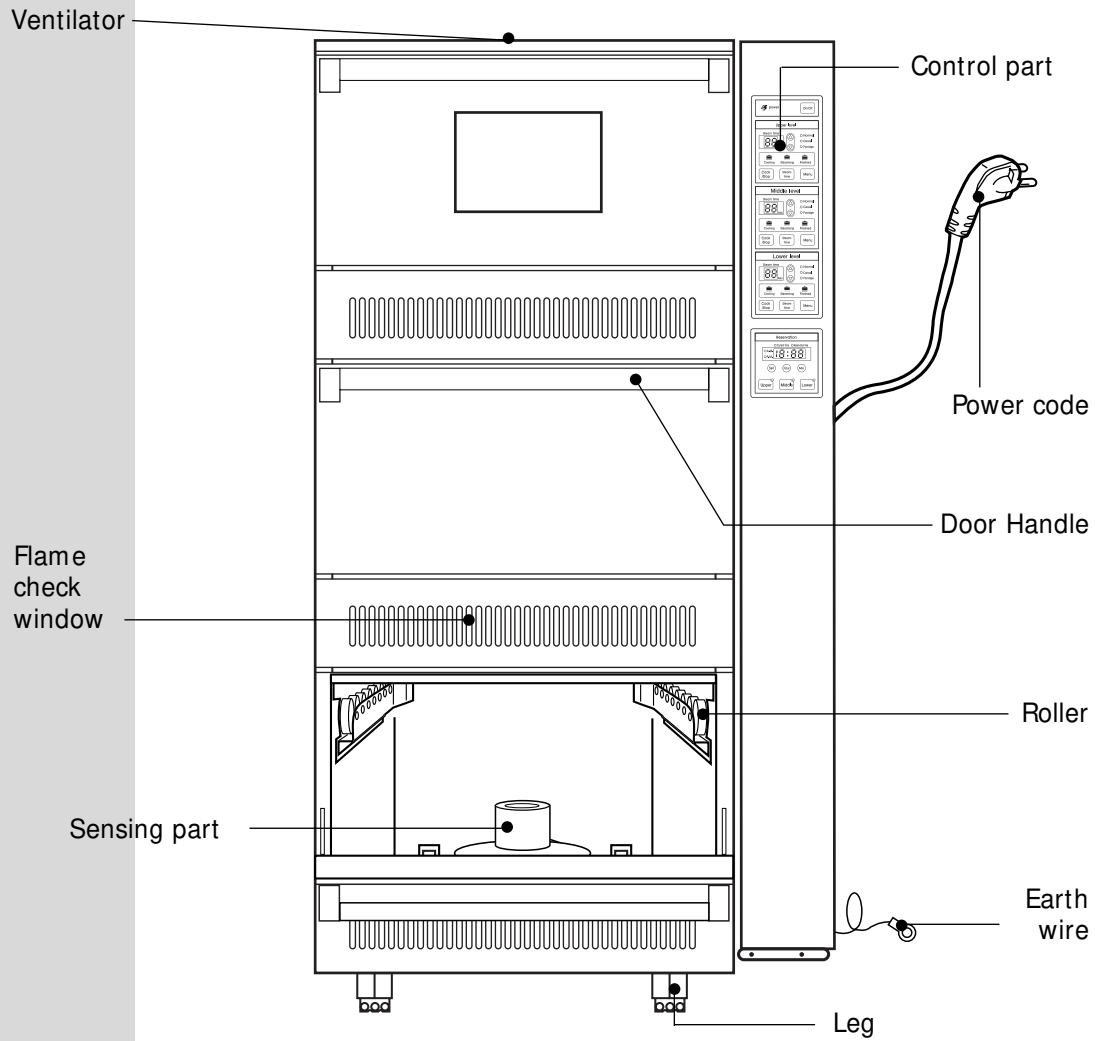


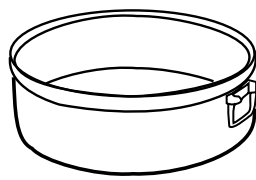


# Name of Each Part

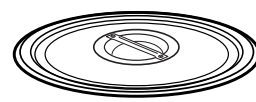
■ The Body (The picture is RRA-155 and RRA-105 consists of 2 levels)



