

Split Type,Wall-Mounted Inverter Heat Pump Room Air Conditioner 分體挂壁式冷暖變頻房間空調器

### 使用安裝説明書

### **OPERATING AND INSTALLING INSTRUCTIONS**

R410A

制品名 MSZ-WG20VA-H1 MSZ-WG25VA-H1 目 録

使用安全事項
各部件名稱
操作前的准備工作 ······
"I FEEL" (體感)自動運轉 6
選擇運轉模式時(制冷、除濕、制熱) 7
動態地面測温控制操作
動態地面測温傳感器的測温方向設定
風速・風向的調節 ······ 10
超遠送風
凉感控制運轉
定時器運轉(定時開・定時關) 13
空調機長期不使用時 13
維護
過濾網的清掃
在請維修人員之前,請再次檢查以下項目 15
當您認爲「發生故障」時 15
移機・檢查 16
安裝安全事項
安裝説明
技術規格 25

請不要將空調器電源與其它自發供電設備連接。

如果連接將可能造成空調器損壞。

♠ 由于處置錯誤將造成死亡、重傷或財産損失的可能性很大。♠ 上意 由于處置錯誤,可能造成空調機不能正常使用或造成損失。

安裝結束后,請安裝人員務必在安裝結算 聯和保修卡上按要求貼好條形碼。

#### 非常感謝您選用三菱電機房間空調器。

- 爲了確保正確安全地使用本機,在使用前,請一定先閱讀説明書。閱讀以后請妥善保存,以備必要時查閱。
- 購買機器時,須在出售店收取記載有「購買日期・店名」的有效證明。
- 顧客請不要自己安裝機器(自行安裝,將不能保證安全和功能,由此引起的安全問題本公司不予負責。自行安裝機器 的售后服務不屬于三包範圍)。

## 使用安全事項

- 使用前,一定請先詳讀此「安全事項」。
- 這裏所示的注意事項, 是一些有關安全的非常重要的内容, 一定要遵守。

#### 文中所用"圖符號"的意思如下

- ○: 絶對不可做。
- **9**: 一定請按指示做。
- ※: 禁止插進手指頭或棒條等。
- **3**:禁止踩到室内/室外機組上面或在它們上面堆放東西。
- ▲ 閱讀戶 结收费在届田老家县滁租的地方 门便桑老
- 兒童或虚弱者必須在監護人協助下才可使用本空調器。

A: 有觸電的危險請小心。

② : 一定請關閉電源。

■:一定要接地綫。

•	阅真归,	<b>间</b> 収 澱	在使用有	谷勿贸况的地力	,以便参考。

#### ⚠ 警告



禁止在電源綫的中途引綫或延長電源綫及禁止使用多孔插座。

• 可能因接觸不良、絶緣不良、超過容許電流量而會引起火灾、觸電事故。

禁止損傷電源綫或作連接加工等。

- 若在電源綫上堆放重物,以及損傷、或加熱、連接加工電源綫,便有可能損壞電綫及引起火灾或觸電事故。 不要長時間讓冷風直吹肌膚。
- 可能會損害身體健康。

不要自己安裝機器。

- 因爲若安裝不當,將可能引起火灾、觸電、機器掉落傷人或漏水。請與出售店或技術服務中心聯系。 禁止在放置或使用揮發性、腐蝕性、可燃性化學制品的環境中使用空調。
- 在室内使用揮發性、腐蝕性、可燃性化學制品(如二甲苯、香蕉水、甲醇等)期間,必須禁止使用空調。
- 室内裝修油漆未干,必須打開門窗,進行通風,等房間内各種稀釋劑氣體揮發散盡,方可使用空調。 否則會引起機器腐蝕,變形,甚至引起火灾。

禁止燃燒器具放在直接吹得到風的地方。

• 可能引起燃燒器具的不完全燃燒。

禁止用殺蟲劑・消毒劑・可燃性噴霧材料噴吹。

•可能引起火灾、變形。 安裝臺如果已陳舊不堪,不可置之不理。

• 機組有翻倒傷人的可能。

保養機組時,禁止站在不穩固的脚臺上。

• 可能跌倒受傷。



禁止在進風口、排風口或出風口插入手指或棒條等。室内機安裝高度應保證風葉葉片高于地面2.3米以上。

- 裏面有高速旋轉的風扇, 會造成人身傷害。
- 應看好兒童, 切勿讓他們玩弄空調器。

發覺异常時 (有糊味等),應立刻停止運轉,關閉電源開關。

**?** • 發覺异常而繼續運轉下去時,可能導致火灾、故障等。此時,請與出售店或技術服務中心聯系。 和燃燒器具一起使用時,應該時常换氣。

• 可能產生氧氣不足的現象。

長期不使用機器時,應關閉電源開關。

• 因堆積灰塵而有可能引起火灾和事故。

禁止踩在室内/室外機組上或在上面堆放東西。 • 可能跌下受傷或機器掉落傷人。

不可自己修理或移機。 0

- 因爲處理錯誤,可能導致火灾、觸電、機器掉落傷人或漏水等。請與出售店或最近技術服務中心聯系。
- 如果電源軟綫損壞,爲避免危險,必須由制造廠或其維修部或類似的專職人員更换。

# 使用安全事項

#### **注意**



在拆卸過濾網時,小心不要碰到室内機組的金屬部分。

• 有被刮傷的可能。

禁止在直接吹到空調機氣流的地方放置動植物。

• 可能對動植物有不良影響。

禁止給電池充電或拆卸電池,禁止投入火中。

• 可能導致電池漏液、火灾或爆炸。

禁止敞開門窗,在高濕度狀况下作長時間的運轉。

- 開冷氣時,若在高濕度(80%以上)下作長時間連續運轉,空調機可能有冷凝水滴下,浸濕污損室內家具。 禁止當其他特殊用途。
- 不能作爲保存精密機器、食品、動植物、美術品的用途。因爲有降低保存品質量的可能。



