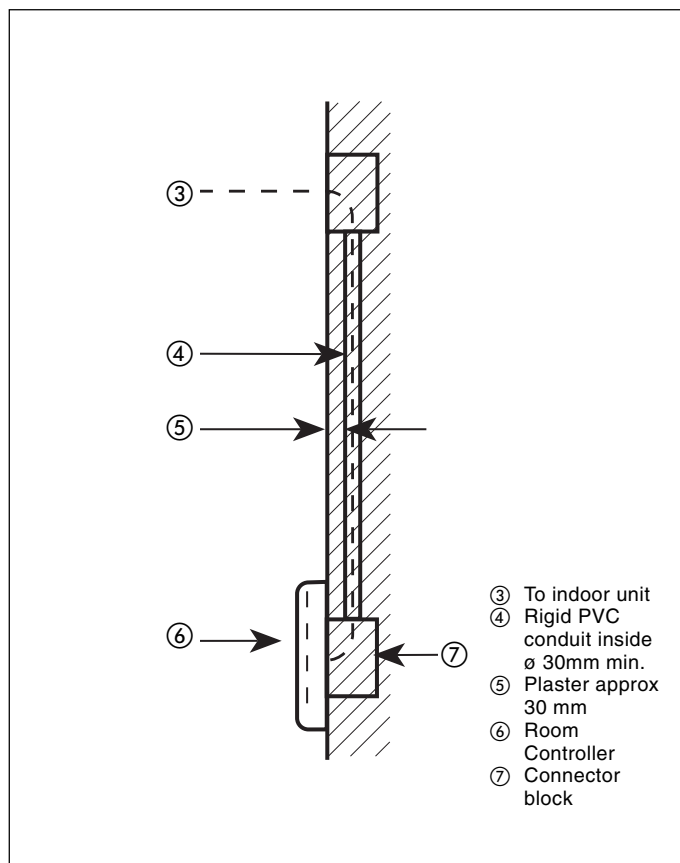
- Open the Room Controller rear mounting base to expose mounting holes. The base can be removed to simplify mounting (snap apart carefully at hinge to separate mounting base from remainder of the Room Controller).
- Route the Room Controller wires through the large hole in the mounting base. Level mounting base against wall (for aesthetic value only the Room Controller need not be level for proper operation) and mark the wall through the 2 mounting holes.
- Drill two 5 mm mounting holes in wall where marked.
- Secure mounting base correctly (UP↑) to wall with 2 screws and anchors provided, (additional anchoring holes available for more secure mounting if needed) making sure all wires extend through hole in mounting base.
- Adjust length and routing of each wire to reach the proper terminal in the connector block on the mounting base, with 6 mm of extra wire (strip only 6 mm of insulation from each wire to prevent adjacent wires from shorting together when connected).



- Match and connect equipment wires to proper terminals in the connector block. Both power and communication wires must be connected correctly for proper Room Controller operation.



- Push any excess wire into the wall and against mounting base. If the air sensor is being used on the Room Controller, seal hole in wall to prevent air leaks. Leaks can affect sensor operation.



- Push the Room Controller snap hinge to the base.

Room Controller

Wiring

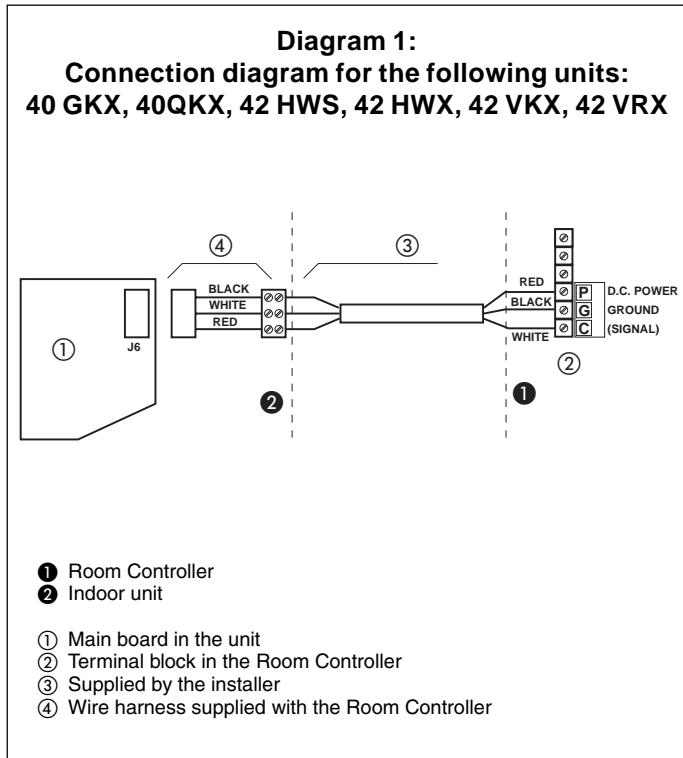
Wiring Room Controller to the unit

WARNING:

