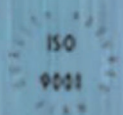




**INSTALLATION
OPERATION AND SERVICE MANUAL
FRM35...S-X1(water heating) SERIES
AIR CURTAIN**



2010 V.1.0/C

1、PRODUCT INTRODUCTION

As one of the new top-class products for modern decoration, air curtain is also matched with the air-conditioner. And it is installed at the entrances of large working shop and storeroom to prevent the dust, mosquito and nocuous air, and so on.

Heating by hot water for this unit, but not by electric power. It is a cooling air curtain when turning off the hot water source.

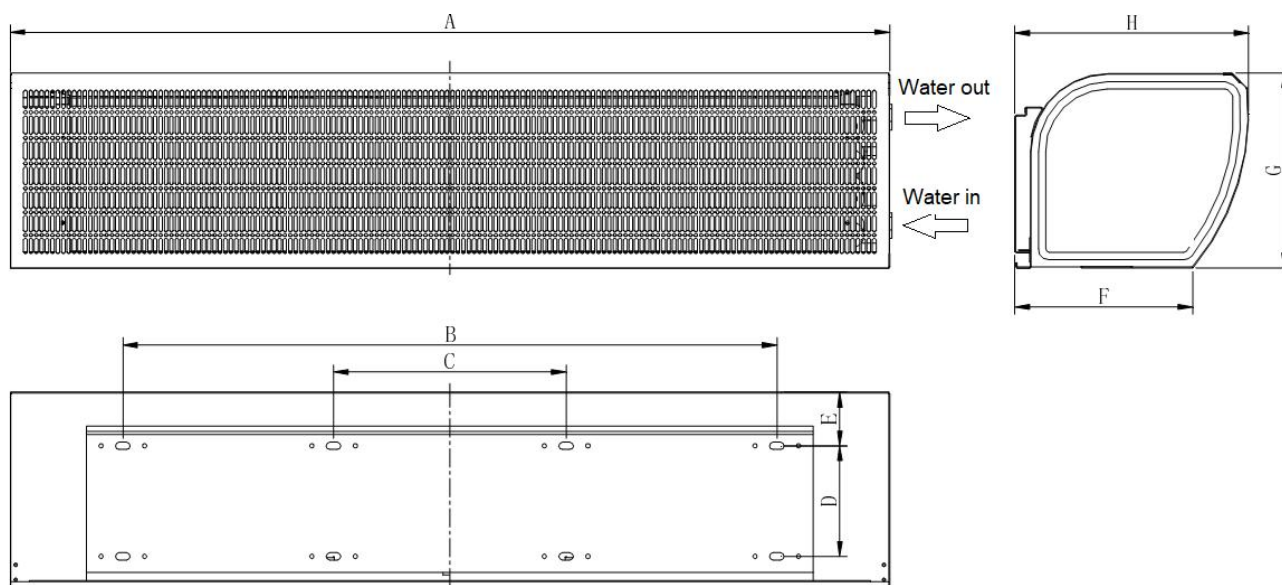
The unit's pressure range: 1.8~2.0Mpa

The unit must install indoor! And it must have the measure of keeping temperature to avoid breach the changer for freezing.

Please install the unit by professional for your right!

Please read the unit's user guide carefully before using, and keep them safely.