打掃時,應停止運轉,關閉電源開關。

• 運轉中,有高速旋轉的風扇可能傷人。

更换相同類型的2節新電池。

• 新舊電池混用可能導致電池發熱、漏液或爆炸。

如果電池液沾到皮膚或衣服, 請用清水仔細清洗。

• 如果電池液不慎濺入眼睛,請用清水衝洗并立刻就醫。



禁止用潮濕的手去操作開關。

• 有觸電的危險。 禁止用水洗刷空調機。

• 機器中如果進水, 會降低絶緣性能, 有發生觸電的危險。

#### 安裝機器

#### ⚠ 警告

• 安裝機器, 請與購買機器的出售店或技術服務中心聯系。

#### **注意**



禁止安裝在有可能泄露腐蝕性、可燃性氣體的地方。

萬一氣體泄露并聚集在機組周圍時,便有發生爆炸或損壞機器的危險。

室内外機組下面不得堆放其它電器産品及家具等。

• 因會有水滴滴下的情况,導致污損和設備故障。



必須接地綫。

•空調插座應連接有專門接地綫,地綫切勿接到煤氣管、自來水管、避雷針導綫、電話接地綫上。如果没有接 地綫或地綫没有連接好,可能引起觸電事故。在使用前請務必確認是否有接地綫或接地綫是否按要求連接。 必須安裝漏電斷路器。



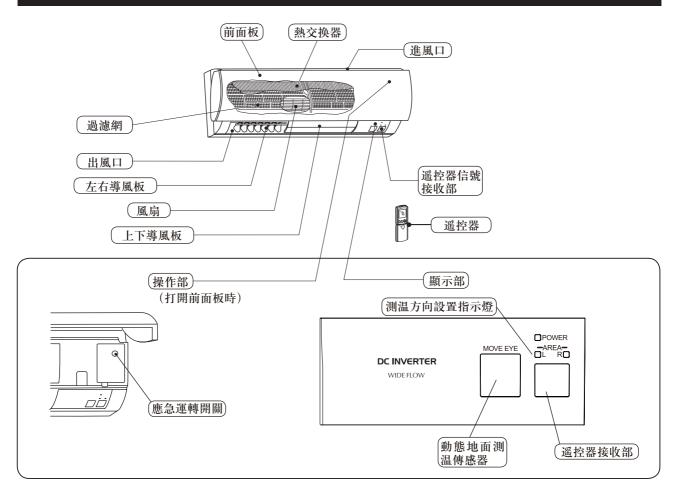
• 若不裝漏電斷路器,便可能有觸電的危險。

排水口須保證能順利排水。

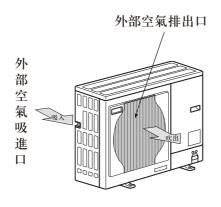
• 如果有排水不良狀况,機組將可能滴水浸濕污損家具。

# 各部件名稱

### 室内機組

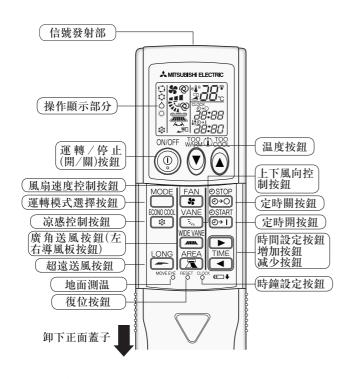


### 室外機組



# 操作前的准備工作

#### 遥控器



#### 如何安裝電池及設定當前時間

**1** 移去前蓋,裝入電池。重新裝好前蓋板。 先插入電池的負極。檢查電池的極性是否正確。

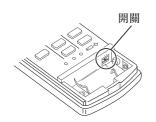


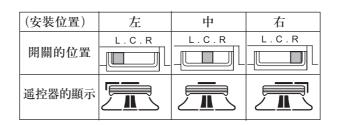
- 2 按下復位按鈕。
  - 用尖細東西按下。
  - 如果復位按鈕未按下,遥控器不能正常使用。
  - 注意按下時不要太過用力。
- **3** 按下時鐘設定按鈕。 用尖細東西按下。
- 接下 ▶ (增加)與 ◀ (减少)按鈕(時間 設定按鈕),設置當前時間。
  - 每按下一次前進按鈕I▶」,時間增加1分鐘。每按 一次 后退按鈕I▼」,時間減少1分鐘。
  - 長時間按住按鈕,設定時間會以10分鐘等級增加/減少。
- 5 再次按下時鐘設定按鈕,并合上前蓋板。

#### 重要設定

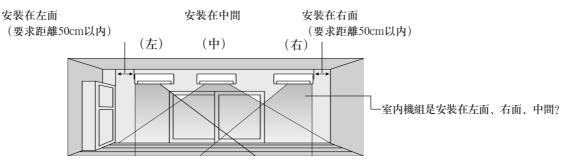
#### 動態地面測温傳感器使用前遥控器的設定

■ 在遥控器電池盒内請將滑動開關撥到適當位置(要求和室内機安裝的空間位置一致) 如果這個開關没有設定正確,那此空調器可能不能達到最佳的運行狀態。





室内機組安裝在房間的哪個位置?



注: 如果室内機組安裝在距離側面墻壁或橱櫃或其他附近對象超過50cm時,設定此開關在"中間"位置。

# 操作前的准備工作

#### 遥控器的使用方法

- 信號可到達範圍是對着室內機組正面的直綫距離6米以內。
- 按下按鈕時,室内機組將發出"哔"或"哔哔"收到信 號的聲音。如果没此響聲,請再作一次按鈕操作。
- 遥控器必須小心使用。
   如果它掉落地上,抛擲或浸了水,就可能出現不能 發信號的情况。

#### 雷池

■更换電池的標准

以下情况需要更换兩節新7號碱性電池(LR03):

- 室内機組對遥控器信號無反應時。
- 遥控器上的顯示屏變淡時。
- 請勿使用錳電池。遥控器會發生故障。
- 碱性電池壽命大約1年。但要考慮干電池底面的建議期限(年/月)。如果接近期限,則必須盡早更换電池。
- 爲防止漏液,長期不使用遥控器時請將電池取出。

