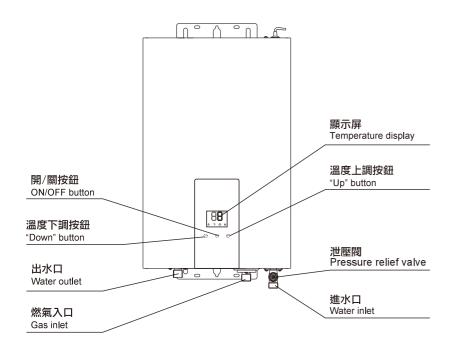
### 部件名稱 Parts Identifications



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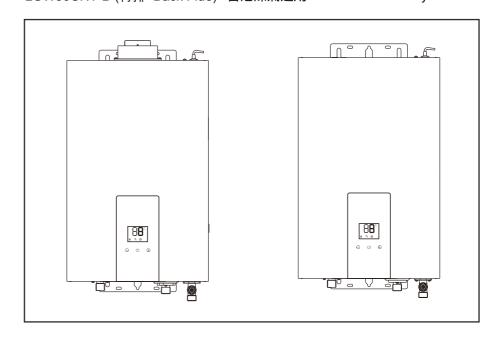


氣體熱水爐 Gas Water Heater

### 使用説明書

**Operation Manual** 

LGW30CNL-T (頂排 Top Flue) 香港石油氣適用 HK LP Gas Only LGW30CNL-B (背排 Back Flue) 香港石油氣適用 HK LP Gas Only LGW30CNT-T (頂排 Top Flue) 香港煤氣適用 HK Town Gas Only LGW30CNT-B (背排 Back Flue) 香港煤氣適用 HK Town Gas Only



操作此熱水爐前,請詳閱此使用説明書。保存此手冊以便日後使用。 Read this Operation Manual before using the heater. Please keep this manual for future use.

中英文版本如有出入,一概以中文版為準,產品規格及設計如有變更,恕不另行通知 If there is any inconsistency or ambiguity between the English version and the Chinese version, the Chinese version shall prevail.

### 適用於香港

注意!根據香港氣體安全條例,任何氣體裝置工程,包括爐具和接駁喉管的安裝,必須由註冊氣體裝置技工執行,而該技工已於相關的氣體工程類別註冊及受聘於註冊氣體工程承辦商。

### For Use in Hong Kong

Attention! According to the Gas Safety Ordinance of Hong Kong, any gas installation works including the installation of appliances and connection tubing, must be undertaken by registered gas installers who are registered for that appropriate classes and be employed by registered gas contractors.

### 內容 Content

### 請確定遵從

### Please make sure to follow

· 安全操作注意事項 \_\_\_\_\_\_\_\_2
Cautions for safety operations

### 如何操作

### How to Operate

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•	使用熱水1	C
	To get hot water	
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### 當有需要時請查看

### Please read when necessary

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### 規格

### **Specifications**

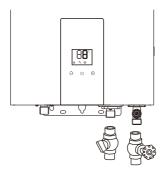
產品 Product		氣體熱水爐	Gas Water Heater
型號 Model		LGW30CNL-T (頂排)Top Flue LGW30CNL-B (背排)Back Flue	LGW30CNT-T (頂排)Top Flue LGW30CNT-B (背排)Back Flue
系統	熱水供應 Hot water supply	多點式	Multi-points
System	安裝及煙道 Installation & Flue	室內/強制對衡式 Indoor / Forced balanced flue system	
點火 Ignitio	on	電子連續點火 Electric	continuous spark ignition
水壓	操作水壓 Operation water pressure	0.01-1.0Mpa(0.1-10kgf/cm <sup>2</sup> )	
Water pressure	點火水壓 Ignition water pressure	0.02Mpa(0.2kgf/cm <sup>2</sup> )	
尺寸 Dimensions 熱水爐 Heater		高 x 寬 x 深 / H x W x D 515mm x 330mm x 155mm	
重量 Weight 熱水爐 Heater		10 公斤(	kg)
喉管接駁	氣體 Gas	1/2英吋英制陽螺旋紋	1/2"B.S.P (Male)
Pipe connection	冷水 water	1/2英吋英制陽螺旋紋	1/2"B.S.P (Male)
	熱水 Hot water	1/2英吋英制陽螺旋紋	1/2"B.S.P (Male)
電力供應 Power Supply		AC 220V (50Hz)	
耗電量 Power Consumption		最大火力 35W 35W at maximum combustion	
安全裝置 Safety devices		熄火安全裝置、防止過熱裝置、防止空燒安全裝置、電流保險絲、超壓排泄閥 Flame failure device. Overheat prevention device. Empty combustion prevention device. Electric fuse. Pressure relief valve	
適用氣體	Gas type	香港石油氣 H. K. LP GAS 氣壓 / Gas Pressure 2900Pa	香港煤氣 H. K. TOWN GAS 氣壓 / Gas Pressure 1500Pa
耗氣量	最大 Maximum	90MJ/h (25 kW)	90MJ/h (25 kW)
Gas consumption	最小 Miniimum	18MJ/h (5 kW)	24MJ/h (6.6 kW)
出水量	最多溫升 Max temp increasing +25°C	12	
(公升/分鐘) Hot water supply	最小溫升 Min temp increasing +25°C	4.2	
(L/min)	最多溫升 Max temp increasing +40°C	7.5	

#### 參數變化,以實物為準,恕不另行通知。

The change of the parameter bases on the practicality, without prior notice.

### 排水後再使用

### Use again after water drained



- 關閉排水閥 1 Close drain valves
- 開啟主水閥門 2 Open main water valve
- 開啟熱水掣,放水後關閉 Open hot water tap, flow out water and close the tap again
- 4 開啟主氣體閥門 Open gas main valve
- 連接電源 5 Connect the power cable



若熱水爐內的水已結冰,切勿使用

Do not operate heater when in the heater is frozen

### 安全操作注意事項 Cautions for safety operations

請確定遵從 Please make sure to follow

#### 為防止使用者或他人受傷害及財物受到破壞,下列項目必須遵從

The below listed items shall be strictly followed to prevent the user and other people from suffering an injury and to prevent your property from being damaged.

■ 當不遵從"注意事項"而發生意外,以下標誌表示受傷害及破壞之程度
The below markings show the level of injury and damage caused when the cautions are not followed



危險 DANGER 項目有此標誌表示將會有生命危險及嚴重受傷

This marking is labeled on those items that any death or a serious injury is approaching



警告 WARNING 項目有此標誌表示可能會有生命危險及嚴重受傷

This marking is labeled on those items that any death

or a serious injury is expected



注意 CAUTIONS 項目有此標誌表示可能會有受傷及財物受到破壞

This marking is labeled on those items that any injury

and material damage is expected

#### ■ 以下標誌會用於此使用説明書

The below listed markings are used in the operation manual



此標誌表示需提高警覺

This marking is given to those items to call your attention.



