CLIMASET®

Interactive Controllers

CLX 7th Generation

User's Guide

CLIMASET®

Interactive Controllers

Contents

Enjoy using your Climaset safely 4
Introducing your Climaset 7
Discovering your thermostat 7
Getting familiarized with the keys 10
Getting to know the screen 13
5 easy steps to adjust your thermostat 18
7 easy steps to install the device 20
Appendix A. Mini Circuit Breaker (MCB) selection guide 23
Appendix B. Wiring diagrams for several types of thermostats and air conditioners 24
Appendix C. Advanced settings 76
Appendix D. Troubleshooting 86
Appendix E. Technical specifications 88

Enjoy using your Climaset safely

The instruction below has been prepared to assist you enjoy using your Climaset safely for many years. Please read this instruction thoroughly before starting to use the device.

- Each room fan coil or other type of air conditioning device should be protected by its own mini circuit breaker (MCB).
- Each room thermostat is designed to control a single room fan coil or other type of air conditioning unit. We do not recommend control of multiple room fan coils with a single thermostat.
- May you ever encounter device malfunction, shut down the respective MCB and contact the customer service. You may find proper recommended MCB's rating in Appendix A.
- If you ever noticed that your air conditioning unit is not protected by a MCB, ask your electrician to add one for you.
- The MCB ratings should be selected according to required current for normal

operation of your air conditioner. Using higher ratings, you will not be protected in case of emergency.

- Your thermostat also protects itself as well as your air conditioner by a fuse. In case of a burnt fuse, please check your system integrity. It can be a warning for malfunction of your air conditioner or thermostat or short circuit of the wiring.
- Always replace with the same kind of fuse. Fuses have several specifications beyond their ratings. Check specification section for your fuse specification. Contact your local customer service if you have already used your extra fuse.
- Never bridge the fuse with wire or replace with higher rating fuses.
- Use wire harness supplied with the device, before you screw the wires to the thermostat terminals. It will avoid the possibility of short circuit. We recommend using AWG 16 (1.5 mm) cables.
- Never use detergent to clean the thermostat surface. It may leave undesirable marks on the surface of thermostat, especially on the screen part. Always use a

soft moist tissue to clean the device.

- Should the screen break, avoid direct contact of the leaked liquid crystal with your skin, eyes or your mouth.
- The device is not designed to work in very humid condensing places.
- Strong electromagnetic fields, like the one with a radio transmitter, can interfere with the screen content or cause device malfunction.
- Never try to fix the device yourself. Replacement of the parts may affect the device safety. Always contact your local Climaset service center for repairs.

Introducing your Climaset

Ultra slim CLX series offer the most premium, innovative solution ever to counter demands of modern architecture and interior design. All but 12mm of the control unit is concealed in the wall.
Most demanding and useful functionalities of a room thermostat have been gathered in the smallest and slimmest flush mount housing ever designed, to illustrate the finest piece of art and craftsmanship in room thermostat ever made available.
92x80mm frame dimension facilitates you to match your thermostat with almost all selection of modern domestic switches and plugs from the most famous brands in this field.

Discovering your thermostat

Here is an overview of most essential functions of your thermostat. It helps you to have a better understanding of your thermostat features and decide which feature is beneficiary for your needs.

The thermostat is either in standby mode or in normal operation mode.

1. Standby mode

Choose standby mode if you do not use a room for an extended period of time, such as the time you are in a journey or when it is empty for most of the time and only be used for special occasions.
In this mode, the thermostat shows the room temperature together with all of your settings on the screen while the air conditioner apparatus is off.

2. Normal operation mode

It is the functional mode of the air conditioner. The thermostat restarts the air conditioner whenever the room temperature falls below the set point in heating mode or raise above the set point in cooling mode more than the specified swing temperature (0.5 °C by factory default).

NOTE The default swing temperature is set to 0.5 °C by the factory. If you like to change it, refer to Appendix C.

Fan operation modes

There are three fan operation modes which you may choose in any of the operational modes.

1. Manual fan speed changeover mode

The air conditioner runs with the fan speed you have adjusted whenever the thermostat restarts the air conditioner.

2. Automatic fan speed changeover mode

The fan speed is proportional to the temperature difference between the room and the set point. By room temperature approaching to the set point, the fan speed reduces. You will enjoy the maximum capability of your air conditioner whenever it is required, that is in hottest hours of the day while you delicate by quiet fan whenever it is possible, in the rest of the day and also you will save considerable amount of energy.

3. Continuous fan operation mode

The fan always blows with the adjusted fan speed while the cooling or heating is

automatically turned On/Off according to the temperature difference between the room and the set point. It provides homogenous air quality around the room.

NOTE Not all of air conditioners are capable of supporting this mode. Ask a professional about the ability of your air conditioner to support this mode.

Getting familiarized with the keys

How to use the keys for adjustments?

The figure on the next page indicates the position of each key which its function is described in details below.

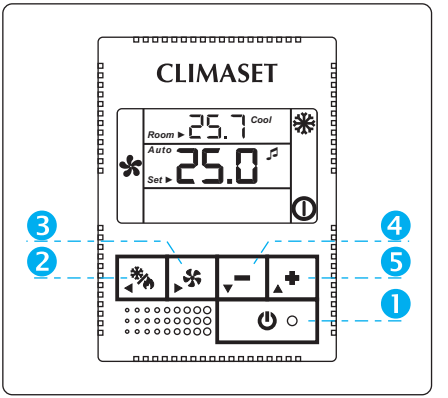
❶ Power key

You may enter the standby mode or return to the operational mode by pressing this key. Information about standby mode is found in the previous section.

❷ Operation mode key

You may switch among cooling, heating, automatic heat/cool changeover or blower mode by this key.

NOTE Not all of air conditioners are capable of supporting the last two modes. Ask a professional if your air conditioner supports these modes.



❸ Fan speed key

You may determine your desired fan speed or switch to the automatic fan speed changeover mode by this key.

NOTE Refer to the previous section to find out more on the automatic fan speed changeover.

Getting familiarize with the keys

NOTE The fan speed increases each time you push the key. After the maximum fan speed the device enters in automatic fan speed changeover mode. Minimum fan speed will be selected if you push the key again.

❹ Set point decrement key

Use this key to decrease the set temperature.

❺ Set point increment key

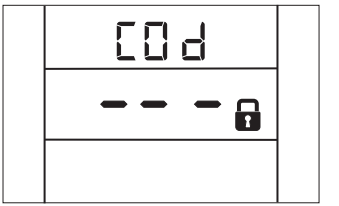
Use this key to increase the set temperature.

NOTE Minimum set temperature is 16°C. and the maximum is 32°C.

Long push and combination keys

- Push the power key (❶) for 5 seconds to enable/disable key press beep.
- Push "◂" (❷) and "▸" (❸) simultaneously for 3 seconds to enter advanced settings. You will be asked to enter your 3 digits pass code first. Check the next page to learn how to enter the code. Advanced settings has been described in details in appendix C.
- If key lock has been enabled in advanced settings, it may be activated by pushing "▴" (❹) and "▾" (❺) together for 3 seconds. Depends on the settings, you may either unlock the keys by long pushing these keys together

again or may be requested to enter a three digit code to unlock the device, as in the figure. Refer to the advanced settings in appendix C to find out more on setting the lock type.