#### 注意:

如果電池液沾到皮膚或衣服,請用清水仔細清洗。 如果電池液不慎濺入眼睛,請用清水衝洗并立刻就醫。

- 請勿使用充電電池。
- 2節電池須屬同種電池。
- 廢舊電池應妥善處理。

### 自動重新啓動功能

該機型具有自動重新啓動功能,但在工廠出貨時,此功能設爲關閉。如您需要使用自動重新 啓動功能,請與技術服務中心聯系。

#### - 自動重新啓動功能就是...

當使用遥控器控制室内機組時,機組自動記憶運轉模式,設定温度和風扇速度。如果運轉過程中發生斷電或關閉了主電源,當電源恢復后"自動重新啓動功能"會自動啟動機器并以斷電前用遥控器設定的模式運轉。

#### 室内機組

1 將電源開關推到開的位置。

#### ⚠ 警告:

須清除開關上的灰塵,確認接插穩固。

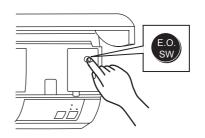
如果附着有灰塵或插座不良時,將有發生火灾,觸電的 危險。

#### 遥控器不能使用時 (應急運轉)

當遥控器的干電池電量耗盡,或遥控器發生故障時,可利用本機上的應急運轉開關控制運轉。

#### 4 按下應急運轉開關。

●每按下一次按鈕,即按照制冷→制熱→停止模式的順序變化。



• 這個操作模式的操作指示燈顯示見下列内容

	操作顯示	<b>卡燈</b>
測温	- L	R 🗌
	亮	滅
測温	L	R=
	滅	亮
測温	L 滅	R
	測温	<ul><li>測温</li><li>測温</li><li>測温</li><li>」</li><li>上</li><li>滅</li><li>測温</li></ul>

#### 注意:

這是在應急模式下的顯示内容。

#### • 運轉内容如下。

在最初的30分鐘內不受房間温度影響只連續運轉, 風速恒定。運轉30分鐘后狀態如下:

運轉模式	制冷	制熱
設定温度	24℃	24℃
風速	中	中
上下導風板	自動	自動
左右導風板	前	前

2 要停止時,請按下應急運轉開關,設定爲停止。

●每按下一次按鈕,即按照制冷→制熱→停止的順序變化。

# "I FEEL..." (體感...) 自動運轉

"□ (體感...)"自動運轉模式下,一次操作就可自動使室内環境條件達到最佳狀態。

### 開始體感自動運轉時



顯示 🗘 (自動運轉) 時,空調器自動控制爲最適當温度。

### 要停止時

請按下⑩按鈕

開始運轉后大約經過15分鐘:

#### 如果感到太熱:

按下**②**按鈕降低温度。 每按一次,大約下降1℃。

#### 如果感到太冷:

按下**○**按鈕升高温度。 每按一次,大約上升1℃。

不顯示"♀(體感...)"自動運轉時,請按──按鈕以設定自動運轉模式。

每按一次,運轉模式即按照 ۞ (自動運轉)→ ۞ (制冷)→ △ (除濕)→ ○ (制熱)的順序變化。

#### (自動運轉...)模式

#### ( 自動運轉)

根據開始運轉時的室温,運轉模式自動設定爲制冷、除濕。但在停機后2小時以內再運轉時,則將與上次運轉進行同樣內容的運轉。一旦設定好運轉內容后,室温雖有變化也不受影響。運轉內容如果不喜歡,可按下 一一按鈕,再選擇適當的運轉內容。

#### 體感自動運轉内容

開始運轉時的室温	運轉模式	目標温度(初始狀態)
大約25℃以上	制冷	大約24℃
大約25℃以下	除濕	_
大約23℃以下	制熱	大約26℃

注:

制冷: 當室温高于設定温度2℃時,設定温度不會變化,因爲空調器正在運轉到達目標(設定)温度。 此時,請等待室温降至設定温度附近2℃以内,然后改變設定温度。

制熱: 當室温低于設定温度2℃時,設定温度不會變化,因爲空調器正在運轉到達目標(設定)温度。 此時,請等待室温升至設定温度附近2℃以内,然后改變設定温度。

# 選擇運轉模式時(制冷、除濕、制熱)

#### 選擇運轉模式時(制冷、除濕或制熱模式)

- 請按下⑨按鈕。
- 按下┈按鈕選擇運轉模式。 每次按下按鈕, 運轉模式即作 $\mathbb{Q}(自動運轉) \to \mathbb{Q}(制冷) \to \mathbb{Q}(除濕) \to \mathbb{Q}(制熱)$

### 要停止時

請按下⑨按鈕。

運轉模式設定,以后只要按②按鈕,空調機即以設定模式進行運轉。

要改變設定温度時:

- 要降低温度時,請按下②按鈕。按一次,大約下降1℃。
- 要升高温度時,請按下浴按鈕。按一次,大約升高1℃。

#### 除濕運轉時

- 不能進行温度控制(温度設定)。
- 以稍低于室温的温度進行運轉。

#### 注:

- 環境温度太高時, 因爲制冷運轉負載太大的關系。室内温度可能無法達到設定的温度。
- 熱泵空調器原理:機器通過冷媒循環從室外空氣中吸收熱量并將其傳送到室内從而加熱房間内的空氣,其制 熱的能力隨室外氣温降低而下降。
- 如室外温度變得很低,請與其它取暖設備一起使用。

#### 使用空調須知

制冷如何讓制冷運轉更有效率

- ①關緊窗户,放下窗簾,减小日照量。 ②在窗玻璃上貼市售的熱綫遮蔽用薄膜,也可以减小陽光進入室内的熱量。
- ③室外機組安裝在不易受太陽直射的地方。

(制熱) 有益健康的暖和度, 其關鍵是和外界的温度差!

