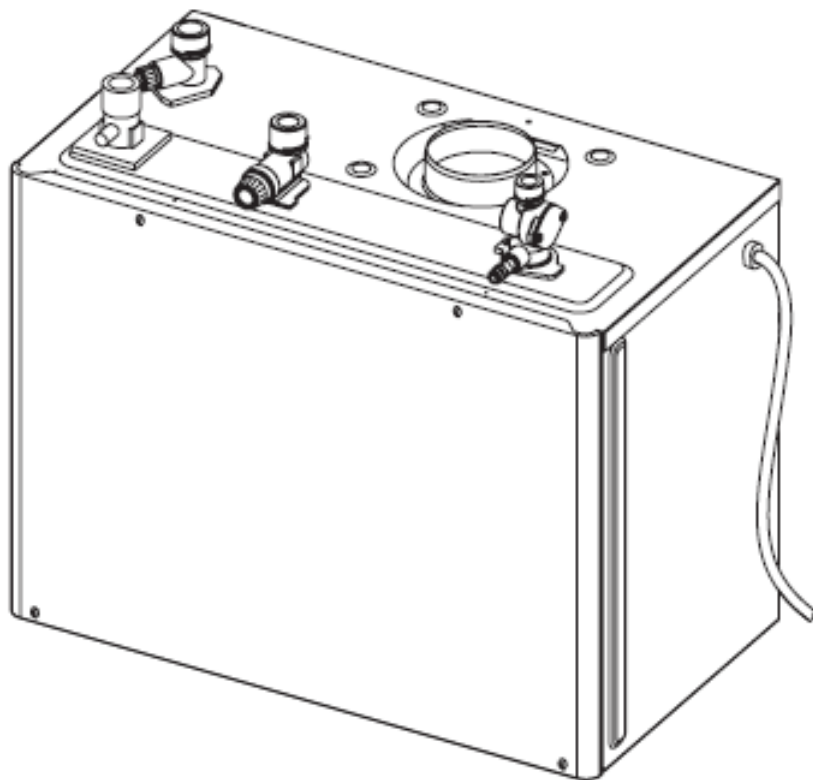




即熱式氣體熱水爐  
Instantaneous Gas Water Heater

型號 Model : TNJW221TFQL / TNJW221TFL  
TNJW161TFQL / TNJW161TFL

使用說明書  
User Manual



香港煤氣適用  
For Hong Kong Town Gas




重要安全指示 .....	第 1 頁
產品介紹 .....	第 4 頁
操作指示 .....	第 8 頁
保養 .....	第 16 頁
故障處理 .....	第 17 頁
規格 .....	第 22 頁

## 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。

## 重要安全指示

為安全使用本熱水爐，請遵照下列各項指示。有關符號的意思如下：

	<b>危險</b>	若忽視此警示，並作出錯誤行動，可能引致死亡、嚴重受傷和爆炸的危險。
	<b>警告</b>	若忽視此警示，並錯誤使用爐具，可能引致死亡、嚴重受傷和火警發生。
	<b>注意</b>	若忽視此警示，並錯誤使用爐具，可能會引致受傷和財物損毀。

上述描述所導致的受傷及財物損毀情況，請參考下列詳細描述。

- 受傷：出現受傷，燙傷和觸電危險，需要送院治理。
- 財物損毀：對房屋、傢俱和寵物造成廣泛損毀。



危險、警告、注意



禁止



切勿觸摸



必須執行




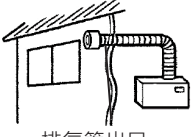

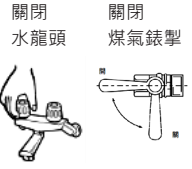




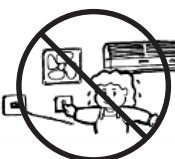



切勿拆開



必須接到地線

### 危險

	<b>若果發現爐具出現問題</b> <ul style="list-style-type: none"> <li>當使用熱水爐時，若發現異常的火焰、氣味或特別的聲音，請立即關閉熱水龍頭及煤氣錶掣，並通知煤氣公司安排檢修。</li> <li>在發生地震或火災時，請立即停止操作熱水爐。</li> </ul>	 <p>1. 關閉水龍頭      2. 關閉煤氣錶掣</p>
	<b>請勿將排氣管的出口置於室內</b> <ul style="list-style-type: none"> <li>排氣管的出口必須面向室外地方。</li> </ul>	 <p>排氣管出口</p>
	<b>若你發覺有煤氣洩漏</b>	 <p>1. 請停止使用本熱水爐，並關閉煤氣錶掣。</p>  <p>2. 開啟窗戶讓煤氣排出屋外。</p>  <p>3. 使用室外電話與煤氣公司緊急事故熱線 2880 6999 聯絡。</p>
	<b>若發生燃氣洩漏，嚴禁以下事項</b> <ul style="list-style-type: none"> <li>點燃明火、插拔電源插頭。</li> <li>開、關電器產品。</li> <li>在附近使用電話、手機。</li> </ul>	  
	當發覺有燃氣洩漏，切勿進行所述事項，直至維修工作完成為止。 切勿在漏氣處理完畢前再次打開煤氣掣。	

## 重要安全指示

### 警告



#### 請小心看管兒童

- 流放熱水到浴缸時，切勿讓兒童在浴室玩耍，以免兒童不小心掉進浴缸，引致危險。
- 切勿讓兒童單獨洗澡。



#### 切勿自行拆卸、維修或改裝爐具

- 熱水爐的安裝、維修及其他附帶工程，必須由受僱於註冊氣體工程承辦商及領有適當級別的註冊氣體裝置技工進行，以免造成危險或損毀爐具。



#### 切勿遮蓋排氣管的出口

- 切勿因建築更改引至排氣口位於室內，以避免引致一氧化碳中毒或火警危險。

### 注意

#### 請依照下列指示以防燙傷



- 當使用熱水後，立即開啟熱水龍頭或迅速減慢熱水流出時，熱水可能會突然噴出。為避免燙傷危險，切勿將熱水直接噴灑在頭和身體上。
- 當使用花灑時，請先用手確認水溫。切勿直接將熱水噴灑在頭或身體上。



- 切勿觸摸煙囪或排氣管，避免燙傷。



先用手確認水溫

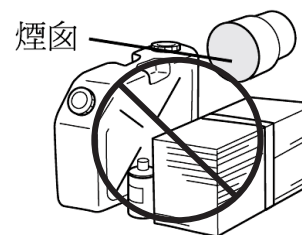
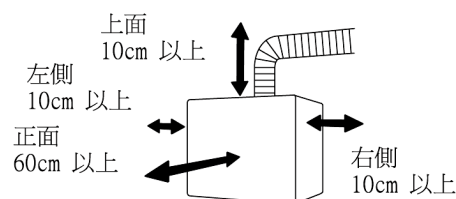


切勿觸摸排氣管



#### 遵照下列的指示，避免火警發生

- 如圖所示，請將物件與爐具保持適當距離。
- 切勿於熱水爐或煙囪周圍擺放或使用易燃物品、揮發性物質或噴霧器。



#### 有關用途



- 熱水爐供應熱水給浴室或廚房使用，切勿用作其他用途，以免發生意外或損壞爐具。
- 請勿將長期儲存於熱水爐內的水，用作飲用或煮食用途。
- 為免縮短熱水爐的壽命，請勿用於商業用途。



注意

### 有關安裝



- 嚴禁安裝於室外地方。
- 請盡量縮短熱水喉管的長度，以及避免水管有可能導致閉塞及滯水的地方。
- 盡量縮短熱水出口與水龍頭的距離。
- 安裝煙囪時，確保排出的煙氣不會直接排向外牆、窗戶、玻璃、鋼門或鋁窗框等物件，這會引致物件變形及變色。



### 有關熱水爐遙控器

- 請勿讓小孩隨意按動熱水爐的遙控器。避免造成意外或損毀爐具。



### 預防病菌滋生(例如：退伍軍人病菌)



- 若熱水爐已停用超過一星期，於使用前，應將滯留於水管內的水先排走。
- 進行排水時，請盡量避免產生水霧，應使用延伸水管連接出水口及排水位。
- 排水方法 (第 ii 及 iii 點只適用於備有循環功能的型號)：
  - i) 關閉熱水爐，將距離熱水爐最遠的熱水水龍頭完全開啟 1 分鐘
  - ii) 關閉熱水龍頭，將水溫設定在 50°C，開啟熱水爐和啟動循環狀態 3 分鐘
  - iii) 將水溫設定在 40°C，然後關閉熱水爐，再次全開該熱水龍頭 1 分鐘
- 為節省能源和防止細菌滋生，不應長時間啟動預熱循環而不使用熱水。不使用熱水時，應將熱水爐完全關閉。

### 有關清潔及保養

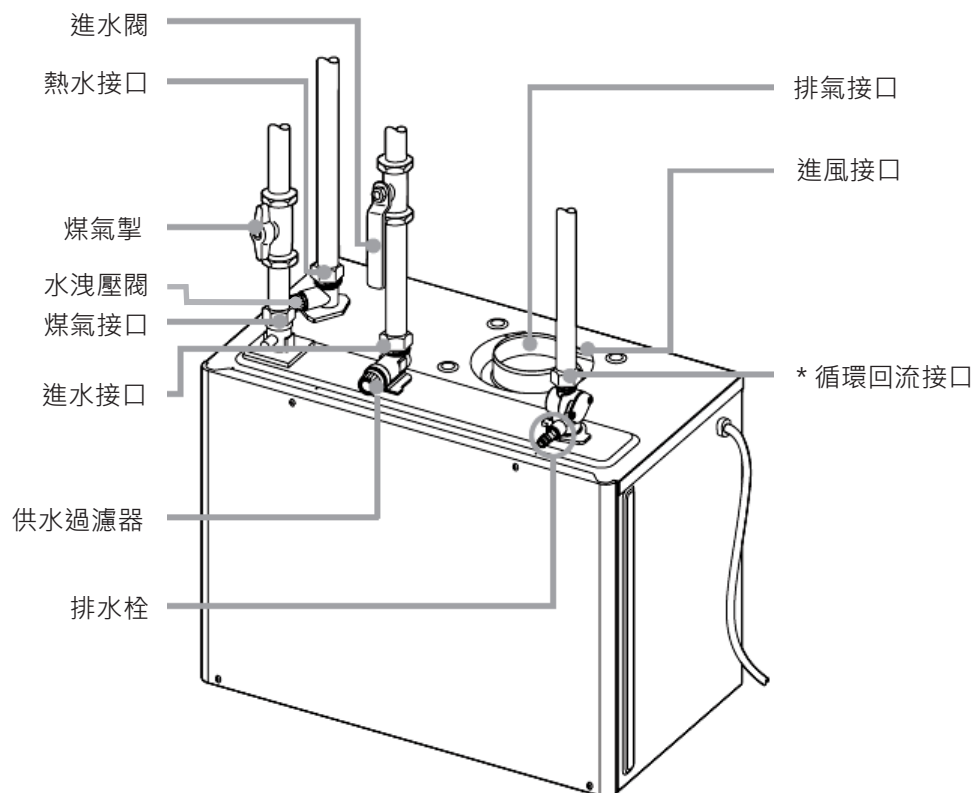


- 若熱水爐或喉管接觸到含氯除菌劑、酸性浴室清潔劑、除臭劑或食鹽，請用大量的清水把它們沖掉，避免造成意外或損毀爐具。
- 切勿使用溶劑或油性清潔劑清潔爐具，這會引致變色或變形。

### 熱水爐主機

TNJW221TFQL / TNJW161TFQL

TNJW221TFL / TNJW161TFL (\*不設循環回流接口)



### 遙控器

浴室遙控器  
RC-80BQ



浴室遙控器  
RC-80B



廚房遙控器  
RC-80K



隨爐附件：

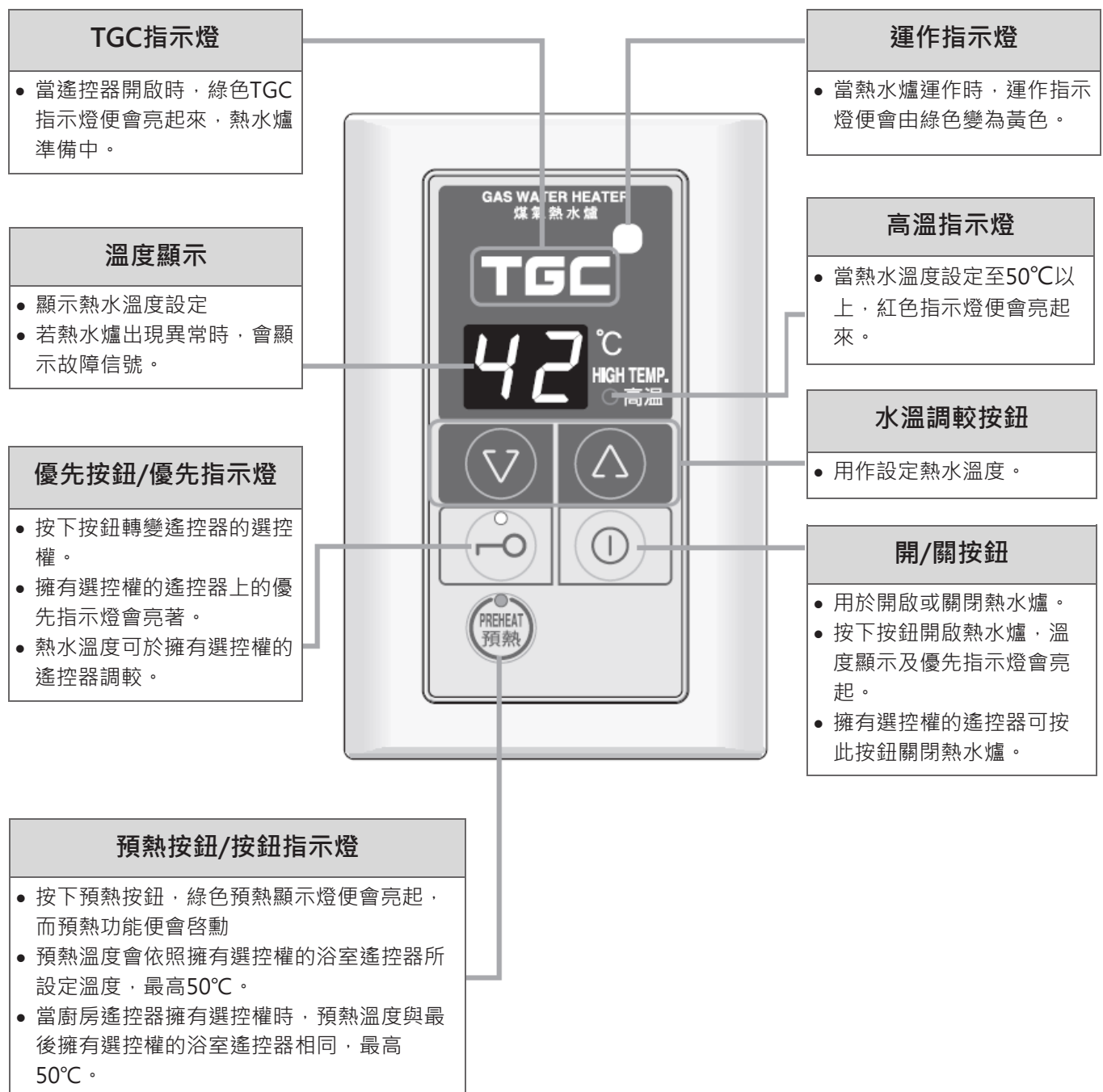
TNJW221TFQL / TNJW161TFQL 型號附有一個 RC-80BQ 浴室遙控器

