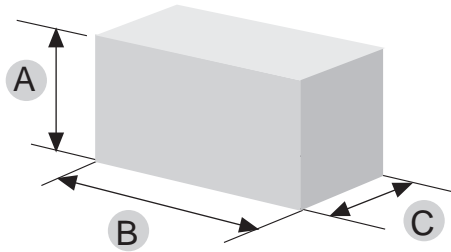
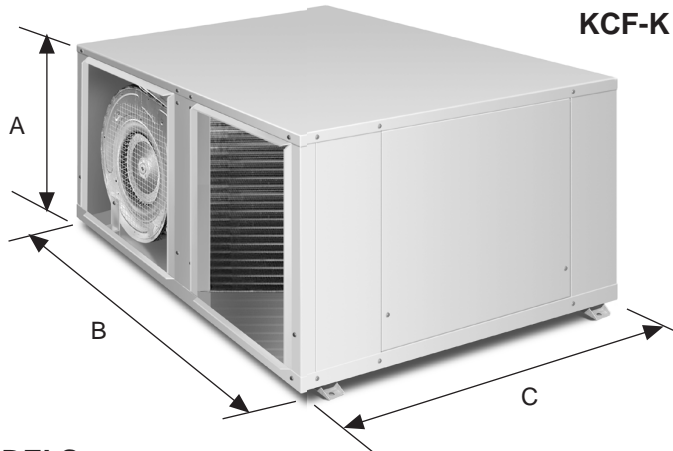


DIMENSIONS OF OUTDOOR UNIT WITH CENTRIFUGAL FAN (mm.)

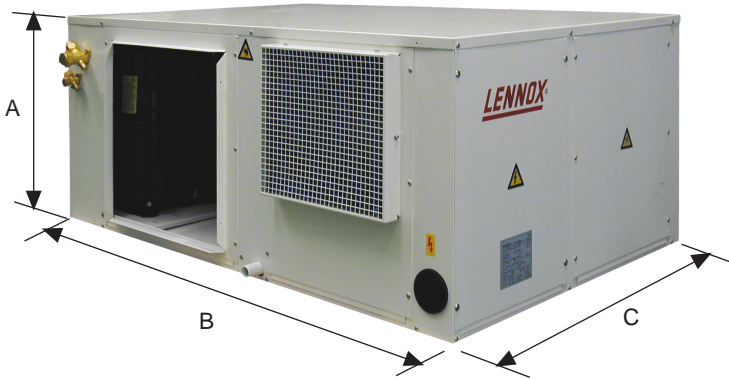
MAXIMUM DIMENSIONS



MODELS
KCF-K / KCB-S 2,8-3

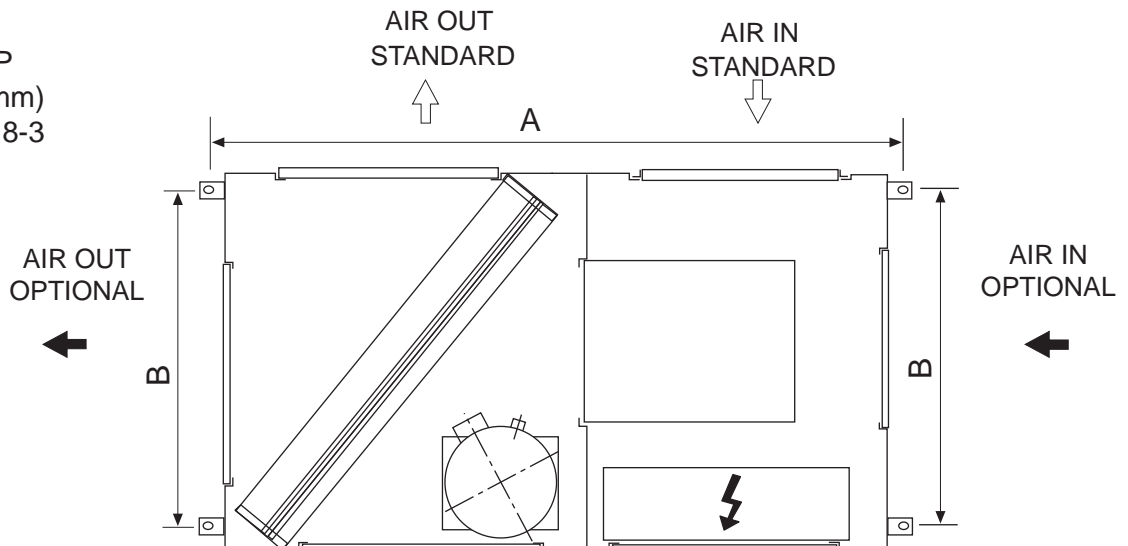


MODELS
KCF-K / KCB-S- 4-5



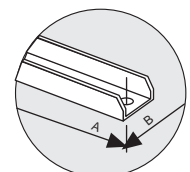
KCF-K KCB-S	2,8-3	4	5
A	490	525	575
B	1050	1300	1300
C	750	830	830
A	505	525	575
B	1100	1300	1300
C	841	890	890

