City Gas Pte Ltd (as Trustee)

Initiatives for Future Homes

By Francis Yeo

Warming hearts in the city

1) SMART Gas Water Heater

2) Gas Hob with Timer Control

3) Gas Detector

SMART Gas Water Heater

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- **Introduction**
  - Singapore is geared towards being a Smart nation where it seeks to change the way we work, play, interact and live.
  - With advances in digital technology, we are able to harness the power of networks, data and info-comm technologies to support better living.
  - Co-developed with our Manufacturer, Macro in conjunction with Swee Huat Heng, City Gas is proud to present our first; **SMART Gas Water Heater**

- **SMART Gas Water Heater**







- Safe & Reliable
- Greater Efficiency
- Eco-Friendly
- Cost Saving
- Continuous Hot Water
- Tested to EN26 Standard by TÜV SÜD PSB Singapore

– Gives users a whole new experience

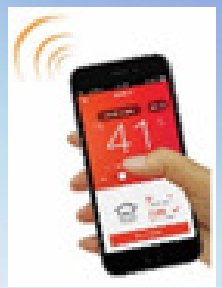
– It brings better value propositions to project developments in this challenging times

SMART Gas Water Heater Features



	CAPACITY	
	12L	20L
Standalone	√	√
Built-In Circulator	√	√
Indoor	√	√
Outdoor	√	√





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- **How the App works**



iAppliances
Smart app to control your home appliances

Download on the App Store

GET IT ON Google Play

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SMART Gas Water Heater
User Journey

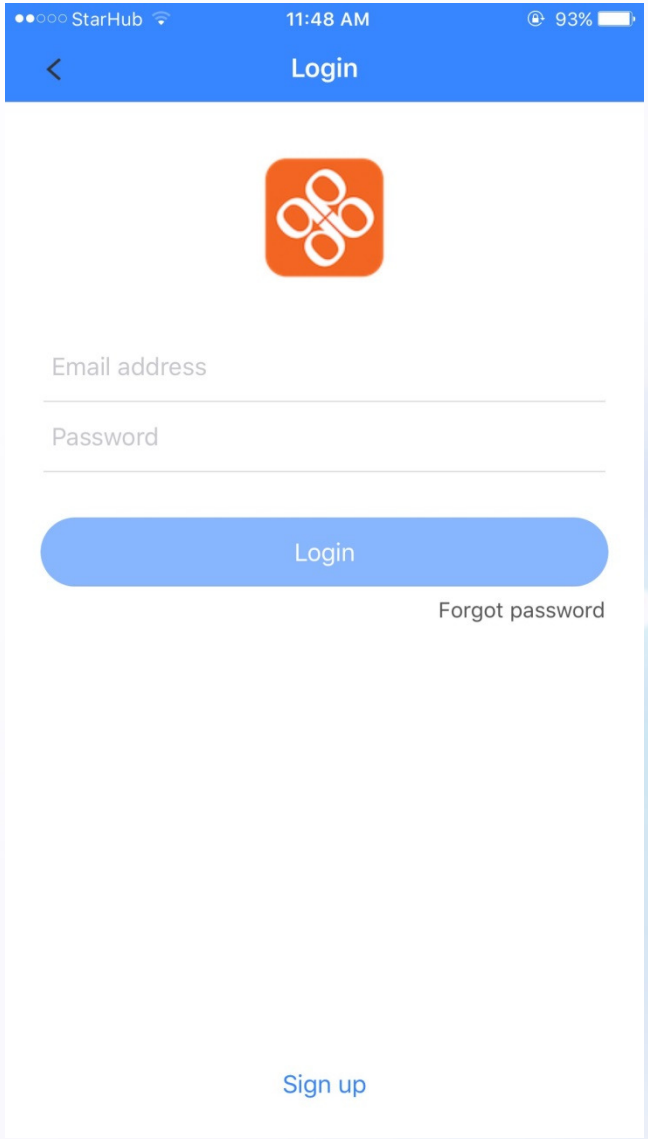


- Install ***iAppliances*** app in your smartphones/ tablets

  - Open the app by clicking **START**

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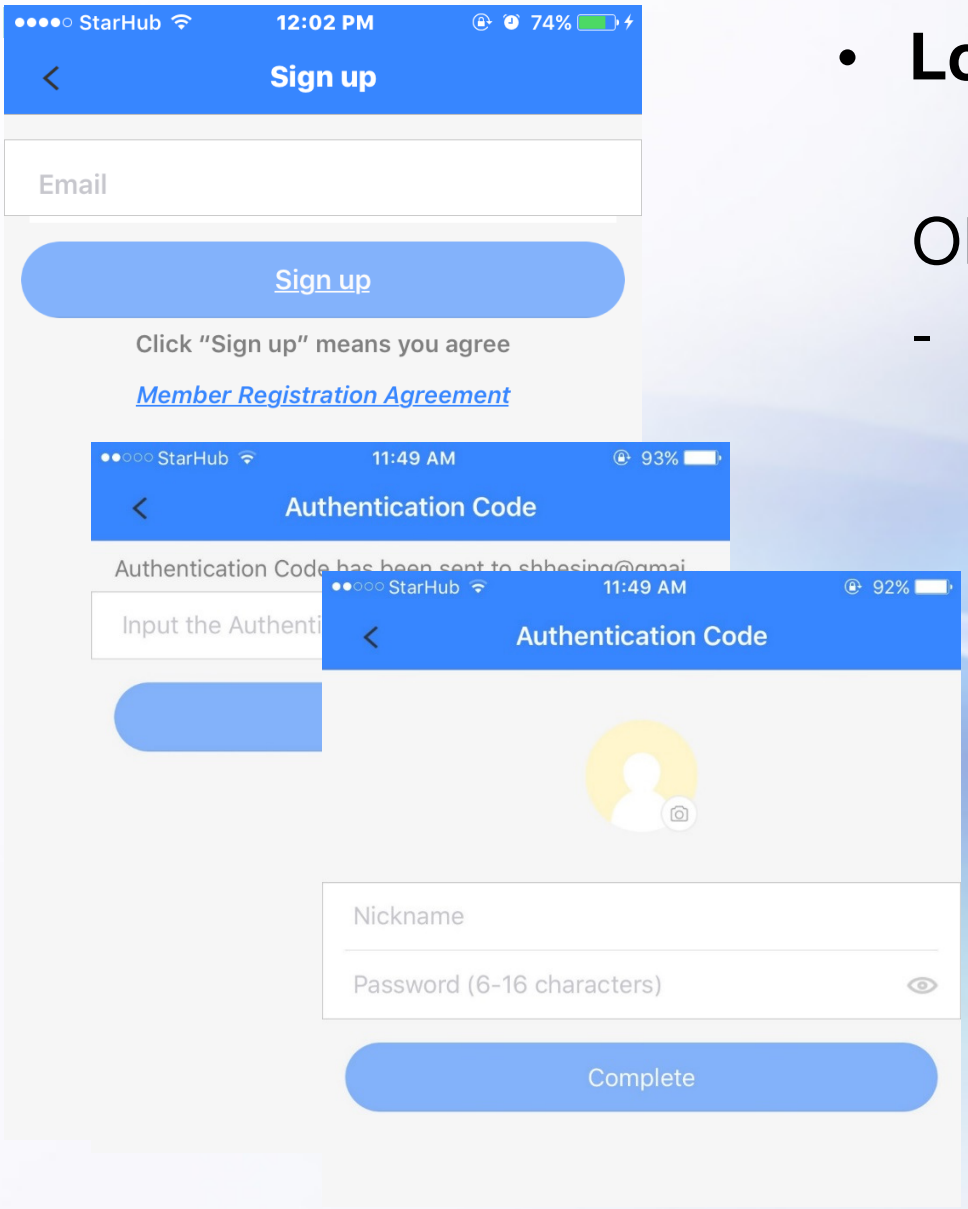
SMART Gas Water Heater
User Journey



- **Login / Sign up**
  - A simple login access for the existing user

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SMART Gas Water Heater
User Journey

