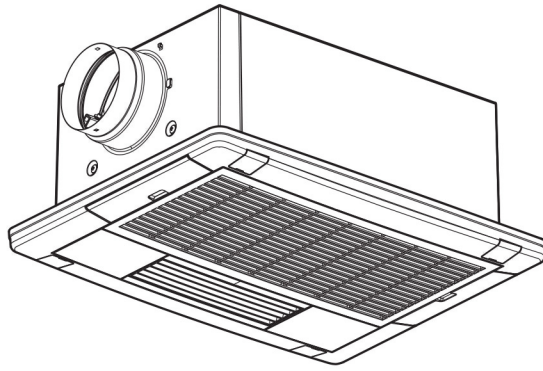


KUSATSU[®] Bathroom Air Controller (KBF-231 SHAH)

(Installation/User Manual)



Caution : Installation must be done by an qualified engineer approved by HKSAR.

Remote Control

Timer Display
Showing Remaining Time

Timer Setting
Set the remaining time for the mode you have chosen to operate

Wind Flow Display
Display the strength of wind flow

Light on while mode in use

Dry mode Button
Using dry and air exchange.
Press to change strength of wind flow.

Warm mode Button
Only use warm function.
Press to change strength of wind flow.

Cool mode Button
Using cool and air exchange.
Press to change strength of wind flow.

Air Ex. Mode Button
Only use air exchange.
Press to change strength of wind flow.

Stop Button

Hold 3 seconds and more to stop all functions.

Filter Dust Alert

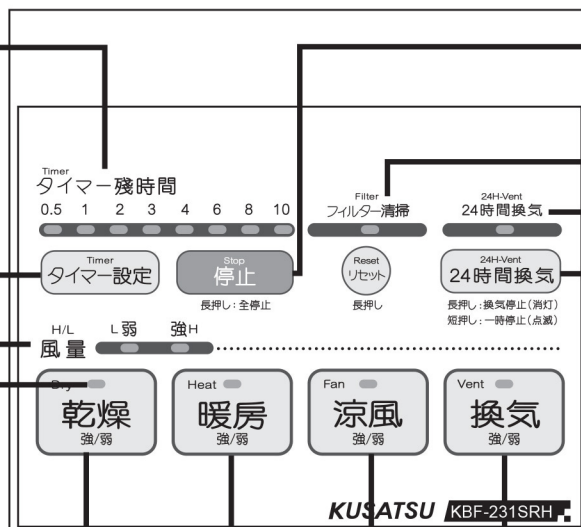
Light On - Needs to be clean
Long press for reset

Air Exchange Display

Light On - 24hr air exchange
Twinkle - Pause for 1 hour
Light Off - Not in use

Air Exchange Button

Long Press - Stop Air Exchange
Short Press - Stop For 1 hour



■ This air bathroom controller has different modes and functions, details are listed below :

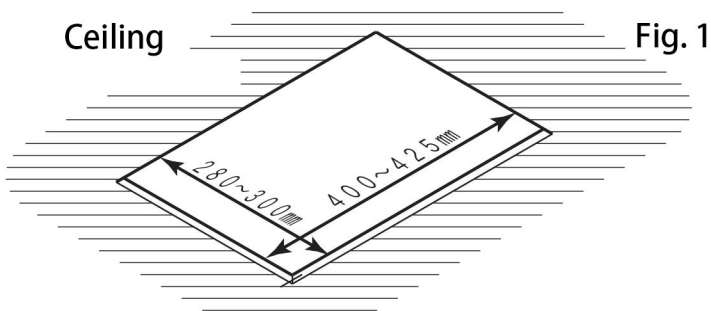
Modes	Usage	Operating Status		
		Cycle Fan	Exchange Fan	Heater
Dry	Taking shower in winter & dry clothes	On	On	On
Warm	Before & after shower in winter	On	Off	On
Cool	Dry weathers & shower during summer	On	On	Off
Air Exchange	Exchange air in bathroom	Off	On	Off
24 hr Air Ex.	Constantly exchange air for 24 hr	Off	On	Off