SETTING UP
TEMPLATE (mm)
UNITS 2-2,5-2,8-3



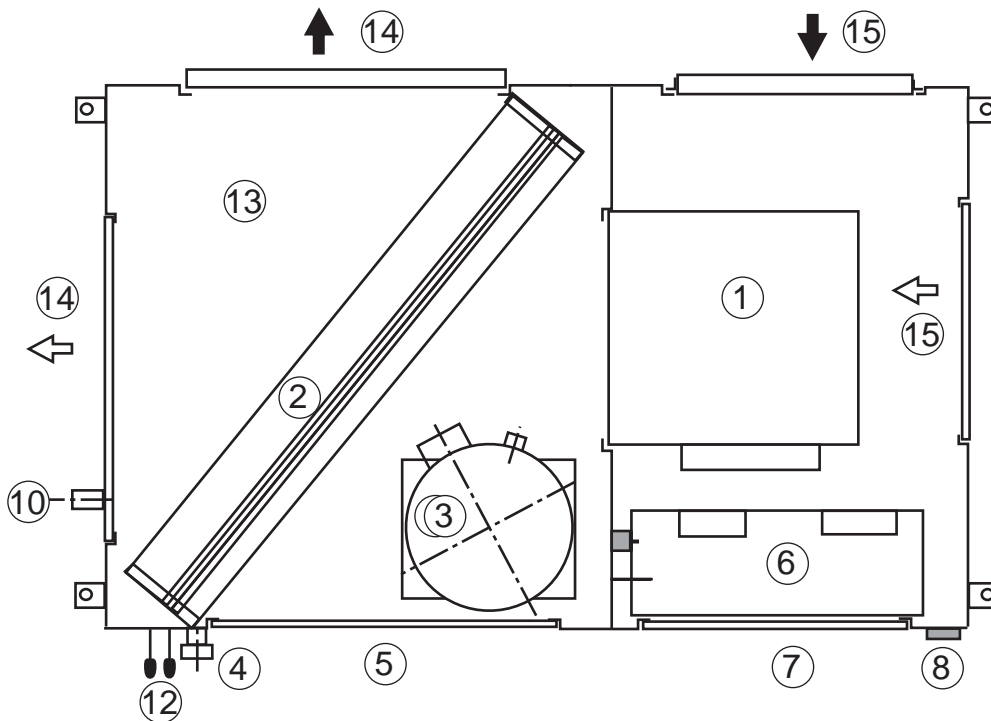
Use 4 rod of a diameter of 10mm if the unit is fixed in the roof, or screw M.10 if the unit is fixed on the ground.

Dimensions recommended on point A and B are referred to the hole of support of the unit.