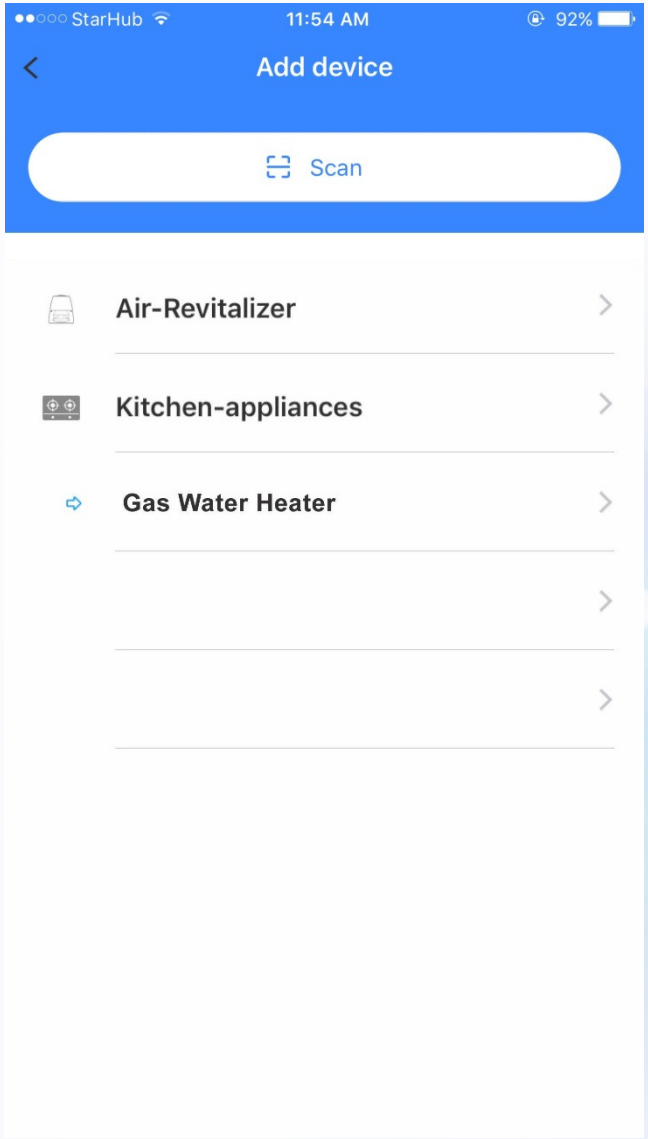


- **Login / Sign up**

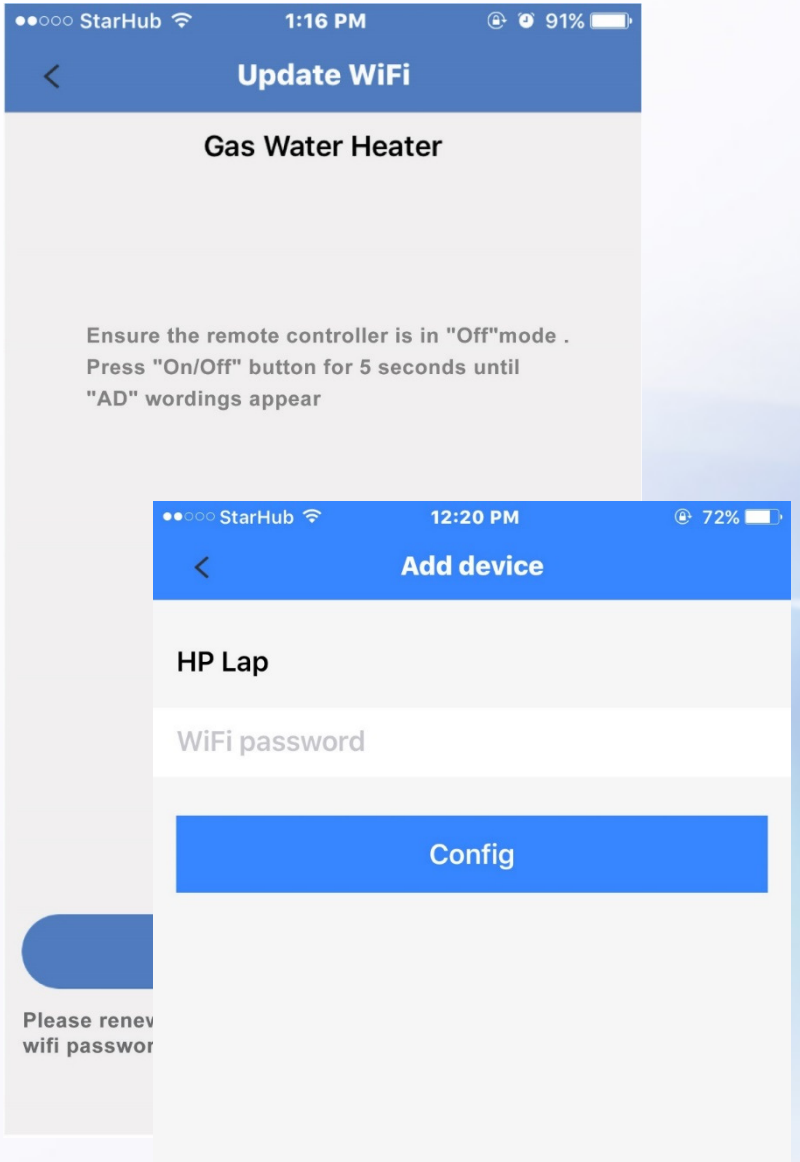
OR

- Simply sign up as a new user in 3 easy steps

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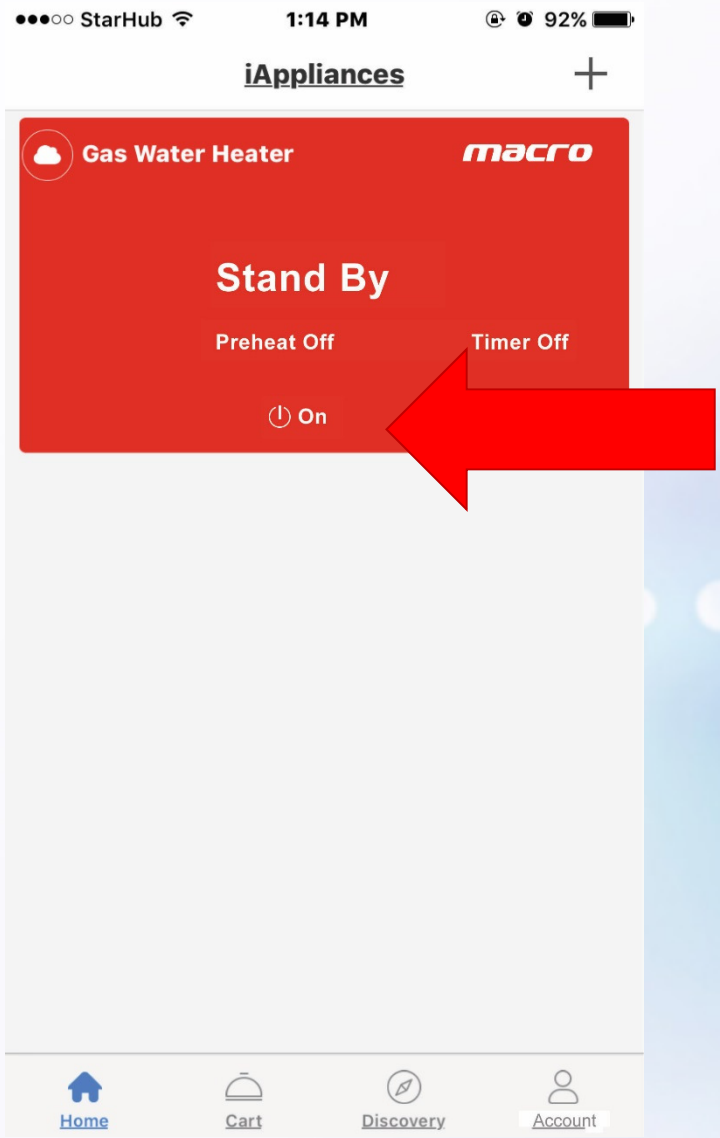


- **To add device**
  - Click the tab “Kitchen Appliances”
  - Select Gas Water Heater from the list