Ceiling Mounting

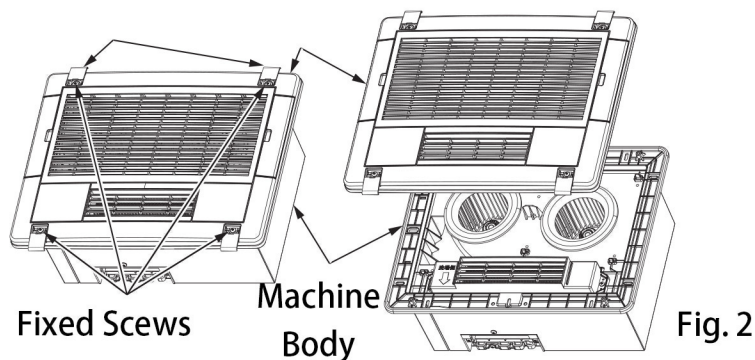
- ① Open a hole as shown in Fig. 1, enhance if necessary.

Basic Requirement:
(280-300 x 400-425) mm

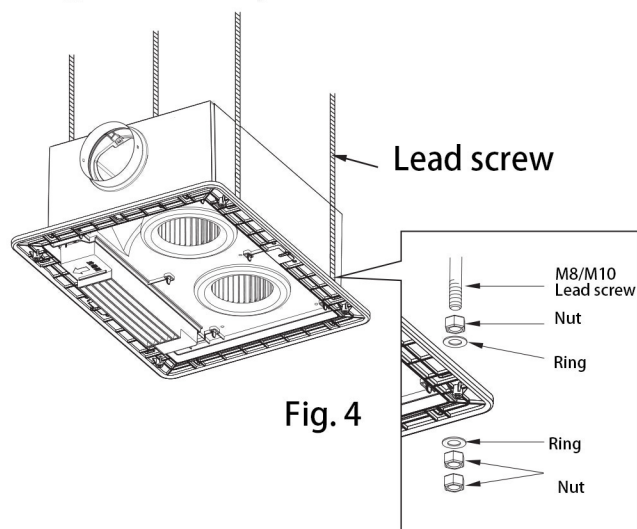
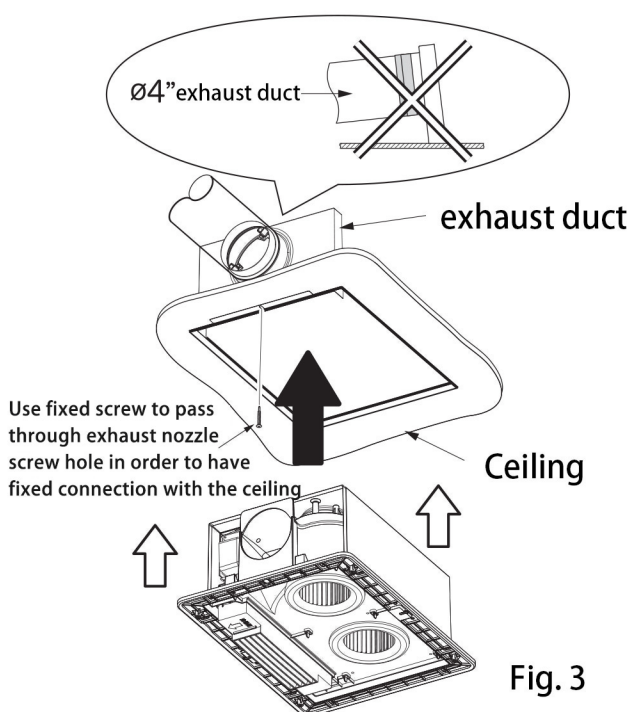
Ceiling



- ② Before installation
 - Remove 4 screws in the cover shown in Fig. 2



- ③ Fix the exhaust nozzle with screws onto the ceiling, and connect it with duct, use plastic tape to tighten to avoid moist leak.
- ④ Use 4 Lead screw to fix the machine on the ceiling horizontally



- ⑤ Ceiling Mounting must be in distance to the floor for more than 2.3m, to avoid accident.