要進行制熱運轉時的温度設定,應和外界温度不要相差太大。雖然隨地區而有不同,但是,一般可把 設定温度定在20℃~24℃

(除濕) 70%是人們感覺舒適的濕度分歧點。 人覺得悶熱時,是因爲空氣中的水蒸汽含量多,即濕度高的關系。濕度與温度、風都有關系。一般認 爲人感到最舒適的濕度條件是夏季60%~75%,冬季55%~70%。

# 動態地面測温控制操作...智能化的温度控制方式

- ◆本空調器對温度的調節控制("智能化的温度控制")是除了檢測房間温度以外還同時檢測地面/墻面的輻射温度 從而使得空調器進行綜合調節控制的過程("動態地面測温控制操作")。
- 取消動態地面測温控制操作后以往的房間温度控制方式代替智能化的温度控制。

#### 開始動態地面測温控制時

在毛動於良的構式下 田小畑東西按下

在手動冷房的模式下,用尖細東西按下遥控器上地面測温按鈕。

#### 注意:

這個動態地面測温控制操作模式是有記憶的(即使交换電池或按下復位按鈕),當遥控器初次使用時要進行設定,再使用時根據前次設定方式進行運轉。

#### 解除動態地面測温控制時

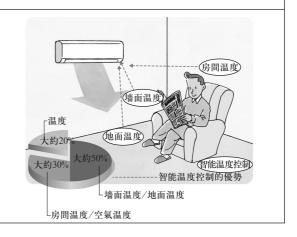
再一次用尖細東西按下遥控器上地面測温鈕。

**注意**:如果此空調器是關機狀態則不能取消動態地面測温操控制操作,必須在運行狀態下進行解除該模式的操作。

#### 動態地面測温控制操作

本傳感器經常測温地面/墻面的輻射温度,通過估計温度(實際上是對房間內部人體的感知)自動地調整設定温度。("智能化的温度控制")優勢

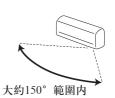
- 房間内很快形成舒適的環境。
- ●當空調器保持長時間運轉時,房間内將不會感 覺太冷或太熱。



#### 動態地面測温傳感器

當測温方向設定記憶取消時、根據空調器安裝位置的不同方位動態地面測温傳感器檢測範圍也不同。

安裝位置	安裝在左面	安裝在中間	安裝在右面
檢測範圍圖示			
傳感器檢測方向	右面	中間	左面



請查閱第4頁説明(遥控器電池盒内滑動開關設定)

- 這個測温方向設定是有記憶的(前次設定狀態),這個全方位測温傳感器在150°的範圍内(三種安裝空間之一, 左面/中間/右面)檢測地面/墻面的輻射温度,因此,檢測到的温度可能會不同,由于標准温度(接近于市售温 度計所測值)是依靠接近房間或接近地面/或墻面的温度來分類。
- ●保養或維修之后請正確安裝前框組件,這樣才能正確地檢測地面/墻面輻射温度。

# 動態地面測温傳感器的測温方向設定

在測温方向設定時,水平空氣流動的方向(左右導風板)將根據傳感器檢測到地面/墻面的輻射温度來自動調節。

#### 開始測温方向設定時

- ●按下"測温方向"按鈕。
- 連續按該按鈕,顯示是按下列順序變化。

自動贏→左面₂→右面₂→取消(恢復設定前的設置)

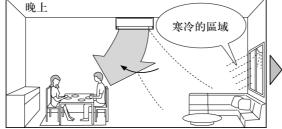
這個動態地面測温傳感器間歇地轉動來檢測地面和墻面的輻射温度。

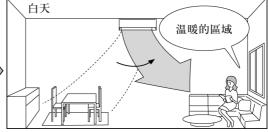
#### 注音.

- 測温方向設定只有在動態地面測温控制操作時才有作用。(查閱第8頁)
- 如果這個測温方向設定被取消,左右導風板將返回測温方向設定前的設置。
- ●水平空氣流動方向(左右導風板),在測温方向設定使用時將不能手動設置。
  - 如果測温方向設置是設定在制熱操作時,當室內地板和墻面的輻射温度較低時室內機組會自動的在該區域 內輸送温暖的風。
  - 如果測温方向設置是設定在制冷操作時,當室內地板和墻面的輻射温度較高時室內機組會自動的在該區域 內輸送凉爽的風。

例: 在制熱操作時

左右風向的移動





室内機組在房間内檢測到寒冷的區域時會輸送温暖的風。

室内機組顯

示

測温方向設定顯示



注意

- 如果這個動態地面測温傳感器檢測到大約有3℃温度差异時那水平 空氣的流動方向(左右導風板)將改變。
- ●測温方向設定在自動檔時,當房間温度是較均匀時左/右兩個顯示 燈都點亮。



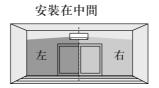
#### 測温方向設定的解除

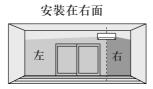
■ 按下測温方向按鈕(選擇取消)

• 在測温方向設置期間當左右風向按鈕按下時,測温方向設置將解除。

### 室内機組安裝的位置和空氣調節的空間







●確認遥控器内滑動開關的設定位置一定要與室内機組安裝的位置一致。 如果這個開關設定不正確,那么將影響空調器的使用功效。(查閱第4頁)

# 動態地面測温傳感器的測温方向設定

測温方向設置		優先對房間内左側 空氣調節。	對整個房間空氣調節。	優先對房間内右側 空氣調節。
遥控器按鈕		按下測温方向按鈕 (選擇左側)	按下測温方向按鈕 (選擇自動)	按下測温方向按鈕 (選擇右側)
左右風向	安裝在中間			
的控制範 圍(上下風 向的位置 不變)	安裝在左面			
	安裝在右面			
室内機顯示	測温方向	測温 二二二	測温 祟️に R□或 祟祟に R:祟∷或 □∟ R:祟; 亮 滅 亮 亮 滅 亮	測温 L R =

# 風速・風向的調節

F. 经经历第一种 计数字

要改變風速時,請按下:按對安鈕。

每次按下按鈕,即按照 ■ (弱) → ■■ (中) → ■■ (强) → ② (自動) 的順序改變風速。

#### 風速的選擇方法:

本空調原理:風量越大,節能效果越好,噪音也越高,制冷時出風温度升高,制熱時出風温度下降。因此,選擇(弱)檔可獲得一個安静的休息環境,選擇(强)或(超强)檔可得到好的節能效果。