RRA-105 (2 EA)  
RRA-155 (3 EA)



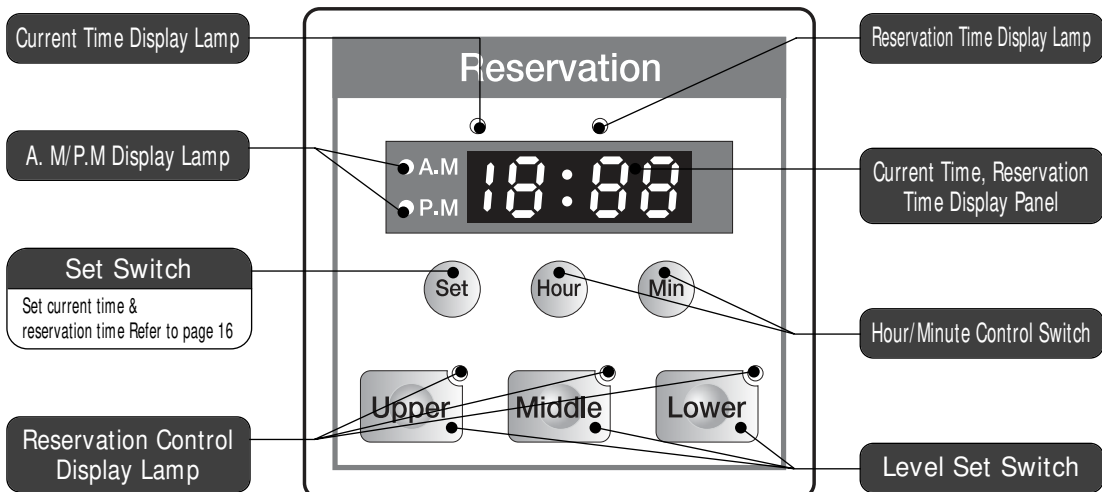
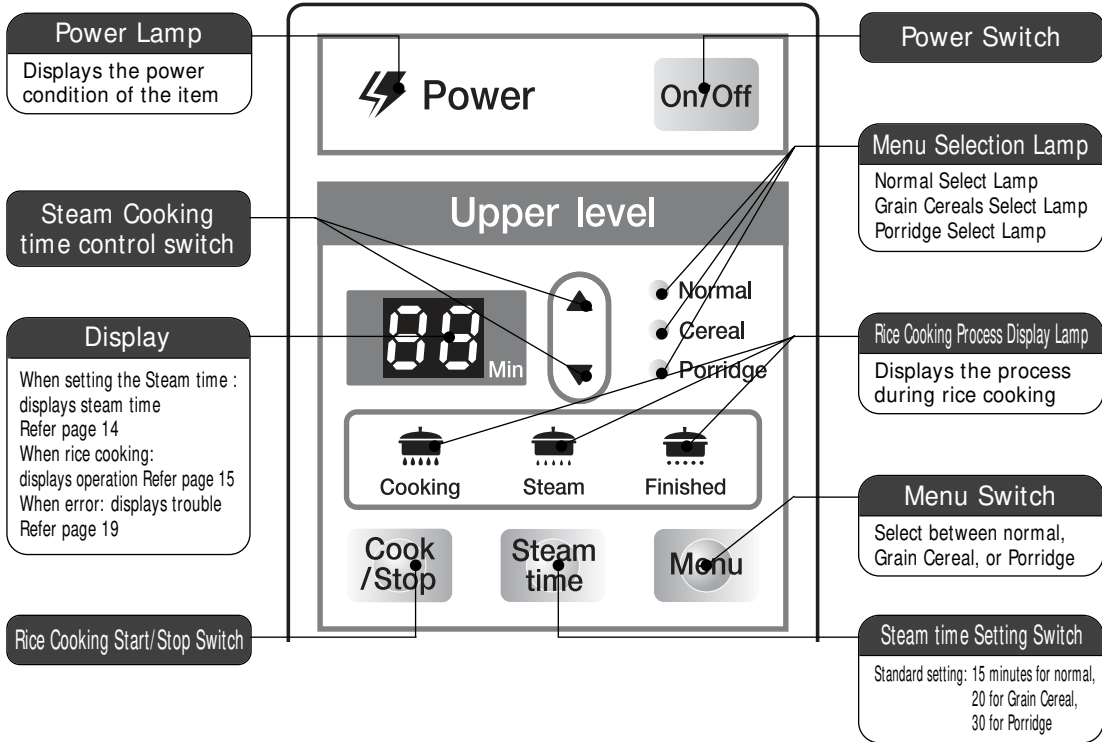
Kettle