Dry Mode Cautions

- When tempreature near the heating (at the back) is around 60 degrees, it will stop automatically. Heat will not be blowing out until it drops below 55 degrees.
- Tempreature setting is not avilable under dry mode.
- Drying time depends on bathroom size, internal and external tempreature, cloths type and amount, and also drying condition.
- Please close all window while dry mode.

Money Saving Method

- Please dehydrate clothes at least 5 minutues to shorten drying time.
- Please position your clothes around 20cm distance to the machine.
- Leave gaps between clothes to enhance drying outcome.
- For clothes which are diffcult to dry, please position near the machine.
- For long pants, bottom part is diffcult to dry, reverse its position time to time.
- Repositioning the clothes according to drying condition is more effective.
- Clearing water drops in bathroom. Maintaing dry condition enhances drying.

Drying Time Reference

Conditions:

- Surrounding tempreture 20 degrees, humuity 60%.
- Clothes dehydrate 5 mintues before drying.
- 50 sqaure feet bathroom, with dry condition.
- Drying time set to be 100% drying as goal.

Inner wears	6 items	6 items
Towels	7 items	7 items
Socks	5 pairs	5 pairs
Pants	1 item	2 items
Shirts	1 item	2 items
Underwear	2 items	2 items
T-Shirt	1 item	2 items
POLO Shirt	1 item	2 items
Weights	3 kg	4 kg
Dry Time	3 hours	4 hours

Referance Conditions:

- extra 20~60% time maybe needed in winter.
- extra 10~30% time maybe needed in rainy seasons.
- Drying time depends on bathroom type, internal or external tempreature, clothes type and amount, and drying condition. Drying time table are for referance only.

Wise Using Method

By mode switching

Electric Saving Ways

- In summer, external temperature is high and humidity is low, using wind mode instead of warm mode. Although it requires more time but heater is not used, so electric is saved. If not effective, switch back to heat mode.
- Drying time depends on bathroom size, internal and external temperature, clothes type and amount, and also drying condition.
- Please close all window while dry mode.

Caution of Warm Mode

- When temperature near the heating (at the back) is around 60 degrees, it will stop automatically. Heat will not be blowing out until it drops below 55 degrees.
- Temperature setting is not available under dry mode.
- Use warm mode before bathing, switch off warm mode during bathing.
- Close all windows during heat mode
- If excess of steam, switch to warm mode can get away steams.
- Outcome depends on bathroom size, internal and external temperature, clothes type and amount, and also drying condition.

Maintenance

Maintain filter in clean condition, otherwise it may reduce wind flow or causing noise.



Warning

- After it stops operating, do not touch the machine.
- Do not let water or spray used on the machine or the remote control.



Caution

- During maintenance, cut off the fuse of the electric diverter. Stand still and wear protective gloves.
- When working in high position, beware the position.

Please

- Do not use alcohol, gas thinner, stone powders or chemicals etc.
- Neutral detergent is recommended.
- After maintenance, do not heat dry, to avoid change in color or shape.

Filter Maintenance Once Monthly

Unload filter and clean

- Use water or vacuum to clean dirt. If necessary, use neutral detergents to clean.
- Filter must be dry.
- Avoid heater contact with water or detergents, to avoid electric shock or malfunction.
- Avoid using fire to make filter dry, it may cause damage or malfunction.

Safety Caution

- Before use, please read the “Safety Caution” carefully and use it correctly.
- In order to use our product safely and to prevent from injury, please carefully read the following cautions and warnings.
- The labels below illustrate the level of damage to product and endanger level to user while using the product incorrectly.



Warning

Ignoring this warning label while installation error happens will cause in death or serious injure.



Caution

Ignoring this caution label while installation error happens will cause in death or damage to product.

- The following labels illustrate the type of things you should follow.



This label represents warnings or cautions.













This label represents things to be prohibited.



This label represents instructions or things to be coerce.