要改變上下的風向時,請按下<u>國</u>按鈕。

每次按下按鈕,即按照 $\blacksquare$  (1)  $\rightarrow$   $\blacksquare$  (2)  $\rightarrow$   $\blacksquare$  (3)  $\rightarrow$   $\blacksquare$  (4)  $\rightarrow$   $\blacksquare$  (5)  $\rightarrow$   $\blacksquare$  (擺動)  $\rightarrow$   $\blacksquare$  (自動) 的順序改變上下風向。

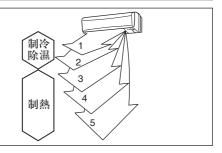
擺動送風

擺動運轉可使氣流到達整個房間。

上下風向的推薦範圍

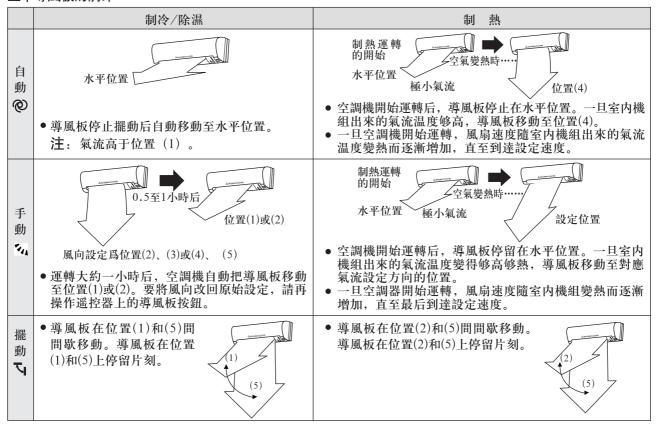
平常請用((自動)。

制冷或除濕請用 ▼ (2) 位置。制熱時請用位置 ◄ (3)至 ▲ (5)。



## 風速・風向的調節

#### 上下導風板的調節



#### 注:

- 請用遥控器調節風向。用手移動上下和左右導風板可能造成故障。
- 運轉模式改變至 "♀(自動)"模式時,上下導風板自動改變至各模式中的位置。

要改變左右風向,請按下海域接鈕。

每次按下按鈕,左右導風板角度按照以下順序變化:

擺動送風

使用擺動送風可使風到達房間每個角落。

## 超遠送風

#### 要選擇超遠送風時

運轉中, 請進行如下操作

LONG

按下一按鈕。

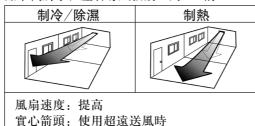
風扇速度提高

風扇速度設置爲自動時, 風扇速度高于室温與 設定温度所决定的速度。

此外,上下導風板轉向長距離位置。

超遠送風運轉機制

如下例所示,左右導風板設置爲 湿 前



• 要取消時

請再按一次 按鈕。

虚點箭頭:未使用超遠送風時

#### 注意

- 按以下按鈕也會取消超遠送風方式。
- VANE 按<u></u> 按鈕。
- 即使使用超遠送風時,因空調安裝位置不當,氣流 也可能達不到超遠。

此時,按一按鈕將風扇速度設置爲高速檔,然 LONG 后按[一]按鈕。

温度按鈕與開/關定時器可繼續使用。

# 凉感控制運轉

要享受健康舒適、省電的制冷運轉時,請使用此模式。

在手動制冷模式運轉中,請進行以下操作。

按下途按鈕。

選擇以 (凉感)控制模式運轉的空調機,將根據室内機出風口温度控制上下導風板作周期性地自動擺動。 另外,設定温度也從制冷運轉時自動升高2℃。

#### 要解除凉感控制運轉

請再按一次發按鈕。

- 在凉感控制運轉中,按下一按鈕或改變運轉模式,凉感控制解除。
- \$ 按鈕、②或▲按鈕及定時開/關按鈕可繼續使用。

什么叫"凉感控制"? -

擺動氣流(氣流變化)比恒定氣流更爲凉爽。因此即使設定温度自動設定爲高2℃,也能得到舒適感。從而節省了電力。

# 定時器運轉(定時開・定時關)

可預設在就寢后或您回家時或起床時開/關空調器。

#### 如何設置定時開

- **1** 按下 ◎→I 按鈕。 按定時開按鈕 " ◎→I " 圖形閃爍。
- **2** 使用時間按鈕 ▶ (增加)和 ◀ (减少)設定定時器時間。

每按一下▶按鈕,設定時間增加10分鐘,每次按一下▶按鈕,設定時間减少10分鐘。

### 解除定時開

請按下◎→□按鈕。

### 定時開 • 定時關結合使用時

定時開和定時關結合使用。先到的設定時間先運轉。 ("↑↓"標記指示定時器的運轉順序)

• 如果未設定當前時間, 定時器運轉不能使用。

#### 注:

如果定時器運轉時主電源關閉或發生電源故障,定時器設定取消。

# 空調機長期不使用時

#### 長期不使用時

- 實施風扇運轉3~4小時,讓空調機内完全干燥。
  - ●要進行風扇運轉時,請設定爲制冷運行模式并選 擇最高設定温度。
- 2 關掉電源開關。

#### ⚠ 警告

空調機長期不使用時關掉電源開關。 因爲可能堆積灰塵而引起火灾。

3 取出遥控器中的電池。

#### ⚠ 注意

爲防止漏液, 遥控器長期不使用時取出所有電池。

### 如何設置定時關

- **1** 按下◎→○按鈕。 按定時關按鈕 "◎→○" 圖形閃爍。
- **2** 使用時間按鈕 ► (增加)和 ◀ (减少)設定定時器時間。

每按一下▶按鈕,設定時間增加10分鐘,每次按一下▶按鈕,設定時間减少10分鐘。

### 解除定時關

按下◎→○按鈕。

### 要再開始使用時

- 1 清掃過濾網并裝回本機。 (清掃的方法,請參見第15頁)
- 室内及室外機組進風口、排風口須確認是否被遮蔽了。
- 3 確認了接地綫是否牢固。

### ⚠ 警告

要接地綫。

地綫不可接在煤氣管、自來水管、避雷針、電話綫上 面。若不按要求接地綫,可能有觸電危險。

### 維護

#### 清掃之前

關閉電源開關。



### ⚠ 警告

清掃時,必須停止運轉,關掉電源開關。因爲運轉中,高 速旋轉中的風葉可能造成人身傷害。

#### 室内機的清掃

#### 用柔軟的干布清潔

- ●如有明顯污漬,用布蘸中性清潔劑的水溶液擦拭機組,并用柔軟的干布擦干水分。
- ■嚴禁使用汽油、揮發油、磨擦粉、或消毒劑。否則會損壞機組。
- ■嚴禁使用市場上銷售的注明不可用于清洗金屬制品的清洗液擦洗室内機面板。