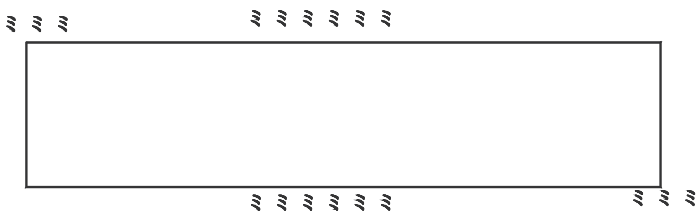
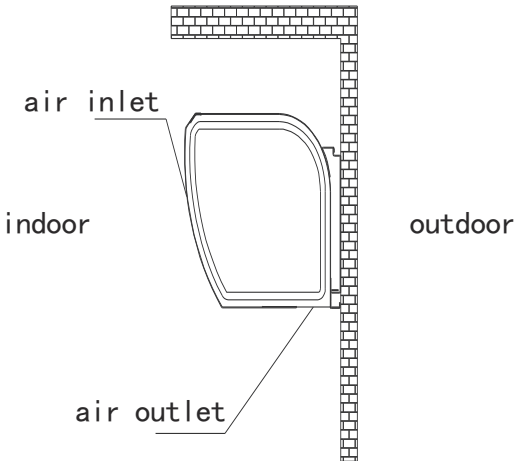
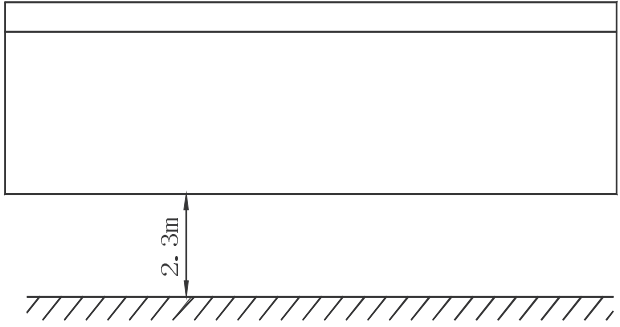
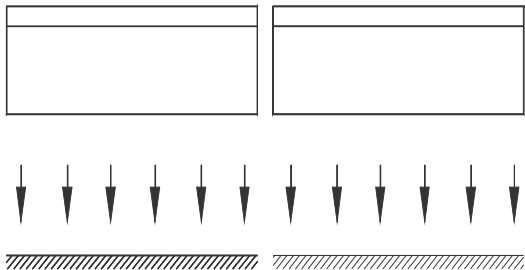
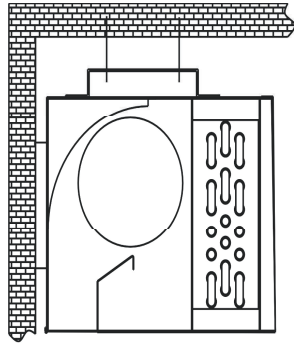
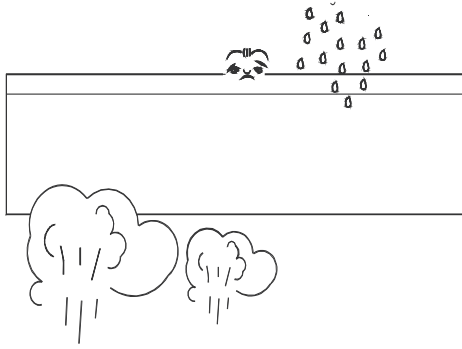
2、 IDENTIFICATION & INSTALLATION DIMENSIONS



Model	A	B	C	D	E	F	G	H
FRM-3509-Y-S-X1	900	505	—	100	67	218	225	287
FRM-3512-Y-S-X1	1210	505	—					
FRM-3515-Y-S-X1	1505	1120	380					

3、INSTALLATION CAUTION

Must follow the following asking when installing air curtain:

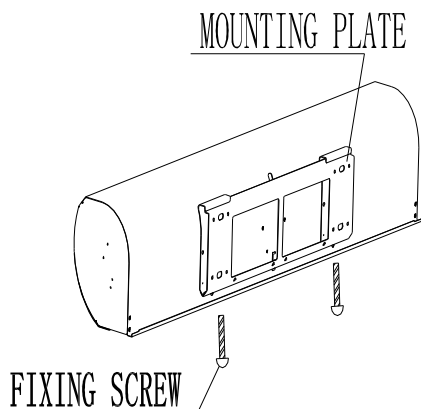
Please install the unit in a sturdy place to avoid the shaking and ensure its security (because it maybe causes the wall becoming flexible or shaking and noise. 	Please install the unit inside the room. The gap between the roof and the air curtain no less than 300mm 
Don't install the unit too low, no less than 2.3 meters from the ground. 	When the entrance is wider than the unit, it is recommended to install two or more units in parallel. In this case, provide 20-40mm gaps between the units. 
Don't allow gaps between the unit and the wall. When hanging it from the ceiling, using the enclosed ceiling brackets. 	Don't install the unit in a place where it is splashed by water, exposed to excessive steam, explosive gas or corrosive gas. 