WARNING

 <p>Never take apart, repair or redesign the product, except by a repairman.</p> <ul style="list-style-type: none">▪ To avoid injury caused by a fire or malfunction.	 <p>Never put organic liquor or sprays near the product.</p> <ul style="list-style-type: none">▪ To avoid from fire or malfunction.
 <p>Installation of product must be conducted by the seller or a technical.</p> <ul style="list-style-type: none">▪ To avoid accident caused by improper installation.	 <p>If bad smell or malfunction caused while in use, please switch it off and disconnect the circuit breaker.</p> <ul style="list-style-type: none">▪ If continue to use, it may cause a fire or electric shock.
 <p>Ensure to complete the installation of circuit breaker.</p> <ul style="list-style-type: none">▪ To avoid malfunction or electric shock caused by short circuit.	 <p>Do not touch the air output immediately after using or while in use.</p> <ul style="list-style-type: none">▪ To avoid from fire or malfunction.
 <p>Please do not hang ropes or hanger on.</p> <ul style="list-style-type: none">▪ To avoid catching a fire or electric shock.	 <p>Never dry or wash clothes which are attached with cooking oil, animal oil, engine oil, gasoline, perfume or coal.</p> <ul style="list-style-type: none">▪ To avoid fire caused by oil oxidization
 <p>Please do not use circuit other than 220V</p> <ul style="list-style-type: none">▪ To avoid from catching a fire or electric shock.	 <p>Do not splash cold or hot water on product or remote. Also, do not use rust spay.</p> <ul style="list-style-type: none">▪ To avoid fire or malfunction.



CAUTION



While in use, do not take the cover.

- To avoid electric shock or burn.



Please do not shake or giving great shock on product.

- To avoid malfunction.



While in use, never insert your fingers or others into the hole.

- To avoid electric shock or injury.



Please do not use the product without the filter.

- To avoid catching a fire or malfunction.



Wet clothes must be in distance with the air input window and output window for at least 15cm.

- To avoid catching a fire, malfunction or any discolor/spoil to the clothes.



Please keep away from socket or switches.

- To avoid short circuit, electric shock or catching a fire.



Do not let heat or cool blow directly on body for a long period of time.

- To avoid dehydration or feeling uncomfortable.



Please install the remote outside of bathroom or in shadow.

- Product is not water-proof, this is to avoid malfunction.



To ensure that the body is properly installed.

- To avoid injury due to the fallen parts of the product.



While maintenance, please cut off the circuit breaker. Use protective gloves.



During shower, do not touch the machine or the remote.

- To avoid injury or electric shock



Heater must not installed under the power source socket.

- To avoid malfunction or cause fire

PLEASE



This product can only be used for bathroom, do not install in other places.

- To avoid violation of laws.



While not in use, please switch off the circuit breaker .

- To avoid short circuit or catching a fire.



While in use (except heat), please fully open the air input and close the windows.

- To avoid loss of efficacy.



While thunder storm, please stop using and cut off the circuit breaker.

- To avoid malfunction.



Avoid using the product in high temperature (40C or above).

- Avoid shortening the lifetime of motor or malfunctioning.



Please do not use in places with sauna rooms or hot spring.

- To avoid malfunction.

Standards

Standard	Model	Mode		Power Use (W)	Wind Cycle (m3/h)	Wind Change (m3/h)	Noise (dB)	Weight (kg)
Single Pole 220V 50/60Hz	231	Dry	Strong	1300/1350	150/160	180/200	42/45	5.6
			Weak	1190/1170	110/110	100/100	40/42	
		Warm	Strong	1280/1320	150/160	—	35/38	
			Weak	1180/1160	110/110	—	30/30	
		Cool	Strong	50/56	150/160	180/200	42/45	
			Weak	31/32	110/110	100/100	40/42	
		Air	Strong	26/30	—	180/200	42/45	
			Weak	17/17	—	100/100	30/30	
		24 hr air ex.		17/17	—	100/100	30/30	

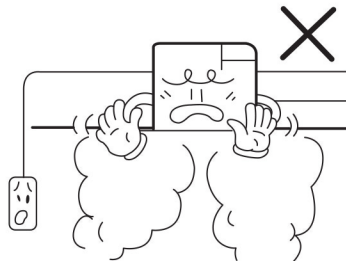
Install Caution

- Installing position should beware below cautions.
- Cannot be install and use in steam bathrooms.