TNJW221TFL / TNJW161TFL 型號附有一個 RC-80B 浴室遙控器

隨爐附送一個浴室遙控器: RC-80BQ (TFQL 系列) 或 RC-80B (TFL 系列)

- TNJW221TFQL 及 TNJW161TFQL 最多能接駁兩個浴室遙控器(兩個 RC-80BQ 或 RC-80BQ 及 RC-80B 各一個) 及一個 RC-80K 廚房遙控器。
- TNJW221TFL 及 TNJW161TFL 最多能接駁兩個 RC-80B 浴室遙控器及一個 RC-80K 廚房遙控器。
- 額外浴室遙控器( RC-80BQ 或 RC-80B )及廚房遙控器 ( RC-80K ) 可供選購。

### 浴室遙控器 (RC-80BQ)



## 浴室遙控器 (RC-80B)

### TGC指示燈

- 當遙控器開啟時，綠色TGC指示燈便會亮起來，熱水爐準備中。

### 運作指示燈

- 當熱水爐運作時，運作指示燈便會由綠色變為黃色。

### 溫度顯示

- 顯示熱水溫度設定
- 若熱水爐出現異常時，會顯示故障信號。

### 高溫指示燈

- 當熱水溫度設定至50°C以上，紅色指示燈便會亮起來。

### 水溫調較按鈕

- 用作設定熱水溫度。

### 優先按鈕/優先指示燈

- 按下按鈕轉變遙控器的選控權。
- 擁有選控權的遙控器上的優先指示燈會亮著。
- 熱水溫度可於擁有選控權的遙控器調較。

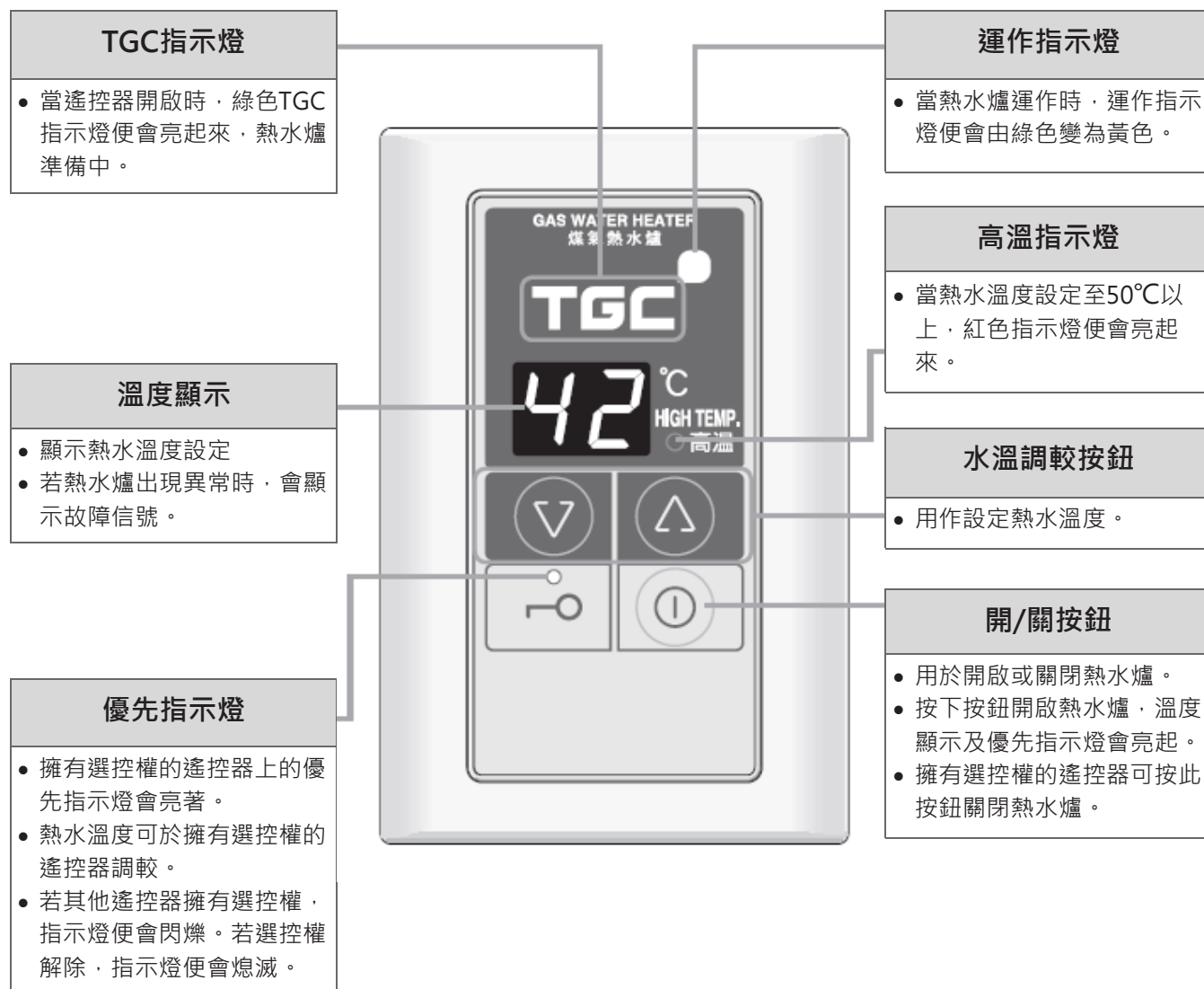
### 開/關按鈕

- 用於開啟或關閉熱水爐。
- 按下按鈕開啟熱水爐，溫度顯示及優先指示燈會亮起。
- 擁有選控權的遙控器可按此按鈕關閉熱水爐。





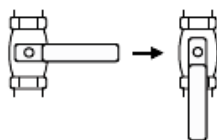
### 廚房遙控器 (BC-80K)



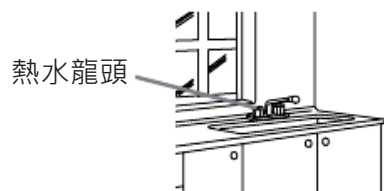
## 操作指示

初次使用時，請按步驟 **1** 至 **3**，檢查爐具。

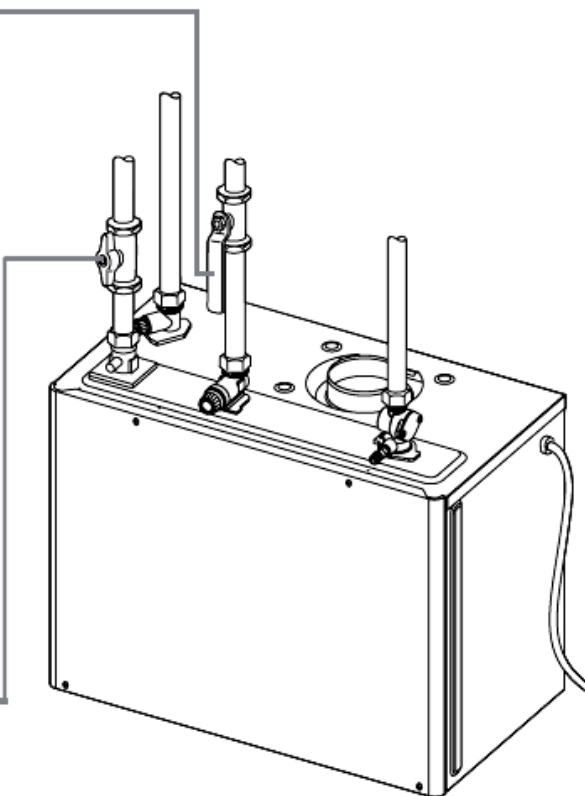
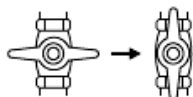
**1.** 打開入水掣。



**2.** 打開熱水龍頭，檢查有水流後再關閉。



**3.** 完全打開煤氣閥。





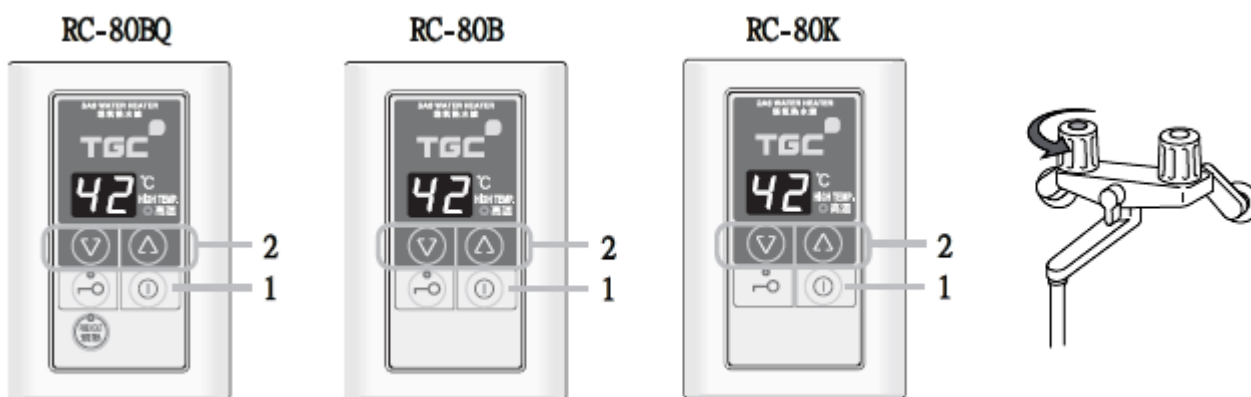
注意



- 為避免燙傷，淋浴時請先用手確認水溫，切勿將熱水正接噴灑往頭部和身上。
- 為避免燙傷，使用高溫的熱水後，水管中仍存有高溫熱水，再次使用熱水時，請務必先用手確認熱水的溫度後才使用。
- 長時間不使用熱水爐時，請關閉電源、進水閥、供氣閥。

## 熱水溫度設定及選控權轉換

你可以使用任何遙控器操作本熱水爐。



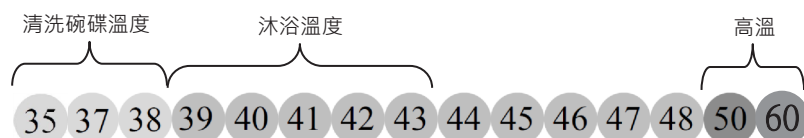
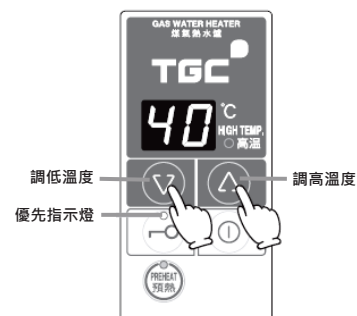
### 1) 開啟熱水爐

- 開啟熱水爐的電源後，按遙控器上的開/關按鈕。
- 溫度顯示屏亮著，而 TGC 和運作指示燈將會同時亮起。
- 用作啟動開關的遙控器即擁有溫度選控權，其優先指示燈會亮著。
- 安裝後首次使用時，預設溫度 42°C 顯示於顯示屏上。
- 當優先指示燈閃爍時，不能改變遙控器的選控權。



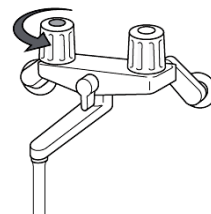
### 2) 設定熱水溫度

- 熱水溫度可於擁有選控權的遙控器調較，其優先指示燈會亮著。
- 按  $\Delta$  鍵調高水溫，或按  $\nabla$  鍵調低水溫。
- 所設定的熱水溫度會同時顯示於所有遙控器的顯示屏上。
- 當熱水溫度設定在 50°C 或以上，紅色高溫指示燈便會亮起來。
- 設定溫度可由 35°C 調較至 60°C。溫度設定會顯示於溫度顯示屏。