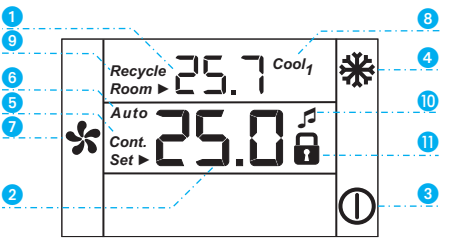


Unlocking the keys by entering the pass code

Use "-" (❹) to decrease or "+" (❺) to increase each digit. Use " ▸ " (❸) to move to the next or " ◂ " (❷) to move to the previous digit. Push the power key (❶) after entering the last figure to unlock the device.

Getting to know the screen

The right figure shows the display items. You can find following the details.



Getting to know the screen

❶ Room Temperature

Represents the current room temperature in degree centigrade with 0.1˚C resolution.

❷ Set Temperature

Indicates the desired set temperature. Use "+" or "-" to increase or decrease the set temperature. Maximum set temperature is 32˚C and the minimum is 16˚C. These temperature limits may be modified in the advanced settings. The adjustment steps is 0.5˚C.

❸ The power status

It represents the power status of the device. It may represent one of the following icons:

⏻ The device is in the standby mode. During this mode, the thermostat represents your setting along with the room temperature, but the air conditioner is not turned on until you switch back to operational mode. This mode is useful if you do not use your air conditioner for an extended

amount of time, such as in spring or in autumn or when you are in a journey or in rooms which are used rarely.

The device is in the operational mode. The air conditioner will be switched on or off automatically according to your settings.

❹ Operation mode selection

It specifies whether the device is in use for cooling, heating, automatic heat/cool changeover or the blower mode.

NOTE Not to adjust this setting correctly will cause malfunction of your air conditioner.

The device is adjusted for cooling.

The device is adjusted for heating.

The device automatically switches between heating and cooling based on the desired set point and the current room temperature.

The device just blows the air without heating or cooling.

❺ Continuous fan operation

If the continuous fan operation is selected, the fan never switches off unless you power off the device. Instead, when the room temperature reaches to the set point, the fan continues blowing air without heating or cooling with the selected fan speed in manual mode or switches to the lowest fan speed in the automatic fan speed changeover mode. Refer to appendix C for more on continuos fan operation.

❻ Automatic / Manual fan speed changeover modes

Automatic fan speed changeover mode:The fan speed is calculated and applied automatically according to the difference between the room temperature and the set point. By approaching to the set point, the fan speed reduces and by getting away, it rises automatically. After the room temperature matches the set point, it either switches the fan off in the normal operation mode, or continue with the minimum fan speed in the continuous fan operation mode.

Manual fan speed changeover mode: By selecting this mode, the air conditioner operates with the fixed selected fan speed. After the room temperature reaches the set point, it either switches off heating or cooling and just blow the air if the continuous fan operation is selected, or switches the fan off otherwise.

❼ Fan speed indicator

It represents the desired fan speed in the Normal or Continuous fan operation mode or the applied fan speed in the Automatic fan operation mode.

Maximum fan speeds

Intermediate fan speeds

Minimum fan speed

NOTE The actual number of available fan speeds is depend on your thermostat model and your air conditioner capabilities.

❽ Heat/Cool indicators

It represents if the thermostat activates air conditioner heating or cooling. If more than one stage of heating or cooling is available, the stage number will be indicated by a small figure beside heating or cooling indicator.

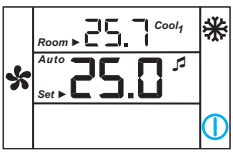
❾ Recycle delay

If the thermostat controls a compressor directly, a predetermined recycle delay is necessary to prevent the successive restart of the compressor which may cause jamming of the compressors electro motor due to high pressure. Normally a 3 minutes recycle delay guarantees that the pressure is equalized before restarting.

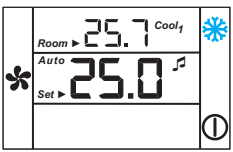
⑩ Beep
It indicates that if the key press beep is enabled. Push the power key for 5 seconds to enable/disable key press beep.

⑪ Lock
If any of the keys are locked a lock figure is displayed. Refer to the previous section to find out how to unlock the keys.

5 easy steps to adjust your thermostat

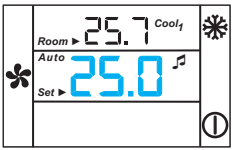


❶ If you are going to set the thermostat in standby mode, press the power key until ⏻ sign is displayed in the blue section of the screen, and ignore all other steps. Otherwise, push the power key until ⏻ sign appears in the specified section and proceed with the next steps.Find out more on the standby mode in "Discovering your thermostat".

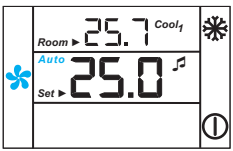


❷ Choose between heating, cooling, automatic heat/cool changeover or blowing mode by pressing the mode selection (❄/🔥) key successively. The blue section of the figure shows the selected mode.

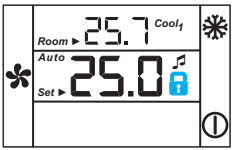
❸ Use "**+**" or "**-**" key to adjust the set temperature. The set temperature is shown in blue in the right side figure. The minimum set temperature is 16˚C and the maximum is 32˚C. The adjustment resolution is 0.5˚C. A good choice for the desired set temperature is 25˚C.



❹ Adjust the desired fan speed by pressing the fan speed (✲) key successively. Pushing the key after the maximum fan speed enters the device to the automatic fan speed changeover mode. During this mode the fan speed is selected automatically base on the difference between the room and the set temperature. The greater the difference, higher fan speed will be selected. Push the fan speed key again and the manual mode with the lowest fan speed will be selected again. The blue section in the screen represents the fan speed and the fan mode. More blades in the figure shows higher fan speed.



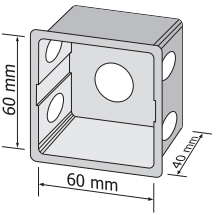
❺ You may lock the device keys if you want. Push "+" and "-" together for 3 seconds and the device will be locked. A lock icon as represented in blue in the figure indicates that the device is locked. Refer to the previous section to find out how to unlock the device.



7 easy steps to install the device

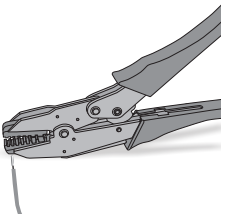
❶ Turn off the respective circuit breaker.

❷ Conduit box requirements
The conduit box should be cubic. Its length and width should be 60 millimeters and it should be at least 40 mm deep.



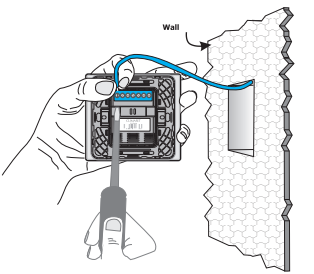
❸ Preparing the wires

The best wire size is AWG 16 (1.5 mm diameter), but wire will still be secured up to AWG12 (2.5 mm diameter) in the thermostat terminals. Use wire harness supplied with the device on the wires to prepare the wires to be secured in the terminals.



❹ Wiring techniques

You may find proper wiring method for several types of air conditioners and thermostats in Appendix B.

