WALL MOUNTED TYPE FAN COIL UNIT USER MANUAL

<u>English</u>



INVERBOOST®

Fan coil unit User and Service Manual

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Thank you for using our fan coil unit as a part of your home HVAC system.

A fan coil unit is a device mainly consisting a fan and a coil (heat exchanger).

For example, heat pump as heating or cooling source provide hot or cold water for the heat exchanger of fan coil unit, then the fan spreads the heat or coolness in order to create a comfortable environment.

ATTENTION: This manual includes all the necessary information with the use and the installation of your

fan coil unit.

* The installation must be carried out by qualified personnel according to the local rules and this manual.

* The installer is responsible for the installation of the product and should follow all the instructions of the manufacturer and the regulations in application. Incorrect installation against the manual implies the exclusion of the entire guarantee.

* The manufacturer declines any responsibility for the damage caused with the people, objects and of the errors due to the installation that disobey the manual guideline. Any use that is without conformity at the origin of its manufacturing will be regarded as dangerous.

1. Specification

	COOL GRAY	ZFC020	ZFC030			
Model/Colour	BLACK	AFC020	AFC030			
	WHITE	WFC020	WFC030			
Power supply	V/Ph/Hz	220-240/1/50	220-240/1/50			
Air flow(H)	m³/h	330	500			
Air flow(M)	m³/h	230	360			
Air flow(L)	m³/h	130	210			
Performance in heating: Ambi	ent temp. (DB/WB): 20	$^\circ C$, Water temp. inlet/outlet:	45/40℃			
Heating capacity	kW	1.95	2.86			
Performance in heating: Ambi	ent temp. (DB/WB): 20	°C, Water temp. inlet/outlet:	55/50℃			
Heating capacity	kW	2.86	4.15			
Performance in heating: Ambi	Performance in heating: Ambient temp. (DB/WB): 20 $^\circ C$, Water temp. inlet/outlet: 60/55 $^\circ C$					
Heating capacity	kW	3.4 5.1				
Performance in cooling: Ambie	ent temp. (DB/WB): 27°	℃/19℃, Water temp. inlet/o	utlet: 7°C/12°C			
Cooling capacity	kW	1.62 2.64				
Power input(H)	w	36	56			
Fan motor	Туре	DC far	n motor			
Fan	Туре	Cross-f	low Fan			
Heat exchanger	Туре	Copper tube	aluminum fin			
Water flow rate	m3/h	1	1			
Water pressure drop	Кра	30	40			
Noise level in 1m(L)	dB(A)	30	32			
Water inlet/outlet pipe	inch	G3/4	G3/4			
Drain pipe	mm	16	16			
Net weight	kg	15.5	19.5			
Gross weight	kg	18.5	23			
Dimension	mm	980*145*573	1250*145*573			
Package Dimension	mm	1075*195*615	1330*195*615			

*The above data is only a reference.Please refer to the nameplate on the unit.

* H: High fan speed; M: Medium fan speed; L: Low fan speed.

Model: ZFC020/AFC020/WFC020





Model: ZFC030/AFC030/WFC030



unit:mm

3. Installation

The fan coil unit should be installed in a position where the room can be cooled or heated evenly, and on the walls which is able to withstand their weight.

Incorrect installation could lead to unit malfunctioning and poor performance.



3.1 Install the fan coil unit according to the below installation drawing. The main pipeline of condensed water should be slightly lower than the machine to facilitate drainage and prevent back-flow.



3.2 The inlet and outlet pipes should be equipped with soft connections and valves to facilitate the adjustment of water flow and maintenance.

3.3 A filter valve should be installed in the water inlet pipe to filter impurities in the water, so as to avoid blockage of the internal pipeline of the unit.

3.4 Kindly noted that the effective diameter of the inlet and outlet water pipes is larger than the inner diameter of the machine interface.

3.5 When the unit uses the condensate drainage pipeline, pay attention to whether the installation method of the machine and the drainage pipeline used are correct.

3.6 When the unit is used for cooling, the water inlet, outlet water and drainage pipes should be insulated.

3.7 Power supply for the unit is AC220~240V, 50/60Hz,one phase. Please make sure that the voltage is within a safe range, and a safety ground wire should be installed on the unit shell.



3.8 Before starting up, make sure that the installation and electrical connections have been carried out in accordance with the instructions in this manual.

Please vacuum the pipeline system before initial start-up. Go to the back of unit, and rotate the exhaust valve to release the air.

Start up the pump to circulate the pipeline water and vacuum air from the system until there is water flow out from bolt holes, and then tighten the bolts.