Before connecting any wiring to the Room Controller, turn off all power to the unit that will supply power to the Room Controller. Electrical shock can cause personal injury or death.

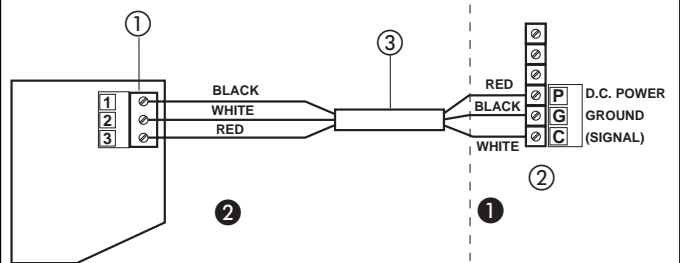
The Room Controller is connected to the unit using the following instructions. Reference Diagram 1 or 2 when making these connections.

Power cable and communication connections Room controller to the unit (3 conductor cable).



- In the Room Controller, loosen the screws on the terminals labeled P (DC Power), G (GROUND) and C (SIGNAL).
 - P (DC power)
 - G (Ground)
 - C (Signal)
- Connect the wire harness supplied with the kit to the Room Controller terminal block as shown in the diagram 1.
- Insert the RED wire into the terminal labeled P (DC Power). Tighten the screw.
- Insert the BLACK wire into the terminal labeled G (GROUND). Tighten the screw.
- Insert the WHITE wire into the terminal labeled C (SIGNAL). Tighten the screw.
- At the main board in the unit product, remove the IR receiver connection on **J6** and connect the wire harness supplied with the Room Controller. At its terminal blocks connect the wires of the cable supplied by the installer already connected to the Room Controller.
- Power cable installation is now complete.

Diagram 2:
Connection diagram for 40 JX unit



- In the Room Controller, loosen the screws on the terminals labeled P (DC Power), G (GROUND) and C (SIGNAL).
 - P (DC power)
 - G (Ground)
 - C (Signal)
- Connect the wire harness to the Room Controller terminal block as shown in the diagram 2.
- Insert the RED wire into the terminal labeled P (DC Power). Tighten the screw.
- Insert the BLACK wire into the terminal labeled G (GROUND). Tighten the screw.
- Insert the WHITE wire into the terminal labeled C (SIGNAL). Tighten the screw.
- Connect the other end of the wire harness to the indoor unit terminal block
Do not use the wire harness supplied with the Room Controller.
- Power cable installation is now complete.

Wiring Materials required
(supplied by installer)

- 1 small screwdriver
- 3 x 0,5 mm² multiple cables, double insulated. Suggested type: H03VV-F.

Room Controller

Wiring and unit configuration

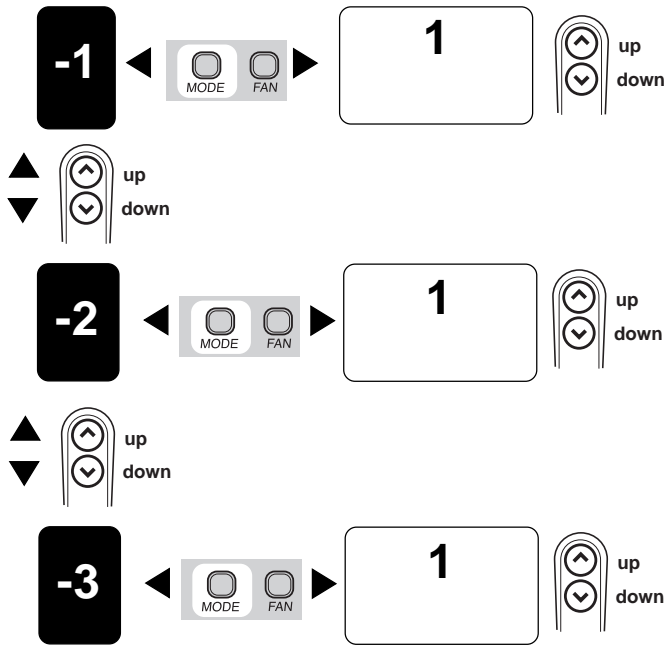
CAUTION:
Configuration options are intended to be selected at installation and normally are not modified by the end user.