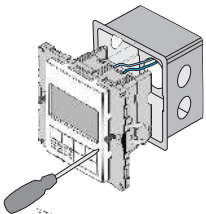


7 easy steps to install the device

❺ Securing the device

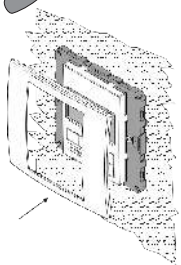
Push the device in the conduit box. Make sure that the wires are gathered properly inside the conduit box and they do not push the device out.

Use a screw driver as illustrated in the figure to secure the claws which makes the thermostat in its position secured.



❻ Placing the frame

Place the frame in its appropriate position as illustrated in the figure and push it toward the wall gently.



❼ Turn on the circuit breaker. The device will be operational.

Appendix A. Mini Circuit Breaker (MCB) selection guide

The following table provides you a guide to select the proper type of mini circuit breaker to protect your air conditioner and therefore your thermostat. If the type of your air conditioner is not listed here, refer to the air conditioner catalogue for the proper type of circuit breaker.
If the specified type of the circuit breaker in catalogue differs from what is specified here, it overrules the following table. So the specified type of the circuit breaker proposed by the air conditioner manufacturer should be used.

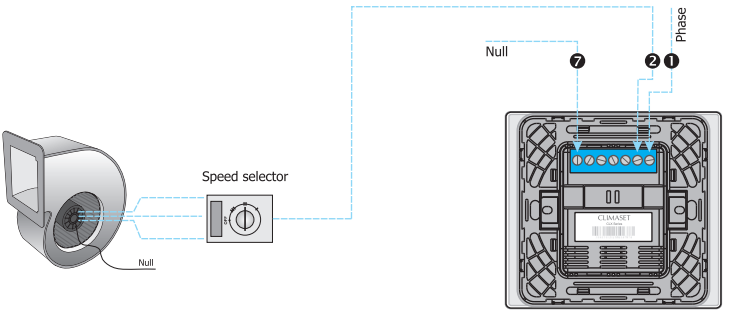
Air conditioner type	Nominal rating	Type
Room fan coils		
200 cfm	1	C
300 cfm	1	C
400 cfm	1	C
600 cfm	1	C
800 cfm	2	C

Air conditioner type	Nominal rating	Type
Ducted fan coils		
800 cfm	2	D
1000 cfm	2	D
1200 cfm	3	D
1400 cfm	3	D
1600 cfm	4	D
1800 cfm	4	D
2000 cfm	4	D

Appendix B. Wiring diagrams for several types of thermostats and air conditioners

Thermostat model: 7100

Air conditioner type: Vertical room fan coil.



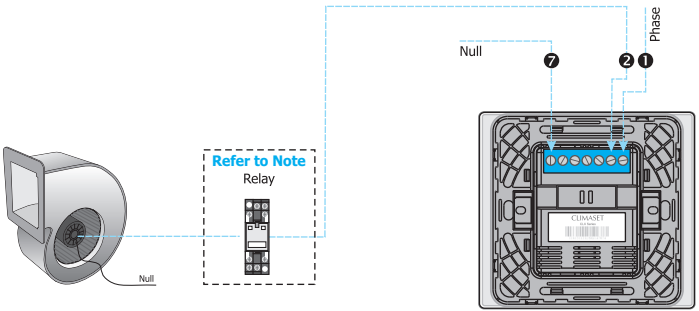
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V 50Hz
2	To fan speed selector	Output	AC220V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7100

Air conditioner type: Single-speed ducted fan coil.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

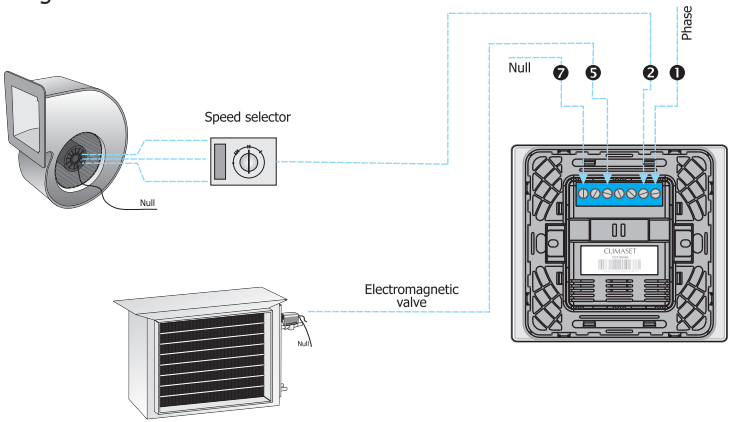
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7110A

Air conditioner type: Two-pipe vertical room fan coil with 2-wire, on/off electromagnetic valve.



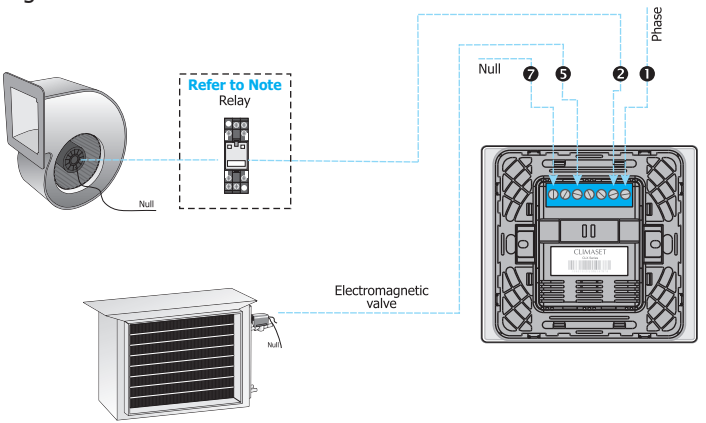
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V 50Hz
2	To fan speed selector	Output	AC220V 50Hz
5	To electromagnetic valve	Output	AC220V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7110A

Air conditioner type: Single-speed, two-pipe ducted fan coil with 2-wire, on/off electromagnetic valve.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

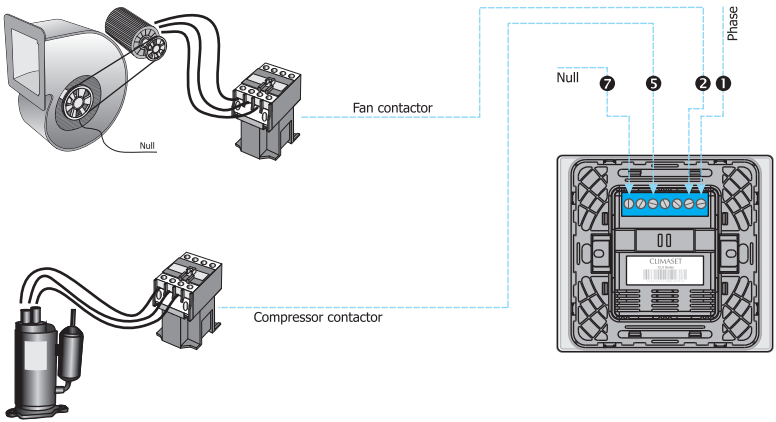
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan	Output	AC220V/24V 50Hz
5	To electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7110B

Air conditioner type: Single-speed ducted split or refrigerated type packaged air conditioner unit with hot water coil.