5. Controller operation and 'Tuya Smart' APP operation



5.1 Controller operation

After the fan coll unit	starts up,the conti	roller shows the in	door temperature.

Button or icon	Description or Operation				
^	Press \land to increase the setting temperature. Temperature set range: 5-35 °C				
~	Press \checkmark to decrease the setting temperature. Temperature set range: 5-35 $^\circ \! \mathbb{C}$				
(((WIFI icon, flashing during connection; long light after successful connection.				
	Press $^{\textcircled{O}}$ to turn on, press again to turn off. [In power-on state, long press $^{\textcircled{O}}$ to adjust the display brightness 1-3 grades].				
	2-way electric valve icon				
III	Press \equiv to switch the Heating $*$ or Cooling $*$ mode.				
Å	Press 🏶 to adjust fan speed.				
High Low Auto &	There are 1-5 grades fan speed and Auto. The first gear is LOW, the fifth gear is HIGH.				
Auto	In Auto fan speed, the right stair will light up from bottom to top, then goes out.				
•	Heating mode icon				
*	Cooling mode icon				
Ð	 The screen will automatically lock if no operation for 60 seconds. Touch ^③ to wake up other key symbols. Press ✓ button long for 5 seconds to unlock the screen. 				
S.	Machine malfunction icon				
Sleep	 Press + for 2 seconds to enter Sleep mode. Once again to cancel it. 1. In Cooling mode, the setting temperature will be increased by one degree every hour. 2. In Heating mode, the setting temperature will be reduced by one degree every hour. Two degree change in two hours, fan coil will turn off after 3 hours no matter heating or cooling mode. If indoor temp. reach setting temp, fan coil also will turn off. 				
Timer OFF	In power on status, press \checkmark + \equiv to enter "Timer OFF" state, then press \equiv to start or cancel the timer function. Then press \land + \checkmark to set the time.(Min:0.5h; Max:9.5h). Lastly, press $\%$ key to save the data, or it will automatically save after 3s.				
Timer ON	In power off status, press \checkmark + \equiv to enter "Timer ON", same setting as the above Timer OFF.				

= &	If 🖌 lights on, hold = + 🏶 long to check the error code.
<u> </u>	More error code info in troubleshooting.
∰‡	In Off status, hold \equiv + $\%$ for 2 seconds, the indoor temperature "XX $^{\circ}$ C" shows with a
	buzzer. Then press \land and \checkmark to adjust to the correct temperature. Finally, press $©$ to
	save the data and exit, or it will automatically save after 5s.

5.2 'Tuya Smart' APP operation

5.2.1 Please download "Tuya Smart" APP on your phone; and connect to 2.4Ghz wifi network and turn on Bluetooth;

5.2.2 Open "Tuya Smart" APP and click the red "+" symbol in the upper right corner.

5.2.3 Under turn-off states, hold \uparrow + \checkmark on controller for 2 seconds, there will be buzzer sound and $\widehat{\gamma}$ icon flashing. (The flashing WIFI icon means the machine is in recognition)

5.2.4 After identifying the machine, click "Add" and input the local WiFi password on phone.

5.2.5 After adding, enter the device control interface, and you can control the fan coil unit remotely, such as to switch working mode switch, set temp. and adjust the fan speed.

5.2.6 Click the upper right icon on the interface to change it to your preferred name.

	14:52 🕫 💼	14:52 🛪	
	我的家		×
	All Devices	Enter Wi-Fi Information	
	zealux on&off	Choose Wi-Fi and enter password	
	Come	<u>କି</u> ଉଦ	4
t ⇒	史殊法治法双 Come C		3
	Evices to be added: 1		
	Air thermostat		
	Add	Next	
	14:50 I all 🗟 🗈	14:52 🕫	all 🕈 🗊
	< Air thermostat Z	× Add Device	
	•	1 device(s) being added	
	21° Current temperature	Air thermostat Being added	۲
	Cold Hot		
	· · (evel 3 · · ·		
	powr.		
	8		

Model: ZFC020/AFC020/WFC020 & ZFC030/AFC030/WFC030



NOTE:

(1) Above electrical wiring diagram only for your reference, please subject to the one posted on machine.

(2) Electrical connection of the unit must be carried out by qualified personnel in compliance with the local regulations.

Manufacturer shall not be held liable for damage to persons or property caused by incorrect electrical connection.

Disconnect: A disconnect means (circuit breaker, fused or un-fused switch) should be located within sight of and readily accessible from the unit. This is common practice on commercial and residential unit. It prevents remotely-energizing unattended equipment and permits turning off power at the unit while the unit is being serviced.