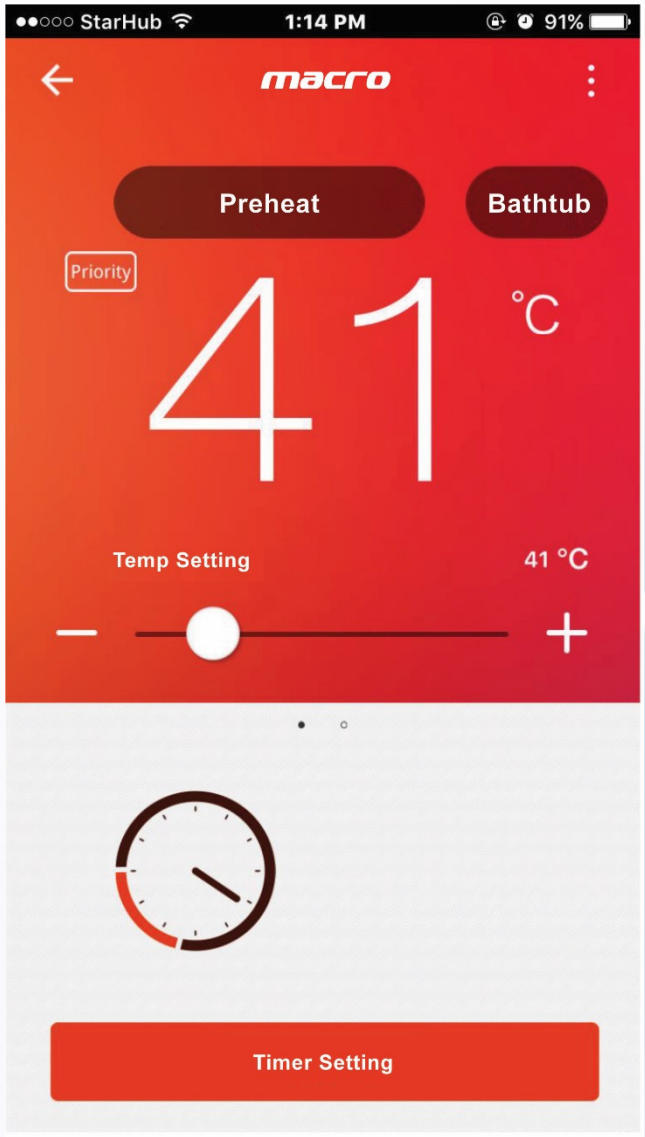
- **Pairing**
  - Ensure Wall/Remote control panel is in “Off” mode
  - Press and hold “On/Off” button for 5 secs
  - Enter your WiFi password and your SMART heater is now connected

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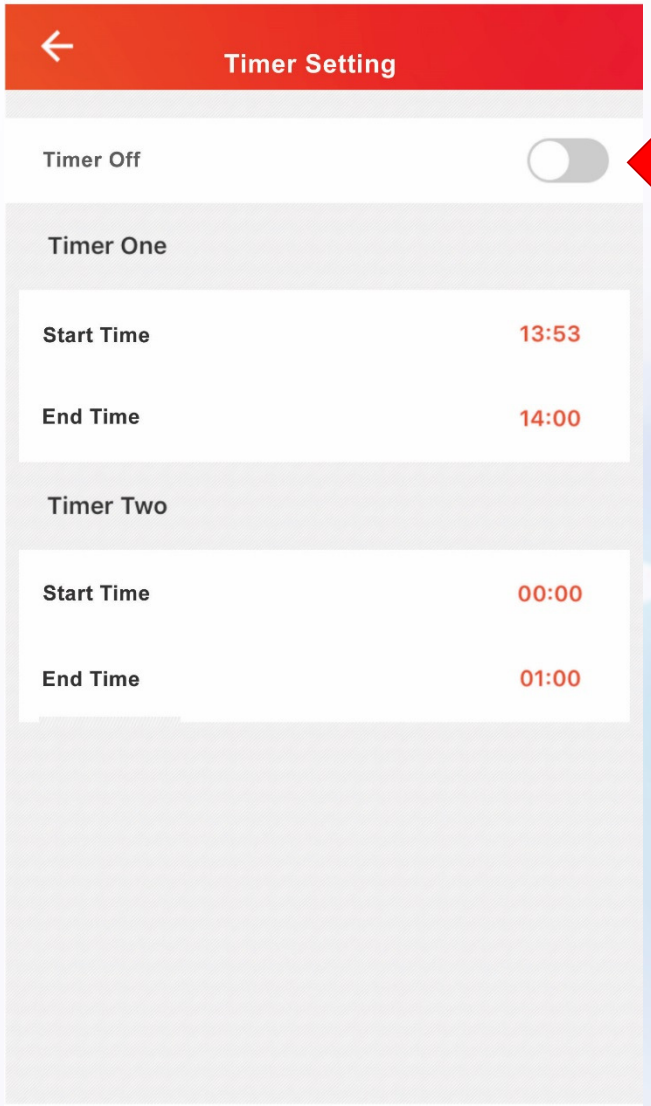


- **Operating mode**
  - To turn on the Gas Water Heater, simply press “On”
  - It will subsequently display the pre-set factory settings

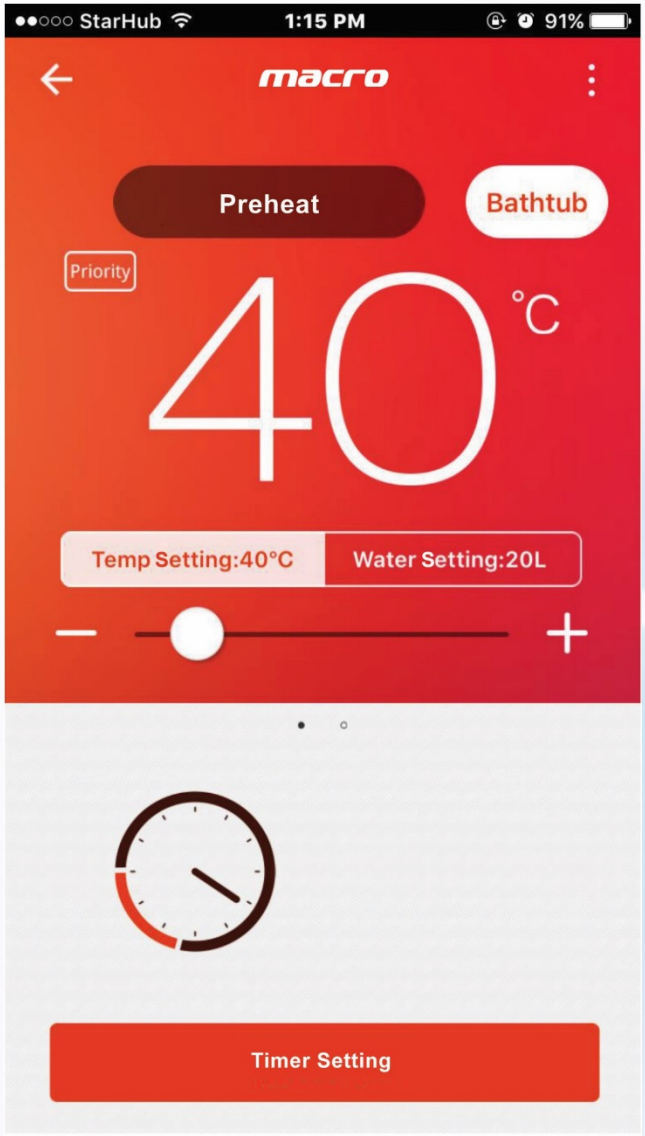
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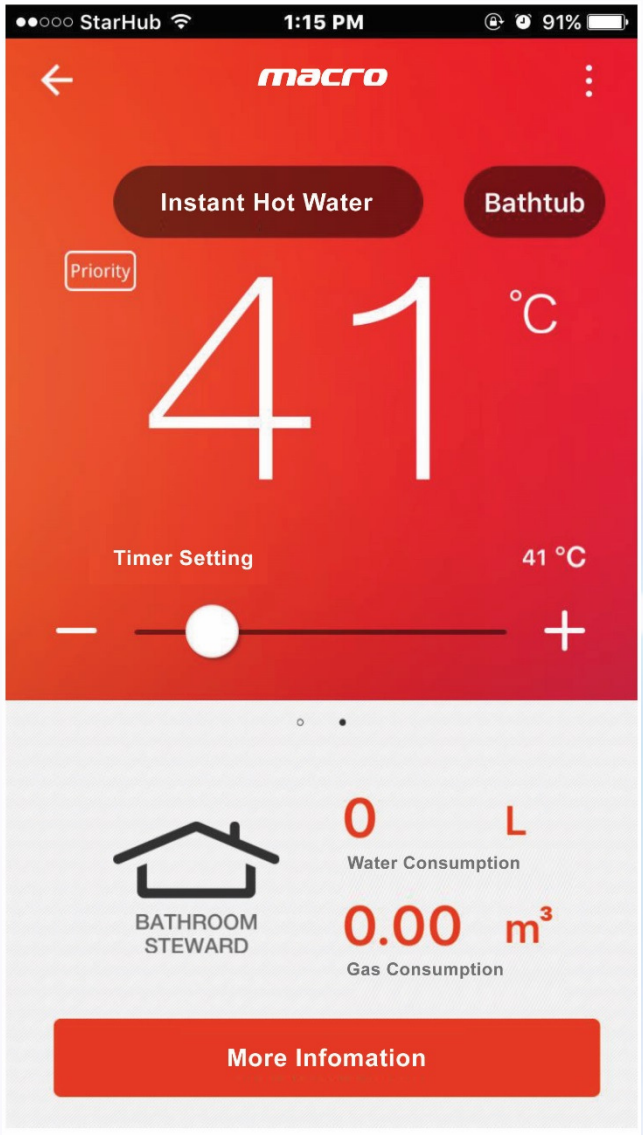
- **Operating mode**
  - Adjust your the desired shower temperature
  - Start the Preheat function