### 3) 使用熱水

- 當開啟熱水水龍頭時，熱水爐立即運作，運作指示燈轉為黃色。
- 熱水流量少於每分鐘 2 公升，燃燒器便會關閉。
- 熱水爐運作時，熱水溫度設定不可高於 48°C。
- 熱水爐運作時，如溫度設定在 50°C 或以上，只可下調溫度定。



## 警告

### 防止燙傷

- 以花灑淋浴時，應先用手試試水溫，然後才灑向面部和身體。
- 設定為 50°C 或 60°C 時，
  - 高溫指示燈點亮
  - 溫度顯示閃爍約 10 秒鐘。
- 請確認顯示的溫度後再行使用。  
使用 50°C 或 60°C，高溫設定時，請特別當心。

約 10 秒鐘閃爍

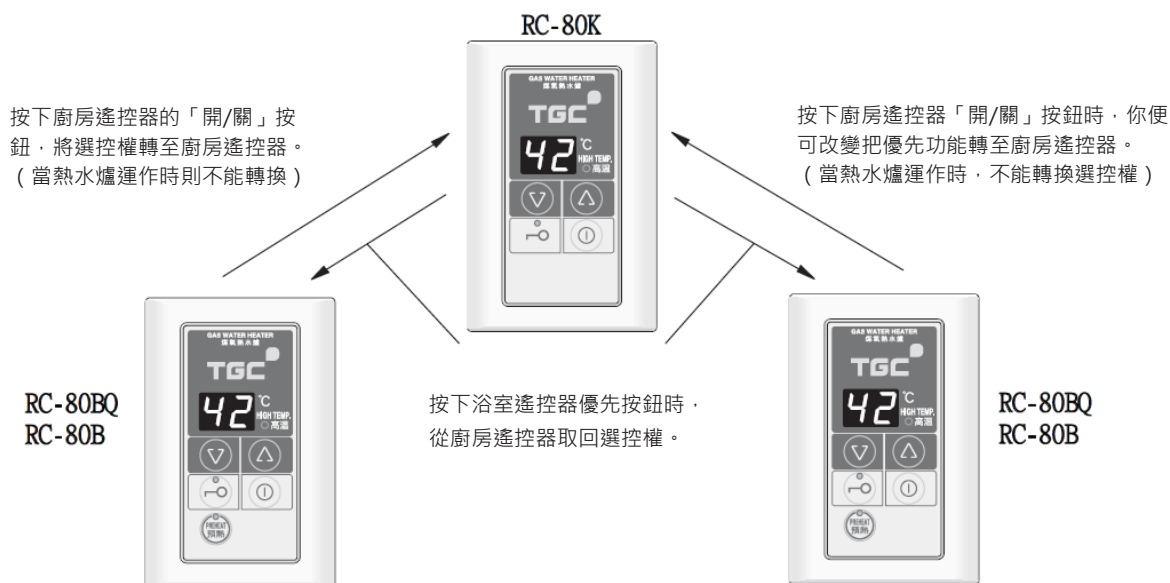


點亮著



## 4) 轉換選控權(安裝多個遙控器的場合)

- 安裝兩個或以上(最多三個)的遙控器，只有在優先指示燈亮起的遙控器才可設定熱水溫度，以防止燙傷意外發生。
- 當浴室遙控器擁有選控權，其優先指示燈會亮起，而其他遙控器的指示燈會閃爍。
- 當廚房遙控器擁有選控權，其優先指示燈會亮起，而其他遙控器的指示燈會熄掉。
- 當熱水爐運作中，不可改變選控權。



- 每個遙控器會記存其最後的溫度設定(最高48°C)，當取得選控權，顯示屏會展示出先前溫度設定。
- 當熱水爐處於備用狀態超過10分鐘，選控權會自動解除，所有優先指示燈會熄掉。再使用熱水時，熱水爐會按照最後擁有選控權的遙控器所設定的溫度提供熱水。
- 於50°C或60°C的設定溫度時，當選控權解除時，溫度設定將改變為48°C。

如需取得選控權：

適用於 RC-80BQ，RC-80B



按下優先按鈕，優先燈號亮著。

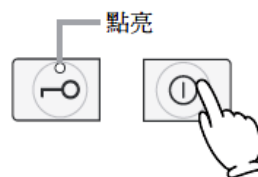
適用於 RC-80K



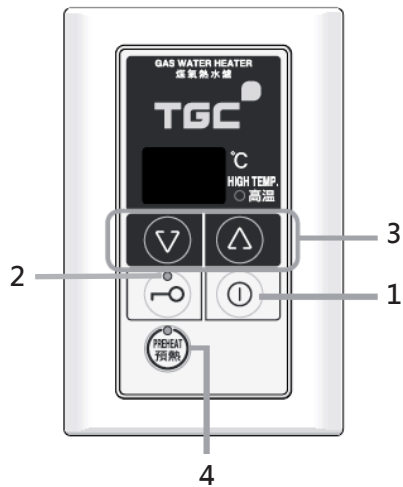
按下開/關按鈕，優先燈號亮著。

## 5) 停止操作

- 擁有選控權的遙控器才能關閉熱水爐。
- 按下開/關按鈕，溫度顯示屏及所有指示燈會關掉。



### 6) 開啟預熱功能 (RC-80BQ)



#### 警告

- 啟動預熱功能後，系統便會連續運作直至預熱按鈕按停。運作期間無須有優先選控權亦可進行保溫。但須留意，選控權及溫度設定可能已改變，在你使用熱水前，先察看遙控器所顯示的設定溫度，以避免燙傷。
- 即使將選控權轉到廚房遙控器，預熱功能仍會按照先前擁有選控權的浴室遙控器所設定的溫度繼續運作。

RC-80BQ 不能與 TNJW221TFL 或 TNJW161TFL 連接

### 啟動預熱功能

#### 1. 按下開/關按鈕

- 若顯示屏未有亮著，請按下遙控器的開/關鈕開啓熱水爐，溫度顯示屏和運作顯示燈便會亮起。
- 溫度顯示屏會顯示先前溫度設定，初次的溫度設定是 42°C。



#### 2. 檢查溫度設定選控權

- 如設置兩個或以上的遙控器，請確定優先指示燈亮著。
- 如熱水爐不在使用中，按下開/關按鈕或優先按鈕取得選控權。
- 擁有選控權的遙控器可設定溫度。



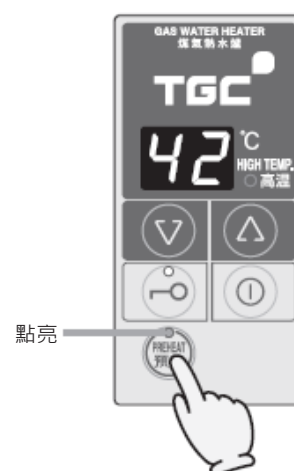
### 3. 預熱水溫設定

- 在管道內的水，將被加熱及保溫至所設的溫度。
- 即使將溫度設在 50°C 以上，預熱水溫最高 50°C。



### 4. 按下預熱按鈕

- 當預熱按鈕顯示燈亮起，熱水爐會自動運作將水加熱至設定溫度。
- 要停止預熱功能，只需再按下預熱按鈕，預熱指示燈亦會關掉。



## 警告

### 防止燙傷

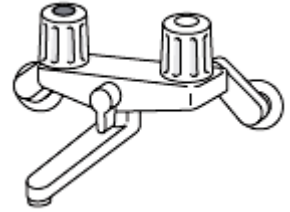
在預熱運轉的情況下，將設定溫度從高溫（50°C）降低到 48°C 以下低溫時，暫時還會排放溫度較高的熱水，請注意水溫，以免燙傷。

### 7) 暫停供水

若使用 TNJW221TFQL 或 TNJW161TFQL，當水源暫停供應，請注意以下事項。

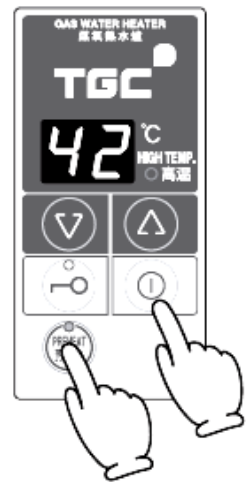
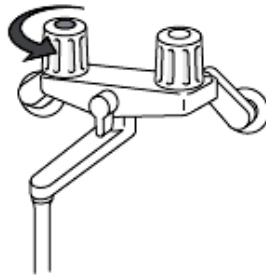
#### 1. 當暫停供水

- 切勿開啟熱水水龍頭，以免空氣進入水管。



#### 2. 當水源恢復供水

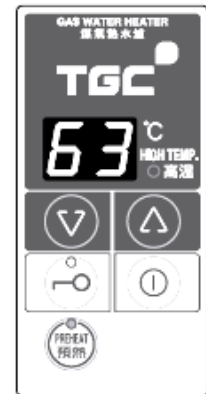
- 開啟距離熱水爐最遠的熱水水龍頭，以將水管內的空氣排出。
- 若空氣未有從熱水水龍頭內排出，請關閉熱水水龍頭。
- 開啟遙控器，控下預熱按鈕，啟動預熱功能。
- 若預熱功能運作一段時間後未有發現問題，便可結束以上步驟。



#### 3. 當開啟預熱功能，故障信號“63”閃爍時：

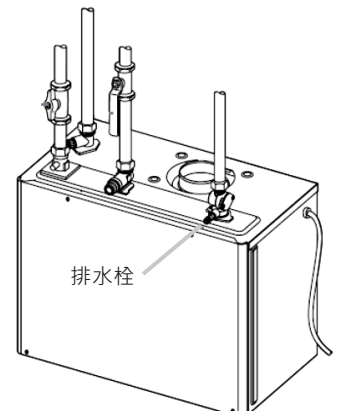
##### i) 如何再啟動預熱功能

- 水管內存有空氣，請按開/關按鈕兩下，然後按預熱按鈕，再次開啟預熱功能。
- 請重覆以上動作直至故障信號“63”停止出現。



##### ii) 如何排去水管中空氣

- 開啟距離熱水爐最遠的熱水水龍頭，以將水管內的空氣排出。
- 鬆開循環回流接口的排水栓，並將空氣從排氣喉排出，當空氣排出後，將排水栓重新擰緊。
- 開啟遙控器，按下預熱按鈕，啟動預熱功能。
- 當故障信號消失後，便可結束以上步驟。





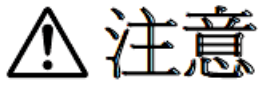
### 安全裝置

- 火焰失效：當沒有火焰時，感應棒會停止傳送火焰信號到主控器，以停止供氣到燃燒器。
- 殘火安全裝置：當水龍頭已經關閉而火焰仍然存在，而在熱交換器內的水溫高達 120°C 時，雙金屬安全裝置會關閉電磁閥停止供氣。
- 過度沸騰：當熱水溫度高於 90°C，熱水熱敏電阻的信號將傳送到主控器停止供氣。
- 水流量感應裝置：若進入的水流受到阻隔或被中止，水流量感應器會停止傳送磁脈衝信號到主控器，並停止供氣。
- 過熱保護：若熱交換器燒毀或溫度高達 184°C 時，便會觸動溫度保險絲，停止熱水爐運作。
- 防止過高水壓裝置：若熱水爐內的水壓高於 2100kPa(TFQL 型號：1000kPa)，置於熱水出口的洩壓閥會打開，釋放已累積的壓力，待水壓降回 1700kPa(TFQL 型號：700kPa)的水平才會關閉。
- 助燃風扇轉速檢查：風扇的轉速由檢速器所監測；若風扇轉速與要求速度有所偏差，信號將會傳送到主控器，而轉速亦會作出相應的調整。

### 恆溫熱水爐調控熱水溫度提示

- TNJW221TFQL/TFL 熱水爐可以提供每分鐘 22 公升流量, TNJW161TFQL/TFL 熱水爐可以提供每分鐘 18 公升流量，升溫 25°C 的熱水，適合在不同季節的一般沐浴使用。您可以在遙控器設定所需的熱水溫度，熱水爐將會自動調控出水溫度。但是在一些特殊情況下，除通過遙控器設定熱水溫度外，可同時調節水流量，以便達到所需溫度。
- 在冬季偶有極寒冷的天氣，自來水的溫度可能過低或熱水流量過大，熱水爐的出水溫度可能低於設定的溫度，您可以調節水龍頭或花灑掣來減少熱水流量，以便獲得適合的水溫。
- 在夏季偶有極炎熱的天氣，自來水的溫度可能過高或水流量過小，出水溫度可能高於設定的溫度，您可以調節水龍頭或花灑掣來增加熱水流量，或輔以混合冷水，以便獲得適合的水溫。

