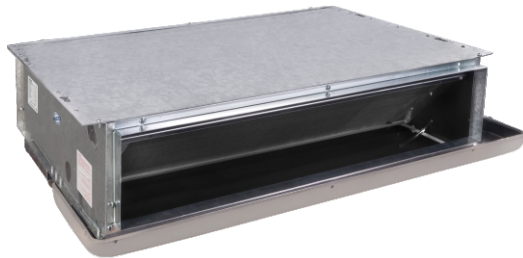




# Installation Manual

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## CEILING CONCEALED FAN COIL UNIT



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**MODEL:**  
**SAF-CCP200**  
**SAF-CCP300**  
**SAF-CCP400**  
**SAF-CCP600**  
**SAF-CCP800**  
**SAF-CCP1000**  
**SAF-CCP1200**

May 2019-SZ-DD-SAF-CCP-V1

## Ceiling Concealed Fan Coil Unit User Notice

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This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

This appliance is intended to be used by expert or trained users, in light industries, hotels and residential buildings. Using it in workshop environments and hard conditions will result in inappropriate performance and severe damage.

**DISPOSAL:** Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.



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### WARNING!

①	All installation and commissioning shall be performed by the qualified serviceman per instructions covered in the manual, otherwise it would cause water leakage, electric shock or fire hazard etc.
②	The unit shall be wired as per the wiring diagram; otherwise, the electric motor would be burned out.
③	The unit shall be grounded reliability to avoid hurt on the human body or damage on properly due to poor insulation.
④	Never personally try to replace or move the device.
⑤	Inappropriate installation can cause unusual sound in the device.

## **Ceiling Concealed Fan Coil Unit Application Scope**

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1) All fan coil units have been tested under standard conditions. Devices should be properly shipped to the installation site per the package applicable symbols. If there is a serious damage to the device, please inform the local support center.

2) The unit is categorized into the comfort air conditioning unit and shall not be installed where there is corrosive, flammable gas or smog (like kitchen); otherwise the unit would fail to operate properly, and the service life would be shortened.

3) This manual includes the installation information of the ceiling fan coils of this company. For more information regarding technical specifications, please refer to our website or product catalog.

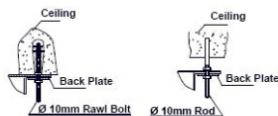
## **Introduction**

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Suzuki Horizontal Ceiling Concealed series fan coil units are air conditioners designed as cooling and heating system with 95 to 570 l/s (200 to 1200 cfm) air flow . Units can be selected with either one hydronic circuit (2-pipe) or two hydronic circuits (4-pipe). Units are horizontal concealed and are available with either plenum or without plenum and different air intake side.

## Ceiling Concealed Fan Coil Unit Installation Instructions

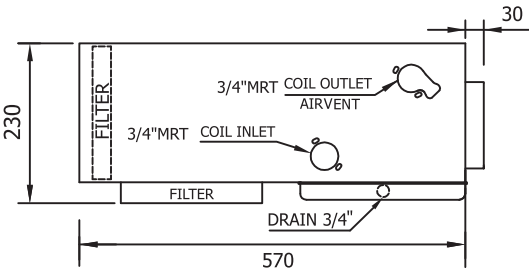
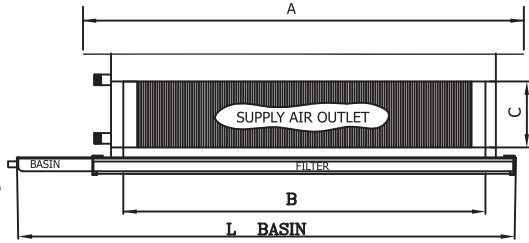
- (1) The unit shall be installed by the qualified servicemen who have the knowledge of this product.
- (2) During installation ensure that external components such as paint, dust, insulating products, etc., are removed from the motor or fan blades and remove any additional objects before starting up.
- (3) If the devices are kept for a long time, pay particular attention to environmental conditions such as humidity, corrosion, etc., to prevent damage to the device.
- (4) The unit shall be installed securely. When installing hanger bolts, be sure they are capable of withstanding 4 times the weight of the unit. If unsure, they shall be reinforced.