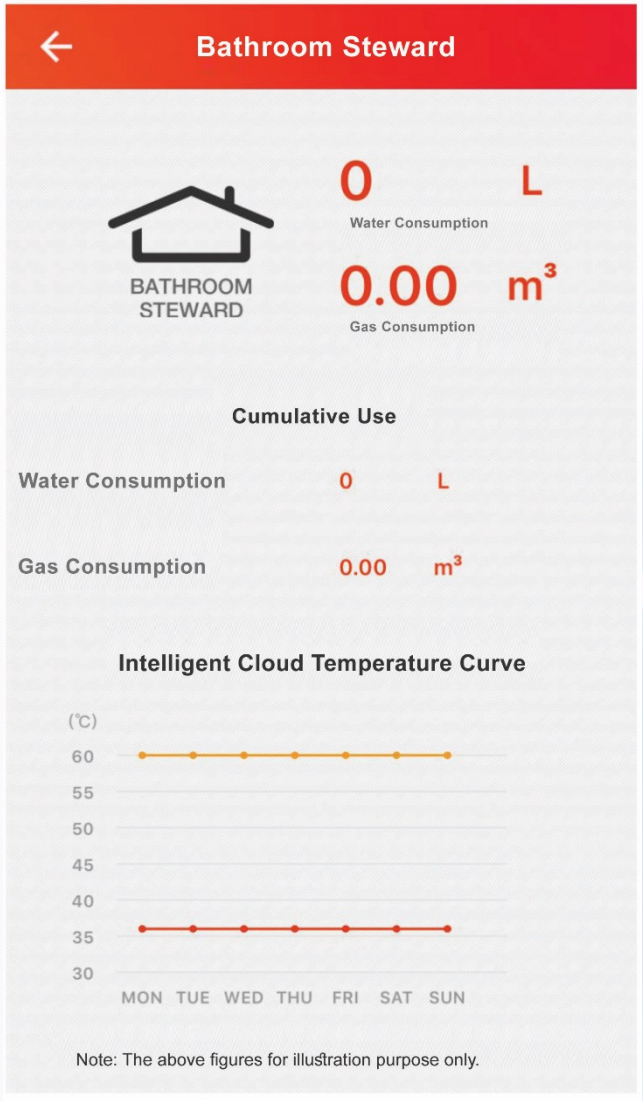
- **Timer Setting for Preheat feature**
  - Users will be able to turn on/off this function
  - As well as to set 2 time phases for scheduled showers



- **Bathtub filling control**
  - Set the water volume between 20L – 900L for the bathtub
  - Once the set volume is reached, an alarm will sound off to notify the user

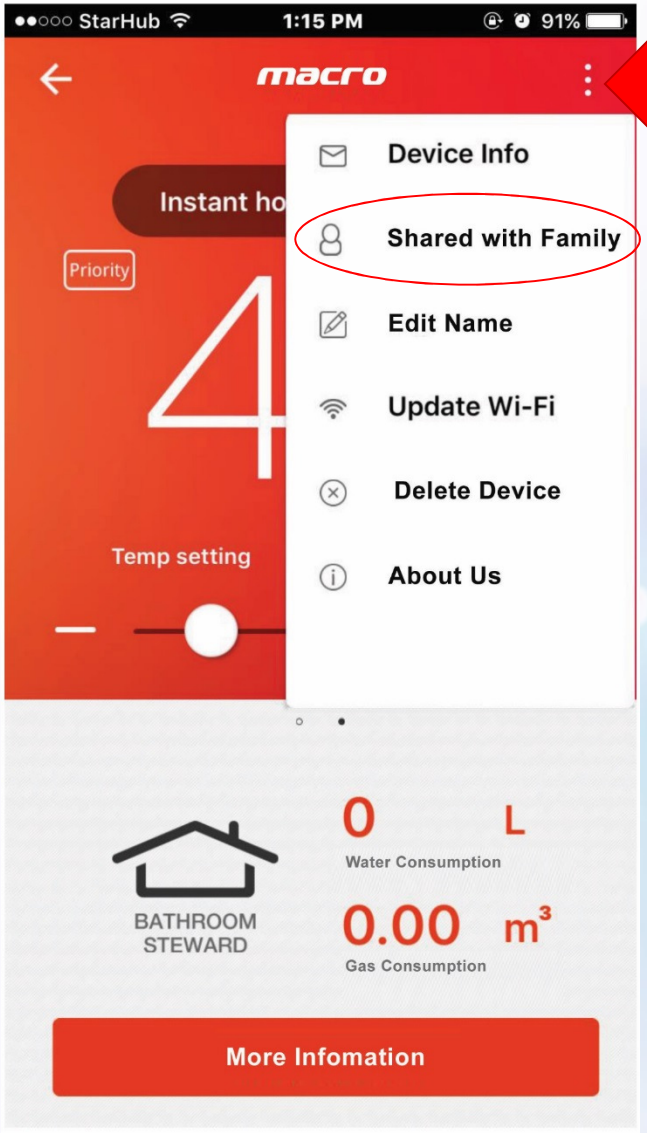


- **Monitor usage**
  - By sliding across the lower half of the screen you will view the Gas and water consumption information
  - You can view the estimated amount of hot water used as well as gas consumed when the heater is in operation



- **Monitor usage**
  - View more comprehensive usage information
  - Tabulates consumption with cumulative usage