此標誌給禁止項目使用

This marking is given to those items banned



此標誌代表這些項目必須確實遵從

This marking is given to those items to be strictly followed

## 安全操作注意事項

Cautions for safety operations

#### 請確定遵從

Please make sure to follow



### 危險 DANGER

氣體泄漏注意事項 Cautions when gas leaks)

■ 當發現氣體泄漏時,關掉主氣體閥門, 打開所有窗戶及通知氣體供應商

When the gas leakage is detected, close main gas valve, open the windows and doors and call your gas supply company



關掉主氣體閥門 Close main gas valve



盡量打開所有窗戶 Open windows and doors fully



 $\bigcirc$ 

通知氣體供應商 Call your gas supply company

可引致火警或爆炸

A fire or an explosion may be caused 切勿開啟或關閉任何電掣或點火 Do not turn on/off the electrical swithches



熄滅所有火源 No fire



可能引致火警或爆炸 A fire or an explosion may be caused 安裝注意事項 Cautions for installations

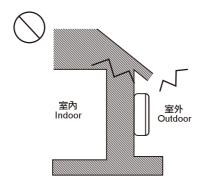
■ 切勿使用已拆除煙道或煙道被堵塞之熱 水爐

Do not use the heater when the flue duct is removed or clogged

使用已拆除煙道或煙道被堵塞之熱水爐,廢氣 會進入室內及熱水爐不正常燃燒而可能產生有 毒一氧化碳或缺氧

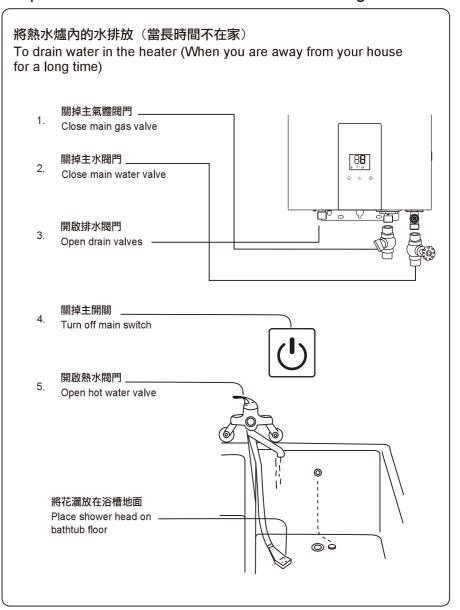
When the flue duct is removed or clogged, the exhaust air leaks into the room and the abnormal combustion of the heater may be caused. A carbon monoxide or an oxygen depletion may be caused

切勿將熱水爐安裝於室外 Do not install the heater outdoor



### 防止熱水爐內的水結冰

### To prevent water in the heater from freezing



#### 若熱水爐出現問題,安全裝置會啟動

Safety devices will be activated when something wrong with the heater

1.	操作時火焰熄滅 ····································	······· 熄火安全裝置 Flame failure device
2.	熱水爐異常高溫 Heater become abnormally hot	·····································
3.	無供水下燃燒	······· 防止空燒安全裝置 Emply combustion prevention device
4.	超電流量 Excess electric flow	電流保險絲 Electric fuse
5.	不正常高水壓 ····································	超壓排泄閥 Pressure relief valve

#### 若以上五個裝置之中其中有一個啟動,關掉主氣體及水閥門及通知代理商

If one of above 1-5 devices is activated, close main gas and water valves and call the dealer



### 警告 WARNING

■ 不正常燃燒,可從氣味及聲音觀察。當 火警/地震發生時,請確定導照下列程序 When an abnormal combustion, may detect by smell and sound. When a fire or earthquake takes place, make sure to follow the below procedures

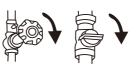


關掉熱水掣 Close hot water tap

關掉熱水爐主開關
Turn off the main switch of the heater



關掉氣體及供水閥門 Close main gas valve and main water valve





■ 當熱水爐長期不使用,請確定關掉熱水爐 之主開關及關掉主氣體閥門

Make sure to turn off the main switch of the heater and to close the main gas valve when the heater will not be used for a long time



當熱水爐長期不使用,為避免熱水爐內的水結冰,建議排放熱水爐內之水 If the heater will not be used for a long

If the heater will not be used for a long time, it is suggested to drain out the water inside the heater for not freezing

#### 切勿使用非附貼於熱水爐上所標明之氣體及電力 供應

Do not use gas and power supply other than specified in the specifications label attached on the heater



#### 熱水爐與易燃物品保持距離

Keep the inflammables away from the heater



熱水爐頂:超週300毫米 Up: more than 300mm



熱水爐旁:超過500毫米 Side: more than 500mm

#### 若熱水爐與易燃物品不能保持最低限度距離,可能會 引致火警

If the minimum distance from the inflammable is not kept, the fire may be cause

若不正常現象持續,可能導致火警

If the abnormal condition is kept unchanged, a fire may be caused

### 安全操作注意事項

### Cautions for safety operations

#### 請確定遵從

Please make sure to follow

### $\overline{\mathbb{N}}$

### 警告 WARNING

#### 使用熱水注意事項

Cautions for using a hot water

■ 使用花灑沐浴前,請先用手測試熱水 溫度

Make sure to check hot water temperature by hand before taking a shower



小心被熱水燙傷 Caution for getting burnt 可能被熱水燙傷

You may be scalded by the hot water

■ 若使用混合式水龍頭,請先關掉熱水掣 If a mixing tap is used, close the hot water tap first



熱水掣關掉後,熱水管內仍存著熱水。下次使用時 熱水管內熱水可能令你燙傷

If the hot water tap is closed first, hot water will remain in the water piping system. You may get burnt by the hot water remained in the piping system in your next use

■ 若使用混合式水龍頭,切記將冷熱水 選擇杆推回原來位置

When a mixing tap is used, make sure to return the change over lever to an original position



若冷熱水選擇杆置於半開位置時,你可能會被熱水燙傷 You may get burnt by hot water if the lever is positioned in the half way

■ 切勿在熱水爐附近使用易燃物品,如 汽油、苯

Do not use inflammable like a gasoline and benzene near the heater



可能引致火警 A fire may be caused

■ 當使用熱水時,除使用者外,切勿讓 其他人調校熱水溫度

When hot water is being used, make sure the temperature must not be adjusted by the others, except the user





使用熱水爐途中改變熱水溫度,有可能被熱水燙傷 If the hot wter temperature is changed during using, you may get burnt

■ 當使用混合式水龍頭而同一個熱水系 統之另一個熱水龍頭開啟時,你可能 會被燙傷

When the mixing tap is used, there may be a case that you will get burnt if the other hot water tap in the same hot water piping system is opened



小心被熱水燙傷

Caution for getting burnt

熱水供應可能隨時到達,請先用手測試後才使用 Hot water may be supplied suddenly. Make sure to wait for a while and to check hot water temperature by hand before use

■ 切勿為熱水爐煙道安裝檔口 Do not install a covering around the flue





不正常燃燒可能導致火警或產生問題

A fire or trouble of the heater may be caused by an abnormal combustion

#### 下列的徵兆並非是產品缺點

Below listed symptoms are not defects.