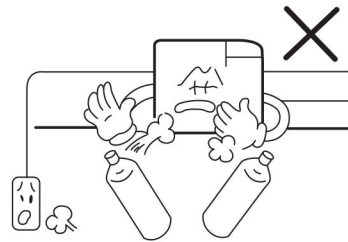
Do not use in hot springs.



Do not use smoke area.

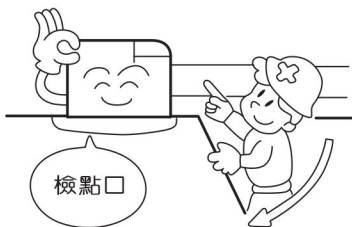


Do not install in area which uses sprays.

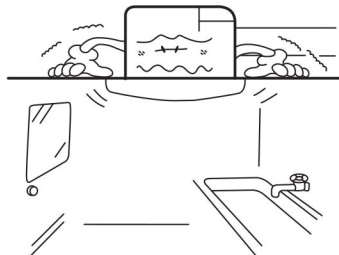


- Should beware below cautions while installing.

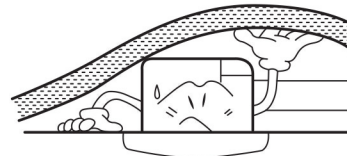
Reserve an repair position.



Installation must be fixed.
(Avoid shaking and noise)



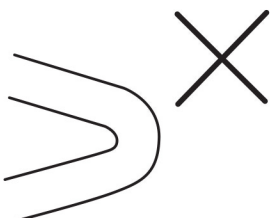
Do not cover with heat resistences
(Avoid shorten of life time)



- Do not install as below examples as to avoid lessen of air and noise.

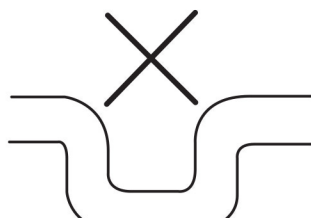
Extrme Curve

(Not more than 90 degree)

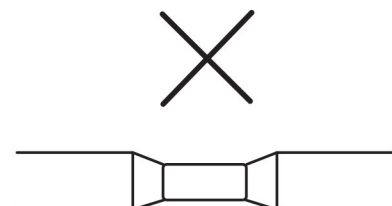


Muti-Curve

(Curve lessen wind amount)



Diameter of connecting duct too small



Window Mounting

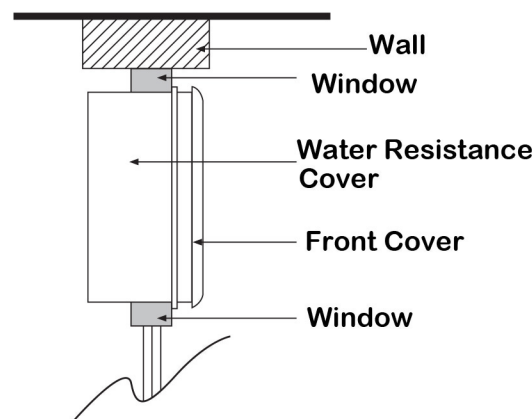
Front Cover Size:

470mm x 360mm

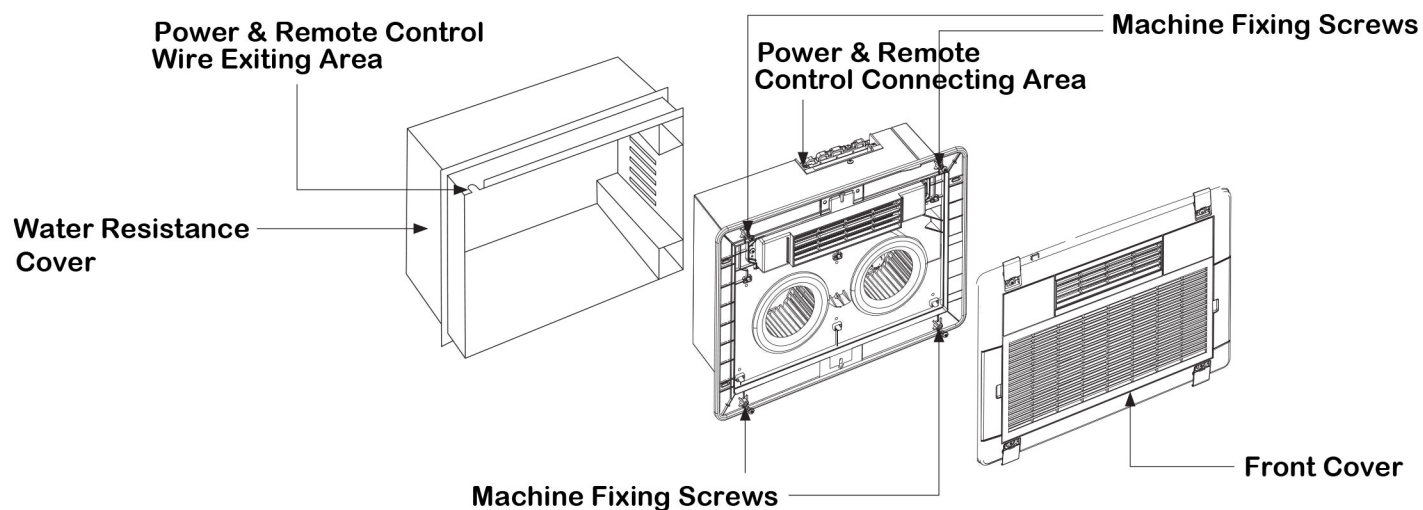
Water Resistance Cover Size:

16" x 11.5"

Thickness: 7"



- ① Install in position of the bathroom's window fan.
- ② First, fixing the water resistance cover to the window frame by using rivets.



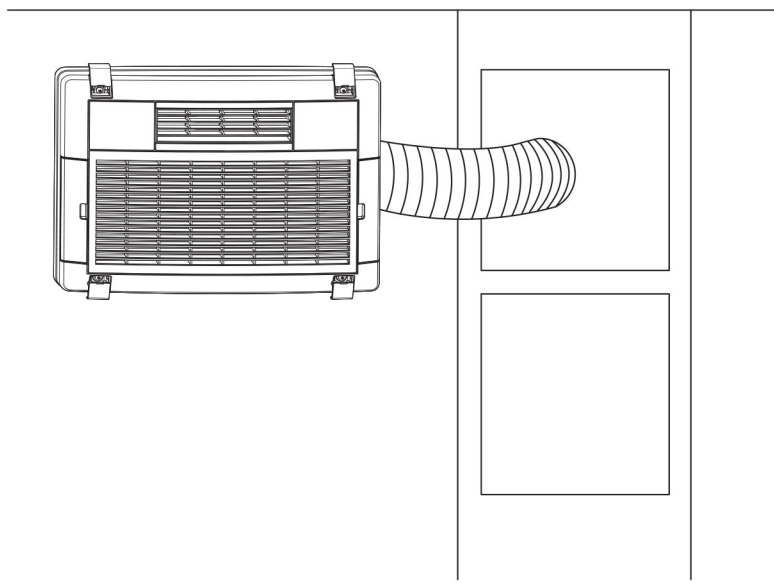
Wall Mounting

- ① Suitable for bathrooms without false ceiling.
- ② Fixing the wall mounting rack on the wall, then insert the machine with screws to fix position.
- ③ Connect 4" diameter air duct to the window.