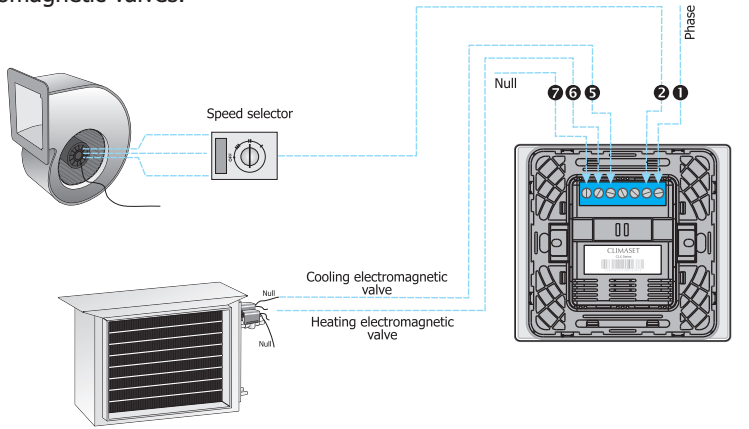
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan contactor	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7111A

Air conditioner type: Four-pipe vertical room fan coil with two, 2-wire, on/off electromagnetic valves.



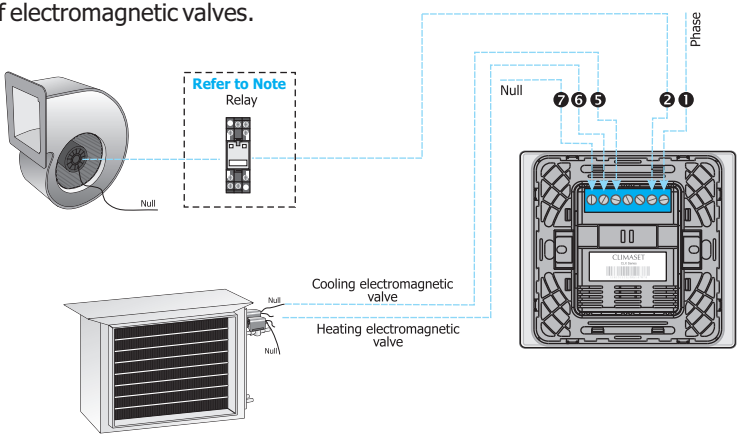
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V 50Hz
2	To fan speed selector	Output	AC220V 50Hz
5	To cooling electromagnetic valve	Output	AC220V 50Hz
6	To heating electromagnetic valve	Output	AC220V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7111A

Air conditioner type: Single-speed, four pipe ducted fan coil with two, 2-wire, on/off electromagnetic valves.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

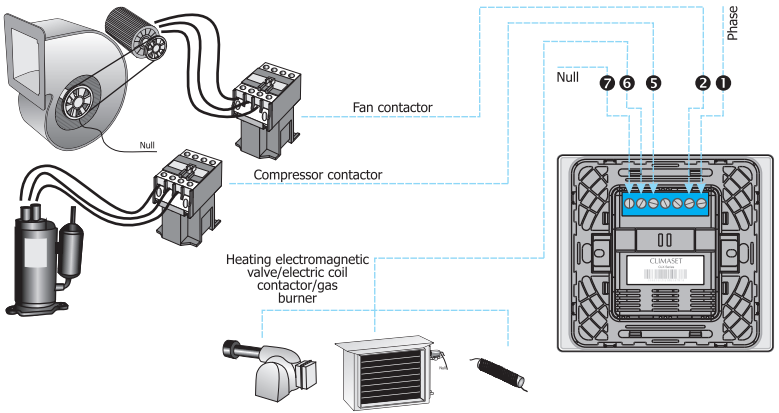
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan	Output	AC220V/24V 50Hz
5	To cooling electromagnetic valve	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7111B

Air conditioner type: Single-speed ducted split or refrigerated type packaged air conditioner unit with hot water coil, electric coil or gas burner for heating.



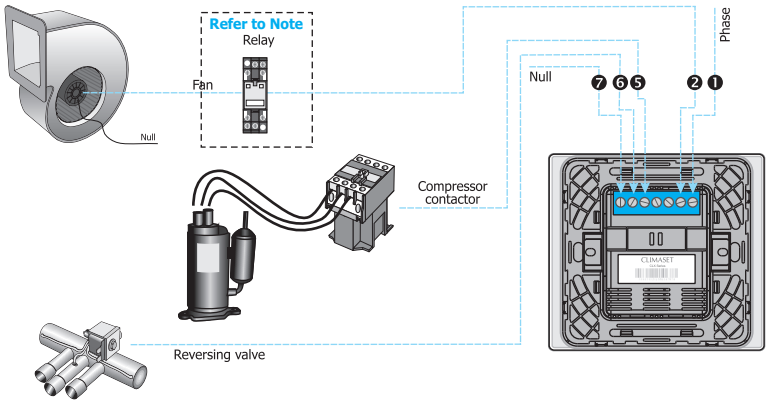
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan contactor	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve/electric coil contactor/gas butner	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7111C

Air conditioner type: Single-speed ducted split or refrigerated type packaged air conditioner unit with reversing valve for heating.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large(5 tons or more) ducted splits.

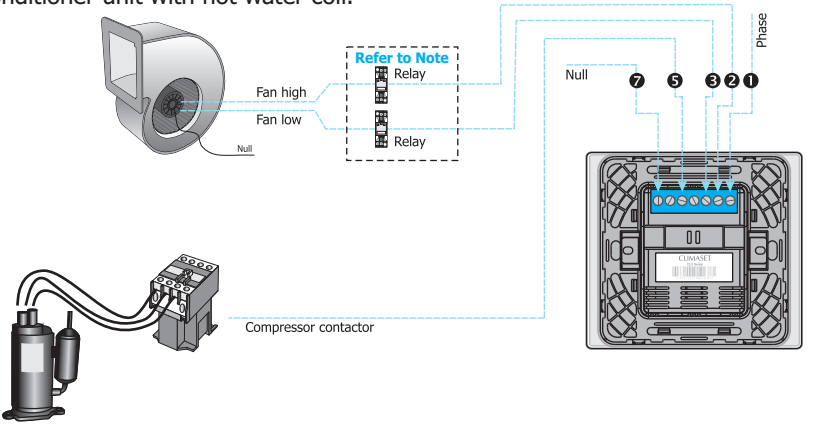
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To reversing valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7210B

Air conditioner type: Two-speed ducted split or refrigerated type packaged air conditioner unit with hot water coil.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large(5 tons or more) ducted splits.

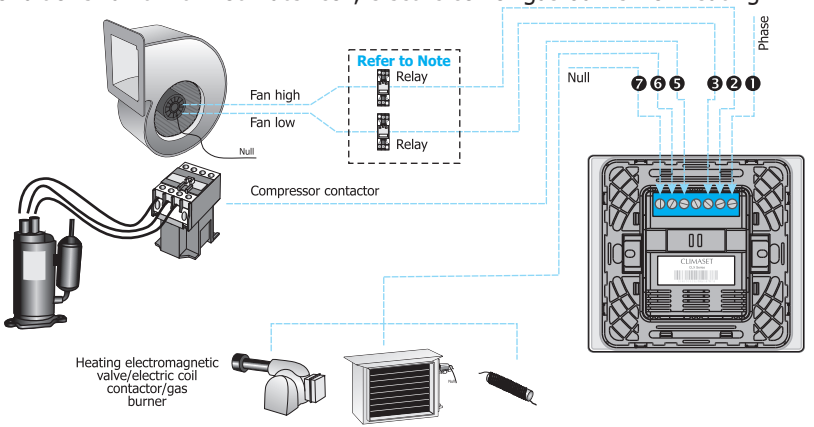
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7211B

Air conditioner type: Two-speed ducted split or refrigerated type packaged air conditioner unit with hot water coil, electric coil or gas burner for heating.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large(5 tons or more) ducted splits.