UNIT CONFIGURATION

Selection options are intended to be determined at installation and normally are not modified by the end user. A special procedure allows entry into the selection mode. The Room Controller will automatically exit this mode if no button is pressed within 10 seconds.

While in selection mode, 3 choices can be made:

- Zone addressing 1 to 8
- Unit selection 1 to 4
- Unit capacity 1 to 6

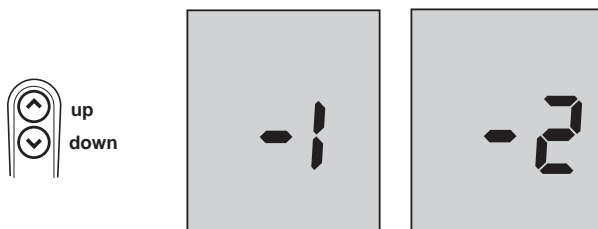


- Capacity size (1 - 6).
Skip if configured to be Hydronic

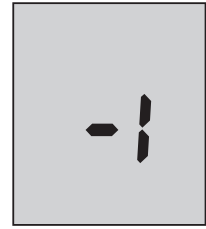
An explanation for each of these and how to enter the "UNIT CONFIGURATION" mode follows.

To enter "UNIT CONFIGURATION" mode

Press and hold the "UP" and "DOWN" buttons together for approximately 5 seconds until display disappears and reads "-1".



This indicates that the user could set configuration item number 1. To move to the next setting, press the "UP" button again and the "-2" will be displayed.



Press the "DOWN" button and the display will change to "-1". You are back to configuration item number 1.

1- ZONE ADDRESSING

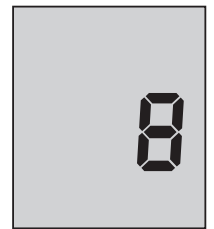
- It allows the installer to select the appropriate zone number for the units. To be used only in a network where a Zone Manager is installed. Factory fault is 1.



- The Selection Option ("-1") should be displayed.



- Press the "MODE" button to alter the current selection (the "-" will disappear).



- Use either the "UP" or "DOWN" button to change the zone number among 1 and 8.

SENDING THE ADDRESS TO THE UNIT

It is sent automatically.

NOTE:

While it is possible to configure a communications address from 1- 32, a unit must have an address from 1- 8 to work properly with the Zone Manager.

- To end "UNIT CONFIGURATION" mode do not press any buttons for 10 seconds.

Room Controller

Unit and group controller configuration

2- UNIT TYPE

It allows to determine appropriately which unit type is connected to the Room Controller.

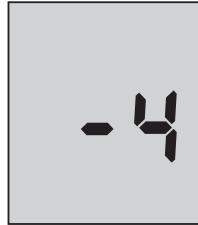
To select while in "UNIT CONFIGURATION" mode:



- Press "UP" button until "-2" is displayed.



- Press "MODE" button to alter the current selection (the "-" will disappear)



- Press either the "UP" or "DOWN" button until the appropriate number is displayed. Please refer to the following table for proper selection:

Unit type	Application	Size	Selected value
Hi-Wall 42HWX	All	06, 08, 10, 12	1
Hi-Wall 42HWS	All	07, 09, 12	1
Hi-Wall 42HWX	All	18, 24	2
Hi-Wall 42HWS	All	18, 24	2
Cassette 40QKX	All	All	3
Cassette 40GKX	All	All	3
Console 42VKX	Underceiling	All	3
Console 42VKX	Floor	All	4
Console 42VRX	Underceiling	All	3
Console 42VRX	Floor	All	4
Above ceiling 40JX	All	All	3

If your unit is not included in the above models, refer to unit installation manual to determine the selected value.

An error in the selected value, causes a malfunction or absent swing of the louver and a bad comfort in the heating mode.

- To end "UNIT CONFIGURATION" mode do not press any buttons for 10 seconds.

