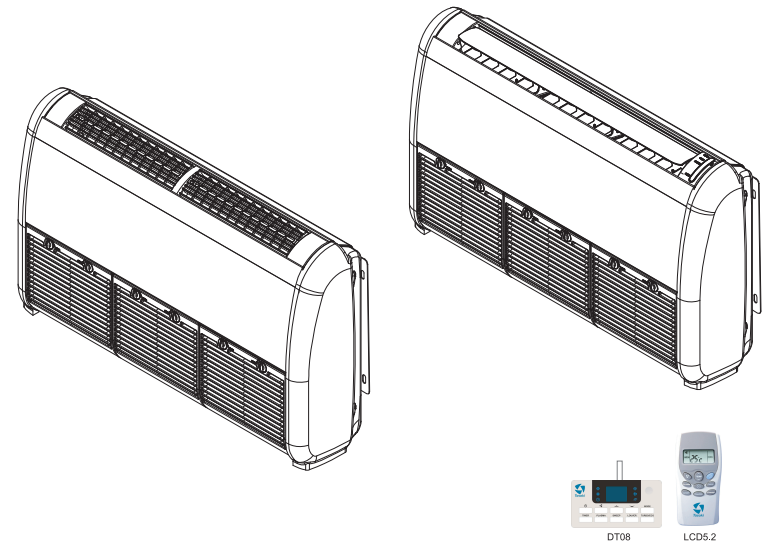# Tasaki

INSTALLATION & OPERATION MANUAL

Universal Type

(Floor or Ceiling - Suspended)

Chilled Water Coil

DT08   LCD5.2

Carefully read this operation manual before using the air conditioner. It will tell you how to use the unit properly and help you if any trouble occurs. After reading the manual, file it away for future reference.

List of Contents

Trouble-shooting Guide

Problem	Probable cause and remedy
A. The air conditioner does not run.	1. Check that the fuse has not blown or that main circuit breaker has not tripped. 2. Is the main switch in the OFF position ? 3. Have you made a mistake when using the programming functions ?
B. The unit does not cool efficiently.	1. Is the filter dirty ? See Instructions on how to clean the filter. 2. The room was probably very hot when you started the air conditioning unit-wait a little while until it has had enough time to cool the room. 3. Have you programed the right temperature ?
C. There is a bad smell in the room.	1. Check that the smell is not made by humidity coming from the walls, carpets, furniture, or other fabrics in the room.
D. The air conditioner is noisy.	1. There is a noise like shower. This is a noise made by dehumidification water being treated inside the unit.
E. Condensation water seems to be running out of the unit.	1. Condensates are produced when the air conditioner cools the air in the room.
F. The air conditioner will not run for 3 minutes after it has been restarted.	1. This is due to a system protection device. Wait 3 minutes and operation of the unit will resume.
G. The remote control handset display is weak or shows nothing at all.	1. The batteries may need replacing. 2. Be careful not to invert the polarities when replacing them.
H. The air conditioner does not respond to remote control commands, or to direct forced operation commands.	1. The batteries may need replacing. 2. Be careful not to invert the polarities when replacing them. 3.Contact an approved service centre and have your installation power supply checked out.

Installation and maintenance of this air conditioning system should only be carried out by trained and qualified personnel.

Regular maintenance operations such as cleaning the coils and air filters must be performed to keep the units in proper operating condition.

CAUTION

Before undertaking any work on the unit, make sure that the power supply has been disconnected.

ELECTRICAL CONNECTIONS

All electrical wiring and connections must comply with local standards.Power supply cord used must not be lighter than.

Polychloroprene sheated cord (245 IEC 57 or H05RN-F).