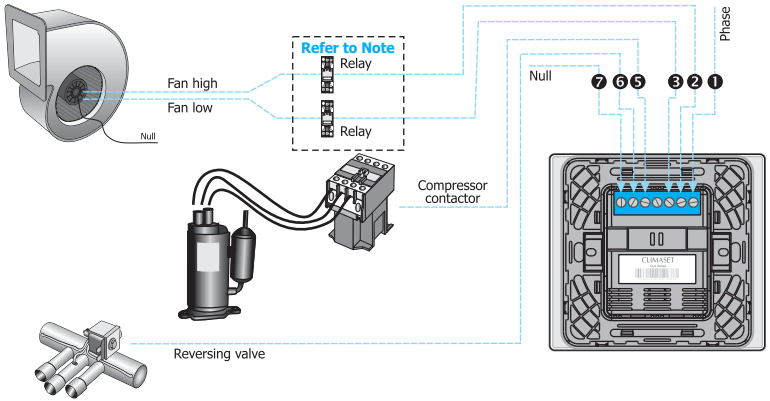
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve/electric coil contactor/gas butner	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7211C

Air conditioner type: Two-speed ducted split or refrigerated type packaged air conditioner unit with reversing valve for heating.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large(5 tons or more) ducted splits.

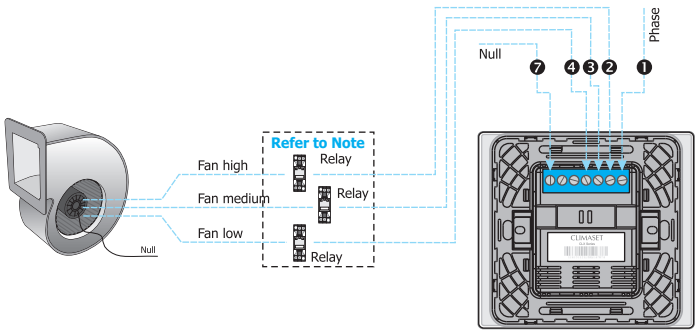
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To reversing valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7300

Air conditioner type: Three-speed horizontal room or ducted fan coil.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

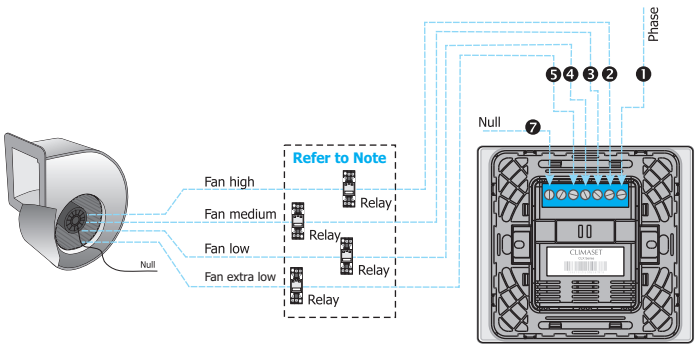
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7400

Air conditioner type: Four-speed horizontal room or ducted fan coil.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

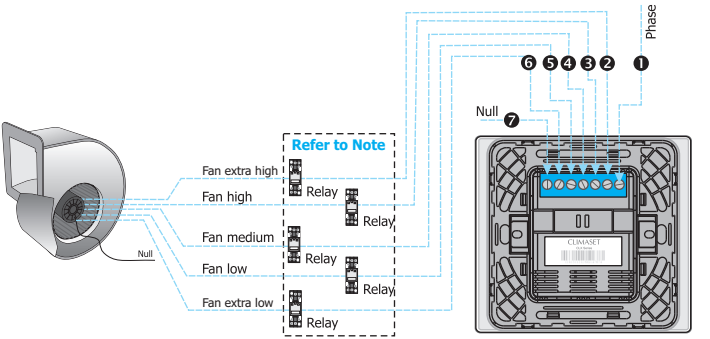
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	To fan extra low	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7500

Air conditioner type: Five-speed horizontal room or ducted fan coil.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

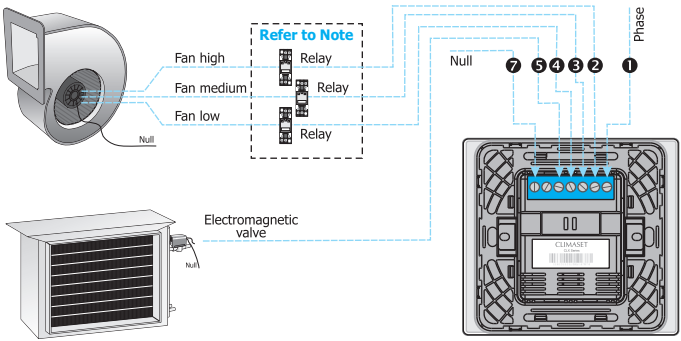
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan extra high	Output	AC220V/24V 50Hz
3	To fan high	Output	AC220V/24V 50Hz
4	To fan Med	Output	AC220V/24V 50Hz
5	To fan low	Output	AC220V/24V 50Hz
6	To fan extra low	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7310A

Air conditioner type: Three-speed, two pipe horizontal room or ducted fan coil with 2-wire, on/off electromagnetic valve.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

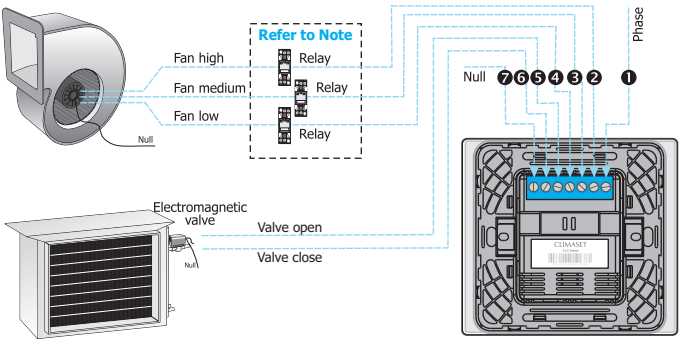
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	To electromagnetic Valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7310A3

Air conditioner type: Three-speed, two pipe horizontal room or ducted fan coil with 3-wire, on/off electromagnetic valve.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

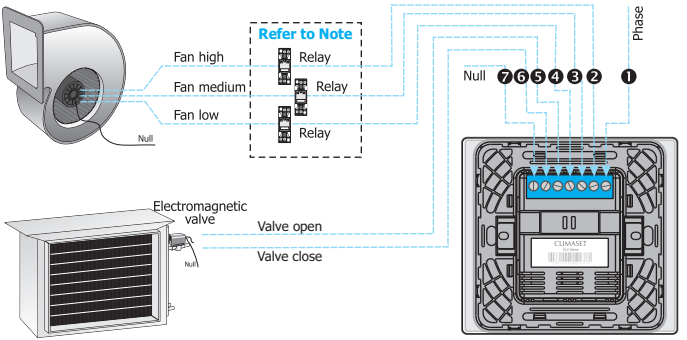
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	To valve open	Output	AC220V/24V 50Hz
6	To valve close	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7310F