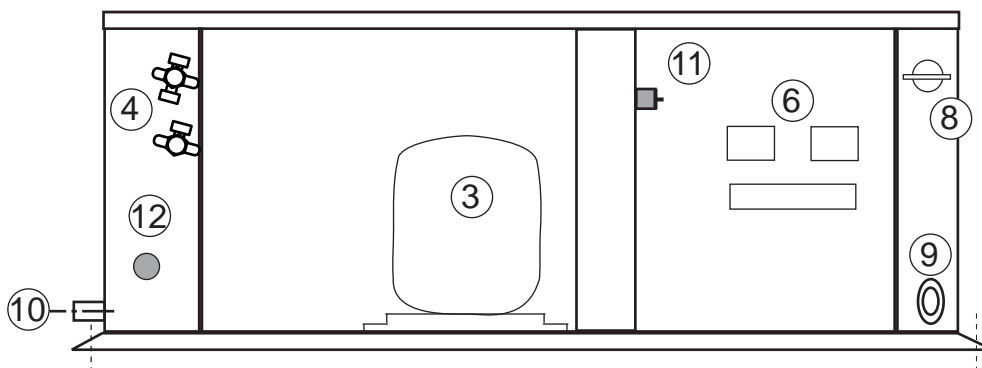


	A	B
KCF / KCB-S- 2,8 - 3	1064	660

DESCRIPTION OUTDOOR UNIT KCF-K / KCB 2,8-3



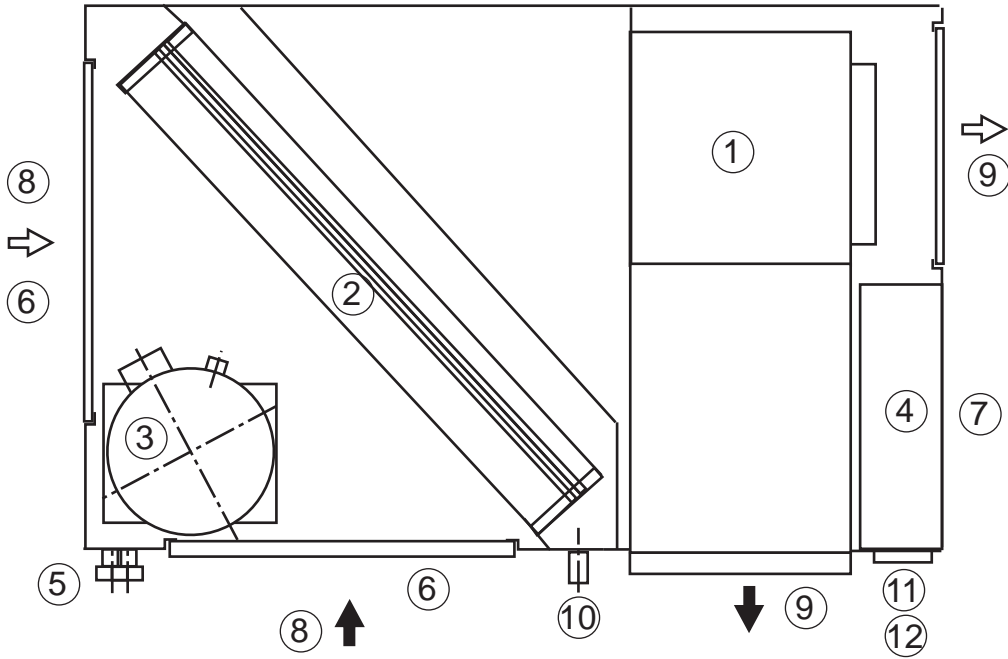
- | | |
|---|-------------------------------|
| ① FAN | ⑩ DRAINAGE (Ø 16 EXTERNAL) |
| ② EXCHANGER | ⑪ REARM ON ON HIGH PRESSOSTAT |
| ③ COMPRESSOR | ⑫ INTAKE PRESSURE (MOD.2,8-3) |
| ④ CONNETION PIPE | ⑬ CONDENSATE PUMP |
| ⑤ ACCESS PANEL TO COMPRESSOR AND PIPES COMPONENTS | ⑭ AIR OUT |
| ⑥ ELECTRICAL BOX | ➡ POSICIÓN STANDARD |
| ⑦ ACCESS PANEL TO ELECTRICAL BOX | ⇨ POSICIÓN OPCIONAL |
| ⑧ MAIN SWITCH (OPTIONAL) | ⑮ AIR IN |
| ⑨ ELECTRICAL SUPPLY ENTRY ELECTRICAL SUPPLY | ➡ POSITION STANDARD |
| | ⇨ POSTION OPTIONAL |



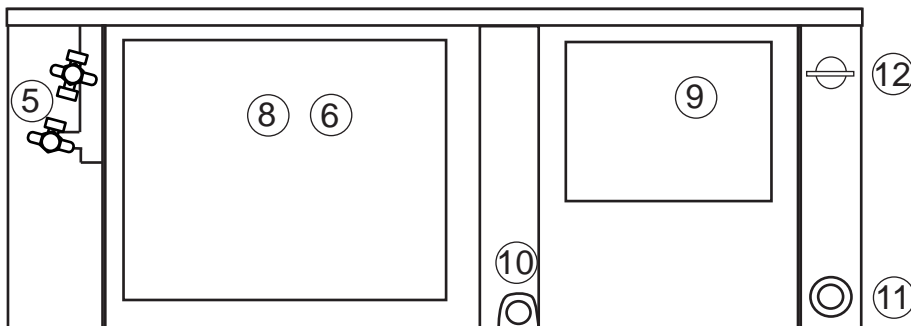
ACCESS TO ELECTRICAL BOX

In the electrical box is included the mechanism of high pressostat rearm.

DESCRIPTION OUTDOOR UNIT KCF / KCB-S 4 - 5

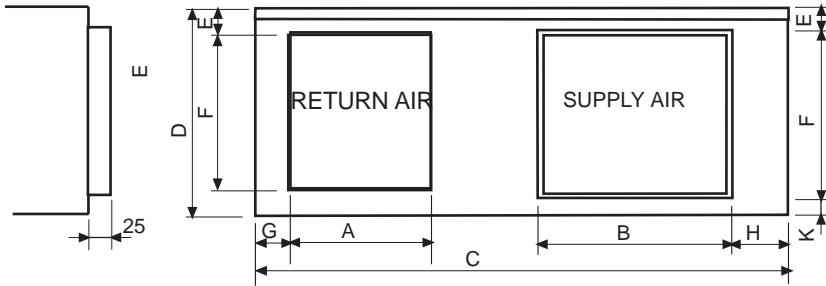


- ① FAN
- ② EXCHANGER
- ③ COMPRESSOR
- ④ ELECTRICAL BOX
- ⑤ CONNETION PIPE
- ⑥ ACCESS PANEL TO COMPRESSOR AND PIPES COMPONENTS
- ⑦ ACCESS PANEL TO ELECTRICAL BOX
- ⑧ AIR OUT
 - ➔ POSICIÓN STANDARD
 - ➞ POSICIÓN OPCIONAL
- ⑨ AIR IN
 - ➔ POSITION STANDARD
 - ➞ POSTION OPTIONAL
- ⑩ DRAINGE (Ø 16 EXTERNAL)
- ⑪ ELECTRICAL SUPPLY ENTRY ELECTRICAL SUPPLY
- ⑫ MAIN SWITCH (OPTIONAL)