#### 現象 Phenomenon

原因 Reason

#### 冬天時煙道出水蒸氣 Steam comes out from a

flue duct on a cold day



#### 這不是不正常,廢氣內之水份轉為水蒸氣

This is not abnormal. Water in the exhaust air becomes vapor

#### 熱水供應停止後聽到風扇 轉聲音

Fan rotating sound is heard after hot water supply is stopped

#### 風扇連續運轉約30秒鐘能令熱水爐迅速重新點著

Fan continues to rotate for about 30 seconds so that the heater will be re-ignited promptly

#### 熱水掣輕微關閉時熱水會渾濁

Hot water becomes coludy when hot water tap is closed slightly

#### 由於空氣在水裏變為水泡

It is only because air in the water becomes bubbles

#### 突然關閉熱水掣會產生震盪聲

Bumpy noise is heard when hot water tap is closed suddenly

#### 突然停止供水通常會聽到這類聲音

This sound is normally heard when water supply is stopped suddenly

#### 熱水掣輕微關閉時,燃燒停 止及熱水漸漸轉冷

When hot water tap is closed slightly, the combustion stops and hot water becomes cold

#### 當供水壓力低於熱水爐最低點火壓力,熱水爐將停止操作

When the water pressure becomes lower than the minumum ignition water pressure, the heater will be turned off

# 熱水爐故障指南 Trouble shooting of the heater

若熱水爐出現問題,依照下列程序檢查熱水爐

If there is any trouble on the heater, check the heater following the below listed procedures

#### 需要確定的項目 現象 Phenomenon Items to be confirmed 電源線是否鬆脱? Is power cable in firmly? • 主氣體閥門是否全開? Is main gas valve opened fully? • 主供水閥門是否全開? Is main water valve opened fully? 。供水是否停止? 停止操作 Is there a suspension of the water supply? No operation 。是否電力供應故障? Is there a power failure? 。管道系統內是否留有空氣? Is there air left in the gas piping system? ● 重覆燃點步驟 Repeat ignition procedures • 濾水器是否堵塞? (參照第12頁) Is water filter clogged? (Refer to page12) 主氣體閥門是否全開? Is main gas valve fully opened? 水溫不夠 。冷熱水是否混和合適? Water is not warm enough Are hot and cold water mixed properly? 。 設置溫度是否過低? If the setting temperature too low? 主供水閥門是否全開? Is main water valve opened fully? 水溫過高 濾水器是否堵塞? (參巧第12頁) Hot water temperature is Is water filter clogged? (Refer to page12) too high 。 設置溫度是否過高? If the setting temperature too high?

### 警告 WARNING

■ 熱水爐之安裝或搬移,必須由註冊氣 體裝置技工進行

Installation or relocation of the heater must be done by a Registered Gas Installer ■ 確定電路不過載
Make sure that circuit is not overloaded



若過載,可能生熱而導致火警

If overloaded, it may generate heat to cause a fire

■ 可能導致觸電 An electrical shock may be caused



切勿強行拉出電源線,電源線可能脱離而導致 火警或觸電

Do not forcibly pull the power cord, power cord may be disconnected to cause a fire or an electric shock

■ 切勿破壞電源線 Do not damage power cord



若使用損壞的電線,可能導致觸電,短路及火警 If damaged cordis used, electric shock, shortcircuit and a fire may be caused

### 安全操作注意事項

### Cautions for safety operations

請確定遵從

Please make sure to follow

### ⚠ 注意 CAUTIONS

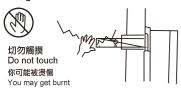
■ 熱水爐只供沐浴使用,切勿作其他用途 Do not use the heater other than supplying hot water for bath and shower



若熱水爐作其他用途,可能產生問題或導致火警 If the heater is used for other purpose, a fire or a trouble of the heater may be caused.

■ 熱水爐操作中或剛停止操作時,切勿觸 摸熱水爐煙道

Do not touch a flue duct during operation or right after the heater is turned off



■ 切勿用熱水爐攀爬或將物件放置於 熱水爐上

Never step on a heater or place any objects on heater





你可能被燙傷或受傷及熱水爐可能被破壞

You may get burnt or injured and the heater may be damaged

■ 切勿將熱水爐安裝在車輛或船上內 Do not install the heater on a vehicle or a vessel



■ 熱水爐之檢查及維修,必須由註冊氣體 裝置技工進行

Inspection and maintenance must be done by a Registered Gas Installers

檢查及維修熱水爐之前,確定切斷電源, 關掉氣體及水閥門及熱水爐已冷卻

Make sure to close main gas and water valves,to plug out the heater and to confirm the heter is cooled down before inspection and maintenance

熱水爐可能產生問題或燒掉

A burnt and a trouble of the heater may be caused

#### 確定熱水爐已接地

Make sure to confirm that the heater is grounded



若沒有安裝接地線,漏電時可能導致觸電

If not grounding, an electric shock may be caused by an electric leakage

■切勿更改熱水爐

Do not modify the heater





切勿拆散 Do not disassemble 熱水爐可能產生問題 The heater may be troubled

■ 切勿使用熱水爐內之水作食水或煮食之用 Do not use the water from the heater for either cooking or drinking



保養 Maintenance

瀘水器 Water filter



1 從冷水入口拆除濾水器 Remove the filter at water inlet



2 用牙刷清洗濾水器 Clean the filter with a toothbrush

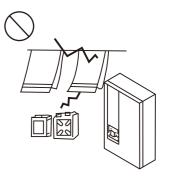
3 安装濾水器於入水口 Mount the filter at water inlet 檢查

Inspection

■ 是否有異常之操作聲音? Any abnormal operation sound?

■ 熱水爐外表是否改變?
Any changes on the appearance of the heater?

■ 熱水爐周圍是否有易燃物品?
Any inflammables around the heater?



### 一般檢查及保養

### General inspection and maintenance

#### 依照下列程序定期進行檢查及保養

Carry out the inspection and maintenance regularly following the procedure described below

保養前

Before maintenance

保養

Maintenance

預備工作 Preparations



注意

Cautions

關掉主氣體及進水閥門,切斷電源供應及待熱 水爐冷卻

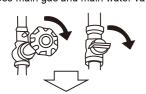
Close main gas and water valves, cut off power supply and wait untill the heater is cooled down

1 關掉主開關

Turn off the main switch



2 關掉主氣體及進水閥門 Close main gas and main water valves



3 切斷電源 Cut off power supply



4 熱水爐冷卻後,進行下列步驟 Carry out the followings after the heater is cooled down 熱水爐 Heater

用刷掃或毛巾加廚房清潔液揩抹熱水爐
Wipe the heater with swab or towel using a kitchen cleanser

■ 當電力發生故障時,關掉熱水掣 Close hot water tap at the time of power failure



熱水爐操作時遇電力故障,會停止燃燒及熱水會漸漸冷下來 When the power failure takes place during operation

When the power failure takes place during operation the combustion stops and hot water becomes cold

■ 選供水停止時,關掉主開關及熱水掣 In case the water supply is stopped, turn off the main switch and the hot water tap

若不視察,熱水爐可能損壞

The heater may be damaged

■ 切勿使用非指定之組件及配件
Do not use other optional components and accessories than specified

熱水爐可能會出現問題

A trouble of the heater may be caused

■ 若使用混合式龍頭,間中讓水流動 When a mixing tap is used, sometimes let water flow

若長期沒有開水,放出來的水可能渾濁

There may be a case that the cloudy water comes out if the supply water does not flow for a long time