4、 INSTALLATION

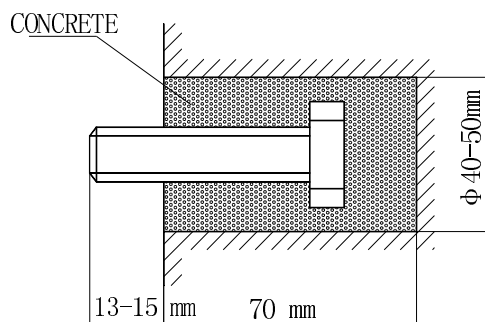
A、 Installing on the concrete wall:

Remove the mounting plate.

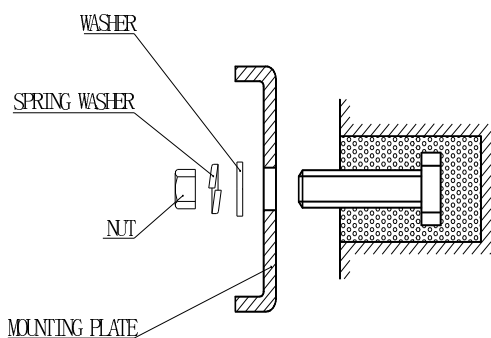
Undo the fixed screws on the back of main body to remove the mounting plate.



Fix the bolts in the proper position (Decide the position with the mounting plate.)

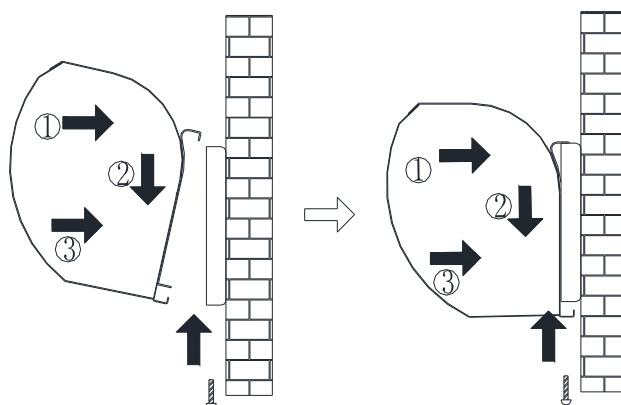


Fit the mounting plate



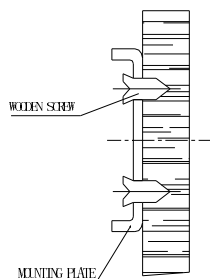
Install the main body

Set the main body onto the upper end of the mounting plate and clamp it as shown.

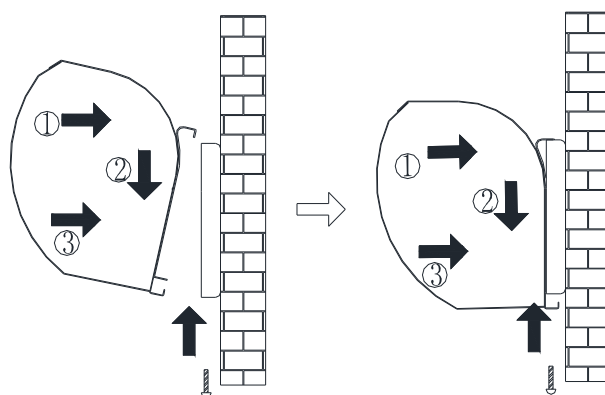


B、 Installing on the wooden wall

Fix the mounting plate in the proper positions with tapping screw.