Disconnecting device must have a contact separation of at least 3 mm.
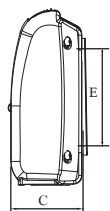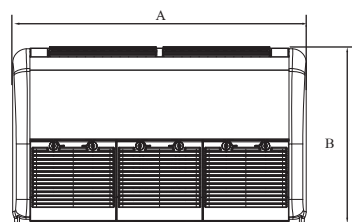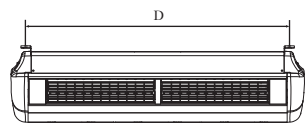
GENERAL PRECAUTIONS

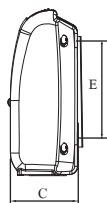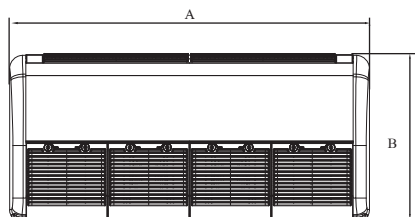Check that the power supply available agrees with nameplate voltage.
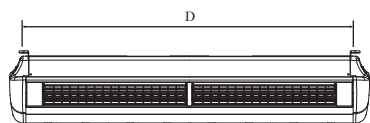
Use adequate line protection.
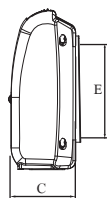
The unit must be grounded.

2. DIMENSIONS

Indoor Unit

MODEL	DIMENSIONS (MM.)				
	A	B	C	D	E
FGN12B-AW1 FGN18B-AW1 / CSFC06D	1020	618	260	915	315

MODEL	DIMENSIONS (MM.)				
	A	B	C	D	E
FGN24B-AW1 / CSFC08D FGN30B-AW1 / CSFC12D	1320	618	260	1215	315
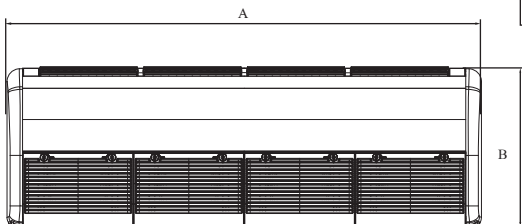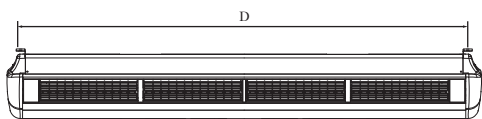
MODEL	DIMENSIONS (MM.)				
	A	B	C	D	E
FGN36B-AW1 FGN42B-AW1 FGN48B-AW1 FGN54B-AW1 FGN60B-AW1	1820	618	260	1715	315

6. MAINTENANCE

The unit are designed to operate for long periods of time with a minimum of maintenance. However, the following operations must be performed regularly.

COMPONENTS	MAINTENANCE OPERATIONS	RECOMMENDED FREQUENDED
Air filter	1. Clean with a vacuum cleaner or tap gently then wash in warm water (40°C)with a mild detergent. 2. Rinse and dry before replacing on unit. 3. Never use petrol, alcohol or any other chemical product.	Every month or more often necessary.
Unit casing	1. Remove dust from the front panel with a soft duster or wipe a dump cloth with a mild soap solution. 2. Never use petrol, alcohol or any other chemical product.	Every month or more often necessary.
Drain pan and evacuation piping	1. Clean and check for obstructions.	Each season before start up.
Indoor coils	1. Check condition and remove dust from between coil fins.	Each season before start up.

3.8 Alarm signal

There are 4 LEDs on the Display PCB Board for wireless.

- ❑ Power LED shows the Power on/off status.
- ❑ Timer LED shows Timer on/off status.
- ❑ Comp LED shows Compresor status.
- ❑ Sleep LED shows the temperature compensation during sleep status.

The system makes uses of these 4 LEDs to show the alarm.