Lid

※You can purchase pans and lids additionally if necessary

## ■ The Control Panel





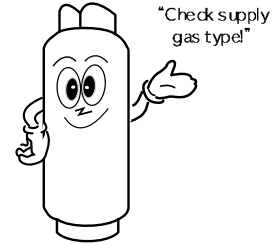
# Assembly & Installation

## ■ Check the available gas and power.



To do

- Be sure to connect the gas displayed on the name table of the product. This product is for low pressure.
- This product is for 220V~ 240V.
- If available gas is not clear or when it does not coincide with product display, please contact the place where you purchased or service center of our company.
- Please check the available gas.

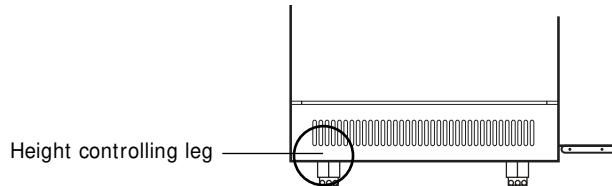


## ■ Please set the product at level.



To do

- Set the product at level using the height controlling leg under the product.



## ■ Please connect the gas pipe arrangement in this way.



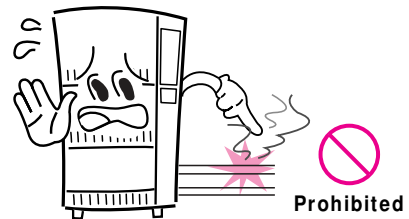
To do

- Request a gas agency or its relevant company for gas connection and product installation.
- Install a middle valve.



Caution

- When gas pipe bursts due to outside shock, there may be fire or damage of the product due to leakage.
- When arranging gas pipe excessively, over burn due to product breakdown or fire due to leakage may occur.

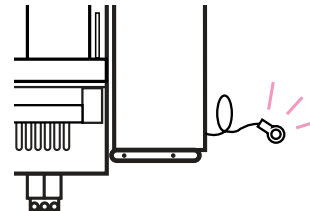


## ■ Be sure to ground when installing.



To do

- When power outlet does not have grounding in AC 220V~ 240V area, please do the grounding construction.

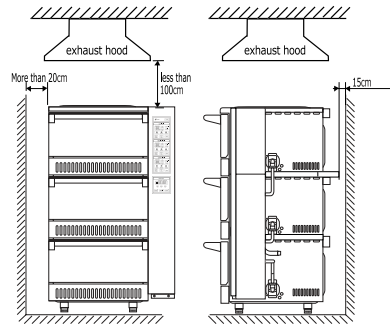


■ When installing the product, make sure to keep distance from inflammables.



To do

- If the wall around the product is inflammable like plywood, install the product away from the wall over 20cm (side) or over 15cm (rear). Also be sure to install a ventilation hood to top of the product.
- If the distance is too close, it can cause fire. Also if you attach stainless steel plate, general steel plate to inflammable wall (such as plywood) and use for long period, it can cause fire or damage to wall through heat transfer.
- When installing heat plate, maintain the distance between heat plate and inflammable wall over 3cm.



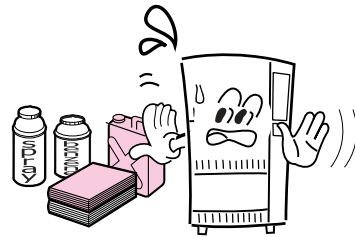
< Heat-proof board not installed >

■ Remove inflammables around the item.



To do

- It causes fire.

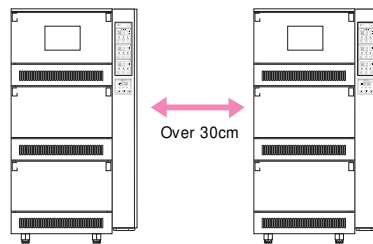


■ When installing over 2 items, maintain the distance between the 2 products over 30cm.