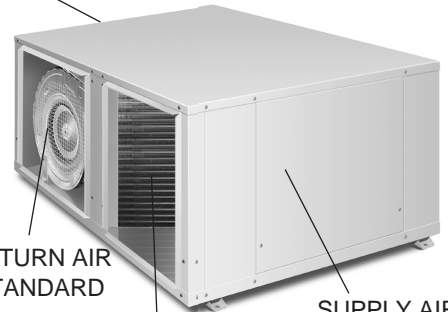


ENTRANCE STANDARD/ OPTIONAL OUTDOOR UNIT KCF-K / KCB

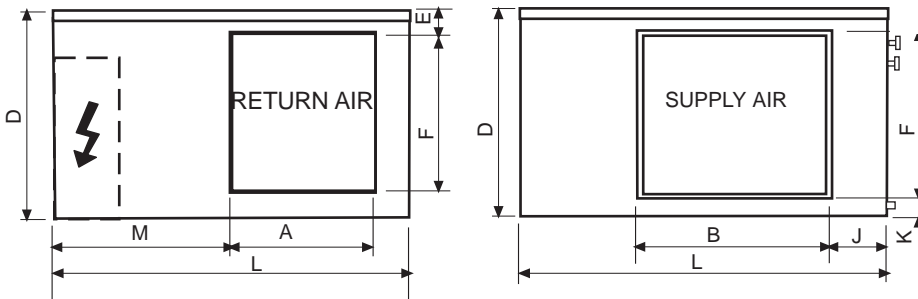
ENTRANCE STANDARD



RETURN AIR OPTIONAL **MODELS 2,8-3**



ENTRANCE OPTIONAL (TO BE REALISE BY THE INSTALLATOR)