# 過濾網的清掃

### 過濾網的清掃 (以兩個星期一次爲標准)

1 輕輕拉出過濾網



#### ⚠ 注意

拆卸過濾網時,請注意別碰到室内機組的金屬部分,因 爲有被刮傷的可能。

- 2 可用吸塵器清掃或用水洗滌干净。
  - 禁止用刷子或硬面海綿清掃。 否則過濾網會變形。
  - 如果過濾網太髒,可用加入 中性洗滌劑的温水洗滌溶液 洗刷。
  - 禁止用熱水(大約50℃以上) 清洗,以免變形。

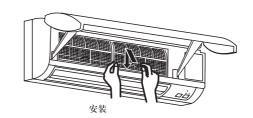




3 用水洗滌過后,陰干后才能使用。 ●禁止用陽光干燥或用火烘干。



### 4 安裝過濾網



# 在請維修人員之前,請再次檢查以下項目

是否出了故障?	檢查點
空調機無法運轉。	•電源開關是否打開? •保險絲是否燒斷? •是否設定了定時開?(第14頁)
上下導風板不動作。	•上下導風板和左右導風板是否正確安裝于室内機組? (第19頁) •風扇防護網是否變形?
室内無法充分制冷。	•温度設定是否正確?(第7頁) •過濾網是否干净?(第15頁) •室内機組風扇是否干净?(第19頁) •室内或室外機組的進風口或出風口是否被遮蔽? •門窗是否打開?

是否出了故障?	檢查點
室内機組發出臭味。	•過濾網是否干净? (第15頁) •室内機組風扇是否干净? (第19頁)
遥控器顯示屏不顯 示或變暗。室内機 組對遥控器信號無 反應。	•電池電量是否用完?(第5頁) •電池極性是否裝反?(第5頁) •是否按下了其他電器遥控器上的 按鈕?

檢查上述項目后空調機仍無法恢復運轉,請停止使用并 與機器的出售店或技術服務中心進行聯系。

- 在要求維修之前,請注意下列情况。 在使用電子式熒光燈的房間裏,有可能不能接受遥控
- 在無錢電電波弱的地方,空調機可能干擾廣播或電視接收。受影響設備可能需要放大器。● 打雷時,請停止運轉并拔下電源插頭或關掉電源開關器。否則,可能有損傷空調電氣部件的危險。

#### 當您認爲「發生故障」 時

是否出了故障?	答案(不是异常)
重新開機3分鐘内空調機仍無法運轉。	•根據微型電腦的指示以保護空調 機。請等待。
聽到"噼啪"聲。	•由于温度變化,前面板的膨脹/收縮産生聲音。
室内機組出來的空氣有臭味。	•空調機可能吸入了墻壁、地毯、 家具、衣服等的异味,再混合空 氣吹出。
聽到水流聲。	•這是空調機内制冷劑流動發出的聲音。 •這是熱交换器内凝露水滴流動發出的聲音。 •這是熱交换器内凝露水滴流動發
聽到類似氣泡的聲音。	•這是開啓吸油烟機或通風扇時,從排水軟管吸入外部空氣,使排水軟管內水流噴出而發出的聲音。如果外部風力很强,外部空氣吹入排水軟管,也會聽到這種聲音。
運轉中室内機出風口吹出霧氣。	<ul><li>空氣中的水份遇到從室内機出風口裏吹出的冷風而迅速凝結成霧氣所至。</li></ul>
可從室内機組聽到 "咯嗒咯嗒"聲音。	<ul><li>・這是風扇或壓縮機開關正在切换 (接通/斷開)的聲音。</li></ul>
室内機發出"布嘘!"聲。	•這是空調機啓動或停止冷媒流動 的聲音。

是否出了故障?	答案(不是异常)
左右和上下導風板暫停 擺動送風又重新開動。	•這是爲了正常執行左右和上下導 風板的擺動送風。
室外機組放出白烟。	•制熱運轉中,解凍操作産生的蒸 氣看似白烟。
剛開始制熱運轉時, 不會馬上就吹風。	●正在准備能吹出足够温暖的風。 就這樣請等候。
制熱運轉中停止運轉大約10分鐘。	•正在溶化室外機組上的結霜,(除 霜運轉)最長10分鐘就完了,就這 樣請等候,(户外氣温低而濕度又 高時,便會結霜。)
房間不能充分制冷或制熱。	<ul><li>排風扇或液化竈具使用時,制冷負荷加重,導致制冷效果不足。</li><li>室外氣温太高或太低時,制冷或制暖效果不足。</li></ul>
運轉中自行改變 風向。遥控器無 法調節上下導風板 方向。	<ul> <li>當空調機在制冷模式中運轉時,如果空氣向下吹持續1小時,風向自動設定爲位置(1)或(2),這是爲了防止凝露水滴滴下。</li> <li>制熱運轉中,如果吹出空氣的温度較低,或是在除霜運轉時。將自動地設定水平方向吹出。</li> </ul>
室外機組有漏水現象。	<ul><li>制冷運轉中,管道或管道接頭部分將因冷却而引起水份冷凝。</li><li>這是因爲在制熱運轉時或除霜運轉時,會流出溶化的水或水蒸氣的緣故。</li><li>因爲制熱運轉中會滴下附着在熱交换器上的水滴。</li></ul>

## 移機・檢查

#### 檢查維修

- 空調機用過幾年之后因内部骯 髒。性能將減低。
- 因使用狀况而可能發生臭味,或 因堆積塵垢而造成冷凝水的排水 不良。
- 與普通的檢查維修不同.最好請 專門技術人員爲您服務。請與本 空調機的出售店或技術服務中心 聯系。