■ 熱水爐操作時,切勿切斷電源 Do not cut off power during operation

熱水爐可能損壞

The heater may be damaged

■ 使用後關掉主開關
Turn off the main switch after use

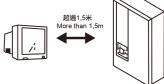


若不關掉,小孩玩耍時可能開啟熱水爐

If not turned off, the heater may operate when being played by child

■ 熱水爐需安裝於遠離電視機及收音機 之地方

Install the heater away from TVs and radios

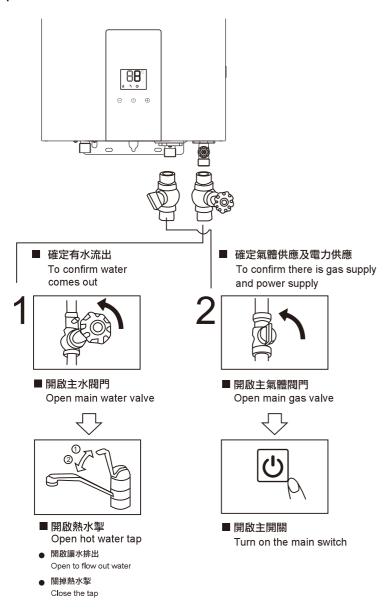


電視機及收音機節目會被噪音干擾

TV or radio program may be hampered by noises

### 第一次使用熱水爐

### To operate the heater for the first time



使用熱水

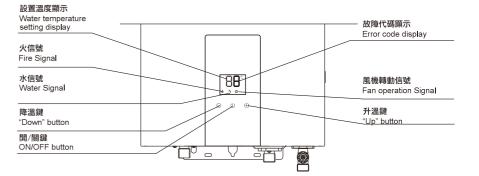
### To get hot water

### ■ 調較合適熱水溫度

Set the desired hot water temperature

出水溫度調節,按" ① "升溫按鍵或" ○ "降溫按鍵,調整設置溫度經過十秒後,出水溫度逐步達到設置溫度

Setting the water temperature by pressing "  $\oplus$  " button or "  $\ominus$  " button on the control panel, the water flowing out will gradually reach the temperature you desired after 10 seconds.



如出水溫度始終達不到設置溫度,則可適當調節"水量調節旋鈕",以使出水溫度達到設定溫度,順時針調節水量減少,溫度上升,逆時針調節水量增大,溫度下降

If the desired water temperature cannot be reached, adjust the water flow out volume by tuning the "water adjustment knob". Turning clockwise to decrease waterflow and increase temperature, anti-clockwise to increase waterflow and decrease temperature



開啟熱水掣

Open hot water tap (熱水器自動點火燃燒)



#### 關掉熱水掣

Close hot water tap (熱水器即刻自動熄火)

Water heater will turn off the flame immediately

#### 注意事項:

-使用熱水爐時,必須先看設置溫度才使用,避免設置溫度過高而燙傷!

Water heater will ignite automatically

-因大廈水管內有常溫或低溫水(例如:冬天),所以當熱水器出水時,會有數秒鐘是常溫或低溫水!

#### Attentio

- When using a water heater, you must look at the set temperature before use, avoid setting high temperature burn!
- Because the building had normal or low temperature water pipes (e.g. winter), so when the water heater, there will be a few seconds at room temperature or cold water!



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### 安裝手冊 **Installation Manual**

### 氣體熱水爐

### Gas Water Heater

LGW30CNL-T (頂排 Top Flue) 香港石油氣適用 HK LP Gas Only LGW30CNL-B (背排 Back Flue) 香港石油氣適用 HK LP Gas Only LGW30CNT-T (頂排 Top Flue) 香港煤氣適用 HK Town Gas Only LGW30CNT-B (背排 Back Flue) 香港煤氣適用 HK Town Gas Only

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中英文版本如有出入,一概以中文版為準,產品規格及設計如有變更,恕不另行通知 If there is any inconsistency or ambiguity between the English version and the Chinese version, the Chinese version shall prevail.

### 適用於香港

注意!根據香港氣體安全條例,任何氣體裝置工程,包括爐具和接駁喉管的安裝,必須由註冊氣體裝置技工執行,而該技工已於相關的氣體工程類別註冊及受聘於註冊氣體工程承辦商。

### For Use in Hong Kong

Attention! According to the Gas Safety Ordinance of Hong Kong, any gas installation works including the installation of appliances and connection tubing, must be undertaken by registered gas installers who are registered for that appropriate classes and be employed by registered gas contractors.

### 安裝後之檢查

### Inspection after installation

### ● 檢查項目表

Check List

項目 Itmes	內容 Content	
氣體種類 Gas type	所用之氣體是否熱水爐上標貼所標明的氣體? Does gas type used correspond to the one specified in the specification label on the heater?	
電源(電壓/頻率)	所供應的電源是否熱水爐上標明的電源 (AC220V/50Hz)?	
Power supply	Does power supply correspond to the one described in the specification	
(Voltage/Frequency)	label (AC220V/50Hz) on the heater?	
與易燃物品的距離 Distance from inflammables	熱水爐與易燃物品的距離是否足夠?是否有適當防火措施? Is there enough distance between the heater and inflammables? Are appropriate measures taken for fire prevention?	
安裝的條件	熱水爐與窗口及障礙物品的距離是否足夠?	
Conditions of installation	Is there enough distance between heater and windows or obstacles?	
維修空間	是否有足夠空間供檢查及維修工作?	
Maintenance space	Is there enough space for inspection and repair work?	
煙道系統	熱水爐的煙道系統是否正常工作?	
Flue system	Is the heater installed where the flue system work properly?	
安裝(水平地)	熱水爐是否水平安裝?	
Installation(level with ground)	Is the heater installed level with ground?	

#### ■ 測試操作

- 當完成安裝之後,依照以下的步驟試爐
- 注意
  - 1 測試操作前,一定確定以下幾點
    - a. 熱水爐/排氣喉與易燃物體之間的距離是否足夠?
    - b. 熱水爐四周環境的情況是否妥當?
    - c. 熱水爐的四周是否留有足夠空間以方便維修?
    - d. 是否已經達到安裝要求?
- 2. 檢查水管

開水掣及熱水龍頭,確定有水供應,並留意是否有漏水。檢查時,一定要拔去電源

- 3. 用鹼水或洗潔精塗在氣喉接駁處,檢查是否有泄漏氣體
- 4. 檢查地線是否導電性能良好
- 5. 檢查爐面板是否已上緊

#### 步驟

1 將氣喉內的空氣清除

要將氣喉內的空氣排出,熱水爐才可打著火

將熱水龍頭打開五秒鐘,然後關上三秒鐘

再重覆以上步驟直至爐頭被打著為止

2. 按使用説明書第九頁及十頁的開爐程序來打著熱水爐

### ■ Trial Operation

- After the installation is completed, carry out trial run following the below procedures
- CAUTIONS:
  - 1. Confirm the following points before trial operation
    - a. Is there enough distance between the heater / exhaust pipe and inflammable?
    - b. Is ambient condition for the heater all right?
    - c. Is there enough servicing space around the heater?
    - d Are the installation requirements satisfied?
  - 2. Confirm the water pipings

Open the water main valve and hot water faucet and confirm that water is flowing out from the faucet. Also confirm whether there is any water leakage. At this time, make sure to plug out the power supply