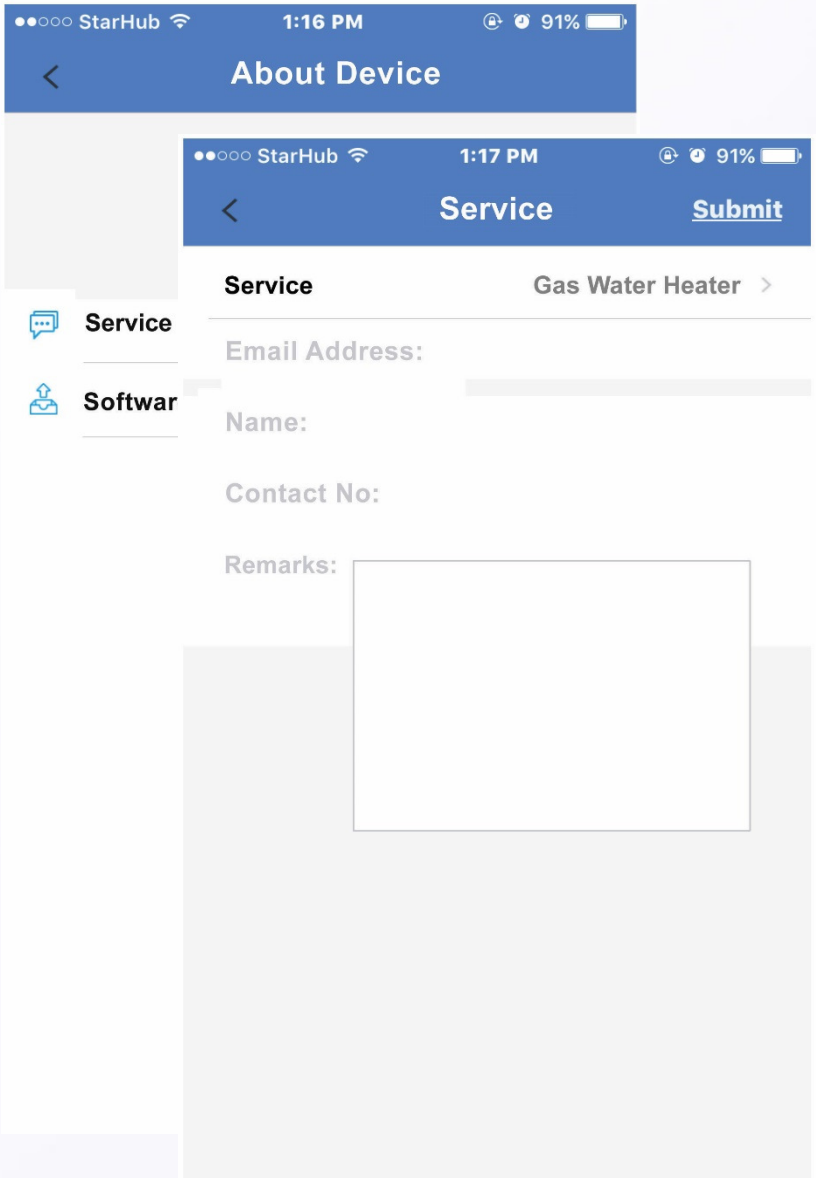
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- **Other functions/info**
  - Users are able to access to other information as well as functions;
    - Device Info
    - Sharing with family
    - Update Wi-Fi
    - Edit User name
    - Delete Device
    - About Us



- **Community**
  - Save the hassle of logins for your other users
  - Simply download app on other smartphone/tablet and scan this QR code
  - Other users will automatically share the access and settings



- **Service**
  - Users will be able to send their service request thru the app as well
  - The customer service and service crew will contact the user to confirm on the service appointment

- **Conclusion**
  - Moving ahead with times, the new SMART Gas Water Heater can bring better value proposition for developments.
  - It gives a different and new experience to users as well as convenience and better control
  - It also helps to promote greener living and lifestyle by the consumption monitoring function/capability

Gas Hob with Timer Control

developed by City Gas

Warming hearts in the city

- **Introduction**
  - There are more than a million households in Singapore which use gas as a cooking source.
  - According to the statistics provided by SCDF, there were 2,818 cases of fire in 2016 and unattended cooking account for 15.3% or a total of 430 cases.
  - City Gas has always kept safety as one of our key priorities and has worked towards finding a solution to reduce such unfortunate fire incidents.







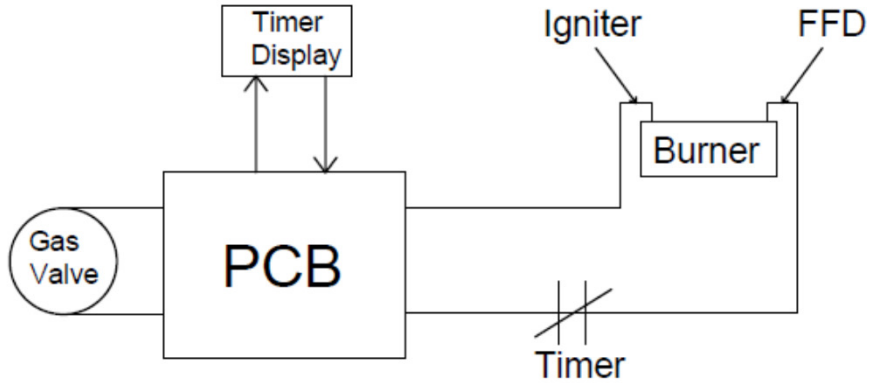
- **Traditional approach**

- The traditional practice of shutting-down gas supply to gas appliances with timer function, is to install a solenoid valve to cut-off the gas supply but;

- Having a solenoid valve incorporated into a gas hob for residential homes may not be a viable solution as;
  - It complicates the design, the base of the hob may need to be more bulky to accommodate the additional solenoid valve
  - It is costlier to manufacture
  - Durability is affected as the chances of parts failure is evidently higher with the added solenoid valve

- **Our approach**

** Image for illustration only*



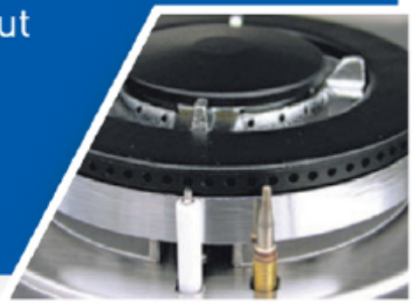
Note: Patent Pending

- Our new patent-pending design timer control makes use of the existing Flame Failure Device, which is commonly found in all gas hobs to shut-off the gas supply to burner.

- Our Flame Failure Device works as 2 functions in 1 device;
  - It shuts off the gas supply if the flame is suddenly extinguished (due to other factors like strong wind)
  - Timer – Once the set timer count backwards 00, it will also shut-off the gas supply and give you alarm sound
- Non-Complicated design
- Cost effective
- Safety features of the hob have not been compromised
- Tested by TÜV SÜD PSB Singapore

- **Features**

Flame Failure Device
Safety comes first:
Gas supply is cut off if the flame goes out.



Timer Alert Function
Enhanced safety control:
Gas supply is cut off and alarm sounds when the pre-set time is up.



Powerful Flame
A powerful flame ensures greater efficiency.



Enamelled Cast Iron Pan Support
Ensures durability, stability and easy cleaning.



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Gas Hob with Timer Control Specs





CG-720FT / CG-720SFT	CG-930FT / CG-930SFT
70cm tempered glass gas hob / stainless steel gas hob with glass control panel	90cm tempered glass gas hob / stainless steel gas hob with glass control panel
2 burners	3 burners
Cast iron pan support	
Flame failure device	
Electric ignition	
With timer control	
Actual dimension: W780 x D450 mm	Actual dimension: W865 x D510 mm
Cut out size W665-690 x D365-380 mm	Cut out size W722-840 x D430-480 mm

Advantages of using Gas Hob with Timer Control

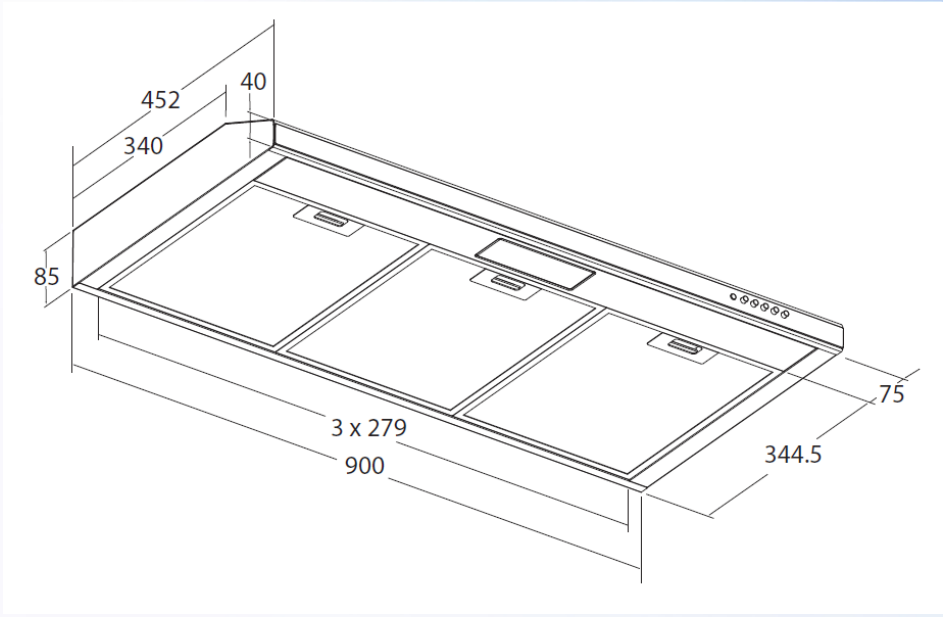
- Prevents unattended cooking
- Allows user to multi-task with a peace of mind
- Allows user to set up to 120min timing according to cooking time needed (eg. Steaming)
- Cuts off gas supply if flame goes out
- Reduce gas wastage and promotes energy efficiency