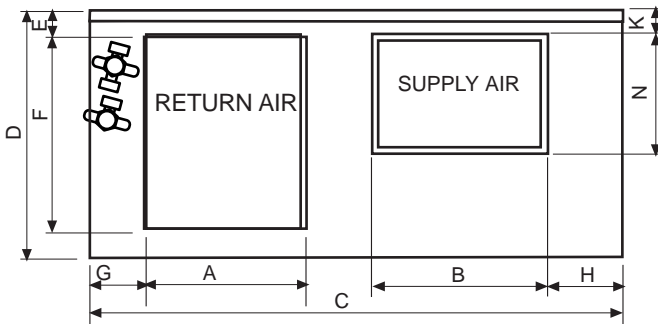


RETURN AIR STANDARD

SUPPLY AIR STANDARD

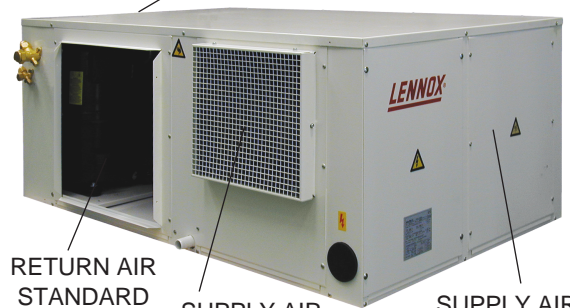
SUPPLY AIR OPTIONAL

ENTRANCE STANDARD

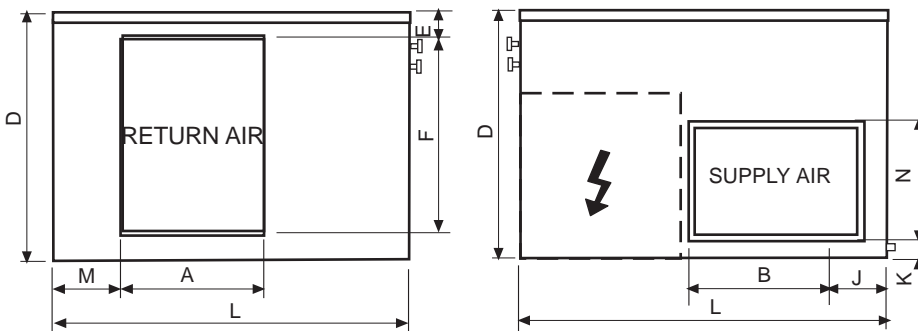


RETURN AIR OPTIONAL

MODELS 4-5



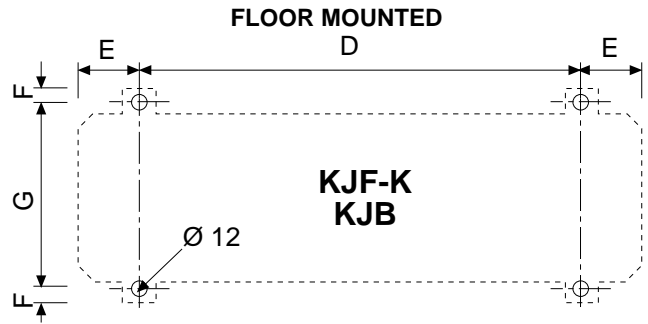
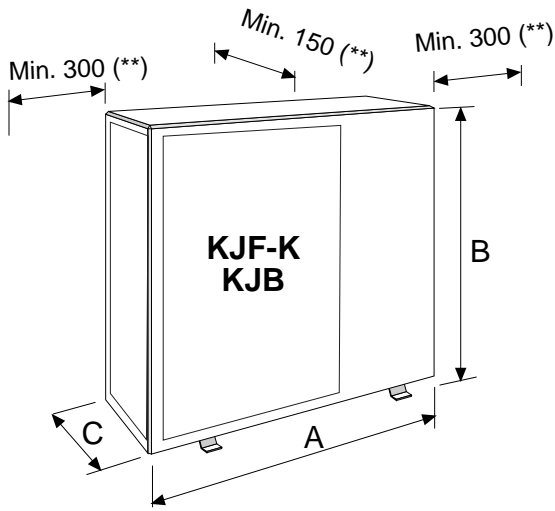
ENTRANCE OPTIONAL (TO BE REALISE BY THE INSTALLATOR)



To change entrances from standard position to optional position, you must substitute the entrance panel correspondent, and refixe using the same fixation screw.

	A	B	C	D	E	F	G	H	J	K	L	M	N
KCF-K / KCB 3S	350	470	1050	490	36,5	400	45.5	35,5	147	53,5	750	332,5	---
KCF-K / KCB 4S	500	375	1300	525	36	432	195	110	65	35,3	830	50	293,4
KCF-K / KCB 5S	500	375	1300	575	36	432	195	110	65	35,3	830	50	293,4

DIMENSIONS AND SETTING UP TEMPLATES OF OUTDOOR UNIT WITH AXIAL FAN

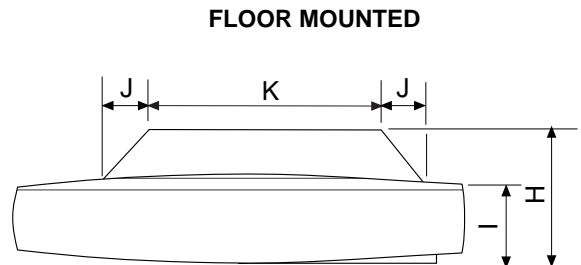
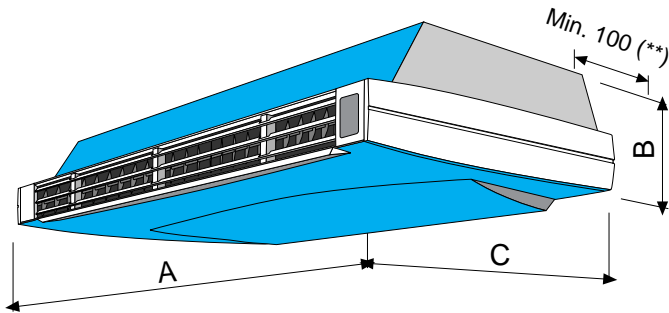


OUTDOOR UNIT

	KJF-2.8K	KJF-3K		KJF-4K	KJF-5K	
	KJB-2.8		KJB-3	KJB-4		KJB-5
A	973	973	973	973	973	1.005
B	781	1.035	781	1.035	1.035	1.330
C	333	333	333	333	333	386
D	620	620	620	620	620	602
E	176,4	176,4	176,4	176,4	176,4	198
F	10	10	10	10	10	10
G	343,5	343,5	343,5	343,5	343,5	410

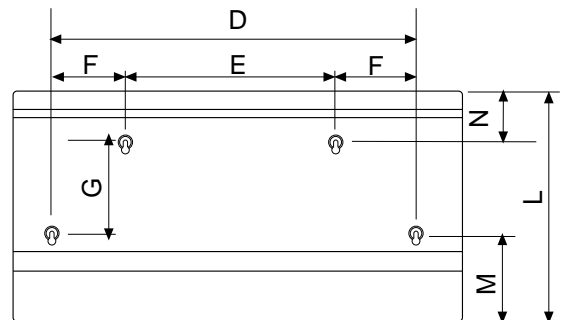
(**) ALWAYS KEEP FREE

DIMENSIONS AND SETTING TEMPLATES OF INDOOR UNIT LTX

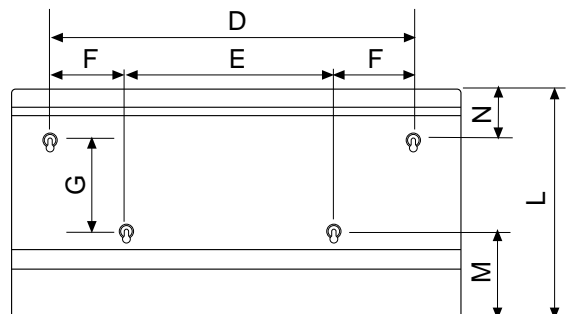


	LTX 3	LTX 5
A	1.409	1.719
B	223	268
C	656	756
D	1.104	1.330
E	1.076	807
F	14	261,5
G	359,5	383
H	267,5	312,5
I	177,5	177,5
J	52	78
K	460	508
L	653	753
M	162,5	213
N	131	157