7. Troubleshooting

7.1 Error code display on controller

Error code	Malfunction	Solution
E-	No malfunction	/
E-1	Communication reception failure	Replace controller
E-2	Temperature sensor failure	 Change the temperature sensor Replace controller
E-3	Fan motor failure	Replace fan motor
E-4	Communication sending failure	Replace controller

7.2 Other malfunctions and solution (No Error code display)

Trouble	Reason	Solution		
Fan motor does not work in heating mode	Setting temperature is lower than room temperature.	Turn up the set temperature		
Fan motor does not work in cooling mode	Setting temperature is higher than room temperature.	Turn down the set temperature		
The effect of heating or	There is air trapped inside the unit	Unscrew the exhaust valve to exhaust.		
heating, hot air for cooling).	Filter in water inlet pipeline was blocked.	Clean the pipeline and the filter.		
Insufficient air volume.	Air inlet grille is dirty.	Clean the air inlet grille.		
Wind speed selection failure.	Fan motor is broken	Change fan motor.		
Water leakage outside the	Leakage from unlevel connection of the unit	Adjust the unit level and re-install it.		
unit.	Water leakage inside the unit.	Change heat exchanger.		
LCD remote control does not Poor contact or run out of battery.		Change the battery.		
Fan motor does not work.	Fan motor is broken Controller failure	Change fan motor. Change controller		
Abnormal noise from the fan motor.	There is object in the wind rotor.	Check and clean Object.		

Model: ZFC020/AFC020/WFC020



Model: ZFC020

No.	ERP code	Part Name	No.	ERP code	Part Name
1	180110046-2	Top cover	16	180110043-2	Sponge panel
2	180110042-2	Evaporator support panel	17	180110038-2	Water tank
3	103000446	Evaporator	18	180110034-2	Support panel
4	180110035-2	Left support panel	19	112000107	Fan motor
5	180110036-2	Support panel	20	180110010-2	Fan motor support
6	180110049-2	Left panel	21	180110048-2	Right panel
7	180110041-2	Front seal plate	22	180110037-2	Air panel
8	136020134	Cable passing hole	23	115000002	3-seat terminal
9	180110045-2	Fan motor panel	24	136010004	Clip
10	180110039-2	Front panel support	25	180110040-2	PCB panel
11	136010109	Air intake filter	26	115000071	Terminal
12	180110047-2	Front panel	27	142000185	РСВ
13	136010097	Fan blade bearing	28	180110033-2	Back panel
14	132000048	Fan blade	29	180110013-2	Controller case
15	180110044-2	Panel	30	117020334	Controller

Model: AFC020

No.	ERP code	Part Name	No.	ERP code	Part Name
1	180110046-1	Top cover	16	180110043-1	Sponge panel
2	180110042-1	Evaporator support panel	17	180110038-1	Water tank
3	103000446	Evaporator	18	180110034-1	Support panel
4	180110035-1	Left support panel	19	112000107	Fan motor
5	180110036-1	Support panel	20	180110010-1	Fan motor support
6	180110049-1	Left panel	21	180110048-1	Right panel
7	180110041-1	Front seal plate	22	180110037-1	Air panel
8	136020134	Cable passing hole	23	115000002	3-seat terminal
9	180110045-1	Fan motor panel	24	136010004	Clip
10	180110039-1	Front panel support	25	180110040-1	PCB panel
11	136010109	Air intake filter	26	115000071	Terminal
12	180110047-1	Front panel	27	142000185	РСВ
13	136010097	Fan blade bearing	28	180110033-1	Back panel
14	132000048	Fan blade	29	180110013-1	Controller case
15	180110044-1	Panel	30	117020334	Controller

Model: WFC020

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No.	ERP code	Part Name	No.	ERP code	Part Name
1	180110046-3	Top cover	16	180110043-3	Sponge panel
2	180110042-3	Evaporator support panel	17	180110038-3	Water tank
3	103000446	Evaporator	18	180110034-3	Support panel
4	180110035-3	Left support panel	19	112000107	Fan motor
5	180110036-3	Support panel	20	180110010-3	Fan motor support
6	180110049-3	Left panel	21	180110048-3	Right panel
7	180110041-3	Front seal plate	22	180110037-3	Air panel
8	136020134	Cable passing hole	23	115000002	3-seat terminal
9	180110045-3	Fan motor panel	24	136010004	Clip
10	180110039-3	Front panel support	25	180110040-3	PCB panel
11	136010109	Air intake filter	26	115000071	Terminal
12	180110047-3	Front panel	27	142000185	РСВ
13	136010097	Fan blade bearing	28	180110033-3	Back panel
14	132000048	Fan blade	29	180110013-3	Controller case
15	180110044-3	Panel	30	117020334	Controller



