

Original instructions

Soloclim

User manual



Read these instructions carefully before installation and use.



Keep this manual for future reference.

The product may only be used as set out in the assembly and operating instructions. The guarantee is only valid if the product is used in the manner intended and in accordance with the instructions.








Compliance

- This unit complies with the following European Directives:
- • Low voltage 2014/35/EU
- • Electro-magnetic compatibility 2014/30/EU
- • Use restrictions of hazardous substances in electrical and electronic equipment 2011/65/EC (RoHS2)
- • Waste electrical and electronic equipment 2002/96/EC (WEEE).
- • Energy consumption indication on the labels of energy-related products 2010/30/EU

Safety pictograms

-  Warning
 - It indicates actions that require caution and a suitable preparation.
-  Prohibition
 - Refers to prohibited actions.


















Warnings

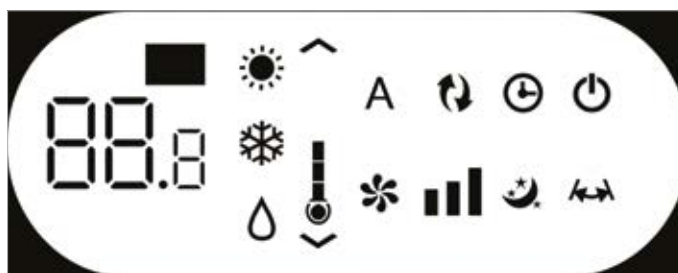
-  Objects or structural obstacles (furniture, curtains, plants, leaves, blinds, etc.) must not obstruct the normal air flow both from the internal and from the external grids.
-  Do not lean against, or worse sit on, the body of the conditioner, this would damage the appliance.
-  Do not move the horizontal air outlet flap manually. Always use the remote control to perform such operation.
-  In the event of water leaks, turn off the appliance and disconnect the electric power supply. Call the nearest service centre.
-  During heating mode, the conditioner eliminates periodically any ice formed on the external battery. In such situation, the machine keeps on working but it does not dispense warm air to the room. This phase can last 3 up to maximum 10 minutes.
-  The appliance must not be installed in rooms where explosive gases develop or where there are humidity and temperature conditions that exceed the maximum levels reported on the installation manual.
-  Clean the air filter regularly as described in the specific paragraph.

Management of the appliance with the touch-screen display

- 1 Remote control
2 Touch screen display


BUTTON / DISPLAY:

	Setpoint		Heating only button (2)
	Up button		Nocturnal well-being button
	Down button		Control of air flow direction button
	Switching on/off button		Fan speed control button
	Well-being button (economic automatic mode)		Timer mode setting button (1)
	Cooling only mode button		Timer mode setting button (2)
	Dehumidification only mode button		Brightness sensor
	Ventilation only mode button		Digital thermometer; 1÷7 red bars in winter, blue bars in summer
	Heating only button (1)		Not used



Normally, the display shows the operating status (see Description of machine functioning paragraph) as well as any alarms (see Display alarms paragraph). In addition, it is possible to select the various functions by pressing the symbols.

It is possible to select the various modes by pressing the buttons (see Description of machine functioning paragraph).

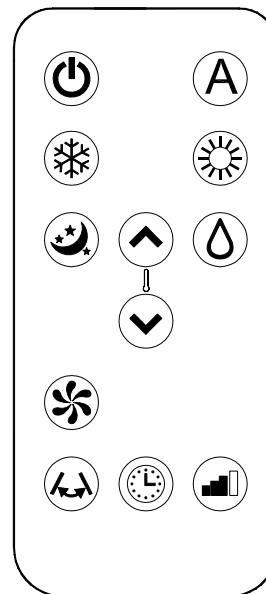
 The remote control provided has been designed to be functional and resistant, however it must be handled cautiously.

Avoid:

- leaving it exposed to rain, pouring liquids on it or dropping it into water
- hitting it or dropping it on hard surfaces
- leaving it under the sun
- placing obstacles between the remote and the appliance while using it.

In addition:

- if there are other appliances using remote controls in the room (TV, radios, stereos, etc.), interferences may occur
- electronic or fluorescent lamps can interfere with communication between the remote and the appliance
- remove the battery if not using the remote for a long time.