LTX 5



LTX 3



INSTALLATION INDOOR UNIT

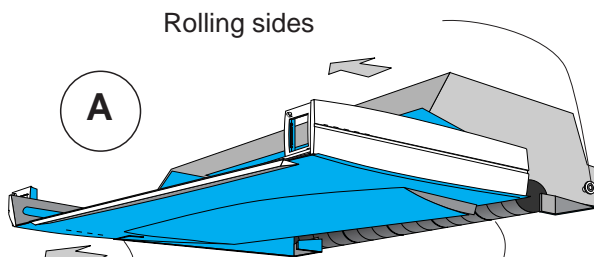
INSTALLATION UNIT

Install the unit in a way that the discharge air would not be direct to persons, differences of temperature can create disturbs.

Keep in mind in the installation of the unit, some ambient can supply electromagnetic radiation that can affect the good function of the unit, follow then the following instruction recommended in this document.

A

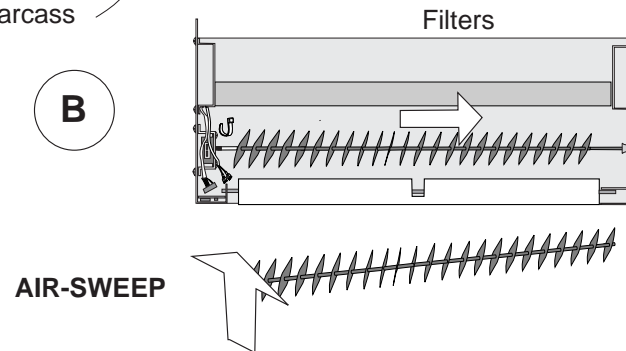
To remove the casing, slide them over the rolling sides and remove horizontally (See picture A).



B

Remove the AIR VANES by moving them in the opposite direction of the air sweep motor until they come out, then release the central fixing clip, so that the AIR SWEEP is removed giving better access to the top of the unit (See picture B).

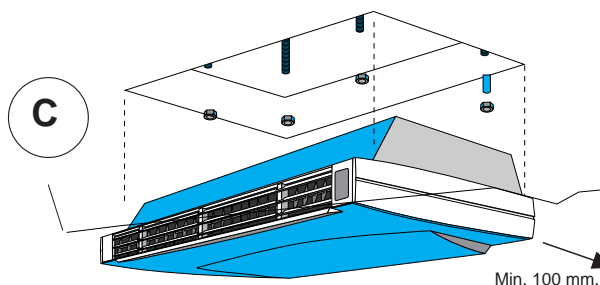
Sides and carcass



C

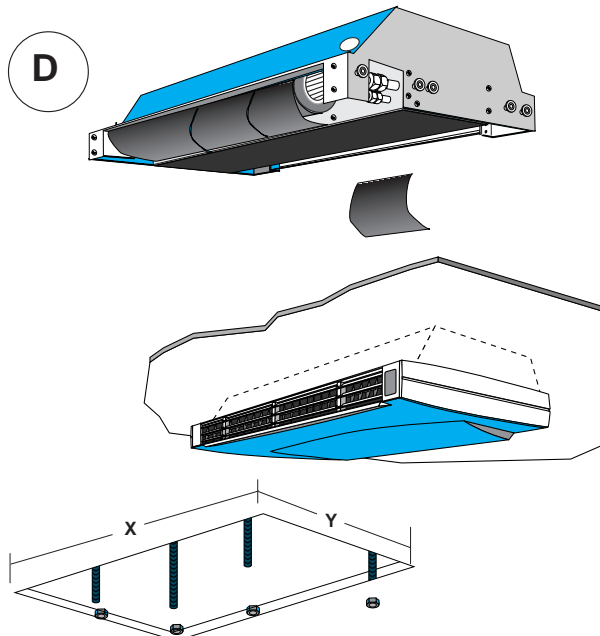
Install the unit with the M-8 screws, always use washers. Fix the screws following the pattern on page 26.

Check the strength of the screws to avoid movement of the indoor unit when removing the side and cover panel.. See picture C



D

Always install the filters. If the unit operates without filters there is a risk of damage in the indoor unit from dust..



OPENING IN FLASE CEILING

	LTX 3	LTX 5
X	1.321 mm	1.630 mm
Y	562 mm	670 mm

ELECTRICAL HEATER

BEFORE ATTEMPTING TO PERFORM ANY SERVICE OR MAINTENANCE, TURN OFF THE ELECTRICAL POWER, AND CHECK THAT THE FAN HAS STOPPED

- ① To remove the casing, slide them over the rolling sides and remove horizontally
- ② Remove the filters.
- ③ Remove drain pan.
- ④ Introduce the electrical heater kit rods in the holes of one side of the coil and fix with screws on the other.
- ⑤ Fix the contactor to the fan deck.