To do

- For smooth service, be sure to maintain the distance between the 2 products over 30cm.

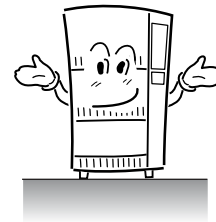
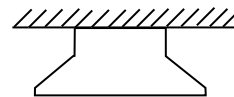


■ Install ventilation system.



To do

- This product exhausts combustion gas in large quantity when operating, so be sure to install ventilation system such as ventilation hood.





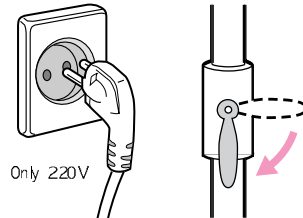
# Use Method

## ■ Check items before using.



To do

- Check the gas/power you are using.
- Check if there is any inflammable thing such as paper, plastic, oil around the product.
- Open middle valve.
- Check if the power plug is inserted thoroughly in the outlet.
- Press the power switch and check if the power lamp lightened.



## ■ Preparing rice (Menu: When selecting normal)

- Cooking rice can be handy when you use measuring lines in the pan.
- Rice Quantity Conversion Table

Capacity	Rice quantity (Based on Raw Rice)	Measuring Lines (Based on washed rice soak in water)	Cooking Cycle (Steam:10min)
50	about 7.5kg		About 33min
40	about 6.0kg		About 31min
30	about 4.5kg		About 28min
20	about 3.0kg		No measuring lines inside the inner cooking pan



Caution

- ※ Measure rice quantity accurately using a scale.
- ※ "O" mark is for porridge cook. This product doesn't have porridge cooking function.
- ※ Cooking cycle can vary by the type of rice, water temperature, and water volume etc.
- ※ Warning

Maximum rice cooking capacity is 50 people and minimum is 20.  
 When you cook rice for 20 people or less(rice about 3kg), rice can stick at the bottom.  
 When you cook rice for 50 people or more(rice about 7.5kg), rice can be half-cooked.

As for cereals or 5 other staple cereals, use half of rice quantity of normal cooking and avoid maximum rice cooking.  
 Example) Ratio

White rice : sticky rice : millet : beans : black rice = 50% : 30% : 10% : 7% : 3%

When you want to put other ingredients(chestnut, jujube etc.), sprinkle them over rice after washing or soaking it in water and do not mix with rice.

## ■ Rice Porridge

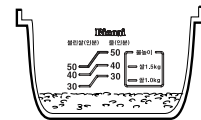


To do

- There are two type of rice quantity : 1.0kg and 1.5kg.
- Measuring line inside of pan is an indicator of water level in porridge condition. You can adjust water level according to porridge status.

※ Warning: It can overflow if there is too much water than recommended volume in user guide.

		Watery porridge	Normal porridge	Stiff porridge
Rice Quantity	1.0kg	Water: 10 times more than the rice quantity	Water: up to measuring line inside the pan	Water: 6 times more than the rice quantity
	1.5kg			



## ■ Washing Rice



To do

- Wash rice several times (3~4) till clean water comes out. There are rice powder, dust, other pollutant on the rice surface, so wash the rice quickly and throw away the water so the smell does not soak into rice.
- If you wash the rice for too long time, or with too much force, the rice breaks down and it can cause the bad cooking. Wash rice gently.



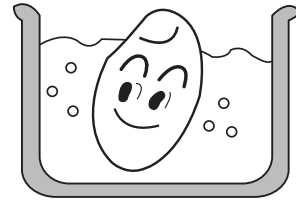


To do

■ Do not soak rice in water for long period.

- Soak rice after washing. If you wash after soaking, rice may break down and it causes bad rice cooking.
- 30min in summer, 1hour in winter is suitable. If you soak rice for too long (2hours), rice easily breaks down and it causes the bad rice cooking such as early fire extinguish and half-cooked.
- When there is left over of soaked rice, remove the water from rice with a sifter and keep it in the refrigerator.
- In case of cereals, make the soaking time same as general rice.

※ Exceptions) In case of red beans, soak it for over 12hours or boil it then cook.



To do

■ Wash the pot cleanly.

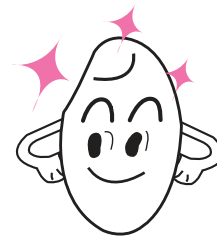
- Always maintain inside and outside of the pot clean. If washing is not thorough inside the pot, it may cause bad cooking.