- Confirm whether there is any gas leakage by applying soap sud or detection solution to piping connections
- 4. Confirm whether grounding is correctly conducted
- 5. Confirm whether the front panel is firmly screwed

#### Procedures:

1. Remove air in the gas pipe

The heater does not ignite until the air in the pipe is removed. Open the hot water faucet for 5 seconds and close it for 3 seconds. Repeat them until the main burner ignites

2. Follow the ignition procedures as described in page 9 and page 10 of Operation Manual to ignite heater

供水及熱水管道系統 Water supply and hot water piping system	你是否開啟主水閥門來測試有沒有水供應? Did you check water supply by opening main water valve?
	濾水器內是否有雜物? Is there any foreign material in the water filter?
	水管接駁位有沒有漏水? Is there any water leakage at water connection?
氣體管道系統 Gas piping system	氣體管道是否安裝妥當?是否有氣體泄漏? Is gas piping system installed properly? Is there any gas leakage?
電力安裝 Electric work	電力安裝是否跟指示進行? Is electric work completed in accordance with instructions?
	地線是否緊固接駁? Is grounding connection firm?

### 給註冊氣體裝置技工 To Registered Gas Installer

安裝熱水爐必須遵照本安裝手冊之要求以確保熱水爐安全操作

若不遵照本安裝手冊之要求,將會收取熱水爐維修費。安裝完成後須將安裝手冊給與用戶

Installation of the heater must comply with this manual for safety operations.

If the installation does not comply with this manual, repairs required to fixing heater will be charged. Make sure to give this manual to user after installation is completed.

#### 給用戶 To User

此熱水爐是家用式,請勿作商業用途(如酒樓...等)

This heater is for domestic use, do not use it for commercial purposes (restaurant, etc.)

### 配件 Accessories

零件名稱 Parts Name	外 觀 Appearance	數 量 Quantity
使用説明書 Operation Manual		1
安裝手冊 Installation Manual		1
保證書 Warranty Card		1
螺絲 Screws		1

### 安全指示

### Safety instructions

#### 必須嚴格遵照以下項目以避免用戶或他人受到傷害及財物受到損壞

The below listed items shall be strictly followed to prevent user and other people from suffering an injury and to prevent your property from being damaged

■ 當不遵照 "注意事項"而發生意外,表示受傷及破壞之程度的標誌如下: The below markings show the level of injury and damage caused when cautions are not followed



警告

項目有此標誌表示可能會有生命危險及嚴重受傷

WARNING This marking is labeled on those items that any death or a serious injury is expected



注意

項目有此標誌表示可能會有受傷及財物受到破壞

CAUTIONS This marking is labeled on those items that any injury and material damage is expected

■ 以下標誌會用於安裝手冊

The below listed markings are used in the installation manual



此標誌表示須提高警覺

This marking is given to those items to call your attention



此標誌給禁止項目使用

This markings is given to those items banned



此標誌代表這些項目必須確實遵從

This markings is given to those items to be strictly followed

熱水爐安裝標準

Standards for heater installation

■ 熱水爐安裝必須遵照當地的條例,標準,法例及指引

Installation must comply with local laws, standards, regualtions and guidelines



**WARNING** 

確定熱水爐安裝位置旁的牆壁及屋頂是由防火物料製造及與熱水爐之間有足夠距離達到防火效能

Confirm that walls and ceiling where heater is installed are made of the fire preventive materials and that enough distances between heater and walls and ceiling are secured for fire prevention





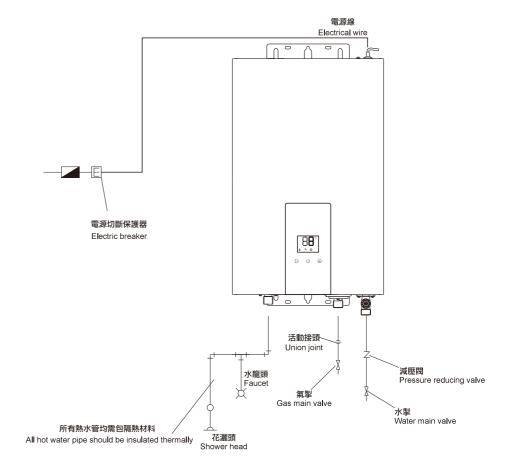
若沒有足夠距離,可能導致火警

If not enough distances, a fire may be caused

熱水爐旁:超過500毫米 Side: more than 500 mm

### 安裝節例

### **Example of Installation**



#### Hot Water Piping

- Use copper pipe. Do not use iron pipe. They may burst when used
- Install the heater near where hot water is frequently used and make hot water piping as short as possible
- The number of joints used in the piping should be as minimum as possible. Do not have a complicated piping arrangement
- Do not allow any air pocket or trap during piping. If there is any air pocket, it may take a rather long time before the main burner flame goes out after the faucet is closed. Even, there may be a case that the heater will be ignited instantly when the other faucet is opened even if the hot water faucet is closed
- Arrange hot water piping so that it has a falling gradient. (1/100~1/200)
- Use a shower head with minimum water pressure loss
- When arranging hot water piping to the second floor, the minumum required water pressure at the water inlet of the heater should be more than 1.5kg/cm
- When the hot water piping is arranged as described in Fig.1 draining water is not possible. Make sure to have a drain cock at appropriate place

#### ■ 氣體喉管

- 在熱水爐氣體入口一定要安裝氣掣
- 接駁氣喉至入氣口時,要用活動接頭以預留生位
- 氣喉系統不應超過20米,否則要用3/4寸或更大喉管

#### Gas Piping

- . Make sure to have gas main valve under the heater
- . Use union when connecting gas pipe with gas inlet
- Gas piping system should be no longer than 20m, or otherwise use 3/4" or larger pipe

#### ■ 電力安裝 Electric Work

#### 1 注意

- 此熱水爐是使用AC 220/50Hz電源來操作,在接駁前一定要檢查清楚電源類別
- 線路系統已有漏電斷路裝置RCD(15mA)

#### Cautions

- This heater is operated on AC220/50Hz, confirm the power supply before electrical connection is made
- There is a safety device RCD(15mA) in the circuit system

#### ■ 電源接駁 Electric Wire Connection

請將電源線與電源正確連接

The electric wire must be connected with the power supply correctly

### 安全指示

### Safety instructions

### $\bigcirc$

### 警告

### WARNING

■ 確定熱水爐安裝位置四周沒有窗口。(若有窗口,熱水爐須與窗口保持足夠距離。熱水爐 頂之窗口:超過600毫米,熱水爐旁之窗口:超過300毫米)

Make sure to install heater where there is no window around the heater. (If there is a window, make sure to secure enough distance between heater and window. Window above heater: more than 600mm. Window at side of heater: more than 300mm)



若廢氣回氣入室內,可能導致產生有毒一氧化碳
If the exhaust air returns inside the room, a carbon monoxing

If the exhaust air returns inside the room, a carbon monoxide toxication may be caused

■ 切勿安裝熱水爐在使用易燃物品之地方,如 汽油、苯、火水及黏合劑

Do not install the heater where, inflammables including gasoline, benzene, kerosene and glue are used