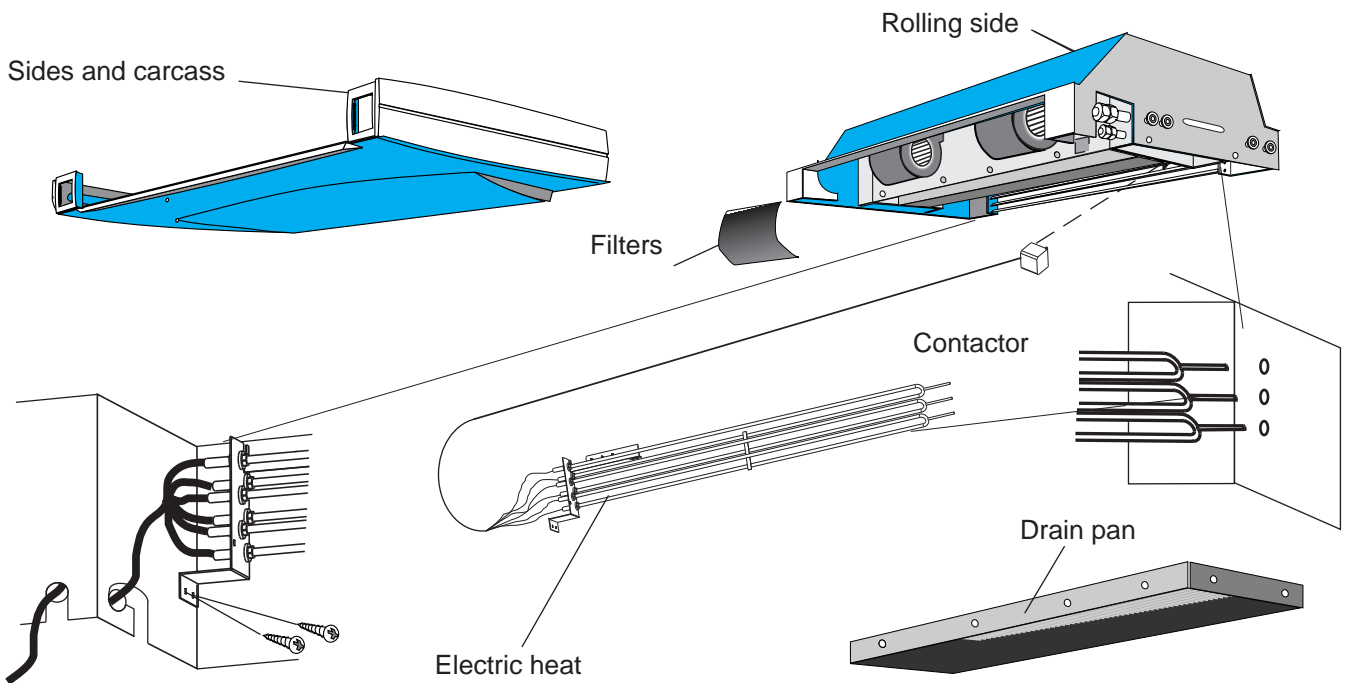
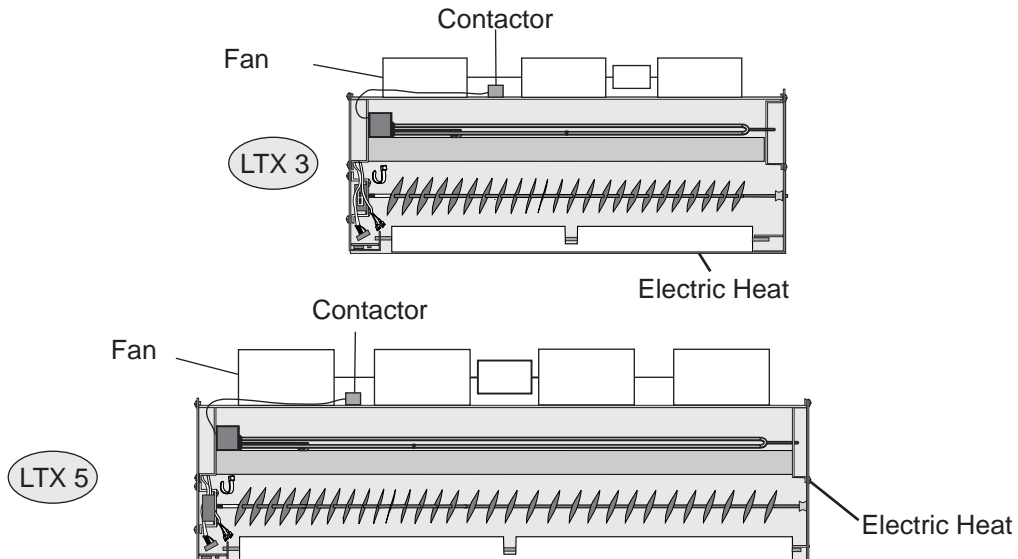


FIG 1



NOTE: The safety thermostat must always be at the top of the heater.

OUTDOOR UNIT OPTIONALS

MAIN SWITCH

The main switch is located on the access panel to the electrical box, in such a way that the unit is disconnected when the panel is opened, for the models KCF and KCB.