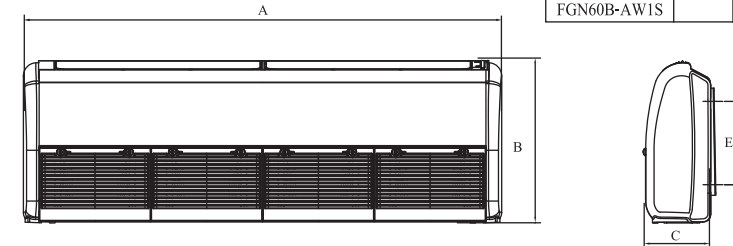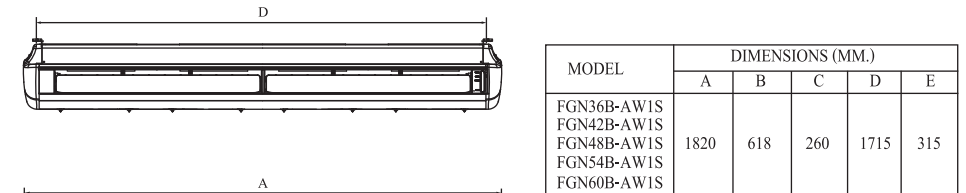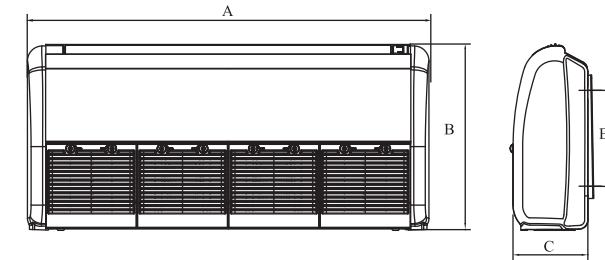| LED	Alarm signal	Problem
Power	blinking continuously	Freeze or Defrost
	blinking 2 times stop in cycle	Cooling fail or Heating fail
Timer	blinking continuously	Room or Freeze or Defrost sensor open/short circuit

❑ Display DT08

Normally 7-segment displays the temperature at that time will show if there is any unusual error code shown.

7-segment Display	Protection / Error
E1	Freeze protection
E6	Cooling fail
E8	Sensor error

For indicator light The results are shown below:

Symbol	Condition
❄	Operated in cool or Dry mode
☀	Operated in Heat mode
Ⓐ	When Fan mode Auto
✺	When Econo or Turbo Activated
🍃	When Plasma operating
🕒	When Setting time

Indoor Unit

MODEL	DIMENSIONS (MM.)				
	A	B	C	D	E
FGN12B-AW1S FGN18B-AW1S	1020	618	260	915	315

MODEL	DIMENSIONS (MM.)				
	A	B	C	D	E
FGN24B-AW1S FGN30B-AW1S	1320	618	260	1215	315

MODEL	DIMENSIONS (MM.)				
	A	B	C	D	E
FGN36B-AW1S FGN42B-AW1S FGN48B-AW1S FGN54B-AW1S FGN60B-AW1S	1820	618	260	1715	315
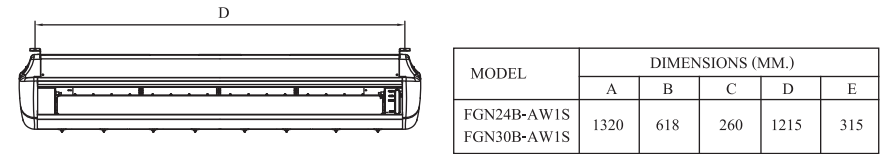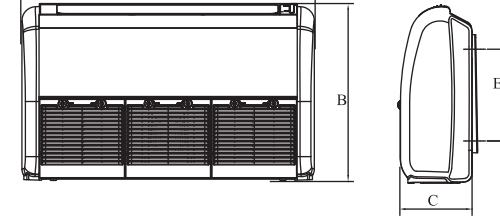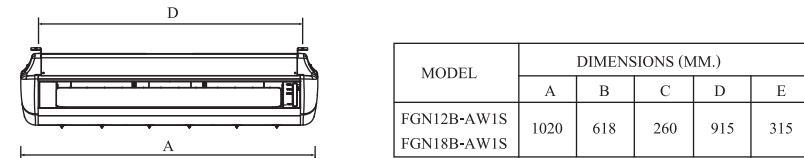
INDOOR UNIT