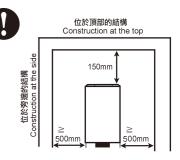


A fire may be cuased

可能導致火警 A fire may be cuased

■ 確定熱水爐與易燃物品之間有足夠距離,如 下述:

Make sure to secure enough distance between heater and inflammables as described below



若足夠距離不能維持,熱水爐或結構材料會因受熱而導致火警 If enough distance is not secured, heater or construction materials may be heated to cause fire

■ 切勿安裝煙管在可燃物品附近,如衣物 Do not near flammable things install the flue, such as clothing



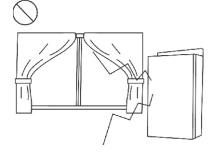


### 安全指示

### Safety instructions

■ 切勿安裝熱水爐在有可燃物品的地方,如窗簾 及傢俬

Do not install heater where combustible materials like curtains and furniture are installed



可能導致火警 A fire may be caused

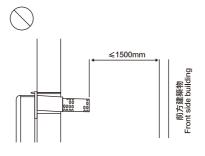
- ■所用之氣體是否熱水爐上標貼所標明的氣體? Does gas type used correspond to the one specified in the specification label on the heater?
- ■所供應的電源是否熱水爐上標明的電源 (AC220V/50Hz)?

Does power supply correspond to the one described in the specification label (AC220V/50Hz) on the heater?



■ 排煙管前面需與障礙物保持1500毫米, 若不能達到,切勿安裝

Do not install the flue when there is any obstacle (wall, ect) within 1500 mm in front of the heater



廢氣回流可能導致不正常燃燒而引致火警

Abnormal combustion may take place by returned exhaust air to cause fire

■ 煙道必須密氣及安裝穩固

Flue duct must be airtight and firmly fixed



若煙道安裝不妥當,廢氣可能回流室內或煙道不能正常操作 而導致不正常燃燒,缺氧或產生有毒一氧化碳可能發生

If the flue duct is not installed properly, exhaust air may return into the room or flue system may not work properly to cause an abnormal combustion. A oxygen depletion or a carbon monoxide toxication may be caused

- Do not connect water supply pipe with hot water outlet. The heater will not operate
- . Before connecting pipes with water inlet, make sure any dust in the piping will be poured out.
- Standard pressure loss in piping ststem

Straight pipe (G1/2 / per meter): 0.012kg/cm<sup>2</sup> (at flowrate of 10 liters/min)

Straight pipe (vertical rise) : additional 0.1kg/cm² per meter 90° Elbow : equivalent to 0.6m straight pipe 45° Elbow : equivalent to 0.36m straight pipe T pipe (direct flow) : equivalent to 0.18m straight pipe

Allowance in total piping system: 0.3kg/cm<sup>2</sup>

Example

1) When faucet is used:

Straight pipe : 8m x 0.012 = 0.096kg/cm² Elbow : 2 x 0.012 x 0.6 = 0.0144kg/cm² T pipe : 2 x 0.012 x 0.18 = 0.00432kg/cm²

 $\begin{array}{ll} \mbox{faucet A} & : \ 0.125 \ x \ kg/cm^2 \\ \mbox{Minimum operating pressure} : \ 0.2kg/cm^2 \end{array}$ 

Allowance : 0.3kg/cm²
Total : Approx 0.7kg/cm²

2) When shower head is used :

Straight pipe :  $3.8 \text{m x } 0.012 + 0.18 = 0.2256 \text{kg/cm}^2$ 

90° Elbow :  $0.012 \times 0.6 = 0.0072 \text{kg/cm}^2$ 90° T pipe :  $0.012 \times 0.9 = 0.0108 \text{kg/cm}^2$ 

Shower head: 0.5kg/cm²

Minimum operaing pressure + allowance = 0.5kg/cm<sup>2</sup>

Total : Approx 1.24kg/cm<sup>2</sup>

Note: Shower head pressure loss is subject to type of shower head used

#### ■ 熱水喉管

應用銅喉,切勿使用鐵喉或塑膠喉,因使用時可能會爆裂。

盡量縮短喉管,及將熱水爐安裝於最常使用熱水的地方。

喉管越少接駁位越簡單越好。

駁喉時切勿留有氣阱。如果有氣槽或氣阱,熱水龍頭被關閉後,還要等一段長時間爐火才會熄滅。

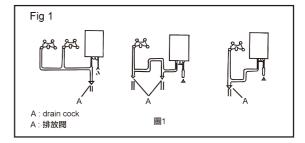
甚至即使熱水龍頭已被關閉,當其他水龍頭開啟時,熱水爐也可能會立即被燃點著。

安裝熱水管要保持一個向下的傾斜度。(1/100~1/200)

使用一個阻力最少的花灑。

如伸延熱水喉管上樓時,熱水爐入水口的水壓最少要有1.5公升/平方厘米。

如熱水爐管排列如(圖1)是不可能排水,一定需要有個排放閥。



#### ■ 供水喉管

安裝喉管時需要考慮到減除喉管系統內的壓力損失後,仍有足夠的水壓操作熱水爐 需要最低的水壓=操作時需要的水壓(0.2公斤/平方厘米)

+喉管系統內所損失的水壓

+0.3公斤/平方厘米(多預的壓力)

- 在熱水爐供水入口一定要安裝水掣,因檢修熱水爐及排水時都是要關閉掣
- 切勿將供水喉管接駁到熱水出口,這樣熱水爐是不能操作的
- 將喉管接駁至入口前,一定要確定所有喉管內的污垢都己被沖出

喉管系統內通常的壓力損失

直喉 (G1/2寸/米) : 0.012千克/平方厘米(如果每分鐘流量是10公升)

直喉 (垂直升高,每米) : 以上的數字再加每平方厘米0.1千克 90°曲尺 : 相等於0.6米直喉所減低的壓力 45°曲尺 : 相等於0.36米直喉所減低的壓力 三叉 (直流) : 相等於0.18米直喉所減低的壓力

整個喉管系統再多預的壓力損失 : 0.3千克/平方厘米

1 當使用水龍頭

盲喉 : 8米 x 0.012 = 0.096千克/平方厘米 90°曲尺 : 2 x 0.012 x 0.6 = 0.0144千克/平方厘米 90°≡⊽ : 2 x 0.012 x 0.18 = 0.00432千克/平方厘米

水龍頭A : 0.125千克/平方厘米 : 0.2千克/平方厘米 最低操作水壓 再多預的壓力損失: 0.3千克/平方厘米 : 大約0.74千克/平方厘米 總數

2. 使用花灑

盲喉 : 3.8米 x 0.012 + 0.18 = 0.2256千克/平方厘米

90°曲尺 : 0.012 x 0.6 = 0.0072千克/平方厘米 90°≡⊽ : 0.012 x 0.9 = 0.0108千克/平方厘米

花灑 : 0.5千克/平方厘米

最低操作水壓 + 再多預的壓力損失 : 0.5千克/平方厘米

: 大約1.24千克/平方厘米 注意:花灑耗用多少水壓是要視乎花灑的類型

#### Water Supply Piping

During fix the water pipe, please consider the water pressure lossing inside piping, and need to keep enough water pressure for ignition.

Minimum required water pressure = operating water pressure (0.2kg/cm²) (At water inlet)

+ pressure loss in piping system

+ 0.3kg/cm² (Allowance)

Be sure to have main water valve under the heater. It is necessary when servicing or draining water.