Wall size for installation:

470mm x 360mm

Thickness: 7"

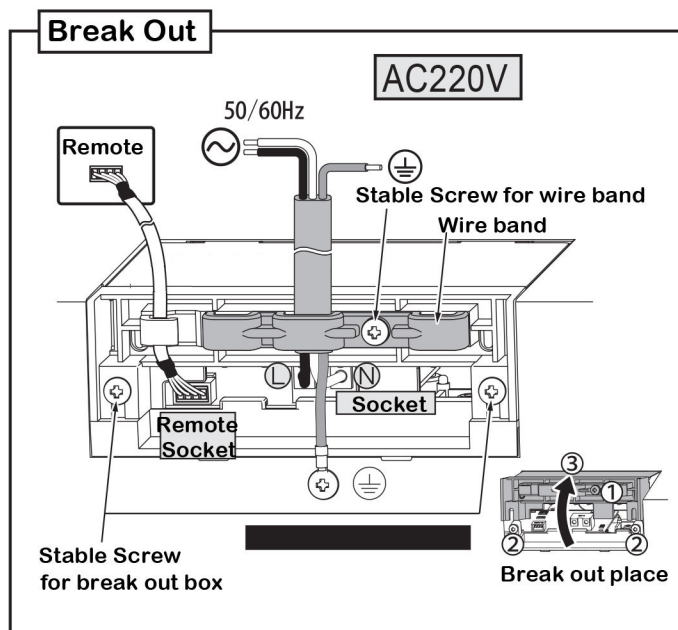


Power Connecting Procedure

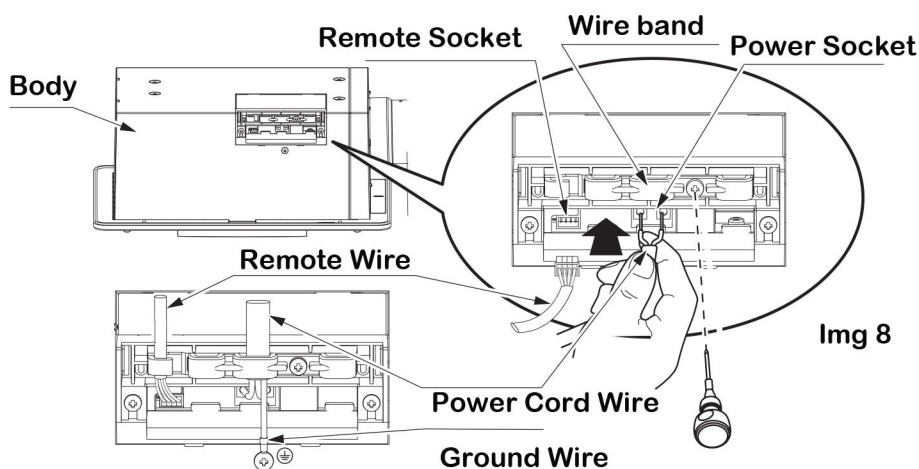
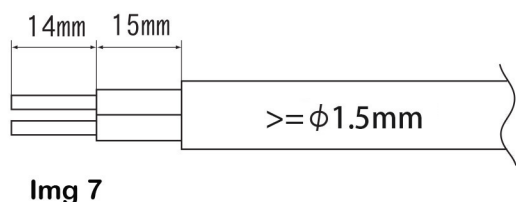
Power Connection

- ① While setting power cord break out, leave 2mm space from the machine body.
- ② Refit the power cord front end as shown in Img 7.
- ③ Insert power cord inside the power connecting socket until the end. (Img 8)
- ④ Connect with ground wire, ensure the screws are stable. (Img 8)
- ⑤ Pass the power cord through the wire band. (Img 8)

- Please Use AC 200V.
Incorrect voltage may cause fire or damage.
- Please use a 16A circuit breaker and maintain it over 13A. (Max. power usage 1350W)
- Ensure the voltage safety limit if the power is shared with other machine.
Switch off other machines while checking.
- Connect ground wire to the machine's ground wire terminal.
- All power setting procedure must be conducted by a qualified engineer.
- For power cord, it is recommended to use 60227 IEC 53 modal wire, with cross-sectional area 3 x 1.5mm or above