1. Installing the suspension bolts
➤ Confirm the pitch of the suspension bolts.
➤ Use 10 mm. suspension bolts. (obtain 4 bolts locally).
2. Suspending the unit
➤ with the suspension fasteners secured to the suspension fasteners, and secure it with washers and its own bolts. (One-touch method).
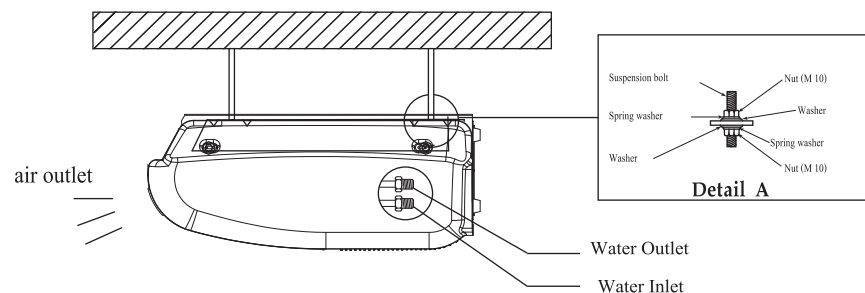➤ Confirm that the unit is level when suspended.

air outlet

Suspension bolt
Spring washer
Washer
Nut (M 10)
Washer
Spring washer
Nut (M 10)

Detail A

Water Outlet
Water Inlet

MODEL	PIPE SIZE		NPT	DRAIN PIPE	WEIGHT kg.
	INLET	OUTLET			
FGN12B-AW1 FGN12B-AW1S	3/4"	3/4"	14	3/4	31.0
FGN18B-AW1 FGN18B-AW1S	3/4"	3/4"	14	3/4	32.0
FGN24B-AW1 FGN24B-AW1S	3/4"	3/4"	14	3/4	38.5
FGN30B-AW1 FGN30B-AW1S	3/4"	3/4"	14	3/4	39.0
FGN36B-AW1 FGN36B-AW1S	3/4"	3/4"	14	3/4	52.0
FGN42B-AW1 FGN42B-AW1S	1"	1"	14	3/4	55.5
FGN48B-AW1 FGN48B-AW1S	1"	1"	14	3/4	56.0
FGN56B-AW1 FGN56B-AW1S	1"	1"	14	3/4	59.5
FGN60B-AW1 FGN604B-AW1S	1"	1"	14	3/4	60.0

3. SYSTEM FEATURES

3.1 Watchdog

There is a watchdog circuit to watch the operation od the microprocessor. If it is malfunctioned, this circuit will reset the microprocessor automatically.

3.2 Compressor delay protection

Each time the compressor is off, there will always be a 3 minute time delay before the compressor can restart. In case of power interruption, the system will delay the operation of the compressor in the restart. of 3-4 minutes in random order. This is to protect the compressors in the air conditioners of the whole building start at the time.

3.3 Compressor minimum on time

Once the compress starts, it will operate at least 24 seconds.

3.4 Non-volatile memory

The system keeps the setting parameters such as on/off status, fan speed, etc. in its non-volatile memory. If there is a power interruption and back to normal, control will automatically resume its operation with the same setting parameters, (except the sleep and timer On/Off funxtion is which will be canceled).
If there is any change in the parameter, it will be saved in the non-volatile memory 5 seconds later.

3.5 Freeze (Anti-ice) function

In Cool or Dry mode, there is a feature to prevent the evaporator from freezing.

Enter into Freeze process	While in Freeze process	Exit from Freeze process
Tindoor coiL< 0C, and	Comp. stops, and	T_{indoor} coiL$> 7^oC$, or
Comp. runs continuously more than 10 min.	Indoor fan at low speed, and	System OFF
	"POWER" LED blinks	

3.6 Cooling Fail

In COOL or DRY mode if the compressor has been operating more than 3 minutes but the indoor coil temperature is still above 25^oC, the compressor is supposed to be failed. The **Power** LED will be blinking as the alarm.
To exit form this status is by turning off the air conditioner or changing the mode of operation.