(Fastening Details)

- (5) See the figures in next page for installation dimensions. (Unit: mm)

# Ceiling Concealed Fan Coil Unit Installation Instructions



Basic Unit	A	B	L	C
SAF-CCP200	650	540	810	155
SAF-CCP300	850	740	1060	155
SAF-CCP400	950	840	1060	155
SAF-CCP600	1090	980	1195	155
SAF-CCP800	1350	1240	1480	155
SAF-CCP1000	1650	1540	1720	145
SAF-CCP1200	2000	1890	2070	145

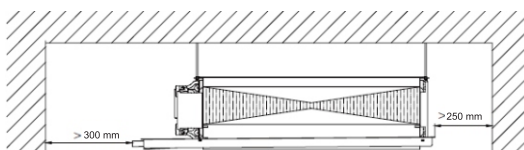
Note:

Left handed coil connection are shown.

## Ceiling Concealed Fan Coil Unit Installation Instructions

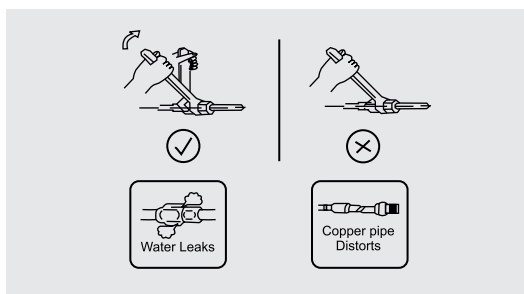
(6) The installation site should be free of dust, chemicals and oil; the operation of the machine will drop in such environments or the device may be damaged.

(7) Enough service space shall be left around the unit as shown in the figure below.



(8) Water pipes shall be cleaned up prior to installation, and the inlet shall be equipped with a filter to prevent from being clogged by foreign matters.

(9) Please use two spanners for inlet and outlet water pipes to be well connected, using only one spanner will cause distort and water leaks of pipes as shown below.




## Ceiling Concealed Fan Coil Unit Installation Instructions

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(10) Fan coils maximum allowable external pressure drop is 50 Pa. It should be considered for choosing the grilles, registers and its distance from the device.

(11) Avoid direct connection of the fan coil to the duct to prevent noise and vibration transmission of the device to the duct system. You can use an appropriate canvas with a maximum length of 15 cm.


(12) A filter shall be installed at the return water inlet and be cleaned frequently to guarantee the expected heat exchange efficiency.

 **Recommendation:** If the filter is used, make sure the pump power is sufficient to provide a pressure drop for the water inlet of the fan coil.

(13) The drain pipe and inlet/outlet pipe shall be with the standard threaded pipe fittings. Water pipes shall be installed as per applicable local standards. During installation, do not over tighten the pipe fittings to avoid any damage on the header and connections of the coil.

a) The inlet/outlet pipe shall be installed following the applicable labels and equipped with the quakeproof flexible connections and movable joints, as well as suitable filters to prevent the heat exchanger from scaling which then would lower the heat exchange efficiency.

b) The inlet/outlet pipe shall be equipped with shut off valves for easy maintenance .

 **Recommendation:** In order to better control the air conditioned space, use the water flow control valve.

c) The weight of water pipes shall not be withstood by the main unit.



## Ceiling Concealed Fan Coil Unit Installation Instructions

d) The inlet/outlet pipe, drain pipe and valves shall be insulated to prevent sweating under the cooling operation in summer.

e) Do not drag and pull water pipes forcibly and seal them with Teflon tape to avoid water leakage.

(14) Never connect two or more devices to a common thermostat.

(15) Make sure that the device is not shaken after installation.

(16) Make sure the device is balanced after installation.

(17) Make sure the drain output of fan coil is connected to building drain system with the plastic hollow tube.

(the pipe should have at least 5% slope).

❗ Attention: If the building drain pipe position is higher than the fan coil drain pipe, the water drain pump must be used to drain the water of the main pipe.

### ATTENTION

Avoid connecting the drain pipe to the sewer pipe.

👍 Recommendation: The drain pipe could be insulated to prevent dew formation.