### 日常檢查和清潔



關於檢查，請關閉熱水爐後才進行。

使用熱水後，熱水爐內部的熱水處於高溫狀態，因此，請在熱水爐冷卻之後再進行檢查。

旨在預防燙傷。

### 定期檢查

檢查

是否在熱水爐及煙囪的周圍放置了衣物、紙張、木材、煤油、噴霧罐等易燃物品？



請勿(於熱水爐和煙囪周圍)放置易燃物品。

檢查

- \* 使用時熱水爐外表面是否有異常現象？
- \* 使用時熱水爐內是否有異常聲音？
- \* 熱水爐及進、出水口管是否漏水？



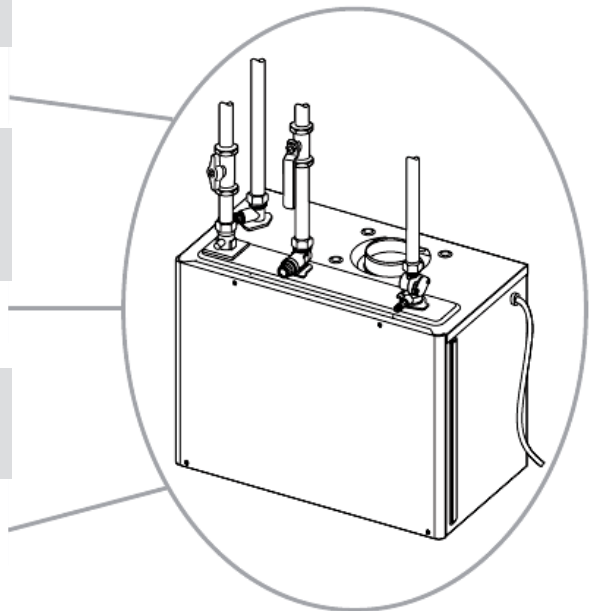
出現上述現象時請立即與煤氣公司聯系。

檢查

排氣筒是否出現鬆脫、損壞及灰塵堵塞等情



不要在排氣筒出現鬆脫、損壞或堵塞的狀態



### 定期清潔

#### 熱水爐主機

熱水爐外殼的污漬，可用濕布擦拭，然後抹乾。

當污漬較嚴重時，可用中性洗滌劑擦拭。

#### 遙控器

遙控器的表面出現污漬時，請用濕布擦拭。

- 切勿使用溶劑及油性洗滌劑清潔遙控器，這會導致變形。
- 遙控器為防水型，但不要向遙控器噴水。

## 關於溫度的問題

即使打開熱水龍頭也不排放熱水	<ul style="list-style-type: none"> <li>• 煤氣掣、入水掣是否全部打開？</li> <li>• 是否出現停水？</li> <li>• 熱水龍頭是否充分打開？</li> <li>• 供水過濾器是否被雜物等堵塞？</li> <li>• 遙控器是否已開啟？</li> <li>• 電力供應出現了中斷？</li> </ul>
非即時提供熱水	<p><b>TNJW221TFQL/TFL, TNJW161TFQL/TFL</b> 〈沒有啟動預熱功能〉</p> <ul style="list-style-type: none"> <li>• 由於熱水爐到熱水龍頭有一段距離，所以要稍等片刻才有熱水流出。</li> </ul> <p><b>TNJW221TFQL, TNJW161TFQL</b> 〈啟動預熱功能〉</p> <ul style="list-style-type: none"> <li>• 從按下預熱按鈕到管路內的熱水溫度達到設定溫度需要一定時間。</li> </ul>
水溫過熱	<ul style="list-style-type: none"> <li>• 煤氣掣、入水掣是否全部打開？</li> <li>• 出水溫度設定是否合適？</li> <li>• 進水溫度較高和水流過低時，水溫可能會過熱，將熱水龍頭打開到最大，使熱水溫度穩定。</li> </ul>
水溫過底	<ul style="list-style-type: none"> <li>• 煤氣掣、入水掣是否全部打開？</li> <li>• 出水溫度設定是否合適？</li> <li>• 寒冷天氣，進水溫度較低，水流量過大時，水溫可能達不到設定要求。將熱水龍頭關小一點，減少出水量，使熱水溫度升高。</li> </ul>
水溫不穩定	<ul style="list-style-type: none"> <li>• 當流經熱水爐的水量少於每分鐘 2 升時，燃燒器便熄火。調節熱水龍頭增加出水量，水溫度就會穩定。</li> </ul>
無法進行溫度調節	<ul style="list-style-type: none"> <li>• 遙控器的優先指示燈是否點亮？</li> <li>• 熱水爐運作時，不可以從 35°C~ 48°C 的設定改變至高溫（50°C 或 60°C）。若設定在 50°C 時，無法升高至 60°C。</li> </ul>

### 有關熱水供應問題

熱水流量出現變化	<ul style="list-style-type: none"><li>• 如果在使用熱水爐的過程中，其他地方也同時使用熱水，那麼熱水量會出現減少，按供水壓力及管道狀況，有時會出現熱水量驟然減少或暫時停水的情況，但是片刻後就會穩定。</li><li>• 根據熱水龍頭的種類，也有流出的熱水量出現變化的產品，如一開始流出的熱水量很多，然後趨於穩定等。</li><li>• 為了穩定熱水的溫度，熱水爐會先排放少量熱水，待穩定後再增加水量。</li></ul>
----------	---

### 關於遙控器

TGC 和 ON 指示燈沒點亮	<ul style="list-style-type: none"><li>• 是否電力供應出現了中斷？</li></ul>
遙控器的溫度顯示出現變化	<ul style="list-style-type: none"><li>• 如果熱水爐在待用的情況下經過 10 分鐘，若溫度設定在 50°C 或 60°C，會自動變為 48°C。</li></ul>

### 關於聲音

沒有使用熱水，但是有風扇及水泵的運轉聲音	<ul style="list-style-type: none"><li>• 在燃燒器停止運作後，風扇仍有短時間的轉動，這是正常。</li><li>• 預熱運作進行中。</li></ul>
----------------------	---

### 其他

使用中途熄火	<ul style="list-style-type: none"><li>• 煤氣掣、入水掣是否全部打開？</li><li>• 是否出現停水？</li><li>• 熱水龍頭是否充分打開？</li><li>• 煤氣供應是否中斷？</li></ul>
寒冷天氣時，煙囪冒出白色煙霧	<ul style="list-style-type: none"><li>• 煙氣中的水蒸氣凝結成霧氣，就像冬天呼出霧氣一樣。</li></ul>
熱水出現白色渾濁	<ul style="list-style-type: none"><li>• 水中溶解的空氣受熱釋出氣泡，這是正常現象。</li></ul>
水洩壓閥有水短暫流出	<ul style="list-style-type: none"><li>• 水洩壓閥啟動釋放熱水爐過大壓力。若問題持續，聯絡煤氣公司進行維修。</li></ul>

## 故障處理

安全裝置會持續監察熱水爐運作。當故障發生時，故障信號會在遙控器上閃動，方便處理有關問題。當詢問維修服務時，請說出有關故障信號。

故障信號	故障內容	處理方法
01	連續燃燒 60 分鐘	關閉熱水龍頭，關掉遙控器，重新啟動開關按鈕後便可再運作。
10	殘火檢測	請致電煤氣公司客戶服務熱線
11	點火失誤	關掉遙控器，然後檢查煤氣閥是否開啟，而煤氣供應是否中斷。若煤氣供應正常，重新開啟遙控器，當開和關熱水龍頭數次後(每次開關相隔約10秒)，沒有出現故障顯示，說明熱水爐可以正常使用。如故障信號仍然存在，請致電煤氣公司客戶服務熱線。
12	熄火安全裝置啟動	關掉遙控器，然後檢查煤氣閥是否開啟，而煤氣供應是否中斷。若煤氣供應正常，重新開啟遙控器，當開和關熱水龍頭數次後(每次開關相隔約10秒)，沒有出現故障顯示，說明熱水爐可以正常使用。如故障信號仍然存在，請致電煤氣公司客戶服務熱線。
14	過熱保護裝置啟動	請致電煤氣公司客戶服務熱線
16	沸騰保護裝置啟動	請致電煤氣公司客戶服務熱線
20	殘火安全裝置啟動	請致電煤氣公司客戶服務熱線
31	入水熱敏電阻斷接或短路	請致電煤氣公司客戶服務熱線
32	熱水熱敏電阻斷接或短路	請致電煤氣公司客戶服務熱線
33	熱交換熱敏電阻斷接或短路	請致電煤氣公司客戶服務熱線
42	循環水流感應器出現問題 (只適用於TNJW221TFQL 及 TNJW161TFQL)	請致電煤氣公司客戶服務熱線
61	助燃風扇故障	請致電煤氣公司客戶服務熱線

故障信號	故障內容	處理方法
63	循環泵出現問題 (只適用於TNJW221TFQL 及 TNJW161TFQL)	<p>進行以下程序重啟循環泵運作:</p> <ol style="list-style-type: none"> <li>1. 按下遙控器開/關按鈕關機，然後再按開/關按鈕開機。</li> <li>2. 按下預熱按鈕運行循環泵。</li> <li>3. 反覆進行這一操作，直至故障信號「63」消失。</li> <li>4. 如果故障信號消失，就停止預熱運轉。</li> </ol> <p>即使在上述方法下故障信號依然存在時</p> <ol style="list-style-type: none"> <li>1. 按下開/關按鈕關機。</li> <li>2. 打開離熱水爐最遠處的熱水龍頭，排放管道所有空氣，然後關閉熱水龍頭。</li> <li>3. 打開循環回流管的排水栓，排出空氣。</li> <li>4. 排出空氣後，關閉排水閥。</li> <li>5. 按下開/關按鈕開機，並按下預熱按鈕開啟預熱功能。</li> <li>6. 如果故障顯示消失，就停止預熱運轉。</li> </ol> <p>如果故障信號仍然出現，請致電煤氣公司客戶服務熱線</p>
66	旁通水流伺服閥出現問題	請致電煤氣公司客戶服務熱線
71	控制部件出現問題	請致電煤氣公司客戶服務熱線
72	控制部件出現問題	請致電煤氣公司客戶服務熱線
73	控制部件出現問題	請致電煤氣公司客戶服務熱線
760	控制部件出現問題	請致電煤氣公司客戶服務熱線
90	燃燒系統出現問題	請致電煤氣公司客戶服務熱線

在一般情況下，打開然後關閉熱水龍頭，故障信號便會被清除。如故障信號仍然存在，可嘗試關上電源，等待 10 秒後重啟熱水爐。若故障顯示仍然存在，請致電煤氣公司客戶服務熱線 2880 6988。

# 規格

型號		TN JW221TFQL TN JW221TFL	TN JW161TFQL TN JW161TFL
基本規格	安裝	獨立式/掛牆式/懸掛式	
	熱水爐種類	機動排煙密封式	
	排氣方向	頂排	
	尺寸 (毫米)	480(闊) x 360 (高) x 265 (深)	
	重量 (千克)	TFQL 型號 : 22.5 / TFL 型號 : 18.5	
	燃氣種類	香港煤氣	
	供氣壓力 (千帕)	1.5	
	接駁	煤氣	R 3/4
		冷水	R 3/4
		熱水	R 3/4
		循環	R 1/2 (適用於 TFQL 型號)
		電源供應	220 伏特 / 50 赫
		訊號線	DC 15 伏特 (雙芯線)
	排氣接口	Ø122 x Ø80	
	煙囪	圓形 / 百葉式	
	最長排氣管長度	7 米, 1 個彎位 (1 個彎位約等於 2 米長度)	
	最長循環喉管長度	60 米 熱水 Ø22 毫米 · 回水 Ø15 毫米	
運作系統	點火	自動電子點火	
	容量 [ $\Delta T = 25^{\circ}\text{C}$ ] · (公升/分鐘)	3 ~ 22.0	3 ~ 18.0
	水壓差 (kPa) (出水量)	100 (24公升/分鐘)	70 (20公升/分鐘)
	最大熱水流量 (公升/分鐘)	24.0	20.0
	最少熱水流量 (公升/分鐘)	2.5	
	最少運作水壓 (千帕)	10	
	溫度選擇	35°C, 37°C - 48°C, 50°C, 60°C (預熱 : 最高50°C)	
安全裝置	熄火安全裝置	火焰感應棒	
	水流量	水流感應器	
	殘火安全裝置	雙金屬開關 (120°C)	
	過大電流保護裝置	保險絲 (5A)	
	防止過高水壓保護裝置	水洩壓閥	
		TFQL 型號 : 1000kPa / TFL 型號 : 2100kPa	
	助燃風扇檢測	IC 系統	
	防止過熱保護裝置	溫度保險絲 (184°C)	
	防止過度沸騰裝置	熱敏電阻 (90°C)	
額定熱負荷	最高 兆焦耳/小時 (千瓦)	171.7 (47.7)	141.5 (39.3)
	最低 兆焦耳/小時 (千瓦)	24.2 (6.7)	24.2 (6.7)
	燃燒器種類	本生類型	
耗電量 (瓦)		TFQL : 97 TFL : 80	TFQL : 97 TFL : 75
遙控器 (最多 3 個)	TFQL 型號 (*可供選購)	RC-80BQ (*RC-80BQ, RC-80B, RC-80K)	
	TFL 型號 (*可供選購)	RC-80B (*RC-80B, RC-80K)	
配件	供水減壓閥 (適用於 TFQL 型號)	設定 : 500 kPa (供水壓力高於 600kPa)	

本產品符合香港電氣產品(安全)規例。






Important Safety Instructions .....	P. 24
Product Description .....	P. 27
Operating Instructions .....	P. 31
Maintenance .....	P. 39
Trouble Shooting .....	P. 40
Specifications .....	P. 45

## 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.

# Important Safety Instructions

In order to use this appliance safely, please follow the following instructions . Meanings of the symbols are as follows.

 <b>Danger</b>	If you ignore this warning sign and act mistakenly , it may incur death, serious injury and explosion risk.
 <b>Warning</b>	If you ignore this warning sign and mistakenly handle the appliance, it may incur death, serious injury and fire incident.
 <b>Caution</b>	If you ignore this warning sign and mistakenly handle the appliance, it may incur injury or material damage.

The above injuries and material damage refer specifically to the followings.

- Injury: injuries, burns and electric shocks etc. that require hospitalization.
- Material Damage: widespread damage to house, furnishings and pets.