3.7 Sensor Error

When the room sensor is failed (open/short circuit), the compressor will be turned on 5 minutes and off 10 minutes alternately
When the indoor or outdoor coil sensor is failed (open/short circuit), the system will operate continuously.
As the above case, the **Timer** LED will be blinking.

2.6 Timer on/off

For Remote Unit Timer no/off

To turn on/off the air conditioner in advance up to 24 hours.

- ❑ Press ☻ button unit timer symbol ON or OFF is blinking
- ❑ Press TEMP button to set the time.
- ❑ Press ☻ button to confirm setting

Note : To cancel is to press ☻ button until timer symbol ON or OFF is blnking, then press CANCEL button.

For display Unit Timer on

The system can be turned on in advance by

- ❑ Press TIMER button while the system is OFF,the TIMER LED is lit and the display shows the previous count-down timer in hour.
- ❑ Press ⌃ or ⌄ button to change the setting from 1-24 hours.

For display Unit Timer off

The system can be turned on in advance by

- ❑ Press TIMER button while the system is ON,the TIMER LED is lit and the display shows the previous count-down timer in hour.
- ❑ Press ⌃ or ⌄ button to change the setting from 1-24 hours.

Note : To cancel this function, press TIMER button again.

2.7 Econo (For only Display DT08)

Press TURBO/ECONO button until display DT08 show *tr* and ⤿ symbol to cancel ECONO,

Press TURBO/ECONO until ⤿ fade

To Operated in ECONO by

- ❑ when operating in Cool mode temperature setting at 25°C and fun mode Auto

To cancel in ECONO by

- ❑ when change operating mode system will cancel of ECONO immediatly.
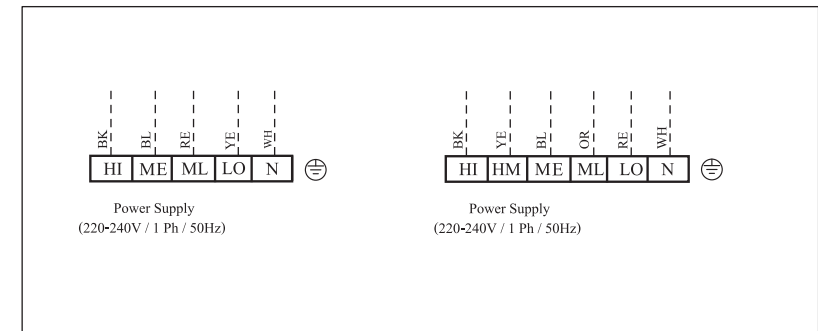- ❑ when press ⌃ , ⌄ or ⤿ on DT08, sytem will cancel of ECONO.

Note

- ❑ ECONO can't be canceled by restart the system.
- ❑ If operated in Turbo and Econo altogether, system will operate completely in Turbo before operate in Econo.
- ❑ Press Turbo/Econo button on display DT08 for change operating function follow as figure below.
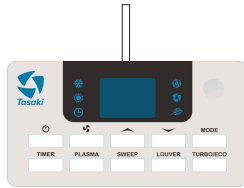
remote control
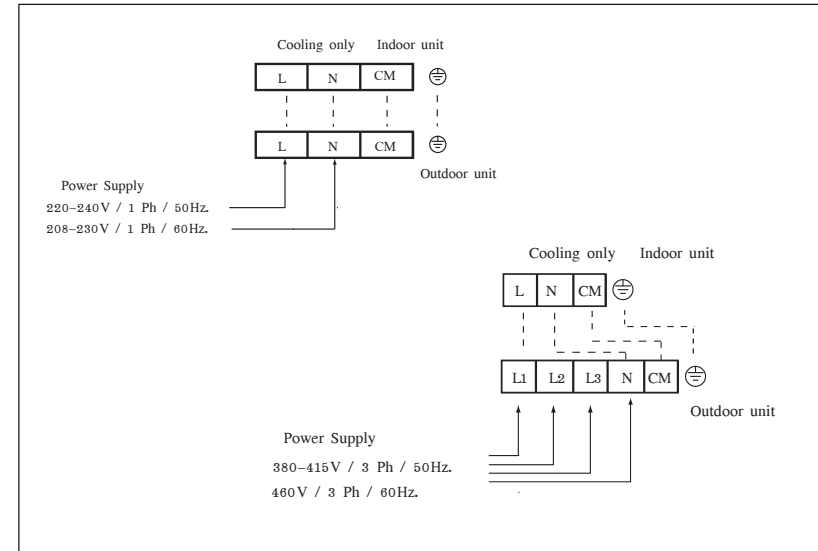
no remote control