Easy to use & read timer

Gas Hob with Timer Control
Slim Hood





CG-9900
90cm super slim hood
3 speed control
Stainless steel chassis
500m^3/hr extraction capacity
Front push button
On/Off pilot light
Two 55W motors
40W E14 lamp
Three washable aluminum grease filters
Turbo exhaust power
Two snap-in active charcoal filters
Actual dimension: W900 x D452 x **H85mm**

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Gas Hob with Timer Control Ovens





CG-3201S	CG-3203B
60cm stainless steel oven	60cm tempered glass oven
5 cooking functions	8 cooking functions
Capacity: 56 L	
Thermostat	
Chrome support	
Round rear heating element	
Minute minder	
Actual dimension: W595 x D540 x H595 mm	
Cut out size: W560 x D550 x H589 mm	

Gas Detector

developed by City Gas

Warming hearts in the city

- **Introduction**
  - As the sole piped town gas provider to more than 800,000 customers, City Gas is aware that it could help to improve kitchen safety if households have access to a device that is able to detect any potential gas leak.
  - We are also listening to our customers who share that they look forward to safeguarding their homes for better peace of mind.

- **Challenges in the current residential gas detector market:**

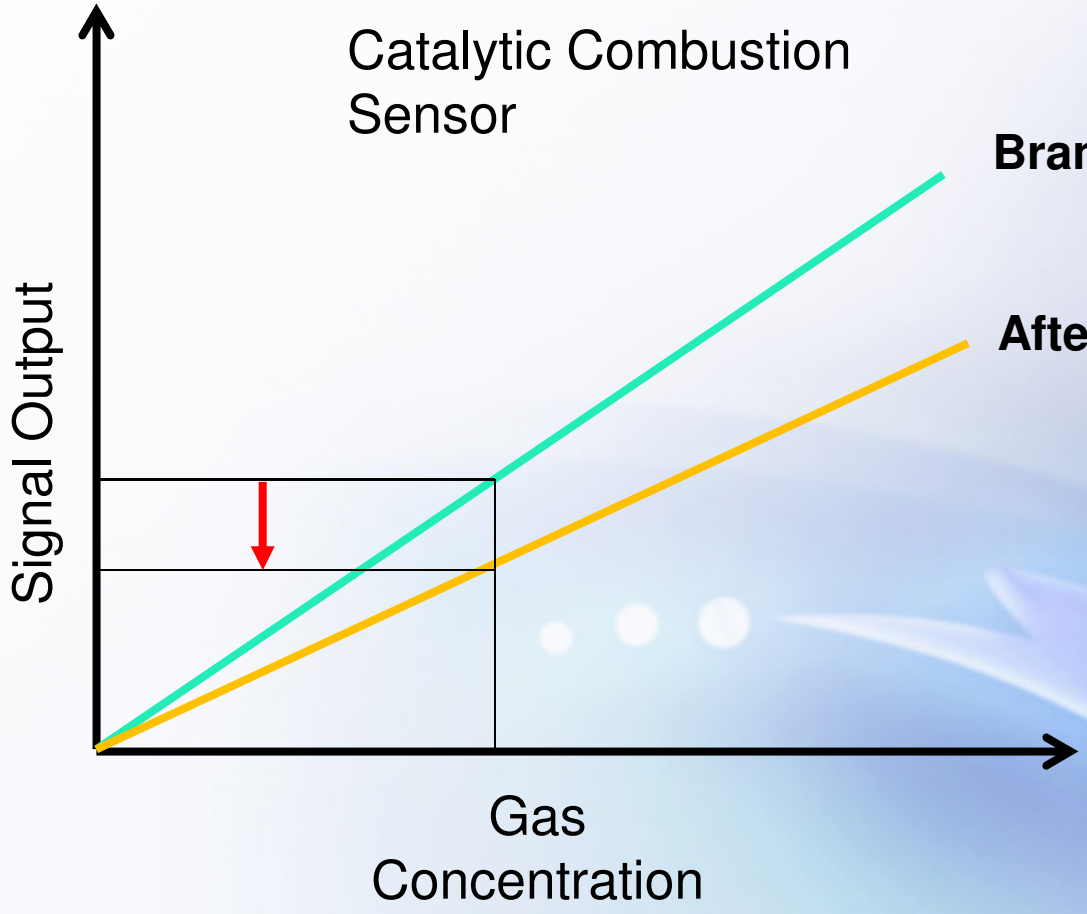
  - No alarm messages. They lack to advise residents on corrective measures

  - Alarm sounds vary across devices (e.g. too loud/soft at varying distances)

  - LEL alarm tolerance too high (between 10-25% LEL),

  - Calibrated to detect only specific gases like Methane in NG or Butane in LPG

Residential Gas Detector Challenges



- After 5 years, signal output becomes weaker as sensor deteriorates – inaccurate response
- Not good for gas safety – takes longer or may even be unable to detect dangerous LEL levels

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Residential Gas Detector Specs





CG-686N

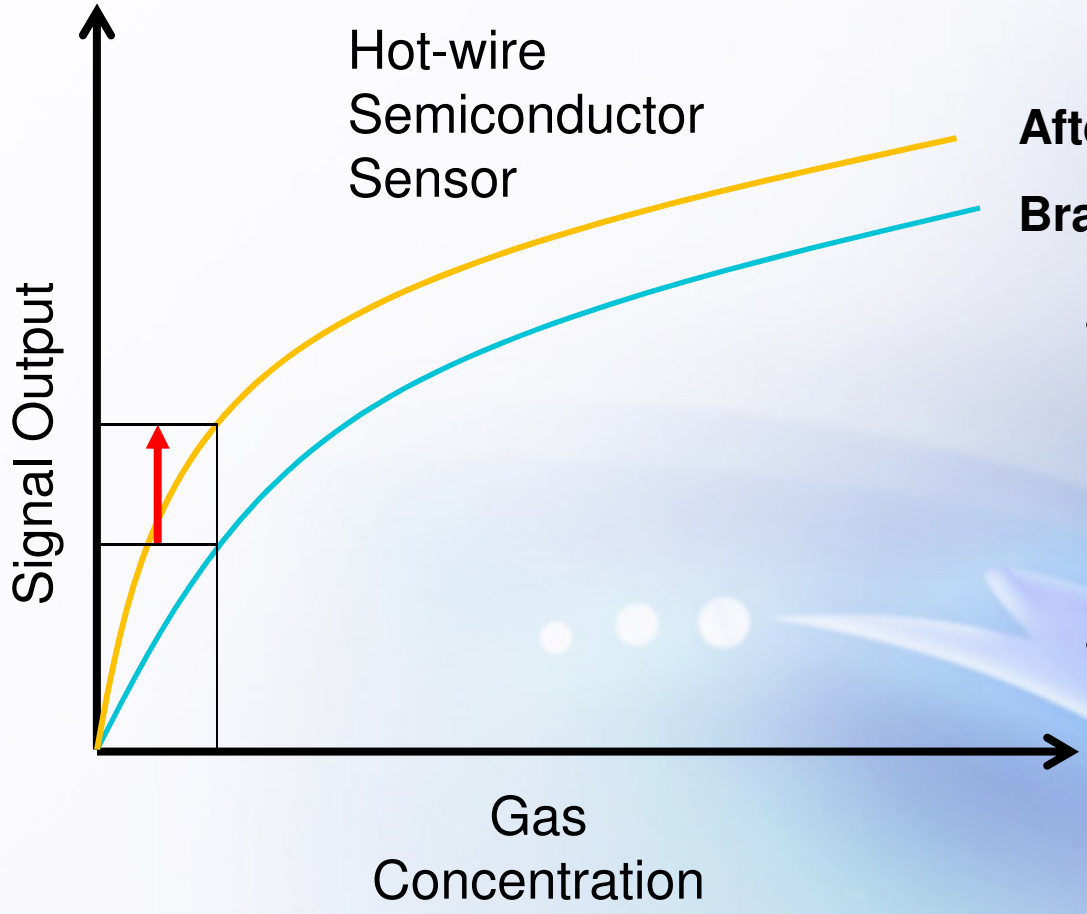
Item	Specifications
Detects	TG / NG / LPG
Alarm concentration range	TG/NG: 5-10%LEL LPG: 5-15%LEL
Response time	60 seconds or less
Alarm method	Red LED Sound pressure: 80 dB (A)/m or more
Power on indicator	Green LED
Power supply	230 VAC, 50 Hz, 3 m BF plug (Safety Mark)
Power consumption	During observation: approx. 0.5 W, when an alarm occurs: approx. 1.1 W
Operating temperature range	-10°C to +40°C (no condensation)
Weight and dimensions	Approx. 230 g, 80 × 62 × 26.7 mm (W × H × D)