3- CAPACITY:

Capacity configuration is only used with 38YLM 24 multisplit outdoor unit and other multisplit systems.

To check if capacity configuration is required, refer to outdoor unit installation manual.

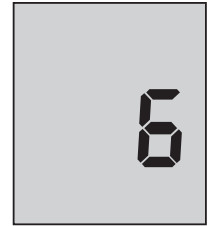
To select while in "UNIT CONFIGURATION" mode:



- Press "UP" button until "-3" is displayed.



- Press "MODE" button to alter the current selection (the "-" will disappear).



- Press either the "UP" or "DOWN" button until the appropriate number is displayed. Refer to the following table for the appropriate number:

Unit size	Selected value
6K Btu/h	1
7/8K Btu/h	2
9/10K Btu/h	3
12K Btu/h	4
18K Btu/h	5
24K Btu/h	6

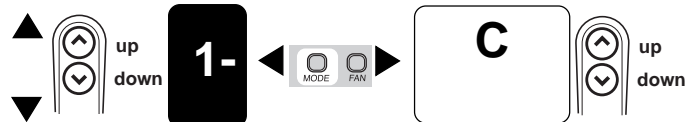
ROOM CONTROLLER CONFIGURATION

Configuration options are intended to be selected at installation and normally are not modified by the end user.

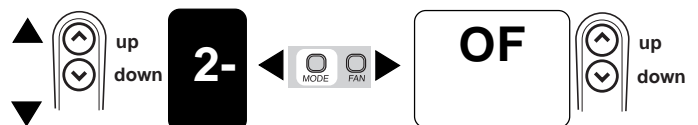
These options are not discussed in the end users manual and therefore must be made as part of the installation.

A special procedure allows entry into the configuration mode.

The Room Controller will automatically exit this mode if no button is pressed within 10 seconds. While in configuration mode, 2 choices can be made:



- Fahrenheit (F) or Celsius (C) (Default: Celsius).



- Room Air Thermistor Override Active ON or OFF (Default: OFF).

Room Controller

Room controller configuration

An explanation for each of these and how to enter the configuration mode follows.

To enter configuration mode

Press and hold the "MODE" button for approximately 5 seconds until the normal display disappears and reads "1-".



This indicates that the user could set configuration item number 1.

To move to the next setting, press the "UP" button again and the "2-" will be displayed.



Press the "DOWN" button and the display will change to "1-". You are back to configuration item number 1.

1- FAHRENHEIT OR CELSIUS: SELECTION

Select between Fahrenheit or Celsius operation. Factory default is Celsius.

To select while in configuration mode:

- The Configuration Option ("1-") and the current selection should be displayed.



- Press the "MODE" button to alter the current selection (current selection will now blink).



- Use either the "UP" or "DOWN" button to change between "F" or "C".
- To end configuration do not press any buttons for 10 seconds.

2- ROOM AIR THERMISTOR OVERRIDE

Select whether the unit will use room temperature sensor in the Room Controller "On" or whether they will use the air sensor at the unit "OFF". Factory default is OFF.

CAUTION:
If the room air sensor on the Room Controller is selected, installation of the Room Controller is critical.

If the chosen option is "On" the room air temperature will be displayed.

To select while in configuration mode:



- Press "UP" button until "2-" is displayed.



- Press the "MODE" button to change the current selection (current selection will now blink).



- Use either the "UP" or "DOWN" to change between "OF" (OFF) and "On" (ON).
- To end configuration do not press any buttons for 10 seconds.

Room Controller

Troubleshooting

Troubleshooting

Symptom	Possible Cause	Things to check	Solution
No LCD display	1) mis-wiring of the 12 volt power to Room Controller control.	1) Verify that + 12 V and Ground are connected to the proper terminals of the Controller. Reference Installation wiring section for correct connections	After disconnecting the power, correct the wiring problem and re-cycle power.
	2) Power not online	1) Check that the units main power is connected. The main control board should be operating normally	After verifying the wiring to the Room Controller, re-cycle the unit power.
	3) No 12 volts between P and G of terminal block.	1) Check the installation of the J6 plug on the main control board.	After disconnecting the power, correct the wiring problem and re-cycle power.
+12 volts applied to Room Controller at the correct terminals and still does not operate	1) The Room Controller is damaged.		Change the Room Controller and re-cycle power.



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The manufacturer reserves the right to change any product specifications without notice.