### WARNING

■ 安裝必須由註冊氣體裝置技工執行 Installation must be done by a Registered Gas Installer



■ 確定使用生產商指定之煙道

Make sure to use the flue duct specified by the manufacturer



若使用不是生產商指定之煙道,煙道安裝不妥當。 廢氣可能回流室內或煙道不能正常操作而導致不正 常燃燒,缺氧或產生有毒一氧化碳可能發生

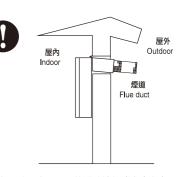
If using a flue which is not specified by the manufacturer, or the flue is not installed properly exhausted air may reflux into room and the flue may not operate properly, this cause abnormal combustion. Hypoxia and carbon monoxide toxication may be caused

■ 安裝煙道時,確定煙道不會滑出其位置 When the flue duct is installed, make sure that flue duct will not slip out of position



■ 確定安裝煙道面向室外

Make sure to install the flue duct so that the duct faces outdoor



若廢氣回流入室內,可能導致缺氧或產生有毒一氧

If exhaust air returns into rooms, an oxygen depletion or a carbon monoxide toxication may be caused

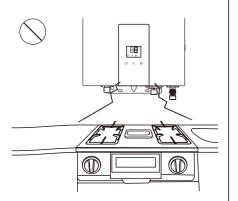
若廢氣回流入室內,可能導致缺氧或產生有毒一

If exhaust air returns into rooms, an oxygen depletion or a carbon monoxide toxication may be caused

### 安全指示

### Safety instructions

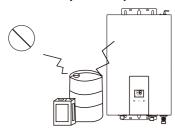
#### ■ 切勿安裝熱水爐在煮食爐具頂部 Do not install the heater above cooking appliances



煮食爐具的廢氣及油膩物質可能損壞熱水爐 The heater may be damaged by exhaust air and oily materials produced by cooking appliances

■ 切勿安裝熱水爐在使用特別化學物品的 地方,如一般洗衣工場及工廠所使用的 氨,硫磺及酸等

Do not install the heater where special chemicals are used such ammonia, sulfur, acidic materials, etc., which are generally used at laundry and factory



#### ■ 確定熱水爐已接地

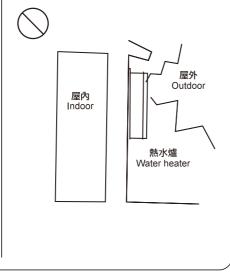
Make sure to ground the heater



漏電可能導致觸電

Any electric leakage may cause an electric shock

■ 熱水爐切勿安裝於室外 Do not install the heater outdoor



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#### ■ 更換原有之對衡式熱水爐

- 1 關閉冷水來水掣及氣掣
- 2. 打開熱水龍頭及熱水爐的排水閥,將原有熱水爐內之水排去
- 3. 拆除原有所有連接喉管,熱水爐及排氣管,但保留原有排氣管背板
- 4 將新爐之排氣管套裝於原有背板上,用絲母收緊,並將突出之螺絲切平
- 5. 新舊背板間之隙須用適當之防水物料如海棉膠邊等封好,以免雨水進入
- 6 其餘安裝方法與新安裝相同

#### Replacement of existing balanced flue heater

- 1. Close the cold water supply valve and gas supply valve
- 2. Open the hot water faucet and the drain cook of the heater to drain the water inside the existing water heater
- 3. Dismantle the existing connecting piping, water heater and flue terminal, but keep the flue back board
- 4. Install the new flue onto the existing back board , fix all the bolts with nuts and out the protruded bolts after tightening the nuts
- 5. Sell the gap between the two back board with suitable water proofing materials such as foamed rubber tape to avoid rain water from passing through into the bathroom
- 6. Install the water heater following the same procedures for new installations

#### ■ 喉管

- 本熱水爐使用銅喉
- 須確定喉管接駁於正確的入口及出口
- 使用以下尺碼的喉管

供水喉: G1/2 熱水喉: G1/2 供氣喉: G1/2

#### Piping

- · Piping of this heater is made of copper
- Be sure to connect each pipe with a correct inlet / outlet as described
- Use below size of pipes:
   Water supply : G1/2
   Hot water supply : G1/2
   Gas supply : G1/2

### 背排式熱水爐安裝步驟

### Back flue installation procedure of the hea

#### 1 決定安裝熱水爐之位置

按右圖的尺寸圖,在牆上開一個130-140毫米的孔, 在牆上鑽6個8毫米的孔,其中上面四個孔是安裝背 板, 並把下面兩個孔打入膠塞, (下面二個孔是固 定熱水爐底碼)

Decide the position of installing the heater. Refer the right side drawing, cut a hole diameter 130-140mm according to the position shown on the cutting board. Drill 6 holes with diameter 8mm in the wall, 4 of which on upper position are for the back board. Please insert rubber pin into the lower two holes which are for positioning the heater

- 2 背板上距離140毫米的兩螺栓是連接熱水爐 The two bolts with distance 140mm on the back board are for connecting the heater
- 3 把給排氣管穿入背板內接好

注意:給排氣管於安裝時必須向下傾斜,以防止雨水從排 氣管滲入熱水爐

Mount the flue terminal onto the back board

Note: The flue terminal has a downward inclination when installed

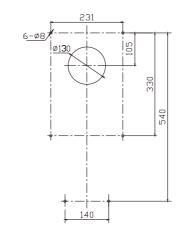
> (The flue has to be installed downward, to prevent the rain drops into the flue )

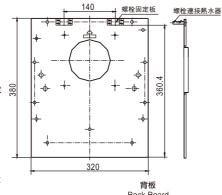
4. 把熱水爐掛在背板上的兩枚螺栓上,用絲母收緊,另 用螺絲把底碼收緊在牆上

注意:安裝時必須確定熱水爐之排氣口已套入背板內

Hang the heater onto the bolts of the back borad and fix it with nuts. Fix the lower bracket with screws onto the wall

Note: Make sure the exhaust port of heater is interted into the back board.

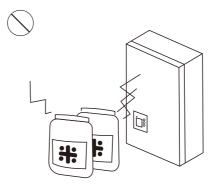




Back Board

注意 **CAUTIONS** 

■熱水爐切勿安裝在煮食器皿及食物上面 Do not install the heater above cooking utensils and foods



當熱水爐殘舊時,鐵銹及煤粒可能脱落

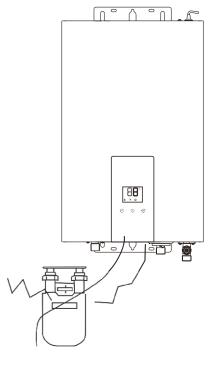
Rust and soot may fall off from the heater when it becmoes old

■切勿將熱水爐安裝在車輛或船上 Do not install the heater on vehicles and vessels



■ 切勿將電源線接駁在氣體喉管上 Do not connect electrical wirings to the gas piping





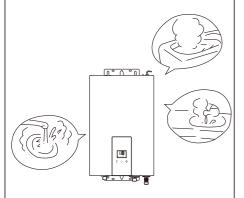
漏電可能導致觸電或火警

An electrical leakage may cause an electrical shock or a fire

### 安裝注意事項

### Cautions for installation

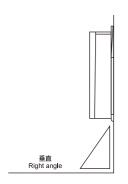
■ 安裝熱水爐在常用熱水附近的地方 Install the heater near where hot water is frequently used