LEL: Lower Explosion limit

*Approved under Japan Gas Appliance Inspection Association

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Residential Gas Detector Specs



After 5 years

Brand New

- After 5 years, signal output becomes much more significant as compared to when it is brand new
- This would eliminate **sensor deterioration issue** and continue to provide **pre-emptive gas warning for safety**

Warming hearts in the city

- **Advantages of Gas Detector developed by City Gas**

- Made in Japan, the Gas Detector is designed to detect Town Gas (TG), Natural Gas (NG), and Liquefied Petroleum Gas (LPG), the common types of gases used in Singapore homes. The Gas Detector is tested to Japan Gas Appliances Inspection Association (JIA) standards

- **Hot-wire semiconductor sensor** detection principle – good for gas safety and also designed to detect the whole gas mixture itself rather than specific target gases in mixture

- **Advantages of Gas Detector Developed by City Gas**

- Long life-span of 5 years gives home owners peace of mind

- Voice messages provide specific instructions on top of the warning alarm so as to prevent home owners from panicking

- Filter installed inside the sensor to reduce rates of detection for non-target gas compounds and particulate matter (e.g. alcohol-based solvents in aerosols, dust etc.)

Residential Gas Detector Features

Safeguard Your Home Today with the Gas Detector



Gas Detector CG-686N

Made In Japan

GAS DETECTION
Designed to detect town gas, natural gas and cylinder liquefied petroleum gas

ALARM SIGNAL
Alerts homeowner with a loud alarm sound and alarm messages

3 EASY STEPS
DIY installation

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Residential Gas Detector Features

Safeguard Your Home Today with the Gas Detector



Gas Detector CG-686N

Made In Japan

SMALL & COMPACT

Fits seamlessly in the kitchen or service yard

UP TO 5 YEARS 5 WARRANTY

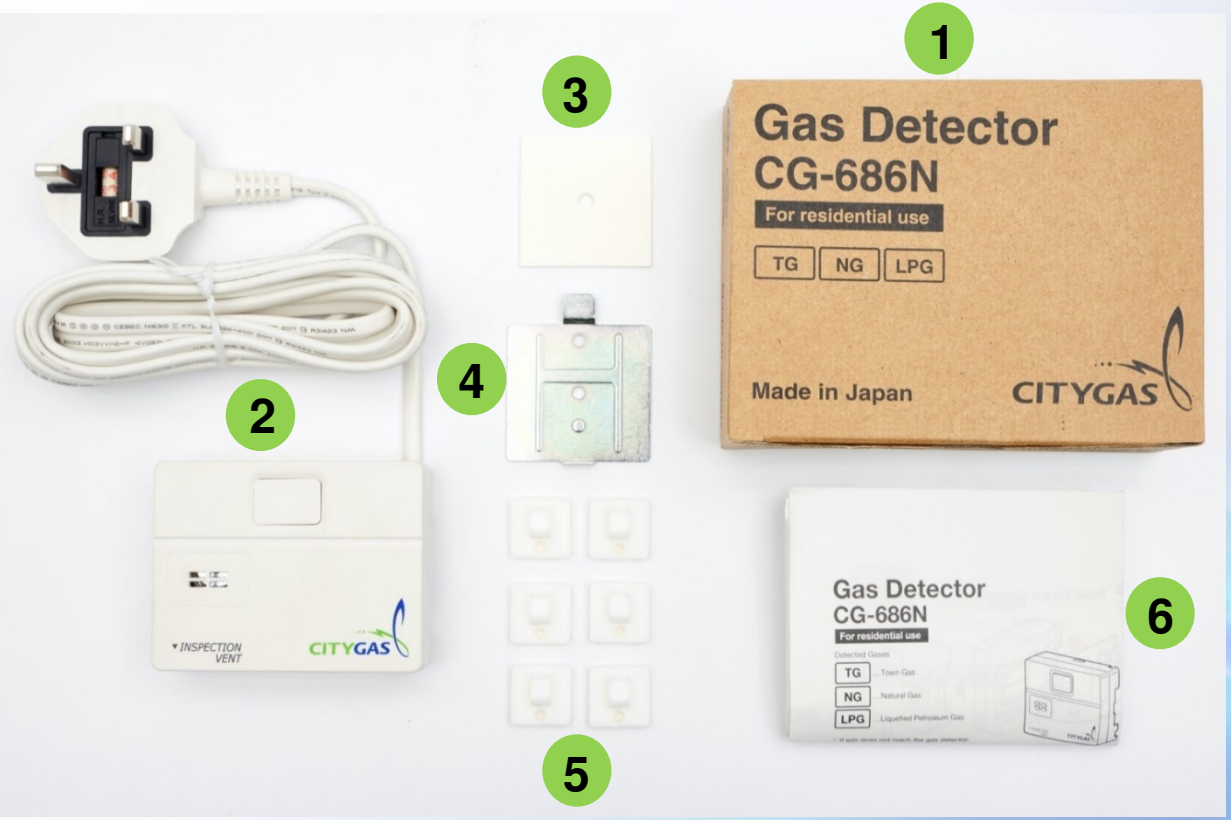
Get up to 5-year product warranty

1 FOR 1 EXCHANGE

Enjoy a hassle-free exchange with instant product replacement*

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Residential Gas Detector
Package Contents



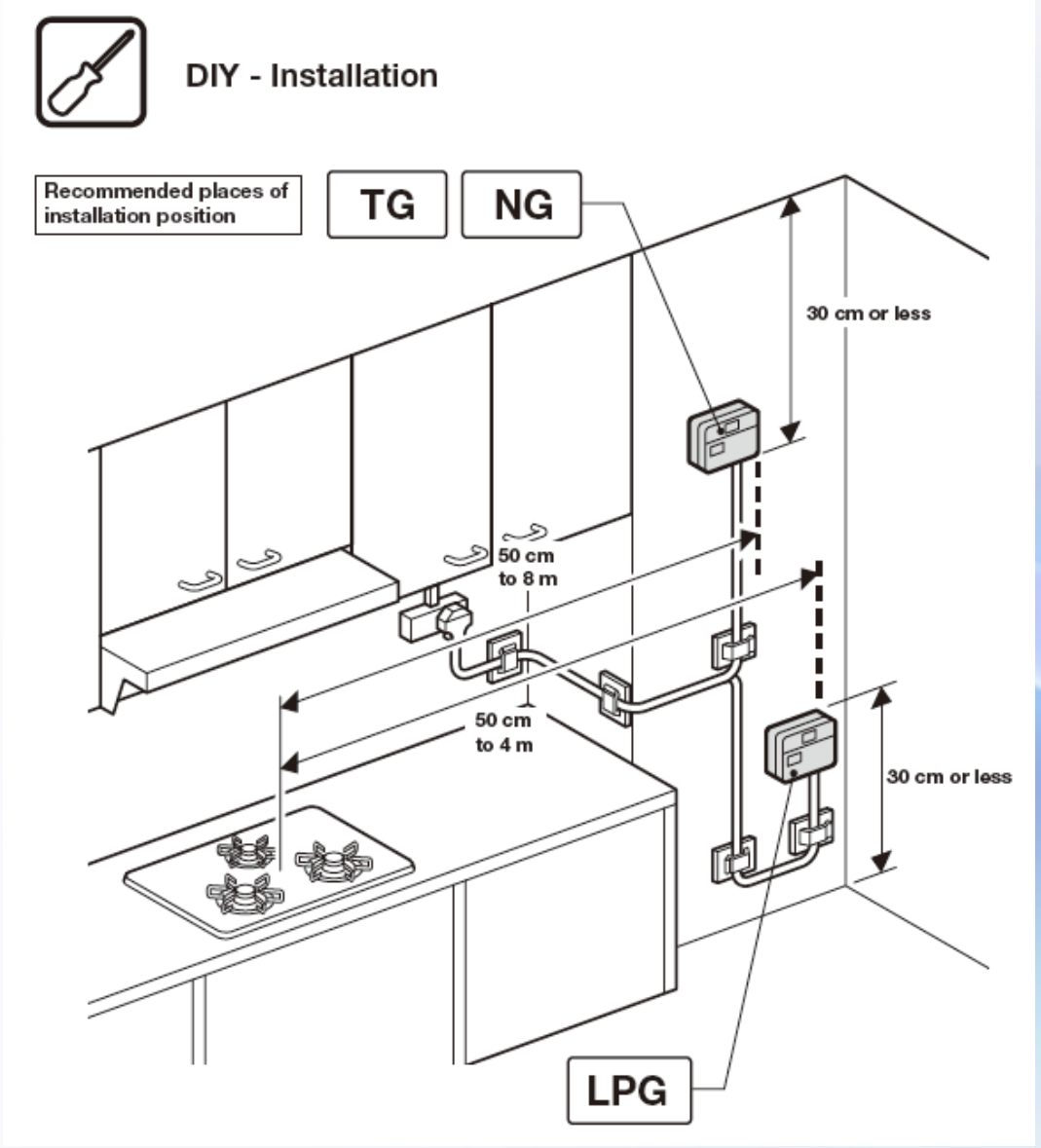
Retail packaging sleeve not included in this image