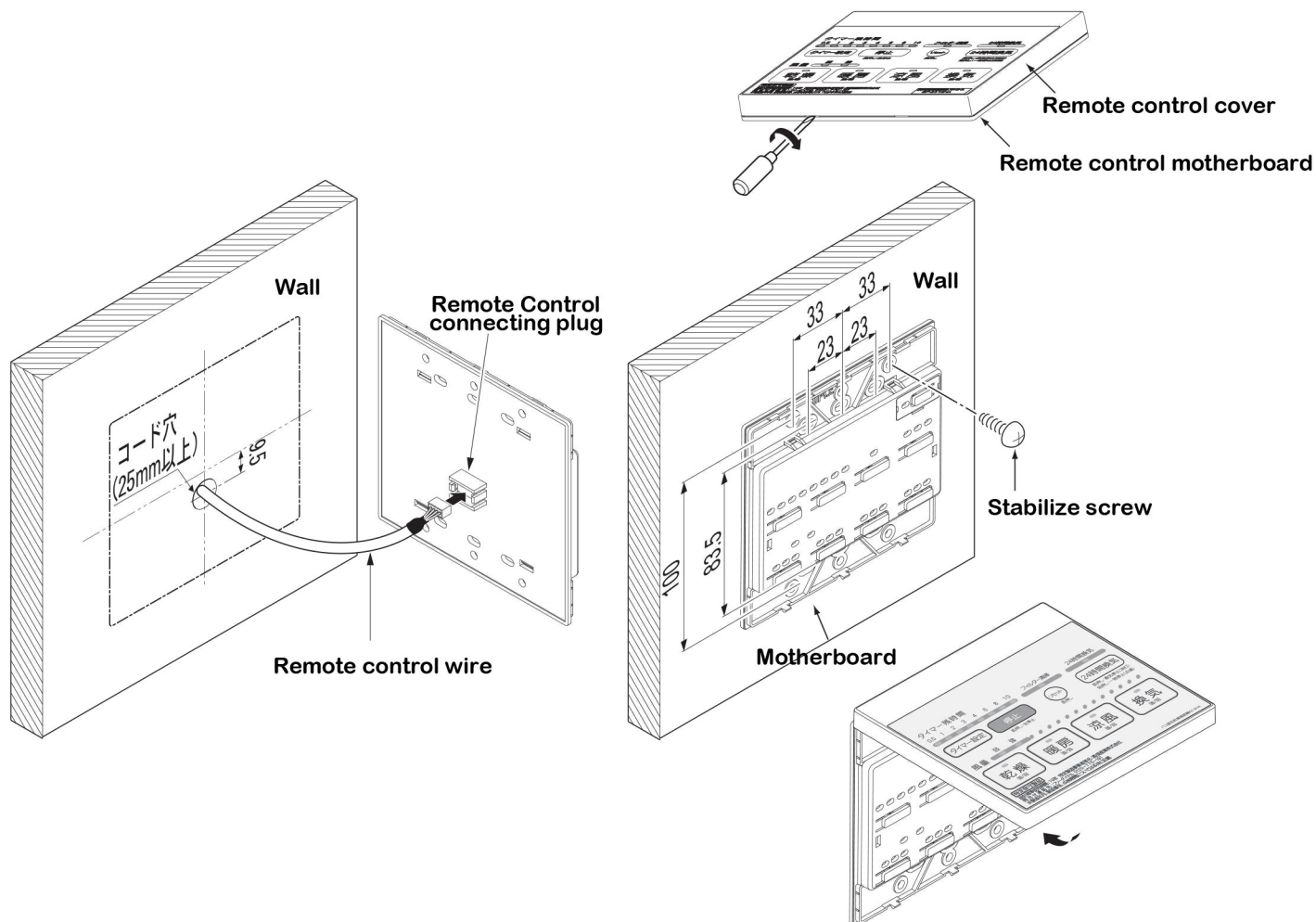


Refit Power Cord Front End



Remote Control Installation

- ① Remove remote cover.
- ② Connect the control wire with the remote motherboard plug.
- ③ Use 2 or more screws to stabilize the mother board.
- ④ Put on the cover.
- ⑤ Remote control is not water resistance, avoid from wet in case of damage.



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