Air conditioner type: Three-speed, two pipe horizontal room or ducted fan coil with Floating valve.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

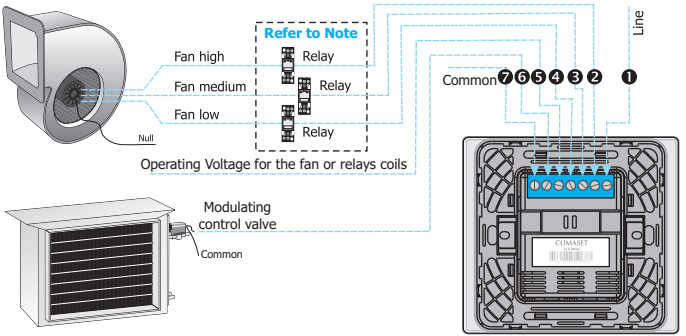
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	To valve open	Output	AC220V/24V 50Hz
6	To valve close	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7310V

Air conditioner type: Three-speed, two-pipe horizontal room or ducted fan coil with 0-10VDC modulating control valve.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

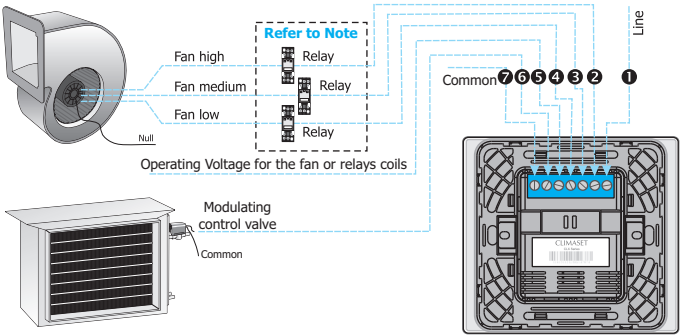
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Line	Input	AC24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	Operating voltage for fan or relays coil	Output	AC220V/24V 50Hz
6	To modulating control valve	Output	0-10VDC
7	Common for line and valve	Input/ Output	Common for 24VAC

Appendix B.

Thermostat model: 7310VC

Air conditioner type: Three-speed, two-pipe horizontal room or ducted fan coil with 4-20mA modulating control valve.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

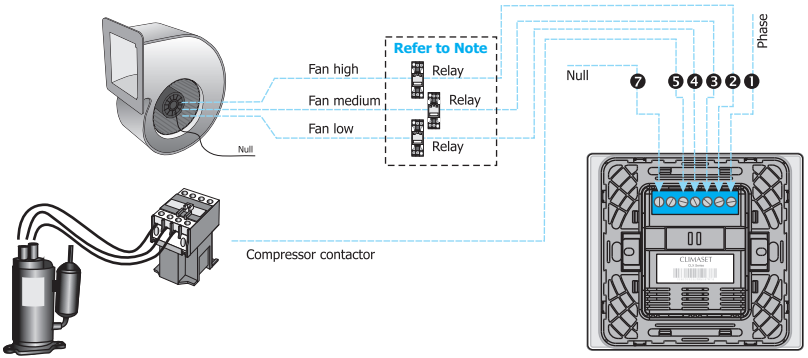
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Line	Input	AC24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	Operating voltage for fan or relays coil	Output	AC220V/24V 50Hz
6	To modulating control valve	Output	4-20mA
7	Common for line and valve	Input/ Output	Common for 24VAC

Appendix B.

Thermostat model: 7310B

Air conditioner type: Three speed ducted split or refrigerated type packaged air conditioner unit with hot water coil.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large(5 tons or more) ducted splits.

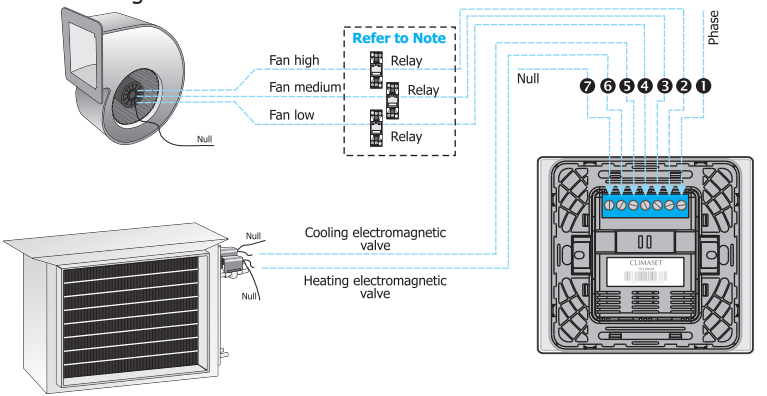
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7311A

Air conditioner type: Four-pipe horizontal room or ducted fan coil with 2-wire, on/off electromagnetic valve.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

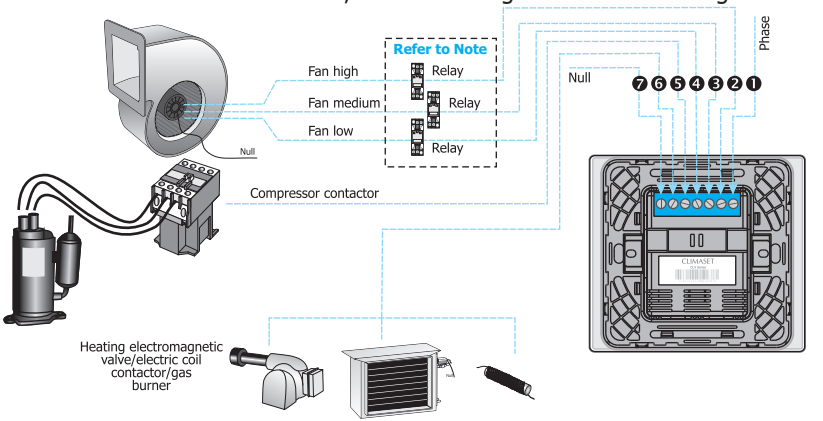
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	To cooling electro magnetic valve	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7311B

Air conditioner type: Three speed ducted split or refrigerated type packaged air conditioner unit with hot water coil, electric coil or gas burner for heating.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large(5 tons or more) ducted splits.

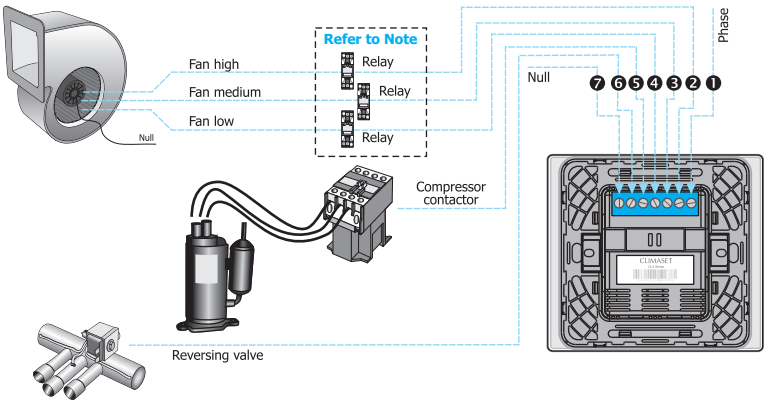
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve/electric coil contactor/gas burner	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7311C

Air conditioner type: Three-speed ducted split or refrigerated type packaged air conditioner unit with reversing valve for heating.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large(5 tons or more) ducted splits.