Model: ZFC030

No.	ERP code	Part Name	No.	ERP code	Part Name
1	180120034-2	Top cover	17	180120031-2	Sponge panel
2	180110034-2	Support panel	18	180120028-2	Water tank
3	103000447	Evaporator	19	132000049	Fan blade
4	180110042-2	Evaporator support panel	20	112000107	Fan motor
5	180120029-2	Front panel support	21	180120027-2	Air panel
6	180110035-2	Left support panel	22	180120025-2	Base
7	180110036-2	Support panel	23	180110010-2	Fan motor support
8	180110045-2	Fan motor panel	24	180110048-2	Right panel
9	136020134	Cable passing hole	25	180110040-2	PCB panel
10	180110049-2	Left panel	26	115000002	3-seat terminal
11	180120030-2	Front seal plate	27	136010004	Clip
12	136010111	Air intake filter	28	115000071	Terminal
13	180120035-2	Front panel	29	142000185	РСВ
14	136010097	Fan blade bearing	30	180120026-2	Back panel
15	180120033-2	Fan motor panel	31	180110013-2	Controller case
16	180120032-2	Panel	32	117020334	Controller

Model: AFC030

No.	ERP code	Part Name	No.	ERP code	Part Name
1	180120034-1	Top cover	17	180120031-1	Sponge panel
2	180110034-1	Support panel	18	180120028-1	Water tank
3	103000447	Evaporator	19	132000049	Fan blade
4	180110042-1	Evaporator support panel	20	112000107	Fan motor
5	180120029-1	Front panel support	21	180120027-1	Air panel
6	180110035-1	Left support panel	22	180120025-1	Base
7	180110036-1	Support panel	23	180110010-1	Fan motor support
8	180110045-1	Fan motor panel	24	180110048-1	Right panel
9	136020134	Cable passing hole	25	180110040-1	PCB panel
10	180110049-1	Left panel	26	115000002	3-seat terminal
11	180120030-1	Front seal plate	27	136010004	Clip
12	136010111	Air intake filter	28	115000071	Terminal
13	180120035-1	Front panel	29	142000185	РСВ
14	136010097	Fan blade bearing	30	180120026-1	Back panel
15	180120033-1	Fan motor panel	31	180110013-1	Controller case
16	180120032-1	Panel	32	117020334	Controller

Model: WFC030

No.	ERP code	Part Name	No.	ERP code	Part Name
1	180120034-3	Top cover	17	180120031-3	Sponge panel
2	180110034-3	Support panel	18	180120028-3	Water tank
3	103000447	Evaporator	19	132000049	Fan blade
4	180110042-3	Evaporator support panel	20	112000107	Fan motor
5	180120029-3	Front panel support	21	180120027-3	Air panel
6	180110035-3	Left support panel	22	180120025-3	Base
7	180110036-3	Support panel	23	180110010-3	Fan motor support
8	180110045-3	Fan motor panel	24	180110048-3	Right panel
9	136020134	Cable passing hole	25	180110040-3	PCB panel
10	180110049-3	Left panel	26	115000002	3-seat terminal
11	180120030-3	Front seal plate	27	136010004	Clip
12	136010111	Air intake filter	28	115000071	Terminal
13	180120035-3	Front panel	29	142000185	РСВ
14	136010097	Fan blade bearing	30	180120026-3	Back panel
15	180120033-3	Fan motor panel	31	180110013-3	Controller case
16	180120032-3	Panel	32	117020334	Controller

9. Maintenance

*If the unit fails to start, please check whether the power supply and the fan operation is normal.

*The hot water supply in winter shall not be higher than 80° C. The water source used shall be softened treatment basic of the local water quality conditions.

*The maximum allowable pressure of the unit is 1.6Mpa.

*Please clean the filter in water inlet pipe regularly to prevent impurities from blocking the pipeline and influence the using effects. Please close the pipe valve before cleaning. It is suggested to clean it every six months.

*Please clean the air inlet filter regularly per month to prevent dust from blocking the air inlet and affecting the service life of the motor.

*Please do not use the unit in a humid environment to avoid short circuit.

*When the unit is stopped using in winter, the residual water inside the machine must be drained to avoid freezing and cracking of the heat exchanger.

*Please unplug the power plug of the unit when it is out of using.

*Please disconnect the power supply before repairing and maintaining the machine.



This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.



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