#### 若安裝較長的熱水喉管,熱損失將會較大

If hot water piping becomes longer, the thermal wastage becomes greater

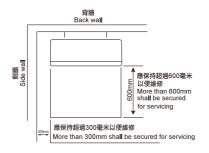
■ 確定熱水爐安裝在垂直的牆身 Make sure to install the heater on a vertical wall



若不是,不正常燃燒可能產生。同時排水來防止結冰也困難 If not, an abnormal combustion may be caused. It is also difficult to drain water for freeze prevention

■ 確定有足夠空間供檢查及維修工作 (距離熱水爐前面超過600毫米及四周超過 300毫米)

Make sure to secure enough space for inspection and service (more that 600mm in front of the heater and more than 300mm at sides)

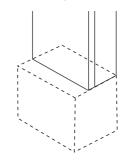


若不是,維修工作可能不能進行

If not, service and maintenance work may not be carried out

■ 確定熱水爐底部有足夠空間供喉管安裝 及排水用

Make sure to secure enough space under the heater for piping installation and water draining



若不是,維修工作可能不能進行

If not, service and maintenance work may not be carried out

### ■ 頂排式熱水爐安裝步驟

### Top flue installation procedure of the heater

 確定熱水爐的安裝位置後,按圖示位置和要求鑽孔, 所鑽的孔應能保證熱水爐安裝後垂直

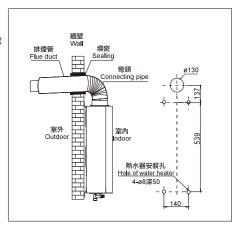
Ensure the water heater installation position, drill out holes as drawing required and be sure the drill out position can install the water heater vertically

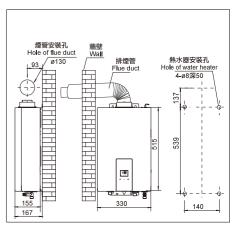
- 2. 4-ø8孔用螺釘固定 Fixing with 4-ø8 screws
- 3. 煙管背向安裝時,將煙管插入鑽好的煙管安裝孔, 排煙口向外,將彎頭插進熱水爐的出煙口,彎頭的 另一端正對準煙管,煙管套入彎頭,然後一齊向後 移,熱水爐的安裝孔對準膨脹螺釘,將其掛在螺釘 上,擰緊螺母固定。(注意彎頭有方向性,並且彎 頭兩端接口處應用箔紙密封固定)

When install the flue duct opposite to the wall, please plug in the flue duct into drilled hole, and the outlet part towards outside, and then plug the connecting pipe in the flue outlet of the water heater. Connect the connecting pipe with the flue duct, and then mount the water heater onto the wall, and fix it by using the nut. (Please mind that the connecting pipe could turn multi-directional and please seal and fix it by using aluminium-foil paper.)

4. 煙管側安裝時將熱水爐的安裝孔對準膨脹螺釘,將其 掛在螺釘上,擰緊螺母將熱水爐固定好,將煙管放 入煙管煙管安裝孔中,彎管插進熱水爐出煙口上, 再將煙管套入彎管中(同樣也要在彎頭兩端貼鋁箔 紙密封固定)。

When install the flue duct in side direction, please mount the water heater onto the plastic plug, and fix it by using the nut. Put the flue duct into the drilled hole in the wall and connect it with the water heater by connecting pipe (Please seal and fix it by using aluminium-foil paper.)





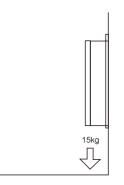
### 熱水爐安裝

### **Heater Installation**

- 煙道安裝指引 Instructions on flue duct installation
- 1. 確定煙道安裝是否符合下列要求 Make sure to confirm whether flue duct installation meets the below requirements
- 煙道是否面向室外? Is flue duct facing outdoor?
- 煙道孔道是否有防火結構? Does flue duct hole on the wall have a fire preventive construction?
- 2. 安裝熱水爐必須沒有傾斜 The heater must be installed without any inclination
- 3. 煙道切勿安裝於下部潮濕的地方 Do not install the flue duct where humidity and vapor comes from underneath

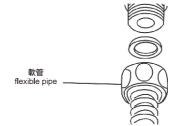
■ 安裝熱水爐的牆身必須能夠承擔15公斤 重的熱水爐

The wall on which the heater will be installed must be strengthened so that 15kg heater can be mounted

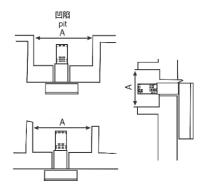


若不是,熱水爐可能跌下來 If not, the heater may fall down

■ 確定使用軟管接駁冷熱水位以便日後維修 Make sure to use flexible pipe for hot water connections so that repair work will be carried out smoothly



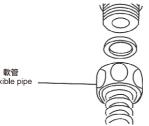
■ 熱水爐切勿安裝在空氣不流通的坑道內 Do not install the heater in a pit where air flow is disturbed



若 "A" 的距離多過1500毫米,是可接受的 It is acceptable if the distance "A" is longer than 1500mm

■ 確定煙道四周800毫米內沒有障礙物阻礙

Make sure that there is no obstacle within 800mm from the flued duct, which disturbs air flow



### 安裝注意事項

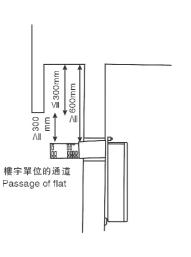
### Cautions for installation

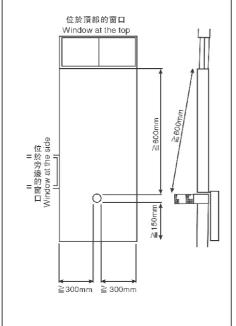
若不能維持足夠距離,空氣吸入及廢氣排出系統可能不能正常運用而引致不完全燃燒

If the enough distance is not secured, the air intake and exhaust system may not work properly to cause the incomplete combustion

■ 於熱水爐頂上600毫米沒有障礙物的地方安裝 Install the heater where there is no obstacles within 600mm above the flue ■ 下列為煙道與開口位之間最低限度距離以免 廢氣回流

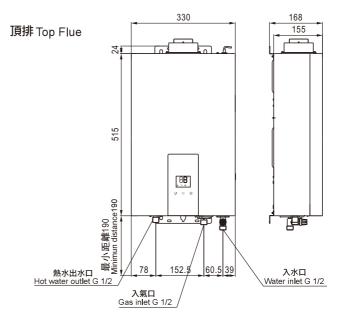
The minimum distance between the flue duct and openings where exhaust air may flow in must be kept as descibed below

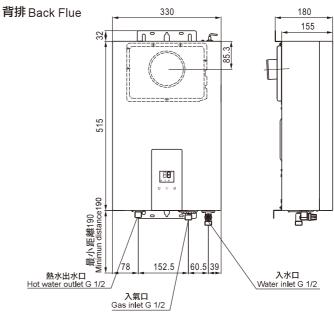




尺寸 Dimensions

單位:毫米 Unit:mm





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