Battery insertion

Only CR2012 3V dry lithium batteries must be used (supplied). Used batteries must be handed over to the specific collection areas as arranged by the Local Authorities for this type of waste.

In order to insert the batteries, open the specific cover in the bottom part of the remote. The battery must be inserted respecting polarity. Once the battery is inserted, close the cover.






Description of machine functioning











General start-up and management








In order to manage the appliance using the remote control and the touch-screen, the main switch on the electrical power supply line must be turned on (its exact position will be best known by the technician who installed the appliance) or the power supply plug must be connected to the system socket.

Once such operations have been performed, it is possible to manage the system using the symbols on the touch-screen

or the remote control. In order to transmit commands to the internal unit, the top part of the remote must point towards the display of said internal unit. The reception of the command is confirmed by a beep and by the display. The maximum distance for the remote control to work is approximately 8 metres.

Key/Display	Operation
	The keys of the remote control and of the touch screen display perform the same functions.
	When the unit is turned on, the 3 digits on the display will show the set-point.
	It is possible to set the set-point between 16 and 31°C, to which temperature the unit will bring the room.
	
	If the temperature is set too low or too high, not only it is unhealthy, but it is also a useless waste of energy.

Key/Display	Operation
	Switching the appliance on and off <p>It is possible to switch the appliance on or off (stand-by) by pressing the specific button. The control system of the appliance is equipped with a memory, so settings won't be lost if the appliance is switched off or in the event of low voltage. The button must be used to activate or deactivate the appliance for short periods of time.</p> <p>⚠ In case of long periods of inactivity, the appliance must be deactivated disconnecting either the main switch or the plug from the socket.</p>
	Well-being button (economic automatic mode) <p>By choosing this mode on the appliance, it is set so as to obtain the best level of comfort in the room. The conditioner selects the mode automatically (cooling or heating) according to the temperature set and ventilation speed according to the temperature of the room.</p>
	Cooling only mode <ul style="list-style-type: none"> In this mode, the appliance dehumidifies and cools the room.
	<ul style="list-style-type: none"> It is possible to set the desired temperature between 16 and 31°C and, if such temperature is lower than the room temperature, the compressor starts up after three minutes (maximum) and the appliance starts dispensing cool air, maintaining ventilation active even if the setpoint has been reached.
	Dehumidification only mode <p>In this mode, the appliance dehumidifies the room. Selecting this mode is useful during mid-seasons, that is to say during those days (e.g. rainy ones) when the temperature is rather pleasant, but excess humidity causes discomfort. This mode ignores both room temperature and ventilation speed settings. The latter is always set to a minimum. It is normal for the appliance to work intermittently.</p>
	Ventilation only mode <p>By selecting this function, the compressor is never activated and the appliance does not intervene on room temperature or humidity. IT IS possible to choose the speed of the fan</p>
	Heating only mode <ul style="list-style-type: none"> In this mode, the appliance heats the room. <p>⚠ Set on heating only mode, the appliance defrosts the evaporative battery periodically if necessary. During this phase, the conditioner does not dispense warm air, even if its internal organs are on except for air ventilation.</p>
	<ul style="list-style-type: none"> It is possible to set the desired temperature between 16 and 31°C and, if such temperature is higher than the room temperature, the compressor starts up after three minutes (maximum) and the appliance starts dispensing warm air.
	Nocturnal well-being button <p>While the appliance is on in the selected cooling or heating mode, it is possible to choose different functions by pressing the button in order to maximise noise reduction, energy saving and nocturnal well-being regulation.</p> <p>In this mode, ventilation is set on minimum speed.</p> <p>This mode should be activated right before going to sleep.</p> <ul style="list-style-type: none"> In cooling mode, the set temperature is lowered by 1°C after one hour and by another degree after two. After the second hour, the temperature is no longer changed and, after six hours, the appliance is put in stand-by. In heating mode, the set temperature is lowered by 1°C after one hour and by another degree after two. After the second hour, the temperature is no longer changed and, after six hours, the appliance is put in stand-by. <p>This function is not available for dehumidification only, ventilation only and economic automatic modes and can be excluded any time (ideally once awake) by pressing the button again.</p> <p>If the Timer has also been set, the appliance will turn off at the set time.</p>
	Control of air flow direction <p>By pressing the specific button, it is possible to select the continuous oscillation of the mobile air outlet flap - in such case, the symbol on the display is lit - or to block it in any position.</p> <p>⚠ IMPORTANT: The mobile flap must never be moved manually. In cooling and dehumidification modes the position of the flap is reset every 30 minutes, in order to prevent dew from forming.</p>