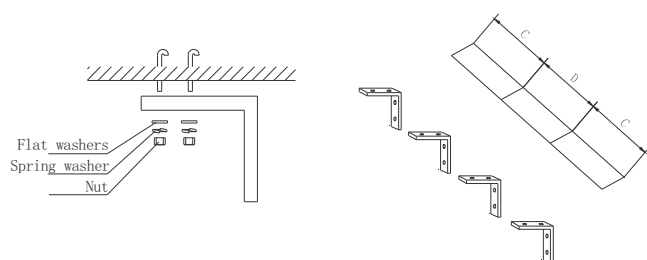


Same as the step of Installing on the concrete wall

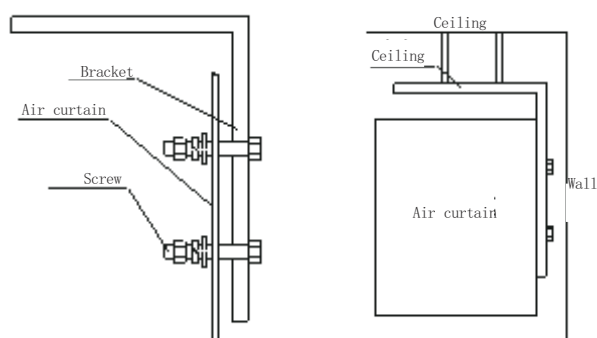


C、Hanging from the ceiling

Fixing the suspend bracket on the ceiling.



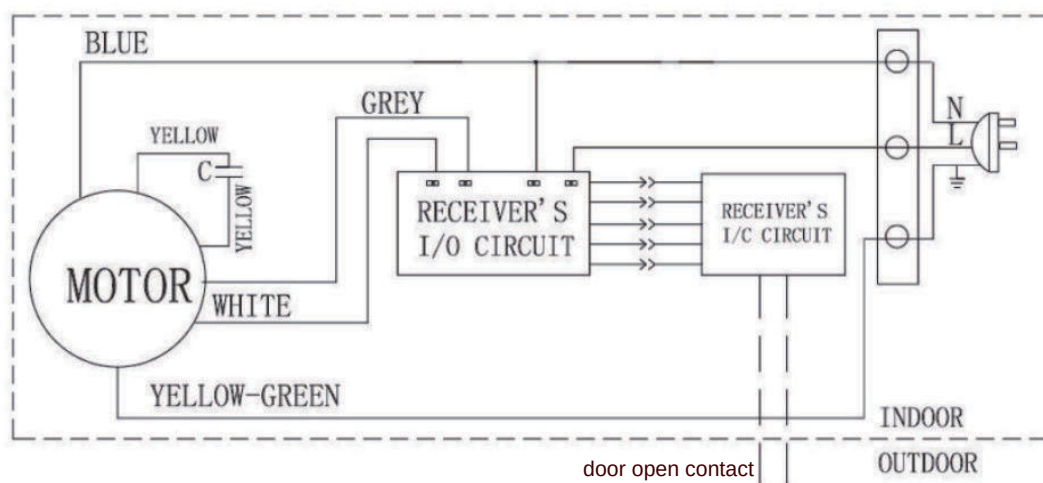
Fixing the air curtain on the ceiling as Fig.



5、 TECHNICAL PARAMETER

MODEL	V~Hz	P O W E R (W)	MAX AIR SPEED m/s		AIR VOLUME m/h ³		N O I S E dB	W E I G H T Kg	I N T E M P. ℃	IN/OUT WATER TEMP. 100-65℃					IN/OUT WATER TEMP. 90-60℃					IN/OUT WATER TEMP. 85-55℃				
			H	L	H	L				WATER SPEED m/S	WATER WIGHT Kg/h	WATER PRESSURE Pa	WATER TEMP. ℃	HOT POWER kW	WATER SPEED m/S	WATER WIGHT Kg/h	WATER PRESSURE Pa	WATER TEMP. ℃	HOT POWER kW	WATER SPEED m/S	WATER WIGHT Kg/h	WATER PRESSURE Pa	WATER TEMP. ℃	HOT POWER kW
FRM-3509-Y-S-X1	220-240 /50	160	10	8	1200	950	<54	16	15	0.28	490	1220	53	10	0.25	440	1090	49	9	0.23	400	1000	47	8.5
FRM-3512-Y-S-X1		210			1750	1400	<57	20		0.34	590	1470	53	14.5	0.30	530	1310	49	12.5	0.28	480	1200	47	12
FRM-3515-Y-S-X1		260			2300	1850	<58	24		0.42	740	1830	53	19	0.38	660	1640	49	16	0.35	600	1500	47	15.5