General danger,  
warning or  
caution



Forbidden



Do not touch



Be sure to do




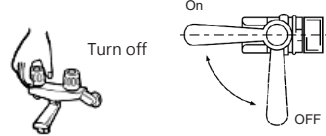

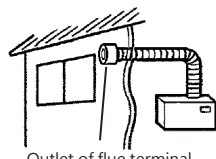

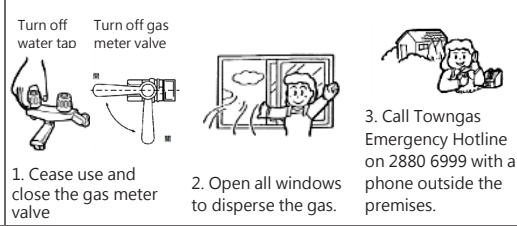


Disassembly is  
forbidden



Must be  
grounded



**Danger**

	<b>If you notice something wrong with the appliance</b> <ul style="list-style-type: none"> <li>• If you notice abnormal flames, gas smell or strange sounds, please turn off the water tap and gas meter valve immediately and contact the Towngas company.</li> <li>• In the event of earthquake or fire, cease operation immediately.</li> </ul>	 <p>1. Turn off water tap 2. Turn off gas meter valve.</p>
	<b>Do not place the outlet of flue terminal indoor</b> <ul style="list-style-type: none"> <li>• The outlet of flue terminal should be faced outdoor.</li> </ul>	 <p>Outlet of flue terminal</p>
	<b>If you notice a gas leak</b>	 <p>1. Cease use and close the gas meter valve 2. Open all windows to disperse the gas. 3. Call Towngas Emergency Hotline on 2880 6999 with a phone outside the premises.</p>
	<b>If there is a gas leak, the following actions are strictly forbidden</b> <ul style="list-style-type: none"> <li>• Ignite a fire, insert or remove power plug.</li> <li>• Turn on or off any electrical appliance .</li> <li>• Use nearby telephone or mobile phone.</li> </ul>	
	<p>When there is a gas leak, do not do any of the above actions until repair work has been completed. Do not re-open the gas valve until the gas leak is resolved.</p>	

# Important Safety Instructions

## Warning

### Care to be taken with children



- When filling hot water into the bath-tub, do not allow children to play in the bathroom to avoid the children falling into the bath-tub or causing any dangers.
- Do not allow children to bath alone.

### Self disassembling, repairing and modification of appliance are strictly forbidden



- All installation, maintenance and its related works must be performed by registered gas installers who are registered for that appropriate classes and be employed by registered gas contractors in order to avoid danger and appliance damages.

### Do not cover the outlet of the flue terminal



- Do not place the flue terminal indoor due to building modification in order to avoid the occurrence of carbon monoxide poisoning or fire.

## Caution

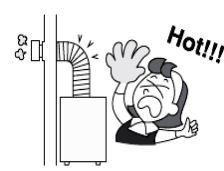
### Observe the following instructions to prevent scalding



- When you open the tap again after using hot water or quickly reduce the hot water flow, hot water may suddenly come out. As there is a risk of being scalded, do not direct the water onto your head or body.
- When shower, taking check water temperature with hand first. Do not direct the water onto your head or body.



Always check the water temperature with your hand first.



Never place your hand on or touch the flue terminal.

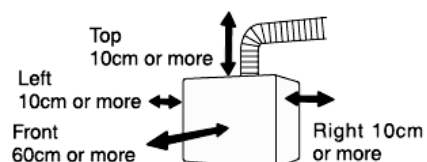


- Do not touch flue terminal or flue duct to prevent from scalding.

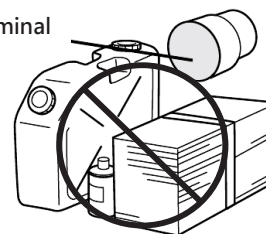
### Observe the following instructions to prevent fire



- Keep thing away from the appliance to the distance as shown in the figure.
- Do not place or use flammable materials, volatile substance or aerosol around the water heater or flue terminal.



Flue terminal



### Regarding use



- Do not use the water heater for purpose other than hot water supply in bathroom or kitchen. This is intended to prevent accidents or damage.
- Do not drink or use for cooking with water stored in the unit for a long time.
- Do not use it for commercial application lest its service life is reduced.

# Important Safety Instructions

## Caution

### Regarding installation

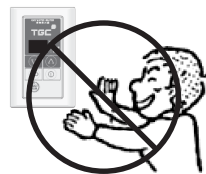


- Do not place or install it at outdoor.
- Minimize pipe length and avoid dead legs and stagnant corners in hot water pipework.
- Minimize the distance between hot water outlet and water tap.
- When installing the flue terminal, make sure that the flue gas does not discharge directly to outside walls, windows, glass, mesh doors or aluminum sashes etc. This will cause material disfiguration or discolouration.

### Regarding use of control



- Keep the control unit out of reach of children. In order to prevent accidents or appliance damage.



### Prevention of Bacteria Cultivation (e.g. Legionella)



- If water heater is not used for more than one week, drain away stagnant water of pipework before use.
- During water purging, avoid generation of water mist. Use extension pipe to connect water outlet and drain point.
- Method of water purging (Points ii and iii are applicable to models with circulation function only) :
  - i) Turn off water heater and fully open the hot water tap of most far away from water heater for 1 minute.
  - ii) Turn off the hot water tap, then set water temperature at 50°C and turn on water heater and circulation mode for 3 minutes.
  - iii) Set temperature to 40°C and turn off water heater, then fully open the hot water tap for 1 minute again
- To save energy and to prevent bacteria cultivation, do not switch on circulation mode for long period without hot water use. Switch off water heater completely when hot water is not used.

### Regarding cleaning and maintenance



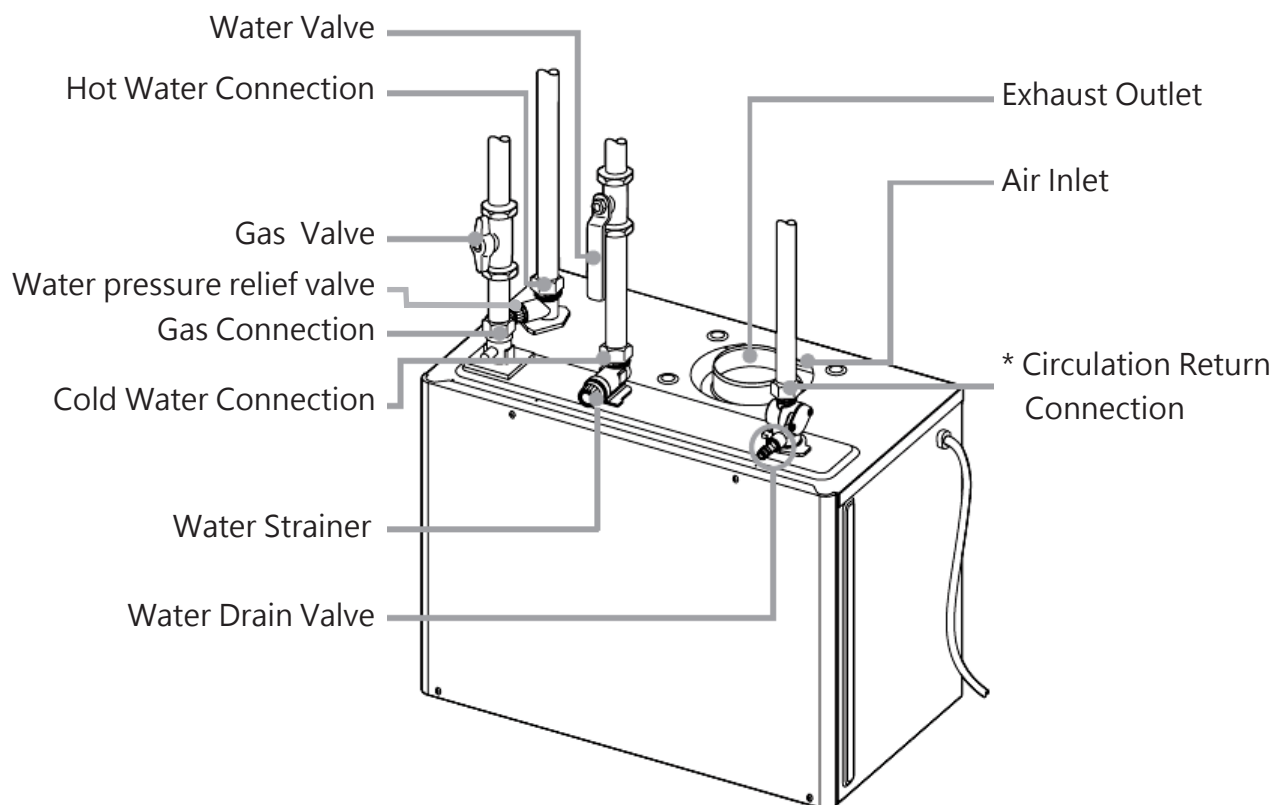
- If chlorine-based fungicides, acidic bathroom cleaners or deodorants or salt touches the appliance or gas pipe etc, wash them off with ample water straight away. They will cause unforeseen accidents or appliance damage.
- Do not use solvent or oil-based cleaners to clean the appliance. This could cause discolouration or disfiguration.

## Product Description

### Water Heater Main Unit

TN JW221TFQL / TN JW161TFQL

TN JW221TFL / TN JW161TFL ( \* without circulation return connection )



### Remote Control Unit

Bathroom  
Remote Control  
RC-80BQ



Bathroom  
Remote Control  
RC-80B



Kitchen  
Remote Control  
RC-80K



Accessory :

One RC-80BQ bathroom remote control for model TN JW221TFQL / TN JW161TFQL

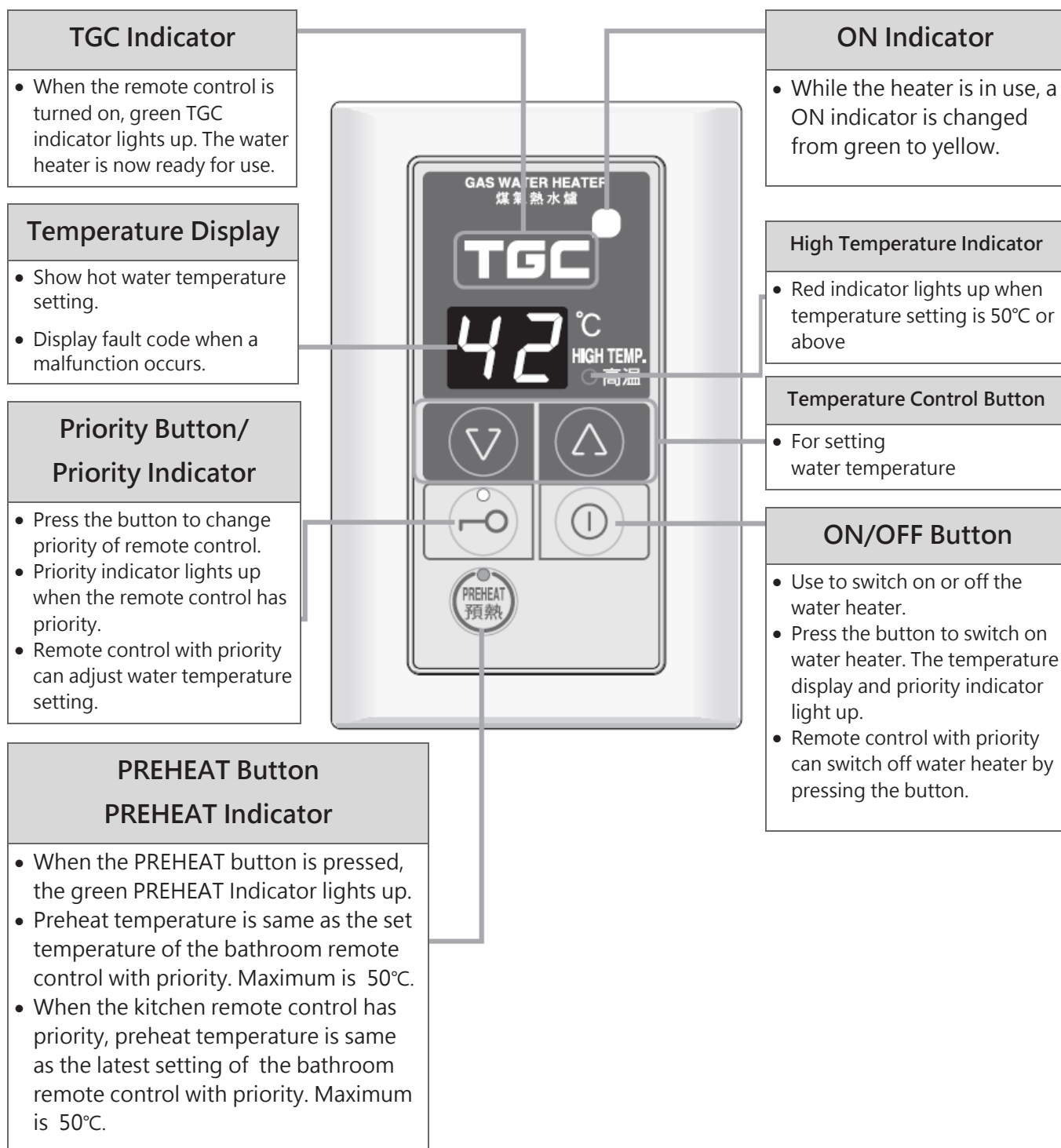
One RC-80B bathroom remote control for model TN JW221TFL / TN JW161TFL

## Product Description

One bathroom remote control is included in the package: RC-80BQ ( for TFQL series) or RC-80B ( for TFL series)