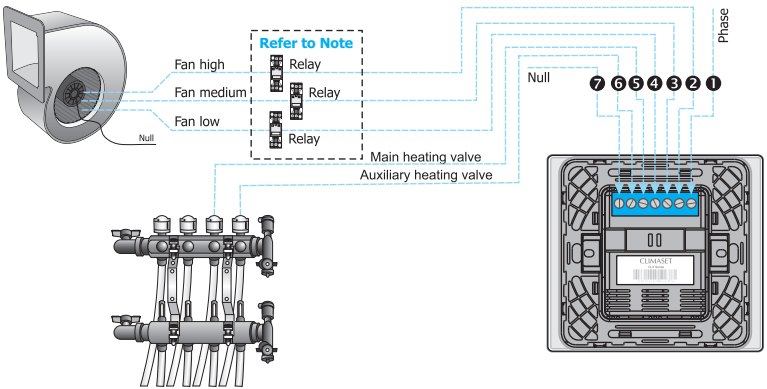
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To reversing valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7302

Air conditioner type: Three-speed ducted fan coil and two-stage radiant floor heating.



NOTE Use relays between fan and thermostat wherever current consumption exceeds 3 Amperes. This may occur with large ducted fan coils.

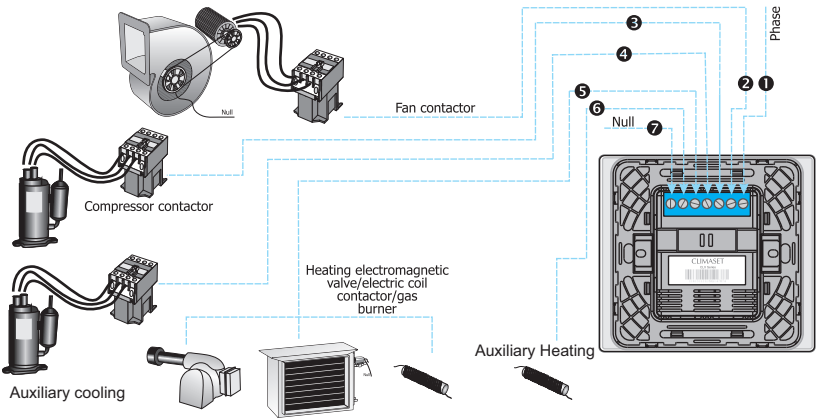
Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan high	Output	AC220V/24V 50Hz
3	To fan Med	Output	AC220V/24V 50Hz
4	To fan low	Output	AC220V/24V 50Hz
5	To main heating valve	Output	AC220V/24V 50Hz
6	To auxiliary valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix B.

Thermostat model: 7122

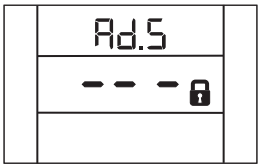
Air conditioner type: Single-speed refrigerated type packaged air conditioner unit with maximum two stage of cooling and two stage of heating.



Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan contactor	Output	AC220V/24V 50Hz
3	To primary cooling contactor	Output	AC220V/24V 50Hz
4	To auxiliary cooling contactor	Output	AC220V/24V 50Hz
5	To primary heating	Output	AC220V/24V 50Hz
6	To auxiliary heating	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix C. Advanced settings



You may enter advanced settings screen by pressing "▲" and "▼" keys simultaneously for a few seconds. Before you enter the advanced settings, you need to enter your pass code. The default pass code is "000" . Even when child lock is selected as lock type (P80), passcode is necessary to enter to the advanced settings.

If nothing is entered for 3 minutes or if you push "▲" and "▼" keys simultaneously for a few seconds again, the thermostat returns to the main screen.

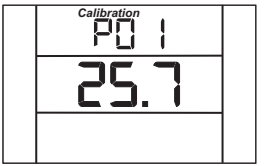
Use "+" or "-" to increase or decrease each digit. Use "▶" to move to the next digit or "◀" to move to the previous one. Press the power key once you finished to enter to the advanced settings screen.

"Advanced settings" is intended to be modified by expertise. We do not recommend you to modify these settings unless you have enough knowledge about their effects.

You may navigate through the settings by pressing "▶" or "◀" keys. Use "+" or "-" key to modify the values or execute commands. Depends on your thermostat model some of these settings may be applicable to your device and presented in your advanced settings menu. Here is a brief description on each item and its effect.

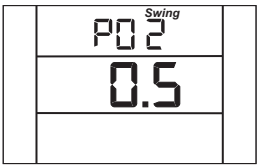
P01 - Calibration

The thermostat is precisely calibrated in the factory, but as the temperature in your location may differ from the sensed temperature, you may recalibrate It. A precise thermometer at the desired location may be helpful.



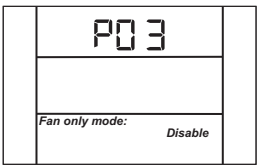
P02 - Temperature Swing

It shows the allowable room temperature fluctuation from the desired temperature. You may set this value between 0.5ºC and 2.0ºC. Default factory setting is 0.5ºC.



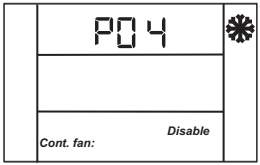
P03 - Fan only mode

This option appends "Fan only" to the operation modes. When selected, the air-conditioner act as a blower without heating or cooling. Presence of this option depends on air-conditioner specifications.



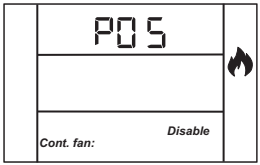
P04 - Continuous fan operation cooling

Depends on your air-conditioner this option may or may not be included. Enabling this option, the fan merely blows the air even when no cooling necessary, to provide homogeneous air quality.



P05 - Continuous fan operation heating

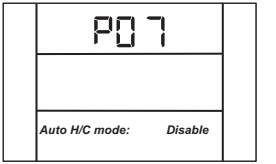
Depends on your air-conditioner this option may or may not be included. Enabling this option, the fan merely blows the air even when no heating necessary, to provide homogeneous air quality.



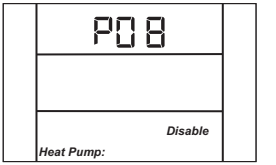
P06 - Recycle delay

Successive restarts can damage the electro motor of a compressor owing to overload. If the compressor is controlled by thermostat, a restart delay, about 3 minutes, is necessary to equalize the pressure.

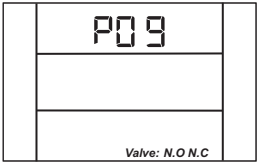
P07 - Automatic heat/cool changeover mode
This appends Heat/Cool changeover to operation modes. When selected, thermostat switches between heating or cooling whenever necessary. Presence of this option depends on air-conditioner specifications.



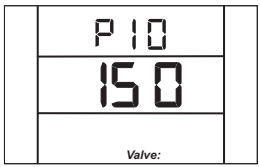
P08 - Heat pump
It switches between heating with heat pump or hot water coil, if both types of heating are available. Presence of this option depends on air-conditioner specifications.