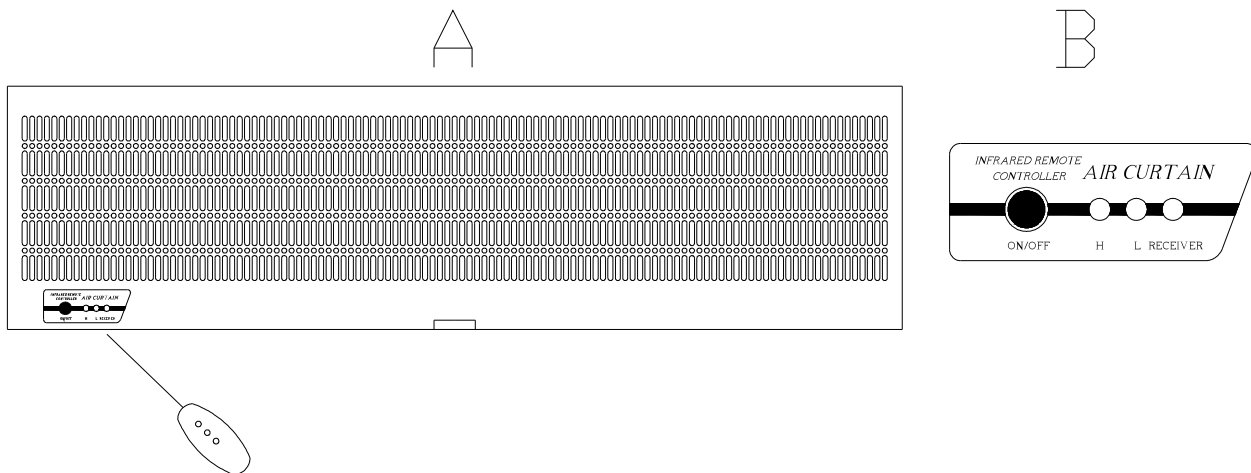
6、Electrical schematic diagram



DOUBLE SPEED INFRARED REMOTE CONTROLLED WIRING DIAGRAM

7、 OPERATION

- Turn on the power switch
- Select the best speed: High[H]、Low[L]
- According to using to adjust the grate to obtain the best effect.



8、 CAUTIONS

- a)、 Use the unit at the rate voltage and frequency indication on the nameplate.
- b)、 Disconnect power source before unit operation.
- c)、 Routing maintenance must be done every year.
- d)、 Never use petrol,benzese,thinner or any other such chemical for clearing the unit.
- e)、 Don't allow water or anything enter the motor.
- f)、 When power supply comes from socket, the plug must accord with IEC335-1.When the power cord is connected with charging line directly, all polarity switches that the contact gap is 3mm at least must be installed in the charging line.
- g)、 The unit must install indoor! And it must have the measure of keeping temperature to avoid breach the changer for freezing.
- h)、 The unit heating by hot water or steam, in from the bottom tube and out from the top tube. It must have a drain tap in the top tube to drain the air or water.
- i)、 The hot water must be intenerated water.
- j)、 Every operation must drain out the cooling water or air inside the unit. Then turn on the unit after 10 minutes. And draining out all the water in the unit when stopping working.
- k)、 For ensuring the unit's operation, it must supply the hot source continuously.
- l)、 Keep the unit clear, cleaning the changer of the unit for some times.



Manufacturer/Gyártó: Guangzhou Ruilong Electrical Appliance Ltd.
East Side of Hua Chen Market, Hua Shan Town
Hua Du District, Guangzhou, China

Importer/Importőr: Columbus Klímaértékesítő Kft.
H-2142 Nagytarcsa, Pesti út 15