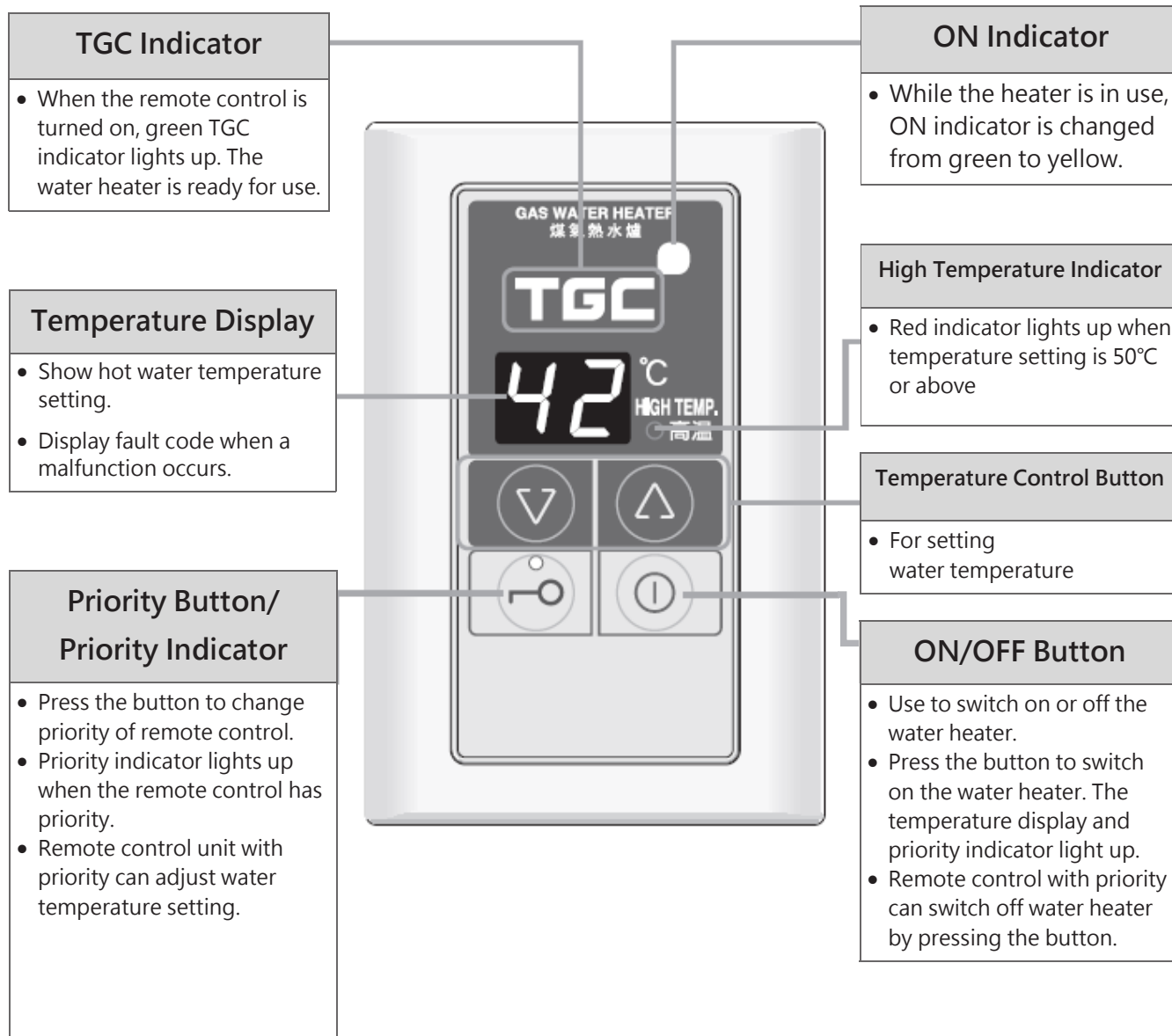
- TNJW221TFQL and TNJW161TFQL can be connected to a maximum of two bathroom remote controls ( two RC-80BQ or one RC-80BQ and one RC-80B )and one kitchen remote control RC-80K.
- TNJW221TFL and TNJW161TFL can be connected to a maximum of two RC-80B bathroom remote controls and one RC-80K kitchen remote control .
- Additional bathroom remote controls (RC-80BQ or RC-80B) and kitchen remote control (RC-80K) are optional.

### Bathroom Remote Control (RC-80BQ)



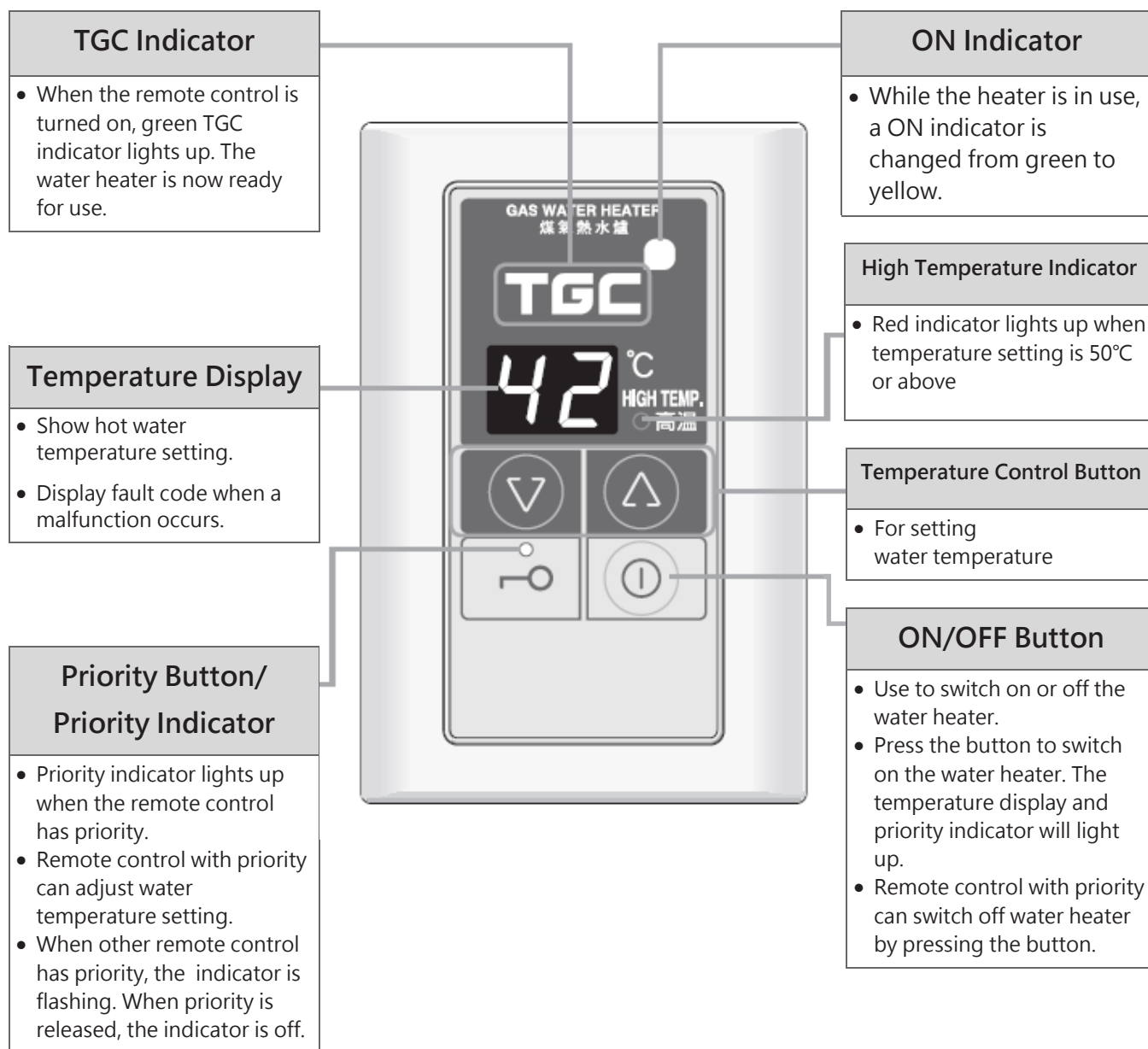
## Product Description

### Bathroom Remote Control ( RC-80B )



## Product Description

### Kitchen Remote Control ( RC-80K )

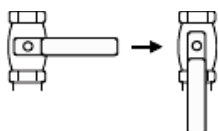




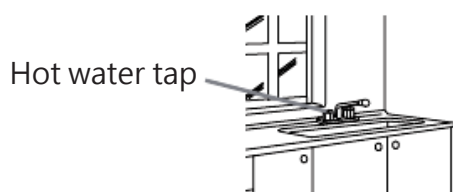
# Operating Instructions

When using for the first time, follow steps **1** to **3** to check appliance.

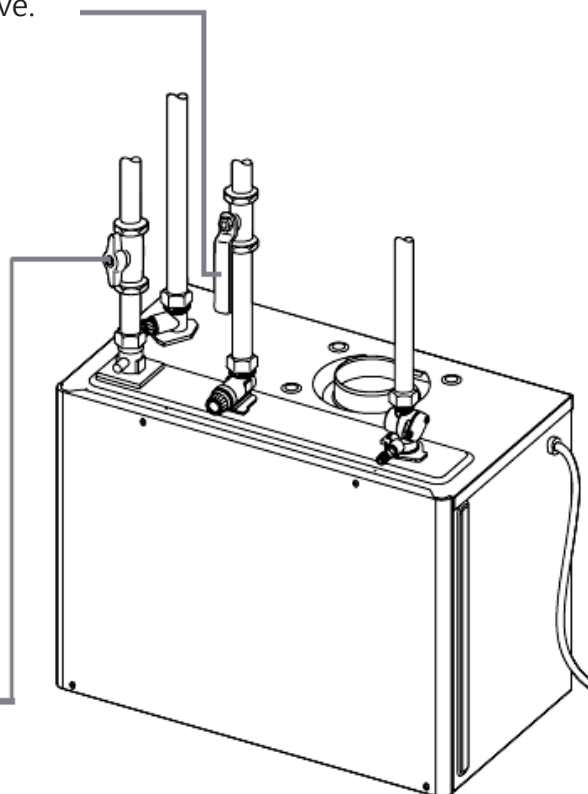
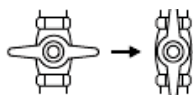
1. Fully open the cold water supply valve.



2. Open the hot water tap. Check water flow and close tap.



3. Fully open the gas valve.



# Operating Instructions

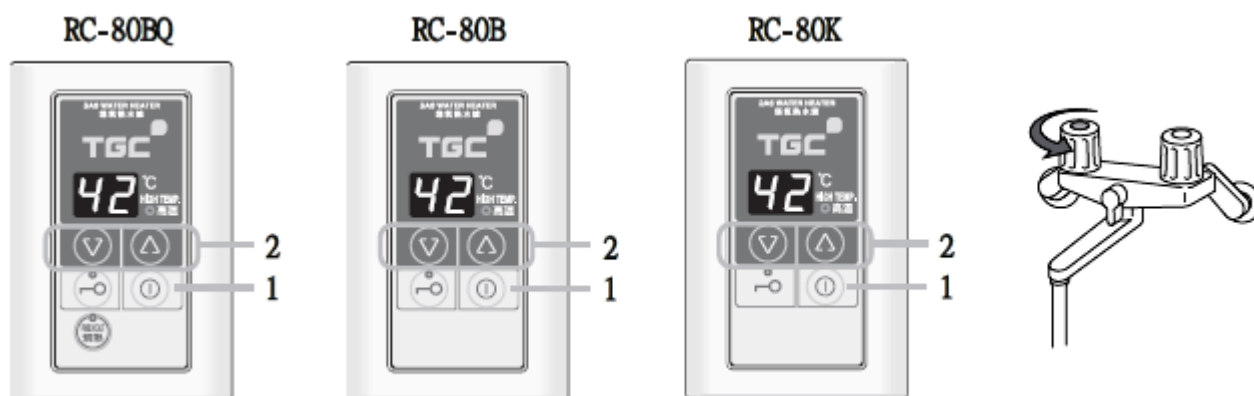
## Caution



- To prevent scalding, check water temperature with your hand before use. Do not direct water onto the head or body.
- When you turn on the tap again after using high temperature hot water, there is a risk of being scalded as high temperature water may be in the water pipe. Check water temperature with your hand before use.
- Turn off the power supply, the water inlet valve and the gas valve when the heater is not to be used for a long period of time.

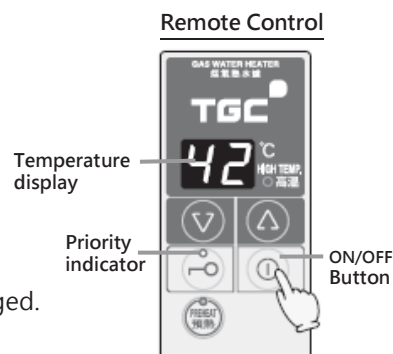
## Control of Hot Water Temperature & Changing Priority

You can operate the heater using whichever remote control.



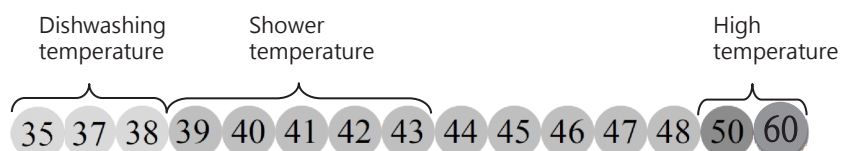
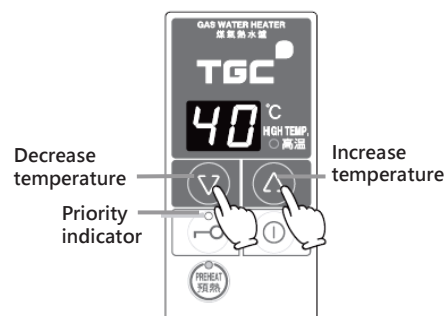
### 1) Switch on water heater

- Switch on power supply of water heater and press ON/OFF button on remote control.
- Temperature display lights up and the TGC and the ON indicators light up in green at the same time.
- The remote control used for turning on acquires priority of temperature selection, its priority indicator lights up.
- After new installation, when the ON/OFF button is first pressed, default temperature of 42°C will be displayed.
- When the indicator is flashing, the priority of remote control cannot be changed.