Display DT08

Remote LCD 5.2

1. Introduction

The following describes the features and functional specifications of the controller for cool and cool for wireless and wire models. Each set of controller consists of

□ Main PCB Board for wireless and wire.
□ Display DT08 unit for wire.
□ Remote LCD 5.2 unit.
□ 8 cores 2 m. cable connected from Main to Display Board for wireless.
□ 2 cores 4 m. cable connected from Main to Display DT08 unit for wire.

Note :
□ Room & Freeze sensors are 1 m. length.
□ Deice sensors are 9.3 m. length

2. User's features

The following features can be operated by the buttons on the Remote LCD5.2 or Display DT08 unit.

2.1 Power on/off

Press POWER ⏻ button will turn on the air conditioner or vice versa.(except the sleep and timer On/Off function which will be canceled).

□ For Remote LCD 5.2 unit .When turn on, it will operate according to the setting shown on the Remote unit. The POWER LED on the Display wireless unit will lit.

□ For Display DT08 unit.When turn on, it will operate according to the setting shown on the Display unit. The Room Temp on the Display unit will lit.
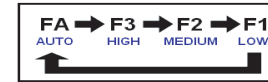
2.2 Fan

2.2.1 On Remote LCD5.2

Press FAN 🔄 button to select the fan speed (high, medium, low or auto mode). The display on the Remote unit will show the status.
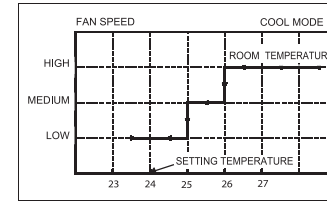
AUTO ➡ HIGH ➡ MEDIUM ➡ LOW

2.2.2 On Display DT08

Press FAN 🔄 button to select the fan speed (high, medium, low or auto mode). The display on the Remote unit will show the status.

FA ➡ F3 ➡ F2 ➡ F1
AUTO   HIGH   MEDIUM   LOW

Auto mode

FAN SPEED   COOL MODE
HIGH   ROOM TEMPERATURE
MEDIUM
LOW
            SETTING TEMPERATURE
      23   24   25   26   27

When the fan speed is put in auto mode, the speed will be adjusted automatically according to

□ If the difference is 3°C or more, the speed is high.
□ If the difference is 2°C, the speed is medium.
□ If the difference is 1°C or less, the speed is low.

2.3 Operating mode

By Pressing MODE button on Remote LCD5.2 and Display DT08 unit,the air conditioner can be put in

FAN ➡ COOL ➡ DRY

REMOTE 5.2 and DT08

2.4 Temperature setting

The setting temperature can be set in the range of 15-30°C(58-88°F)
□ Remote LCD 5.2 Press TEMP button The LCD on the Remote unit will show the setting temperature.
□ Display DT08 Press TEMP ⌃ or ⌄ button on the Display unit will show the setting temperature.

2.5 Clock

To set the clock on the remote unit

HIGH **14:31** COOL

□ Press ⊙ , ⊙ will blink up at the LCD.
□ Press TEMP to set the time.
□ Press ⊙ to confirm the setting time.

8   9