(18) When connecting a number of devices to a common water drain pipe, the common pipe should be at least 10 cm below the discharge point of all devices. Meanwhile, the size of the pipe in each section should be calculated according to the amount of distillation of all devices.

(19) Before wiring, check the voltage and the number of input phases and ensure that it is fitted with the specifications of the device. The voltage difference must not exceed 10%. The electricity requirement of this unit is 220 V and 50 Hz.

## Ceiling Concealed Fan Coil Unit Installation Instructions

(20) Protective pieces of equipment, including main switch and circuit protection switch, must be installed in the power box.

### WARNING!

Make sure that the power supply specifications of the appliance match the power supply and thus keep the voltage constant.

(21) Be sure the power supply coincides with that specified on the nameplate and is cut off prior to electric installation. Electric wiring shall be performed following the electric wiring diagram.

### WARNING!

All wiring and piping shall be performed by the qualified servicemen.

(22) The entering water temperature for cooling shall not be lower than 6°C; otherwise, it would cause sweating on the surface of the unit. The entering water temperature for heating shall not be higher than 80°C; otherwise, it would cause injury.

(23) The power cord should be integrated seamlessly and avoid multi-chip connectivity.

### ATTENTION

Never connect the earth cable to gas or water pipes.

## Operating Instruction

- (1) Connect the inlet and outlet water pipes of the coil.
- (2) Make sure the water pipes connections are sealed to prevent water leakage.

## **Ceiling Concealed Fan Coil Unit**

### **Operating Instruction**

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(3) Be sure the power supply is wired properly before startup.

(4) For the initial operation, open the bleeding valve of the return water pipe to expel air inside the coil until water flows out, and then close the bleeding valve. (The coil of the device must be thoroughly bleeding by the relevant bleeding valve periodically.)

(5) After completing the installation, check the fan function carefully. If the device has abnormal working condition, immediately disconnect the power and troubleshoot.

(6) Air filter and water piping system should be periodically checked to proper air circulation and prevent water leakage.

❗ For cleaning or replacing the fan coil filter, make sure the input power is cut off.

## Ceiling Concealed Fan Coil Unit Troubleshooting

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### WARNING!

Do not repair the device personally, this should be done by a qualified servicemen.

If you see any of the following symptoms, immediately turn off the appliance and disconnect the main power supply.

1. The device works with an unusual sound.
2. The automatic key of the input power is interrupted continuously.
3. The device has a high quake.
4. The device has leakage.

## Ceiling Concealed Fan Coil Unit

### Troubleshooting

In the table below, some common faults and possible reasons are presented:

Faults	Possible Causes	Solutions
The unit failed to run	There was no power supply or the power supply was switched off.	Provide a power supply or switch on the power supply.
	The plug of the power supply was not placed properly.	Place the plug properly.
	The motor was burnt out.	Replace the motor and check the wiring.
	The thermostat is defective.	Repair or replace the thermostat.
The unit generated unusual sound	The volute casing or the fan blades deformed or there was friction between them.	Replace the volute casing or the fan blades.
	The filter was clogged or tipped over.	Clean the filter.
	Motor and fan ran not properly.	Check the motor and fan
	Setscrews of the motor were loosened.	Tighten setscrews.
The air flow was insufficient	The filter was clogged.	Clean the filter.
	The return air inlet or air outlet was clogged.	Clean way foreign matters.
	The resistance of the duct was beyond the designed value.	Lower the resistance of the duct or reselect the unit model.
The unit failed to perform cooling or heating	Cold and hot water cannot provided.	Open the water inlet valves.
	The filter was clogged.	Clean the filter.
	The coil not bleeding properly.	Bleeding the coil by the relevant bleeding valve.
	Entering water temperature for cooling was too high or was too low for heating.	Regulate the entering water temperature.
Water leaked	The drain pipe was clogged.	Clean the drain pipe.
	The unit was not installed as required.	Adjust the location of the unit to let the drain pan tilt toward the drain outlet with a desired downward slope.
	The relative humidity was too high.	Lower the relative humidity and prevent hi-temperature moist air from entering.



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