### 2) Select hot water temperature

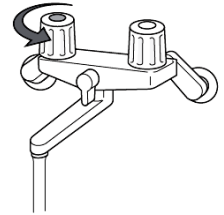
- Remote control unit with priority can adjust water temperature. Its priority indicator lights up.
- Press (V) button to increase temperature or press (Δ) button to decrease temperature.
- Selected hot water temperature is displayed on all remote controls simultaneously.
- Red indicator lights up when temperature setting is 50°C or above.
- Water temperature can be adjusted from 35°C to 60°C and is shown on the temperature display screen.



# Operating Instructions

## 3) Use of hot water

- When turn on hot water tap, water heater operates automatically, ON indicator lights up in yellow.
- When hot water flow is less than 2 L/min, the burner will be shut down.
- When water heater is operating, hot water temperature cannot be set above 48°C.
- When water heater is operating and temperature setting is 50°C or above , temperature setting can only be decreased .



### **WARNING**

#### To prevent scalding

- When taking shower, check water temperature with hand before showering on face and body.
- When setting temperature to 50°C or 60°C .
  - High Temperature Indicator is on
  - Temperature Display flashes for about 10 seconds.
- Check carefully the temperature on the display before use. Take special caution when using high temperature setting of 50°C or 60°C .

Flashing for about 10 seconds



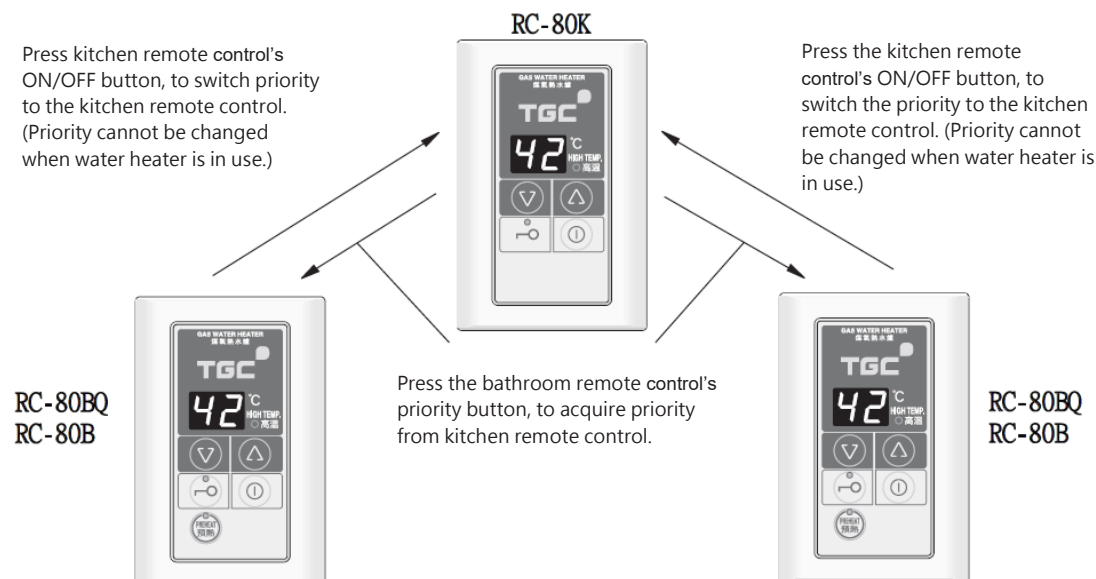
Light up



# Operating Instructions

## 4) Change of priority (for installation of multiple control units)

- When two or more (maximum three) remote controls are installed, only the remote control with priority can adjust the hot water temperature. This is to avoid scalding incident.
- When bathroom remote control has priority, its priority indicator lights up while the others flash.
- When kitchen remote control has priority, its priority indicator lights up while the others are off.
- When water heater is operating, priority cannot be changed.



- Each remote control retains the last temperature setting (maximum 48°C). When the priority is acquired, the previous temperature setting will be displayed.
- When the water heater is in standby status for more than 10 minutes, the priority will be released. All priority indicators are turned off thereafter. When hot water is used again, the water heater will provide hot water at the temperature setting of the latest remote control with priority.
- In the case of a temperature setting of 50°C or 60°C, when the priority is released, the temperature setting is changed to 48°C.

If you need to acquire the priority:

**For RC-80BQ, RC-80B**



Press the priority button.  
Priority indicator lights up.

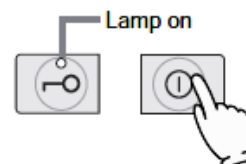
**For RC-80K**



Press the ON/OFF button.  
Priority indicator lights up.

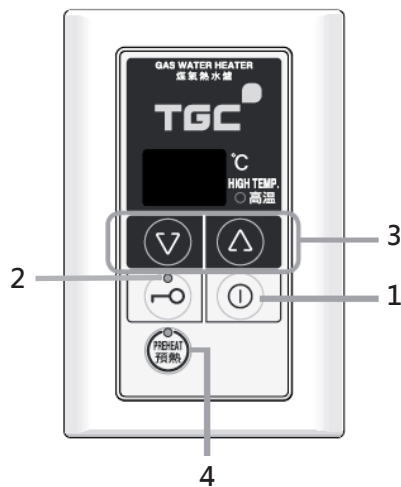
## 5) Stop operation

- Only the remote control with priority can switch off water heater.
- Press the ON/OFF button, temperature display and all indicators are off.



# Operating Instructions

## 6) Turn on pre-heat function (RC-80BQ)



### WARNING

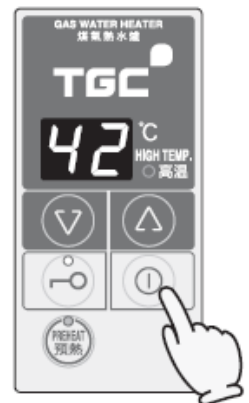
- Once the preheat function is set, the system continues operation until the button is pressed to stop it . No priority is required in the subsequent keep warm heating. The priority and temperature setting may be changed. Before using hot water, check the displayed temperature at remote control so as to avoid scalding.
- Even if the priority is switched to the kitchen remote control, the preheat function continues running at the temperature setting of the bathroom remote control which formerly had priority.

BC-80BQ cannot be connected to TNJW221TFL or TNJW161TFL

### Turn on preheat function

#### 1. Press the ON/OFF Button

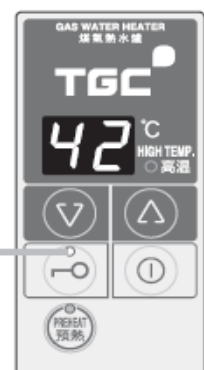
- If the temperature display is not on, press the ON/OFF button to switch on water heater, temperature display and ON indicator light up.
- The temperature display then shows previous setting. The initial temperature setting is 42°C.



#### 2. Check priority of temperature selection

- If you have set up two or more remote controls, check that the priority indicator light up.
- If water heater is not in use, press ON/OFF button or Priority button to obtain priority.
- Remote control unit with priority can set water temperature.

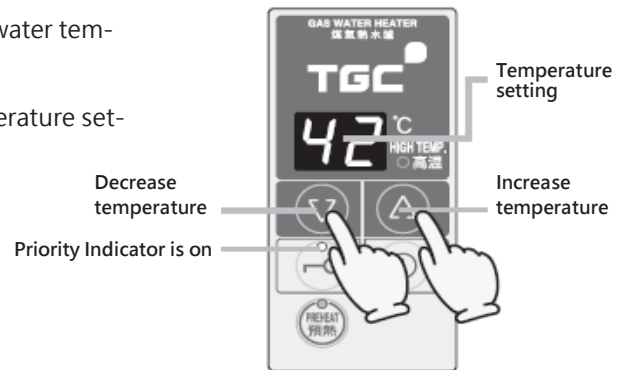
Priority Indicator



# Operating Instructions

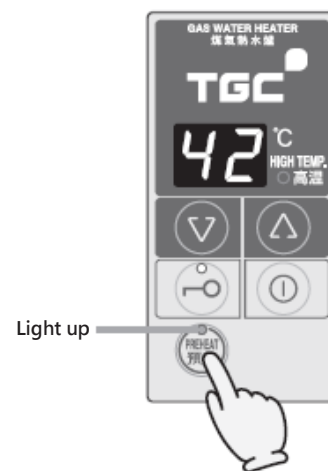
## 3. Set preheat temperature

- Water in piping is heated up and kept warm at the selected water temperature setting.
- Maximum preheat water temperature is 50°C even the temperature setting is above 50°C.



## 4. Press PREHEAT button

- When the PREHEAT indicator lights up, water heater operates automatically to heat up water to the set temperature.
- To stop preheat function, press the PREHEAT button. The PREHEAT indicator is turned off.



## WARNING

### To prevent scalding

When lowering the set temperature from high temperature (50°C) to 48°C or less during preheating. Take caution as high temperature water may be discharged momentarily and cause scalding.

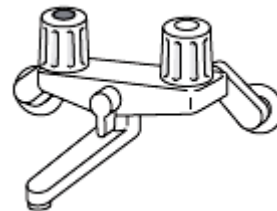
# Operating Instructions

## 7) Suspension of water supply

Please take note of the following when the water supply is suspended for TNJW221TFQL or TNJW161TFQL.

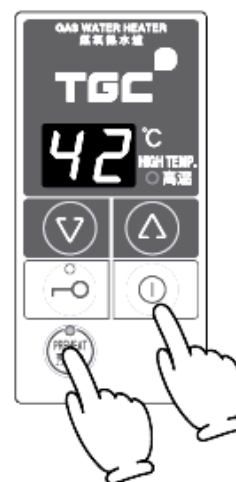
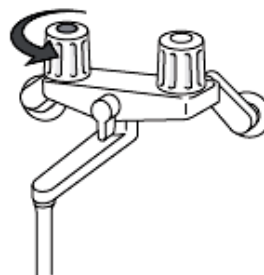
### 1. When the water supply is suspended

- Do not turn on the hot water tap because there is a possibility of air entering the water piping.



### 2. When the water supply is resumed

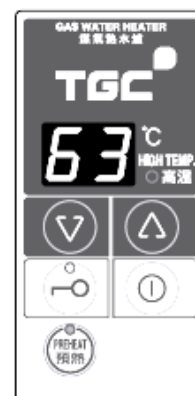
- Turn on the hot water tap furthest away from the water heater and expel all the air in water piping.
- If the air does not come out from the hot water tap, turn off the hot water tap.
- Switch on remote control, press the PREHEAT button to start preheat function.
- Stop above steps if there is no problem after running the preheat function for a while.



### 3. If "63" fault code flashes while operating preheat function

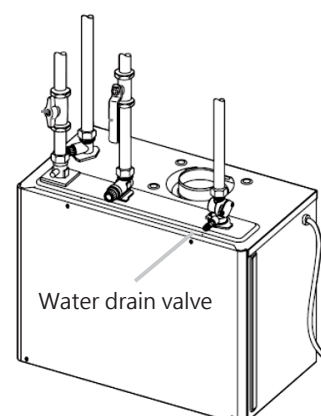
#### i) How to reset preheat function

- There is air trapped in water piping. Press the ON/OFF button twice and then the preheat button to restart preheat function.
- Repeat above steps until the "63" fault code disappear.



#### ii) How to purge air of water piping

- Turn on the hot water tap furthest away from the water heater and expel all the air in water piping.
- Loosen the water drain valve of the circulation return connection and expel air from the discharge tube. After the air is discharged, retighten the water drain valve.
- Switch on remote control, then press the PREHEAT button to start circulation and preheat function.
- Stop above steps when the fault code is relieved.



## Safety Device

- Flame failure : When there is no flame. Flame rod stops sending flame signal to the main controller for stopping gas supply to burner.
- Remaining flame safety device : If the flame remains on the burner after the water tap has been turned off and the water temperature inside heat exchanger reaches 120°C , bi-metal safety device shuts off the solenoids and stops gas supply.
- Over boiling : If the hot water temperature reaches 90°C , hot water thermistor sends signal to the main controller to stop gas supply.
- Water flow sensing device : If water flow is restricted or stopped, the water flow sensor stop sending magnetic pulse signal to the main controller for stopping gas supply.
- Over heat protection : If the heat exchanger burns out or the temperature reaches 184°C , overheat protection device is activated to shut down water heater.
- Over pressure protection device : If the water pressure inside the water heater is over 2100kPa (TFQL model: 1000kPa), the pressure relief valve located at hot water outlet opens to release the built up pressure until it reduces to 1700kPa (TFQL model: 700kPa) and then it is closed.
- Combustion fan revolution check : The fan revolution speed is continually monitored by a sensor. If the fan speed deviates from the required speed, a signal is sent to the main controller and the speed is adjusted accordingly.

## Temperature Modulation Water Heater Temperature Setting Reminder

- TNJW221TFQL/TFL water heaters are capable to deliver 22 L/min hot water, TNJW161TFQL/TFL water heaters are capable to deliver 18 L/min hot water at 25°C temperature rise. They are suitable for usual bathing purpose for all seasons. You can select the desired temperature by setting temperature on remote control and the water heater will automatically provide hot water at that temperature. However, under some exceptional situation, in addition to setting temperature on remote control, you may require to adjust the water flow to attain the desired temperature.
- In winter, there may be occasional extremely cold weather where supply water temperature is exceptionally low or required water flow is too high, the temperature of hot water may be less than the selected temperature. You may appropriately reduce the hot water flow by adjusting water faucet or shower tap to attain the suitable water temperature.
- In summer, there may be occasional extremely hot weather where supply water temperature is exceptionally high or water flow is too low, outlet water temperature may be higher than the selected temperature. You may appropriately increase the hot water flow or mixing with cold water by adjusting water faucet or shower tap to attain suitable water temperature.