To do

■ About Selection and Storage of rice

- Please avoid rice with old time of validity, and use rice in opened package. Rice with old time of validity, it easily breaks and soaking time gets longer so it may cause bad cooking.
- Store rice in cool place with low humidity.



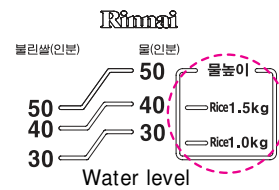
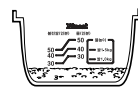
To do

■ Setting water quantity and water volume

- Put washed rice soak in water and put water to the measuring line in pan inside.

※ Warning: Measuring line is a standard recommendation.

- Example) When you cook for 30 people, set washed rice soak in water to "30", and also set water to "30".
- Adjust water volume according to rice type(cereals, white rice, government-stock rice etc.) and rice storage period(new rice, long-stored rice etc.)
- Measuring line inside of pan is a general standard, therefore you can adjust water volume to taste.
- Try to avoid maximum or minimum rice cooking. Rice can be half-cooked or stick at the bottom.
- "O" mark is for porridge cook. This product doesn't have porridge cooking function.

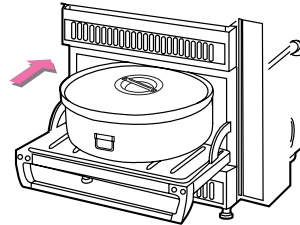


### ■ Preparations for Cooking

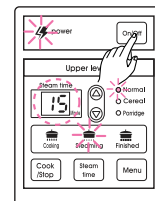


To do

- Open door and cover the pot filled with soaked rice and water with pot lid then push it deep inside the combustion room.
- It is convenient to take out the pot after cooking when you put the pot with the handle facing forward.
- Push the pot to the end then close the door slowly.



- Push the power switch.
- If you push the power switch the steam lamp will blink for 5sec then the steam time will appear on steam time display panel.
- The steam time is basically set to general: 15min, cereal: 20min, porridge: 30min.

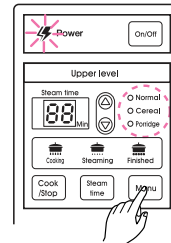


### ■ Set cooking menu



To do

- Push the menu switch of the level you want to cook to select 1 among 'Normal', 'cereal', and 'porridge'.
- 'Normal', 'Cereal', 'Porridge' on menu select lamp will lighten up in order each time you push the menu switch.
- Once you set the menu, it will be applied as it was to next cooking.

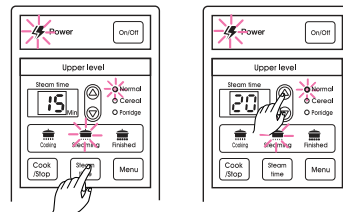


### ■ Changing steam time



To do

- Push the steam time set switch.
- If you push the steam time set switch, the steam time will be displayed on the steam time display panel and steam lamp will blink on cooking process display lamp. (about 5sec)
- At this time, use control switch ▽, △ to change the steam time of your choice.

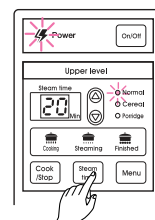


< before changing steam time> <After changing steam time>



To do

- After changing steam time, push steam time set switch again or wait 5sec to complete the steam time setting.

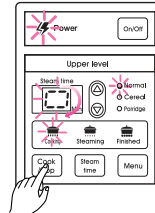




To do

### ■ Rice Cooking

- After putting the pot filled with soaked rice and water into the level, push start/stop switch. It is automatically ignited and cooking will start.
- At this moment, the cooking lamp will be lightened and product operation display panel starts to rotate.
- For some time after the start of cooking, the ignition and extinguishing will repeat. The cooking lamp will be still lightened and operation display panel will continuously rotate.