Key/Display	Operation
	<p>Fan speed control SC17 and SC22</p> <p>By pressing this button several times, the speed will change according to the following sequence: Operation</p> <p>The buttons on the remote and the keys on the touch-screen display have the same function. When the appliance is on, the setpoint is shown on the 3 digits of the display. It is possible to adjust the setpoint between 16 and 31°C. Avoid setting the temperature too low or too high as, in addition to being unhealthy, it's a waste of energy.</p> <p>Setting the voltage for models inverter SC21DCI and SC23DCI</p> <p>Always keep filters clean (see Maintenance and Cleaning chapter). Keep doors and windows closed</p> <p>Avoid direct sunlight in the room (use curtains, pull down the blinds or close the shutters)</p> <p>Do not obstruct the air flow (inwards and outwards) as, on top of affecting performance, it prevents the system from working correctly and it may cause irreparable damage to the appliance.</p> <p>Then the controller inhibits the function and goes in automatic mode.</p> <p>It is very important that the User is capable of distinguishing problems or anomalies from normal functioning. The most common problems can be solved by the User following simple procedures (see Troubleshooting paragraph), whereas it is necessary to contact the Service Centre for some of the alarms. We would like to remind you that any reparation attempt performed by unauthorised personnel immediately invalidates any warranty.</p>
	<p>The compressor does not start again before a certain period of time (approximately 3 minutes from the previous stop).</p> <ul style="list-style-type: none"> The delay between stops and reactivations has been arranged in order to protect the compressor from too frequent activations.
	<ul style="list-style-type: none"> During heating mode, it is possible that warm air is dispensed a few minutes after the compressor has been activated. When the air conditioning unit is off, it is possible to schedule its start by pressing the Timer button, followed by the number of hours (from 1 to 24) after which the unit will start.
	
	
	<p>Touch-screen display key lock</p> <ul style="list-style-type: none"> The key lock is activated by keeping the Timer symbol on the touch-screen display pressed for three seconds. Operating aspects that must not be interpreted as problems Managing the appliance if the remote control is not available To deactivate the lock, keep the Timer symbol pressed for three seconds once again. <p> The lock remains active in the case of a power failure and also if the remote control is used!</p>

Using the unit if the remote control is not available


If the remote control has been lost, the batteries are exhausted or it no longer works, the unit can be operated by using the keys on the touch screen display on the machine.

Suggestions for power saving

- Always keep the filters clean (see maintenance and cleaning chapter).
- Keep the doors and windows of the rooms to be air conditioned closed
- Do not let direct sunlight to enter the room (use curtains or lower the blinds or close the shutters)
- Do not block the air flow paths (input and output) of the unit; this, as well as causing a non-optimal performance of the unit, will jeopardise the correct operation of the same and may cause irreparable damage to the units.

Diagnosis of problems

For the User it is very important to distinguish any inconveniences or abnormal operation of the unit compared to its normal operation. Also, the most common problems can be easily solved by means of simple operations performed by the User (See paragraph: Troubleshooting), while for some alarms signalled on the display, it is necessary to contact Customer Service.

 We also remind you that any attempt to repair the unit on part of unauthorised technicians will void the warranty immediately.

Operating aspects that should not be interpreted as problems

- The compressor will not restart before a certain time has passed (about three minutes from the previous stop). It is not possible to stop and restart the compressor without waiting at least three minutes. This is provided for in the operating logic of the unit, so as to protect the compressor from frequent activations.
- During operation in heating mode, the warm air is delivered a few minutes after the activation of the compressor. If the fan started at the same time as the compressor, in the first minutes of operation the air delivered would be too cold (which may disturb the occupants of the room) since the unit is not yet ready.

Trouble shooting

In case of malfunctioning, please refer to the following table. If, after performing the suggested checks, the problem is not solved, please contact the authorised technical assistance.