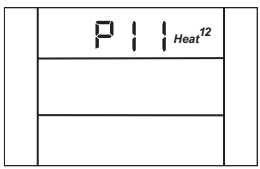
P09 - Valve type
Choose the type of actuator of the electromagnetic valves, if they are present. The available options are normally closed or normally open.



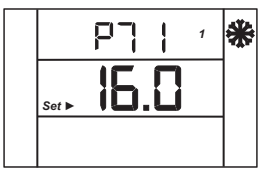
P10 - Valve running time
This option is applicable to floating type actuators. It is necessary time for the actuator to complete a course from fully closed to fully open. The value should be entered correctly according to the catalogue of the actuator for proper functioning.



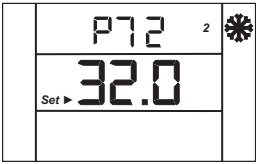
P11 - Heating mode
You may select between "1" for radiant floor heating, "2" for fan coil or "12" for fan assisted radiant floor heating. It is applicable when combination of fan coil and radiant floor heating is used and only applies to CLX 7302.



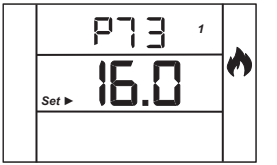
P71 - Lower temperature limit for cooling mode
It sets a lower limit to the value of minimum set point that user may adjust during cooling mode.



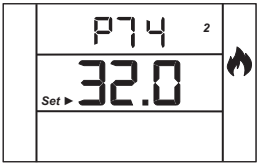
P72 - Upper temperature limit for cooling mode
It sets an upper limit to the value of maximum set point that user may adjust during cooling mode.



P73 - Lower temperature limit for Heating mode
It sets a lower limit to the value of minimum set point that user may adjust during heating mode.

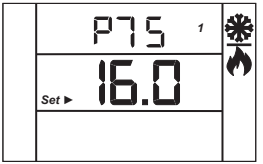


P74 - Upper temperature limit for cooling mode
It sets an upper limit to the value of maximum set point that user may adjust during heating mode.



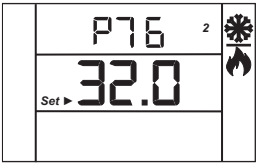
P75 - Lower temperature limit for Automatic H/C mode

It sets a lower limit to the value of minimum set point that user may adjust during automatic heat/cool changeover mode.



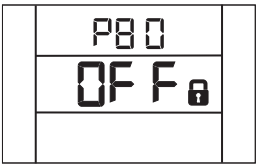
P76 - Upper temperature limit for Automatic H/C mode

It sets an upper limit to the value of maximum set point that user may adjust during automatic heat/cool changeover mode.



P80 - Lock type

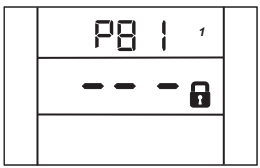
"OFF": It means that the keylock feature is disabled.
"CHL": It stands for child lock. Keys can be unlocked by pressing "+" and "-" keys simultaneously for a few seconds.
"Cod": It stands for a 3 figure passkey to unlock the keys.



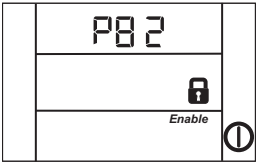
NOTE If key lock is not activated for any of the keys through programs P82 to P85, the lock will be disabled regardless of the entered setting in program P80.

P81 - Change the passcode

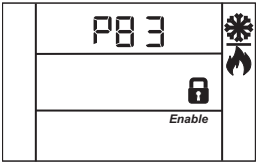
Press the power key to start entering the passcode. Use "+" and "-" keys to increase/decrease any figure. Use "▶" or "◀" keys to move to the next/previous figure. Press the power key again after you have done. You will be asked to enter the passcode for the second time. If it is not matched, a flashing reject message ("rEJ") appears followed by a long beep, and you will be asked to enter the passcode again. Otherwise two short beeps assures you, that the passcode has changed successfully.



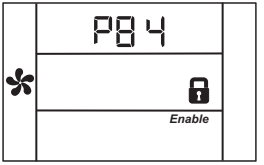
P82 - Lock power key
When the key lock is activated, it determines whether the power key should be locked or not.



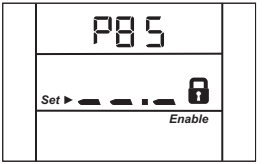
P83 - Lock operation mode key
When the key lock is activated, it determines whether the operation mode key should be locked or not.



P84 - Lock fan speed key
Determines whether the user is allowed to change the fan speed after the keys has been locked or not.



P85 - Lock set temperature adjustment keys
It states that if the user is allowed to change the set temperature after activation of the key lock or not.



P99 - Save / Restore
Use "**+**" to save the settings or "**-**" to restore all changes to the factory default values and return to the main screen.

Appendix D. Troubleshooting

Issue	Action
The display is vanished	Check if the circuit breaker is on and the fuse inside the thermostat is not blown. In any of the above cases, we recommend that your air conditioner and your wiring should be checked by a technician. Note for the technician: Turn off the circuit breaker. Detach the wires from the thermostat. Shorten the phase wire with one of the wires except the null. Turn on MCB and measure the current. Repeat the operation for all of the wires respectively. Compare the results with the specified current at the air conditioner catalogue. Make sure that the air conditioner has no problem. Turn the circuit breaker off. Replace the fuse with the same one if it is blown (Refer to Appendix E. for fuse rating). Never bridge the fuse or replace it with other types of fuses. Turn the circuit breaker on again. If the circuit breaker is turned off again automatically, or if the fuse blows again, contact your local customer service.

Issue	Action
The air conditioner does not start	1. Check if the power icon represents the operational mode. 2. Check if you have selected heating or cooling appropriately. 3. Check if the temperature difference is above the swing temperature. If you are not sure about the value of the swing temperature try to increase the temperature difference above 2 ºC.
The air conditioner is always running	1. Check if you have selected heating or cooling mode appropriately. 2. Check if your desired temperature is too low or too high. The best value for desired temperature is about 25 ºC. 3. It is possible that your air conditioner capacity is not enough for your application or maybe its performance has been degraded due to some technical problems.

Contact your local customer service if the above table did not resolve the problem, or your issue is not listed here.

Appendix E. Technical specifications

Thermostat specifications	Temperature sensitivity	0.1 °C
	Backlight	White
	Display length	42 mm / 1.7 inches
	Display width	24 mm / 1.0 inch
	Width	76 mm / 3.0 inches
	Length	76 mm / 3.0 inches
	Height	45 mm / 1.8 inches
	Maximum unconcealed thickness	12 mm / 0.5 inch
Frame dimensions	Width	82 mm / 3.2 inches
	Length	90 mm / 3.5 inches
	Height	8 mm / 0.3 inch
Conduit box dimensions	Width	60 mm / 2.4 inches
	Length	60 mm / 2.4 inches
	Height	40 mm / 1.6 inches
Operating condition	Temperature	0 °C to 70 °C
	Humedity	5% to 90% non-condensing
Fuse specifications	Current rating	3.15 A
	Nominal melting I^2t	$80A^2/S$
Remote controller	Max. effective distance	8 m
	Max. viewing angle	30 °