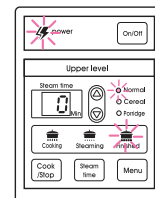
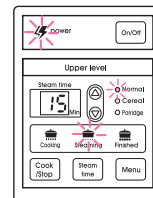


Caution

- **For delicious rice cooking, this product has automatic rice quantity sensing system by repeating 'off', 'on' when it first starts to cook. At this time, the fire may go off with 'puck' sound but nothing is wrong to the product so use at ease.**

### ■ Steaming

- When cooking is over, the buzzer will sound twice and the light on cooking lamp will go off and the process goes to steaming.
- The steam lamp will be lightened and steam time will appear on steam time display panel.
- When steam time is over the buzzer will sound 10 times then the light on steam lamp will go off and completion lamp will be lightened.
- Once the cooking starts, the steam time cannot be changed.
- If you want to know the steam time during the cooking, push the steam time switch and the steam time will appear.



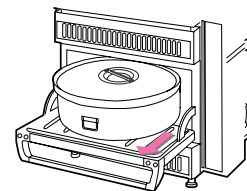
<Steaming in process> <Steaming complete>

### ■ Cooking Completion



To do

- When the steaming is over, open the door and pull out the pot.
- At this time, the pot is very hot so always use gloves.
- Push start/stop switch. The light on completion lamp and steam time display panel will go off.
- Close the middle valve.



Caution

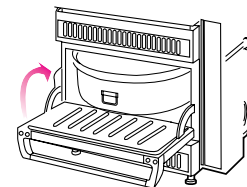
- **Do not load too much weight on the product door. Do not put the pot filled with soaked rice and water or the pot after the cooking on the door. It may cause damage to the product**



To do

### ■ About continuous rice cooking...

- If you are cooking continuously, wash inside the pot cleanly and use it after the heat sensor inside the pot gets completely cool. If you cooking with dregs inside the pot or when heat sensing part inside the pot is not completely cool, bad cooking may occur.
- Put soaked rice and water into the cooled pot then push the pot into the level you want to cook then close the door and always wait for 5min then start the next cooking.



Close the door and always start after 5min.



Warning

- **When you move rice pot, use an exclusive cart to prevent deformity. If inevitable, you can stack up merely 4 rice pots and less at a time.**



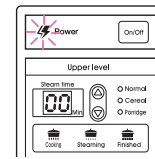
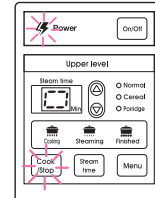
### ■ In case of power cut

- During a power cut, the operation will stop. At this time, if electricity comes back within 7min it will automatically go on with the process before the power cut.

If electricity came back within 7min

- If electricity comes back after 7min, it does not return to its original course but error [00] will be displayed on the operation panel and the buzzer will sound. In this case, push start/stop switch to stop the error display then push the power switch to turn off power and you will have to start the cooking from the beginning.

■ **Caution: In state when 7min passed after power cut and if you start over the cooking without changing the contents inside the pot, scorch on bottom of the pot or early extinguishing may occur.**



### ■ Time setting (about setting current time...)

- If you first plug the power into the outlet and push [power switch: on/off], 12:00 will appear on [current time, reservation time display panel].

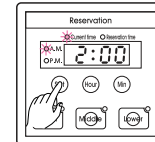
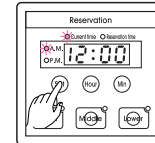
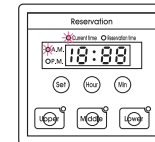
- Push [set switch] at this condition.

- If [current time display lamp] blinks, adjust the current time using [time setting switch: hour, min].

- Push [hour] on [Time setting switch] to change the number 1, 2, 3... 12 and [AM, PM display lamp] will change [AM] → [PM] or [PM] → [AM] with 12 as basis.

- Push [min] on [time setting switch] for over 2 sec to change number 1, 2, 3... 59, 00.

- Input current time then push the [set switch] to set current time.



### ■ About setting reservation time...

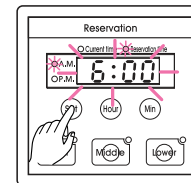
- Push the [set switch] to make [reservation time display lamp] and [current time, reservation time display panel] blink, then use the [time setting switch hour, min] to change reservation time. (6:00 will appear on the first time.)

- Push [hour] on [Time setting switch] to change the number 1, 2, 3... 12 and [AM, PM display lamp] will change [AM] → [PM] or [PM] → [AM] with 12 as basis.

- Push [min] on [time setting switch] to change number 1, 2, 3... 59, 00.