#### 運轉噪聲問題也須考慮

- 室外機組的排風口附近不可堆置 東西。因爲將會减低機器效能也 可能增大運轉噪聲。
- 運轉作用中,如果發生异常聲, 即請與本空調機的出售店或技術 服務中心聯系。

#### 要移機時

■ 因增改建房間,遷居而須拆卸下 空調機及再安裝時,必須找專門 技術人員爲您服務。

#### ҈警告

用户請不要自己修理或移設空 調機。

如果處理不當,便有發生火灾、 觸電、機組掉落傷人、漏水等危 險。如制冷劑中有空氣等物質混 入,會導致壓力升高,發生破裂 等。因此請于本空調機的出售店 或技術中心聯系。

# 安裝安全事項

1. 爲確保安全,請注意下列各項

#### ♠ 警告

#### 用户不可自行安裝。

如果安裝不妥,可能引起火灾、觸電、零件掉下傷人或漏水等。 請與銷售店或技術服務中心聯系。

#### 機器必須安裝在能承受相當重量的地方。

• 如果安裝在强度不够的地方,將有機組掉下傷人的危險。

室内外機組之間的配綫,須使用規定的電綫連接妥當,并使接綫端子不直接受到外力的影響確實固定好。

•連接或固定不好,可能引起火灾事故。

#### 安裝工作必須根據安裝説明書准確地實施。

如果安裝得不妥,可能引起火灾、觸電、零件掉下 傷人或漏水事故。

#### 安裝或維修機組時,爲了安全使用合適的保護裝 置和工具。

• 否則可能引起受傷。

#### 安裝施工中如發生制冷劑泄漏,請進行换氣。

•制冷劑與明火接觸會產生有毒氣體。

#### ⚠ 警告

#### 安裝或移機時制冷劑回路中不能混入除制冷劑以 外的其他物質。

如果空氣等物質混入會導致系統壓力升高、發生破裂等。

#### 安裝或移機時切勿封入指定以外的制冷劑。

•若封入指定以外的制冷劑,可能成爲運轉不暢、誤動作、機械故障等問題的起因,有時甚至有發生重大安全問題的可能性。

#### 回收制冷劑時, 在拆下連接管前先關閉壓縮機。

如果當壓縮機運轉并截止閥開啓時,拆下連接管會有空氣混入,會造成系統壓力异常升高,造成管子 爆裂或引起傷害。

#### 裝機時,在啓動壓縮機前確保管子安全的連接。

如果在管子連接完成前,并在截止閥開啓時運行壓縮機,會有空氣混入,會造成系統壓力异常升高,造成管子爆裂或引起傷害。

### 電氣施工應按照安裝説明書實施,請一定要使用專用電路電源。

 電源電路如果容量不够或施工不完全、可能發生火 灾或有觸電的危險。

# 安裝安全事項

#### 警告

# 室内機組的電氣蓋和室外機組的維修板須確實安裝好。

•室内機組電氣蓋和室外機組的維修板如果不裝好, 則可能因爲灰塵、水份進入而造成火灾或觸電危險。

#### 安裝施工用部件,必須使用附帶的和規定的部件。

•采用部件不當,可能引起火灾、觸電、或機組掉下 傷人、漏水等事故。

#### 電源綫路的中途引綫,使用延長電源綫,或使用多 孔插座綫等都不可采用。

•接觸不良, 絶緣不良, 或超載等都可能引起觸電事故。

#### 「須做接地施工。

- •空調插座應連有專門接地綫,如果没有接地綫或地
- 緩没有連接好,可能引起觸電事故。 •地綫切勿接到煤氣管、自來水管、避雷針導綫,電 話接地綫上。

#### 禁止安裝在有可燃性氣體泄漏的地方。

•萬一可燃性氣體泄漏而聚集在機組周圍,可能引起 爆炸事故。

#### 「應裝有漏電保護器。

•如不裝上漏電保護器,可能引起觸電事故。

#### 「請一定按照安裝説明書進行排水和配管施工」

•排水和配管施工如果有不妥當的地方或室内機組傾斜 將可能産生機組滴水弄濕、污損家具物品等情况。

#### 連接導綫的中途引綫是一定不可采用的。

•一定會產生機組誤動作,造成機組無法正常運行。

#### 「請遵照國家的接綫規則安裝本機組。

〔安裝施工完畢后,須確認是否有泄漏制冷劑氣體的地方。

如果電源軟綫損壞,必須使用專用軟綫或從制造 廠或維修部門買到的專用組件來更换。

(此外,如果還有不明白的地方,即請找機器的出售店聯系。

#### 2.R410A制冷系統注意事項

#### 2-1 適用R410A制冷劑的空調器

### ⚠ 警告

- 使用C1220銅磷料(用于銅和銅合金制成的無縫管)連 接制冷劑管。確保管内壁清潔,不含有硫化物、氧 化劑、碎屑或灰塵等任何有害的臟物。務必使用指 定厚度的管道。
- 使用脂油、乙醚油、烷基苯油(少量)作爲制冷劑 油,塗在喇叭口的部分。如果把礦物油混入制冷劑 油中,油質可能變差。
- 切勿使用R410A以外的制冷劑。如果使用其它制冷 劑, 氯會使油變質。
- 使用以下專門爲R410A制冷劑設計的工具。使用 R410A制冷劑時必須使用以下工具。請咨詢就近的 經銷商。

工具(用于R410A)		
壓力表	擴口工具	
加液軟管	尺寸測量器	
檢漏儀	真空泵轉接頭	
扭矩扳手	電子秤	

- 務必使用正確的工具。如果灰塵、碎屑或水氣進入 制冷劑管,制冷劑油的油質可能變差。
- 切勿使用簡易加液鋼瓶。如果使用簡易加液鋼瓶添加 制冷劑,制冷劑的成分會改變,引起效率降低。

#### 2-2 使用R410A制冷劑設備的注意事項

#### ⚠ 警告

• 安裝或移動空調器時, 務必使用指定的制冷劑 (R410A)充注制冷劑管。切勿與其他制冷劑混合, 管内也不要殘留空氣。殘留在管内的空氣在壓力增 大時,會使管道爆裂,并引起其他危險。