Anomaly	Possible causes	Solution
The appliance doesn't switch on	No power supply	Check the voltage (by turning the light on, for example). Check that the exclusive magneto-thermic switch that protects the appliance hasn't intervened (if it has, reset it). If the problem repeats immediately, please call the Service Centre and avoid trying to make the appliance work.
	Batteries ran out	Check that the appliance can be turned on using the touch-screen display and substitute the batteries.
The appliance does not cool/heat enough.	The temperature set is too high or too low.	Check and adjust the temperature on the remote
	The air filter is clogged	Check the air filter and clean it if necessary
	Check that there are no other obstacles of the air flow both inside and outside.	Remove anything that might block the air flow.
	The thermal refrigeration load has increased (for example, a door or a window has been left open or an appliance has been installed in the room which generates a lot of heat).	Try to reduce the thermal refrigeration load of the room following instructions below: - Cover large windows exposed to sunlight with curtains or with external maskings (blinds, porches, reflecting films, etc.). - The room must remain closed for as long as possible. - Avoid turning on halogen lamps or other high energy consumption appliances such as small ovens, steam irons, cooking plates etc.

Display alarms

An alarm code appears on the display in case of anomalies. Some of the functions remain active nonetheless (see FUNCTIONING column).

Alarm	Cause	Operation
E1	Broken room temperature RT sensor	It is still possible to activate the Cooling, Dehumidification and Heating modes. It only monitors the antifreeze function of the internal battery.
E2	Broken internal battery IPT sensor	None of the modes can be activated.
E3	Broken outside temperature OT sensor	None of the modes can be activated.
E4	Broken outside battery OPT sensor	It is still possible to activate the Cooling, Dehumidification and Heating modes. Defrosting is performed at fixed times.
E5	Broken internal fan motor	None of the modes can be activated.
E6	Broken external fan motor	None of the modes can be activated.
E7	Lack of communication with the display *	None of the modes can be activated.
E8	Compressor discharge probe failure *	None of the modes can be activated.
CP	Open CP contact	The appliance only works if the contact is closed. Check that the clamps are connected.
OF	Maximum level float intervention	During cooling and dehumidification, electronics switches the compressor off and keeps the water distribution system active with the battery - together with the fan - to disperse excess water in the container. During heating, condensations should drain freely through the specific pipe. In the event of an alarm, check that the condensation pipe is not bent or obstructed, thus preventing the water from flowing out.

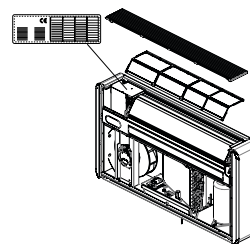
* for models 10 and 12 HP DC Inverter: lack of communication between the main, power, driver or display boards

The only way to solve the problem is to disconnect and reconnect the appliance. If the alarm still appears, please contact the authorised technical assistance.

Technical specifications

Please read data plate to obtain the technical data listed below.

- Power supply voltage
- Maximum absorbed power
- Maximum absorbed current
- Amount of refrigerant gas
- Casing protection level
- Max. working pressure



		SC17	SC22	SC21DCI	SC23DCI
Cooling power (1)	kW	1.65	2.30	2.04	2.35
Power in max cooling mod. Dual Power	kW			2.60	3.10
Heating power (2)	kW	1.70	2.25	2.36	2.36
Power in max heating mod. Dual Power	kW			2.64	3.05
Power absorbed when cooling (1)	W	580	850	630	730
Power absorbed when heating (2)	W	545	725	638	720
Dehumidification capacity	l/h	0.8	1.1	1.0	1.1
Power supply voltage:	V-F-Hz	230-1-50	230-1-50	230-1-50	230-1-50
EER	W/W	2.84	2.71	3.24	3.22
COP	W/W	3.12	3.1	3.29	3.28
Energy efficiency ratio when cooling		A	A	A+	A+
Energy efficiency ration when heating		A	A	A	A
Internal-external ventilation speed	No.	3	3	3	3
Dimensions (WxHxD)	mm	1030x555x170	1030x555x170	1030x555x170	1030x555x170
Weight	kg	47.6	48.0	48.5	48.5
Noise level (min-max) **	dB(A)	29/38	32/41	27/41	27/41
Wall holes diameter	mm	162	162	162	162
Wall holes distance	mm	293	293	293	293
Refrigerant gas		R-410A	R-410A	R-410A	R-410A
R410A refrigerant charge	g	480	520	520	520
Maximum absorbed power	W	690	920	1060 *	1060 *
Maximum absorbed current	A	3	4.1	4.8 *	4.8 *
Maximum working pressure PS	MPa	3.8	3.8	3.8	3.8
Degree of protection		IPX0	IPX0	IPX0	IPX0