- Push [time setting switch hour, min] over 2 secs and the number will go up automatically till you remove your finger.

- After inputting reservation time, push [set switch] to set reservation time and it will change to current time. Check the current time, then push [set switch] again.

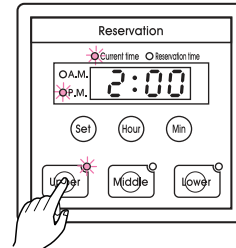




**To do**

■ **About reservation cooking...**

- Set the reservation time of your desire.
- Put the pot filled with soaked rice and water into the level you want to cook.
- Push the level button you want to cook among [top, middle, low] of select switch. Lamp will be lightened.
- If you want to cancel the reservation, push the pertinent level switch for 2~3secs. Lamp will go off and the reservation will be cancelled.



## Cautions



**To do**

- You can freely choose among top, middle, and low level in reservation cooking, and it is possible to cook 2 levels or 3 levels simultaneously. But it is not possible to set the time separately by level.
- (Example: It is impossible to reserve 7 AM for top level, 8AM for middle level, and 9AM for low level.)
- Reservation time setting is maximum 24hours.
- When you put rice in the water for long period in summer or high temperature inside the kitchen, the rice may get spoiled and also rice can be damaged and it may cause bad cooking.
- For safe cooking, please set reservation time within 10 hours and avoid the maximum rice quantity.
- This product is designed to stop automatically for safety when burner combustion continuous over 50 minutes. (Refer to "Measures for product error")



# Measure when error

- This product stop operating and buzzer will sound 'ppee' automatically if any problem occurs during use or if you use it incorrectly. Also error mark is displayed on operation display panel.



## Warning

- If error occurs during use, stop using and shut the middle valve and ventilate air then pull out the power plug.

## Error display

Error display		Cause	Measures
"00"	BLINKING	When electricity comes back after over 7min of power cut during cooking	Push "start/stop switch" to stop error display then restart with different rice
"10"		When burner combusted over 50min	Push "start/stop switch" to stop error display then check middle valve, gas supply then restart
"11"		When burner does not ignite properly	
"12"		When over extinguishing occurs during cooking	
"16"		Early extinguishing display Cooking is not properly done in early stage	Push "start/stop switch" to stop error display then restart with different rice
"14", "24", "31", "70", "71", "72", "73"		When error occurred in electric circuit	Contact our service center for necessary checkup

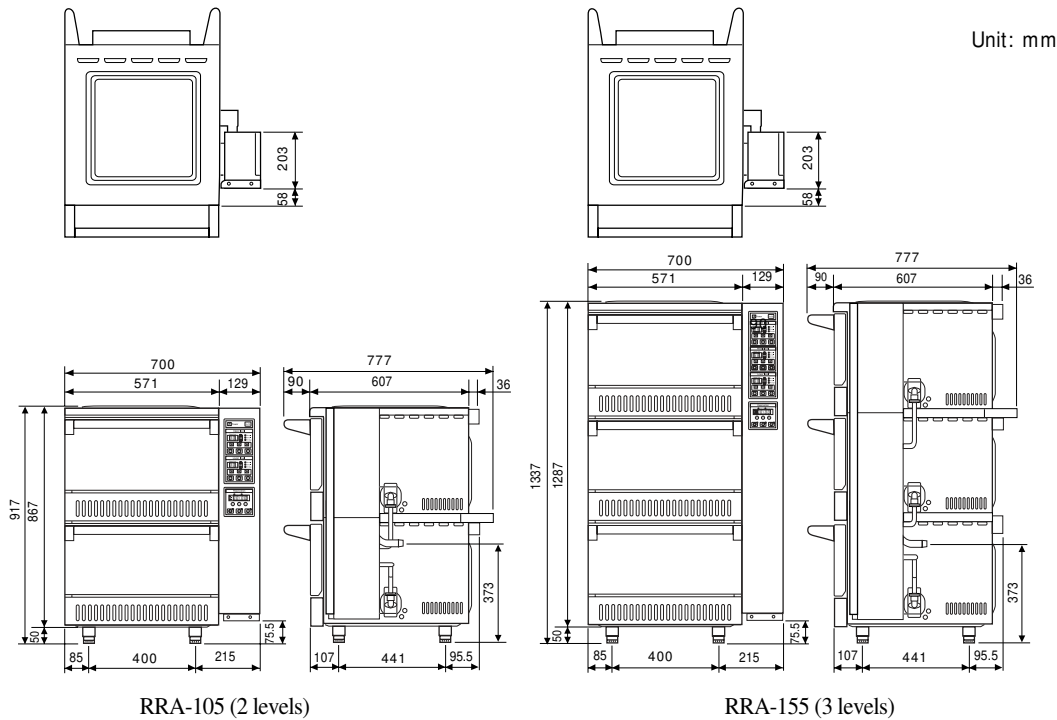
- Apply for the service after you've checked the same error display is shown repeatedly. And refer to "if you think it has trouble"