# Maintenance

## Daily inspection and cleaning



Be sure to switch off the water heater when performing inspection.  
After using hot water, the water within the unit is extremely hot. Wait until the water cools sufficiently before performing inspection.  
To prevent scalding.

## Regular Inspection

CHECK

**Are there any objects around the water heater or the flue terminal such as laundry, newspaper, wood, kerosene, spray can, etc., that are combustible?**



Do not place combustibles around the water heater or the flue terminal.

CHECK

- \* **Is there any abnormality on the water heater exterior?**
- \* **Is there any abnormal sound when water heater is in use.**
- \* **Is there any water leak from the water heater and water piping?**



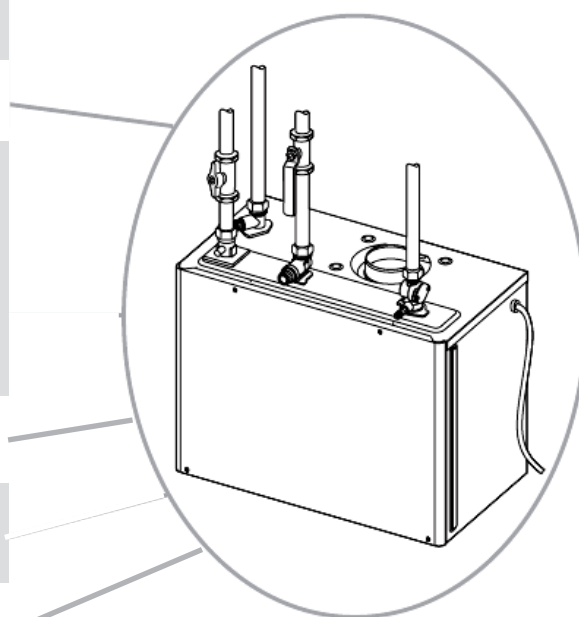
If any of the above is noticed, please contact Towngas Company.

CHECK

**Is the flue terminal loosened, cracked and clogged with dirt?**



Do not use the water heater when the flue terminal is loosened, damaged or clogged.



## Regular Cleaning

### Water Heater Main Body

For soiling on the water heater exterior, wipe with a wet cloth and dry thoroughly.

For stubborn dirt, wipe with neutral detergent.

### Remote Control

For soiling on the surface of the remote control, clean with a damp cloth.

- Do not use solvent or oil-based detergents when cleaning the remote control. Deformation may occur.
- The remote control is water resistant. However, do not apply water jet to it.

## Problems concerning temperature

No hot water is discharged when opening the hot water tap	<ul style="list-style-type: none"> <li>• Are the gas valve and water supply valve fully opened?</li> <li>• Is the water supply suspended?</li> <li>• Is the hot water supply tap fully opened ?</li> <li>• Is the water strainer clogged ?</li> <li>• Is the remote control turned on ?</li> <li>• Is power supply interrupted ?</li> </ul>
Not instant hot water supply	<p><b>TNJW221TFQL/TFL, TNJW161TFQL/TFL</b>          〈 When not preheating 〉</p> <ul style="list-style-type: none"> <li>• Due to the distance from the water heater to the hot water tap, some time is required before the water becomes hot.</li> </ul> <p><b>TNJW221TFQL, TNJW161TFQL</b>          〈 When preheating 〉</p> <ul style="list-style-type: none"> <li>• Some time is required for the water within the pipe to reach the set temperature after the Preheat button is pressed.</li> </ul>
Water temperature too hot	<ul style="list-style-type: none"> <li>• Are the gas valve and water supply valve fully opened?</li> <li>• Is the temperature setting correct?</li> <li>• When the supply water temperature is high and water flow is too low, temperature water may be too high. For stable temperature of water, increase flow by fully opening the hot water tap.</li> </ul>
Temperature water too low	<ul style="list-style-type: none"> <li>• Are the gas valve and water supply valve fully opened?</li> <li>• Is the temperature setting correct?</li> <li>• In cold weather when supply water temperature is low and water flow is too high, water temperature may not reach set value. Reduce the water flow by adjusting hot water tap to increase hot water temperature.</li> </ul>
Unstable water temperature	<ul style="list-style-type: none"> <li>• Burner is off when water flow through water heater is less than 2L/min. For stable temperature of water, adjust hot water tap to increase water flow.</li> </ul>
Cannot adjust water temperature	<ul style="list-style-type: none"> <li>• Does the Priority Indicator of the remote control light up?</li> <li>• When water heater is in use, the temperature setting cannot be changed from 35°C~48°C to a high temperature (50°C or 60°C). When the temperature is set at 50°C, the setting cannot be raised to 60°C.</li> </ul>

## Problems concerning hot water supply

Hot water flow varies	<ul style="list-style-type: none"> <li>When using hot water, the water flow decreases when hot water is used somewhere else. Depending on the water supply pressure and the piping conditions, water flow may drastically decrease or even stop. Hot water flow rate will become stable again after some time.</li> <li>There are some types of hot water taps that discharges large volumes of hot water at first but stabilizes after some time.</li> <li>In order to stabilize the temperature of hot water, the water heater controls the volume of hot water by discharging little at first and discharging fully when the temperature becomes stable.</li> </ul>
-----------------------	--

## Problems concerning the remote controls

TGC and ON indicator do not light	<ul style="list-style-type: none"> <li>Is power supply interrupted?</li> </ul>
The selected temperature setting is changed	<ul style="list-style-type: none"> <li>When water heater is at ready mode for more than 10 minutes, temperature setting is automatically switched to 48°C if the selected temperature is 50°C or 60°C.</li> </ul>

## Problems concerning sound

Sound from fan or pump is heard even when not using hot water	<ul style="list-style-type: none"> <li>The combustion fan runs for a short period after the burner is turned off. This is normal.</li> <li>Preheating is in operation.</li> </ul>
---	---

## Trouble Shooting

### Others

Burner is extinguished during use	<ul style="list-style-type: none"><li>• Are the gas valve and water supply valve fully opened?</li><li>• Is there interruption of water supply?</li><li>• Is the hot water tap opened sufficiently?</li><li>• Is gas supply interrupted?</li></ul>
During the cold season, white smoke is noticed coming from the flue terminal	<ul style="list-style-type: none"><li>• Water vapour in flue gas condenses and becomes mist. This is similar to misty breathing in winter.</li></ul>
Hot water seems cloudy	<ul style="list-style-type: none"><li>• Dissolved air in water is released as bubbles when heated. This is normal phenomenon.</li></ul>
Water is discharged momentarily from the pressure relief valve	<ul style="list-style-type: none"><li>• Water pressure relief valve is actuated to release excessive pressure of water heater. Contact Towngas Company for service if problem persists.</li></ul>

## Trouble Shooting

The safety devices check operation of the water heater continuously. If a fault occurs, a fault code flashes on the display screen of the remote controls. This assists to handle the problem. Please quote the code displayed when enquiring about service.

Fault Code	Details of Failure	Remedy
01	60 min. continuous combustion	Close the hot water tap, turn off the ON/OFF Button and turn on operation again.
10	Remaining flame detection	Contact Towngas Customer Service Hotline
11	Ignition failure	Turn off remote control, then check whether the gas valve is opened and the gas supply is not interrupted. If gas supply is normal, press ON/OFF button to switch on water heater. If there is no fault code when the hot water tap is opened and closed several times (wait for 10 seconds for each trial), the water heater is operating normally. If the fault code still persists, contact Towngas Customer Service Hotline.
12	Actuation of flame failure device	Turn off remote control, then check whether the gas valve is opened and the gas supply is not interrupted. If gas supply is normal, press ON/OFF button to switch on water heater. If there is no error display when the hot water tap is opened or closed several times (wait for 10 seconds for each interval) the water heater is operating normally. If the fault code still persists, contact Towngas Customer Service Hotline.
14	Actuation of the overheating protection	Contact Towngas Customer Service Hotline
16	Actuation of over boiling protection device	Contact Towngas Customer Service Hotline
20	Actuation of the remaining flame protection device	Contact Towngas Customer Service Hotline
31	Disconnection or short circuit of the inlet water thermister	Contact Towngas Customer Service Hotline
32	Disconnection or short circuit of the hot water thermister	Contact Towngas Customer Service Hotline
33	Disconnection or short circuit of the heat exchanger thermister	Contact Towngas Customer Service Hotline
42	Trouble with the water flow sensor of circulation (TNJW221TFQL, TNJW161TFQL only)	Contact Towngas Customer Service Hotline
61	Trouble with combustion fan motor	Contact Towngas Customer Service Hotline

## Trouble Shooting

Fault Code	Details of Failure	Remedy
63	Trouble with circulation pump (TNJW221TFQL and TNJW161TFQL only)	<p>Reset the pump operation through the following procedures :</p> <ol style="list-style-type: none"> <li>1. Press the ON/OFF button of remote control to turn off and then turn on appliance again.</li> <li>2. Press the preheat button to start the pump.</li> <li>3. Repeat the above steps until fault code "63" disappears.</li> <li>4. If the fault code disappears, stop the preheating operation.</li> </ol> <p>If the fault code persists even when performing the above procedures :</p> <ol style="list-style-type: none"> <li>1. Press the ON/OFF button to turn off appliance.</li> <li>2. Open the hot water tap furthest from the water heater and discharge all air in piping. Close the hot water tap then.</li> <li>3. Loosen the water drain valve of the circulation return pipe and discharge all air.</li> <li>4. Once air is discharged, close the trap plug.</li> <li>5. Press the ON/OFF button to turn on appliance and press the preheat button to start preheat function.</li> <li>6. If the fault code disappears, stop the preheating operation.</li> </ol> <p>If the fault code still persists, Contact Towngas Customer Service Hotline</p>
66	Trouble with the bypass water flow servo valve	Contact Towngas Customer Service Hotline
71	Trouble with a control component	Contact Towngas Customer Service Hotline
72	Trouble with a control component	Contact Towngas Customer Service Hotline
73	Trouble with a control component	Contact Towngas Customer Service Hotline
760	Trouble with a control component	Contact Towngas Customer Service Hotline
90	Trouble with the combustion system	Contact Towngas Customer Service Hotline

In general, fault code is cancelled when closing and re-opening hot water tap. If the fault code persists, turn off power supply and wait for 10 seconds. Then, turn on the water heater again. If the fault code still persists, please contact Towngas Customer Service Hotline on 2880 6988.

# Specifications

Model			TNJW221TFQL TNJW221TFL	TNJW161TFQL TNJW161TFL
Basic Specification	Installation		Free Stand/ Wall-mounted/ Ceiling Mounted	
	Water Heater Type		Fan Draught Room Sealed	
	Flue Direction		Top Flue	
	Dimensions ( mm )		480 (W ) x 360 (H) x 265 (D)	
	Weight ( kg )		TFQL model: 22.5 / TFL model : 18.5	
	Gas Type		Hong Kong Town Gas	
	Gas Supply Pressure ( kPa )		1 . 5	
	Connection	Gas	R 3/4	
		Cold Water	R 3/4	
		Hot Water	R 3/4	
		Circulation	R 1/2 ( for TFQL model )	
		Power Supply	AC220 V / 50 Hz	
		Signal Wire	DC 15V (2 Pin Cable)	
	Flue Connection		Ø122 x Ø80	
	Flue Terminal		Circular / Louver type	
Max. Flue Length		7m, 1 Bend (1 Bend Equivalent to 2m)		
Max. Length of Circulation Pipe		60m Hot water Ø22mm , Return Ø15mm		
Operation System	Ignition		Automatic Electronic Spark	
	Capacity [ Δ T=25°C ] · ( L/min )		3 ~22.0	3 ~18.0
	Water Resistance (kPa) ( Volume )		100 (24 L/min)	70 (20 L/min)
	Max. Hot Water Volume ( L/min )		24.0	20.0
	Min. Hot Water Volume ( L/min )		2.5	
	Min. Operation Water Pressure ( kPa )		10	
	Temperature Selection		35°C,37°C-48°C, 50°C, 60°C (Preheat : Maximum 50°C)	
Safety Device	Flame Failure Device		Flame Rod	
	Water Flow		Water Flow Sensor	
	Remaining Flame Protection Device		Bi-Metal Switch ( 120°C )	
	Over Electrical Current Protection Device		Fuse ( 5A )	
	Over Pressure Protection Device	Water Pressure Relief Valve		
		TFQL model : 1000kPa / TFL model : 2100kPa		
	Combustion Fan Check		IC System	
	Overheat Protection Device		Thermal Fuse ( 184°C )	
	Over Boiling Protection Device		Thermistor ( 90°C )	
Rated Heat Input	Max. MJ/h ( kW )		171.7 ( 47.7 )	141.5 ( 39.3 )
	Min. MJ/h ( kW )		24.2 ( 6.7 )	24.2 ( 6.7 )
	Burner Type		Bunsen Type	
Electrical Consumption ( W )			TFQL : 97 TFL : 80	TFQL : 97 TFL : 75
Remote Control (Max. 3 units)	TFQL Model ( *Optional )		RC-80BQ (*RC-80BQ, RC-80B, RC-80K)	
	TFL Model ( *Optional )		RC-80B (*RC-80B, RC-80K)	
Accessory	Water Pressure Reducing Valve (for TFQL model)		Setting: 500 kPa ( Water supply pressure above 600kPa)	

The appliances comply with Hong Kong Electrical Products (Safety) Regulation.



香港中華煤氣有限公司  
**The Hong Kong and China Gas Company Limited**