*) with Dual Power function activated during heating

**) Noise pressure measured 1 m away and 1.5 m high

Refer conditions

		T ambient	External t
(1)	Cooling mode tests	DB 27°C - WB 19°C	DB 35°C - WB 24°C
(2)	Heating mode tests	DB 20°C - WB 15°C	DB 7°C - WB 6°C

Reference standards EN 14511. 1. 2.3.4

Operating limits

	Internal ambient temp.	Outside ambient temp.
Maximum operating temperature in cooling mode	DB 35°C - WB 24°C	DB 43°C - WB 32°C
Minimum operating temperature in cooling mode	DB 18°C	DB -5°C
Maximum operating temperatures in heating	DB 27°C	DB 24°C - WB 18°C
Minimum operating temperatures in heating	DB 5°C	DB -10°C

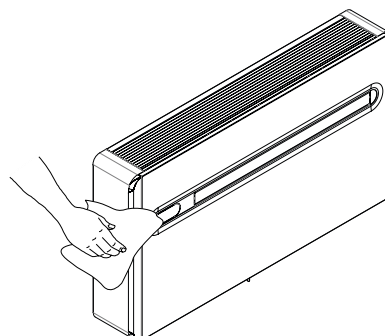
Periodic maintenance

The air conditioner you have bought has been designed to keep maintenance operations to a minimum, in fact, they only include the following cleaning operations:

External cleanings

- ⚠ Disconnect the unit from the power supply before each cleaning and maintenance intervention by setting the main power supply switch to off.
- ⚠ Wait for the components to cool down in order to avoid any burns.
- ⚠ Do not use abrasive sponges or abrasive or corrosive detergents as you might damage the painted surfaces.

When necessary, clean the external surfaces with a soft damp cloth.



Cleaning the filters

The air conditioner you have bought has been designed to keep maintenance operations to a minimum, in fact, they only include the following cleaning operations.

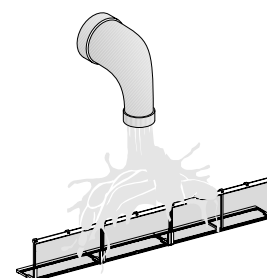
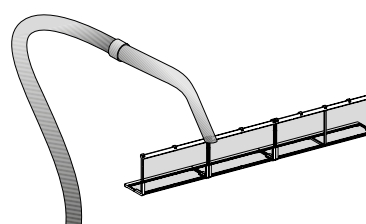
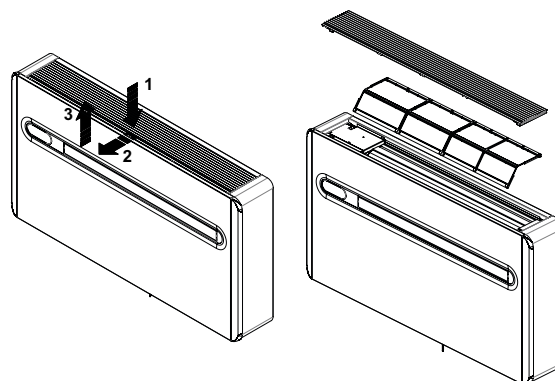
- Clean the air filter after a period of continuous use and according to the concentration of impurities in the air, or when you wish to start-up the appliance after a period of inactivity. N.B.: before performing any operation, take care with the hot and/or sharp surfaces of the metal.
- The filter is placed in the top part of the appliance.

To extract the filters:

- open the grid and remove it;
- extract the filters by lifting them;
- remove the dust from the filter with a vacuum cleaner or by washing it in running water without using detergents or solvents and leave to dry;
- put the filters back on top of the batteries, taking care to position them correctly;
- put the grid back.

- ⚠ After filter cleaning check if the panel is properly mounted.

- ⊘ It is forbidden to use the device without its mesh filter.



Main office

Frico AB
Box 102
SE-433 22 Partille
Sweden

Tel: +46 31 336 86 00

mailbox@frico.se
www.frico.se

**For latest updated information and information
about your local contact: www.frico.se**