## Display when power cut

Error display	Power return within 7min	Power return after 7min
During cooking	Automatically return to original process	Cooking stops and "00" is displayed
During reservation cooking	If power returns before the reservation time the cooking goes on. If power returns after the reservation time, the reservation cooking stops and "00" is displayed.	

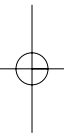


# Product Specifications

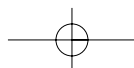
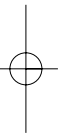


Product name		<b>Commercial gas automatic rice cooker</b>						
Model name		RRA-105			RRA-155			
Width(mm) x length(mm) x height(mm)		700 x 777 x 917			700 x 777 x 1337			
Weight (kg)		100			150			
Connection	Gas	3/4" (20A)						
	Electric	220V~ 240V / 50Hz~ 60Hz						
Safety device		Extinguish safety device, Extinguish safety timer						
Power consumption		32W			45W			
Minimum/maximum cooking quantity (kg)		3~ 15			3~ 22.5			
Accessories		Pot (2), Pot lid (2)			Pot (3), Pot lid (3)			
Gas consumption amount	LP gas (kW)	Top	Low	Overall	Top	Middle	Low	Overall
		(0.80kg/h)	(0.80kg/h)	(1.58kg/h)	(0.80kg/h)	(0.80kg/h)	(0.80kg/h)	(2.42kg/h)
	Natural gas (kW)	11.3	11.3	22.1	11.3	11.3	11.3	33.7
		(9,700kcal/h)	(9,700kcal/h)	(19,000kcal/h)	(9,700kcal/h)	(9,700kcal/h)	(9,700kcal/h)	(29,000kcal/h)
TG(HK)	11.3	11.3	21.5	11.3	11.3	11.3	32.5	
	(9,700kcal/h)	(9,700kcal/h)	(18,500kcal/h)	(9,700kcal/h)	(9,700kcal/h)	(9,700kcal/h)	(28,000kcal/h)	
TG( SIN )	11.4	11.4	22.1	11.4	11.4	11.4	33.7	
	(9,800kcal/h)	(9,800kcal/h)	(19,000kcal/h)	(9,800kcal/h)	(9,800kcal/h)	(9,800kcal/h)	(29,000kcal/h)	

■ The external appearance of the product may change without notice for improvement of quality.



**Rinnai**  
For the Generations to Come



# Rinnai

## User's Manual

《 365days gas safety 》

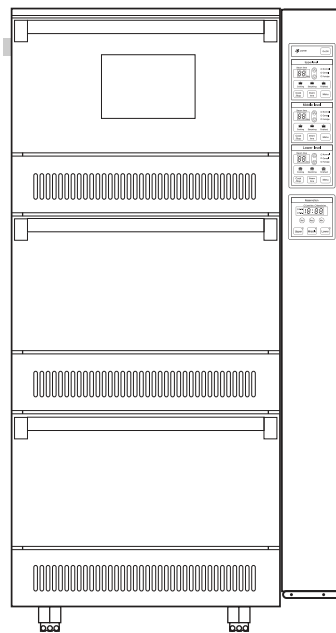
-safe gas and merry society  
-let's prevent gas accidents  
with caution and inspection

**No Use For Semi-low  
Pressure or Mid-Pressure**

# Commercial Gas Automatic Rice Cooker

RRA-105 (2 levels)

RRA-155 (3 levels)



- The picture above is RRA-155
- This product is for commercial use that it is not to use at home.
- This user's manual must be read before use in order to use properly and prevent potential danger.
- This user's manual might be kept at a place easy to be found.