(Refer to the size diagram on pages 25 to 30, to see the position of the electrical box access panel)

WINTER CONTROL

The low ambient kit should be fitted to the cooling units, when the outdoor temperature is lower than 19 °C. in cooling cycle. Keeps condensing temperature constant approximately 40°C.

KIT GRID OF TAKES OF FOREIGN AIR

Field assembly.

This kit is comprised of an air filter and grille for outdoor air intake which should be installed on the suction side of the outdoor unit.

MAINTENANCE OF THE UNIT

POSSIBLE PROBLEMS

PROBLEM	SOLUTION
1.- Unit do not work.	<ul style="list-style-type: none"> • Check electrical supply of the unit. • Check electrical connexion. • Check the remote controller and parameter works correctly.
2.- The fan of the unit works quicker without any change on speed.	<ul style="list-style-type: none"> • Check that the filter of the unit is clean. • Check electrical connexion. • If the problem persist, check the function of the motor.
3.- Noise on pipe system. NOTE: Some noises are normal when unit stop and start.	<ul style="list-style-type: none"> • Check refrigerant charge is correct. • ¿was the vacuum been correct? • Check internal temperature, could be quite low.
4.- Excess of condensation in indoor unit.	<ul style="list-style-type: none"> • Check possible obstructions in the condensate pan, and also out of the pan. • Check correct level of the unit. • Check drainage pipe.
5.- The indoor battery freeze continuously.	<ul style="list-style-type: none"> • Check the air filter of the indoor unit. • Check the level of refrigerant. • Check strangulation air flow or recirculation. • If the freeze persist the expansion can be obstructed. • ¿Is the temperature below 21 ° C? • Check indoor temperature sensor.
6.- Unit work perfectly on cooling mode, but do not produce heat on mode heat pump	<ul style="list-style-type: none"> • Check if you have configurate correctly the function mode of the unit. • Check inverter valve of the outdoor unit. • Check the plate PCB to the solenoid inverted valve.
7.-External fan stop	<ul style="list-style-type: none"> • Check that terminal connexion are slack. • Check the motor. • Check the condenser situation. • Check that that the rele of defrost is not activited (Units heat pump).
8.-Excessive pressure of condensation (Working cooling cycle)	<ul style="list-style-type: none"> • Check that the external exchanger is not dirty and obstructed. • Check that there is no condensable gas and air in the refrigerant circuit. • Check that the external fan works correctly. • Check that the refrigerant charge is correct
9.-Low pressure condensation. (Working on cooling cycle)	<ul style="list-style-type: none"> • Check that the refrigerant charge is correct • Check possible obstruction on the expansion system of the outdoor unit, liquid pipe or exchanger. • Check that air filter is not dirty or wrong function of indoor fan.
10.-Excessive pressure on return air (Working on heat pump)	<ul style="list-style-type: none"> • Check that the refrigerant charge is correct • Check the situation of inverter valve. • Check retention valve situation.
11.-Low pressure on return air. (working on heat pump)	<ul style="list-style-type: none"> • Check that the refrigerant charge is correct • Check possible obstruction on the expansion system of the outdoor unit • Check that the external fan works correctly. • Check the correct function of the defrost thermostat .

POINTS TO KEEP IN MIND



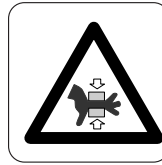
Abrasive surfaces



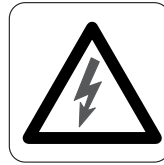
Low temperatures



High temperatures



Risk of injury with moving objects



Electrical voltage



Risk of injury with rotating objects

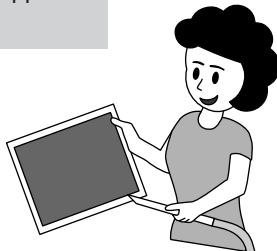
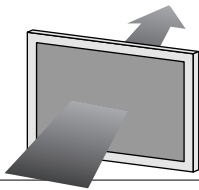
WARNING

Electric shock hazard can cause injury or death. Before attempting to perform any service or maintenance on the unit, turn OFF the electrical power, and check that the fan has stopped.

The air filter cleaning operations do not require technical service; however when an electrical or mechanical operation is required call an Engineer.

FILTER CLEANING

Check the air filter and make sure it is not blocked with dust or dirt.



If the filter is dirty, wash it in a bowl with neutral soap and water, drying it in the shade before inserting it in the unit.

Standard Guidelines to Lennox Refac equipment

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These operating instructions contain useful and important information for the smooth operation and maintenance of your equipment.

The instructions also include guidelines on how to avoid accidents and serious damage before commissioning the equipment and during its operation and how to ensure smooth and fault-free operation. Read the operating instructions carefully before starting the equipment, familiarise yourself with the equipment and handling of the installation and carefully follow the instructions. It is very important to be properly trained in handling the equipment. These operating instructions must be kept in a safe place near the equipment.

Like most equipment, the unit requires regular maintenance. This section concerns the maintenance personnel and management.

If you have any queries or would like to receive further information on any aspect relating to your equipment, do not hesitate to contact us.

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