Contents

1) **Eco-friendly kraft box**
2) **Gas Detector w/ 3m power cord**
3) **Double-sided tape (40mm x 40mm)**
4) **Mounting bracket (45mm x 42mm)**
5) **Cord swing suppressor (6pcs)**
6) **User / Instruction Manual**

Warming hearts in the city

Residential Gas Detector Installation Location



Town Gas (TG) / Natural Gas (NG)

- From 50cm up to 8m from the appliance
- Within 30cm from the ceiling

LPG

- From 50cm up to 4m from the appliance
- Within 30cm from the floor

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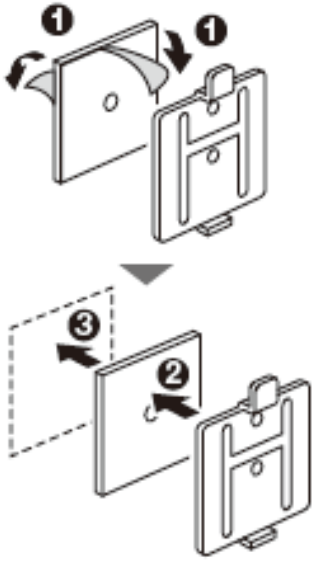
Residential Gas Detector
DIY Installation

1 **Attach the mounting bracket to the wall.**

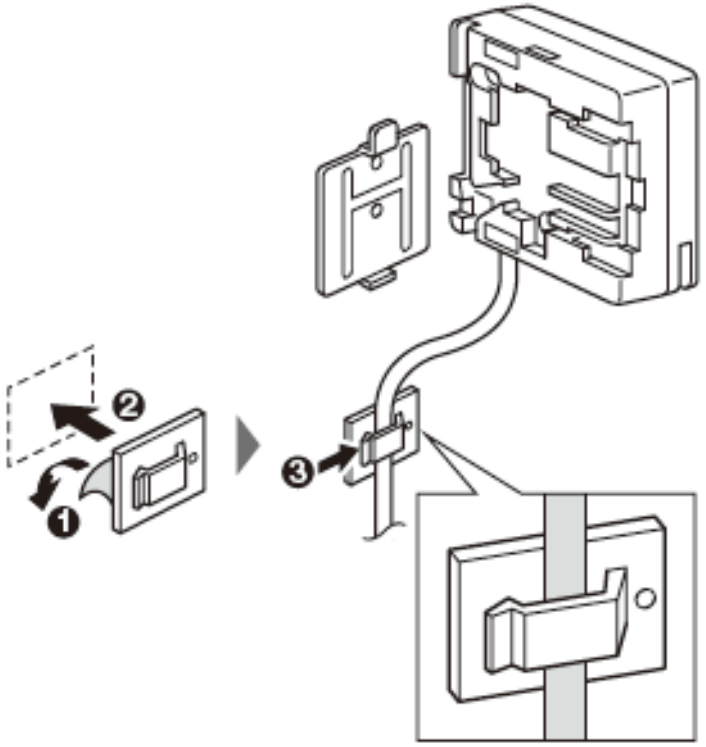
Clean the wall.



Using double-sided tape to attach the mounting bracket.



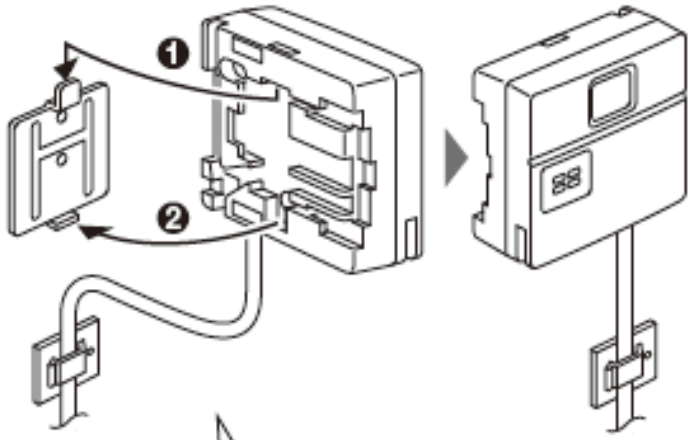
2 **Fix the cord swing suppressor in place on the wall, and pinch the power cord with the cord swing suppressor.**



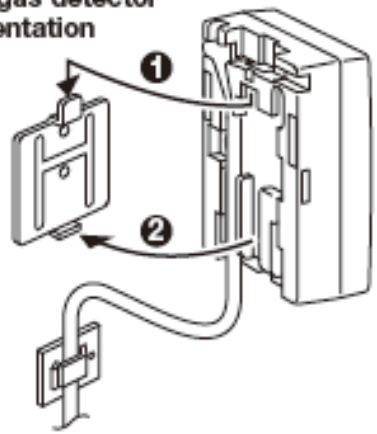
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Residential Gas Detector
DIY Installation

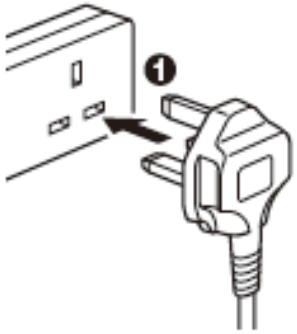
3 Install the gas detector.

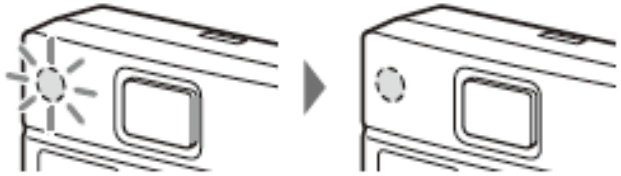


When installing the gas detector with the vertical orientation



4 Insert the power plug into an electrical outlet.





After approx.
5 seconds

Warming hearts in the city

- **Conclusion**

- During the design stage, the focus has always been on quality and reliability, traits that our customers strongly identify with City Gas. This will be the first such gas detector developed by City Gas that is available for the local consumer retail market.

- The gas detector is manufactured in Japan, yet customised for our local market which uses piped town gas, cylinder liquefied petroleum gas and natural gas. We are optimistic that the gas detector will be welcomed in many households that use gas.

Residential Gas Detector
Conclusion

- To encourage households to make kitchen safety their priority, we are making the gas detector affordable for all households at less than 6 cents a day over its life span of 5 years, and making it readily available from October 2017 across the City Gas Gallery outlets and our retail partners, (Hoe Kee outlets and Home-Fix outlets).





Warming hearts in the city

THANK YOU.

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