MSZ-WG20/25VA-H1				
液體管	Φ9.52厚0.8毫米			
氣體管	Φ15.88厚1.0毫米			

• 切勿使用管壁比上述指定厚度薄的管道。 真空泵切勿與R22制冷劑系統共用。

# 安裝安全事項

#### 3. 選擇安裝位置

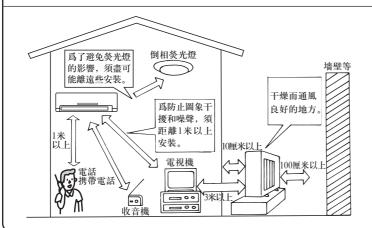
#### 3-1 室内機組

- 選擇在進出氣流不被擋住的地方。
- •選擇吹出冷氣可以到達房間各地方。
- •室内機組與室外機組最大距離及最大高度差:參考"極限管道長度"。
- 不至于發生振動的堅固墻壁上。
- 避免陽光直射的地方。
- •容易排水的地方。
- ●距離電視機、收音機1m、電視天綫3m以上的地方(否則可能干擾電視影像或產生噪聲)。
- ●盡可能遠離日光燈、白熾燈處(否則可能使無綫遥控不能正常地操作)。
- 可自由、方便地進行裝、卸空氣過濾網的地方。

#### 3-2 室外機組

- ●選擇受大風和大雪影響小的地方,如在嚴重降雪的區域内安裝,請必須進行防雪處理(建議安裝遮蓋篷和/或底座機架)。
- •選擇通風良好,灰塵少的地方。
- •不容易雨淋或陽光直曬的地方。
- 不要使運行噪音或吹出熱風有妨礙鄰居的地方。
- 爲了不使運行噪音或振動增大,應牢靠地安裝在牢固的機架上。
- 應避開有易燃氣體泄漏危險的地方。
- ●當機組安裝在高處時,務必固定機脚。
- 務必水平安裝。
- 便于保養維修。

電視機或收音機等無綫接受設備需距離室外機3m以上,如這樣還有明顯信號干擾時,可再加長相互間距離,以提高接受質量。



#### 注意

請不要在下述容易發生故障的地方安裝空調器。

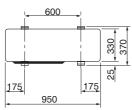
- 機油等使用較多的地方。
- 海邊等鹽份較多的地方。
- 温泉地帶。有硫化氣體的地方。
- 其他環境大氣有問題的地方。
- 避免安裝在有揮發性、腐蝕性、可燃性化學品的地方。
- 吊車、船舶等移動的地方。

#### 1.安裝簡圖及附件

(装箱單)(在安裝之前,請客户根據裝箱單内容核對零件數量)

	零部件名稱			零部件名稱		數量	
安装	き代號		數量	安排	支代號		
		室内機	1			室外機	1
	0	安裝板	1		<b>A</b> *	室内外連接電綫	1
	2	螺釘4×25毫米	7			電源綫	1
室	3	電池(7號)	2	室	<b>B</b> *	連接配管 (氣管)	1
	4	遥控器	1		•	連接配管 (液管)	1
内	6	毛氈包扎帶	1	外	•	穿墻套筒	1
		保用證書	1		<b>D</b> *	墙孔蓋	1
機		使用安裝説明書	1	機	<b>B</b> *	管道包扎帶	1
	G	集中排水組件	1		<b>B</b> *	延長排水軟管	1
					<b>(1)</b> *	膩子	1

\* 此部品現地購買 外形安裝尺寸:



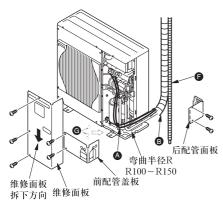
(單位:毫米)

### 

(1)在寒冷地區不要使用此排水 管接頭及橡膠塞,可能會因 排水凍結而發生故障。

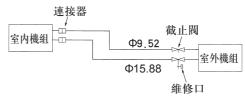
#### 排水管安裝步驟

- (1)在底座上選擇一個排水孔作 爲排水用,將排水管接頭裝 在該孔上。
- (2)用橡膠塞將底座上剩余的排 水孔封掉。
- (3)將排水管與排水管接頭連接,爲使排水順暢,請保持排水管向下傾斜。



#### 擴口連接

- 本機組在室内和室外側備有擴口連接部位。
- 如下圖所示, 制冷劑管道用于連接室内和室外機組。

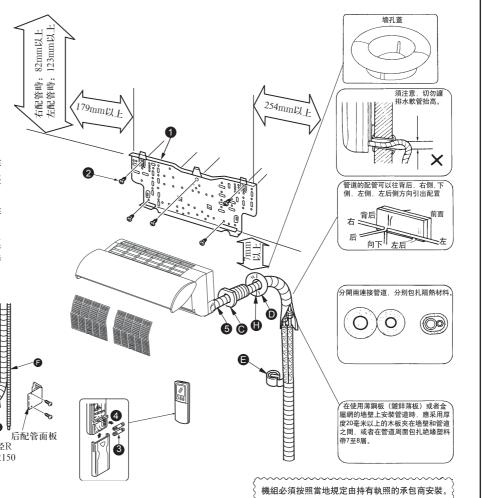


		極	限
管道長度	15米		
高度差	5米		
彎管數量	10處		

制冷劑調節…如果管道長度超出下表範圍時,則需要補注制冷劑(R410A)。(加注有制冷劑的室外機組適用于以下管道長度以內。)

管道長度	機型	需要添加制冷劑的量
超過7米	MSZ型(變頻)	30克×(冷氣管長度(米)-7)

• 説明:延長配管過長會導致制冷制熱能力下降。



#### 1-1 如何設定滑動開關(遥控器電池盒内)

滑動開關的詳細説明

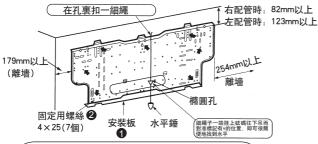
- ①移下遥控器正面下方的電池盒蓋子
- ②在遥控器電池盒内請將滑動開關撥到適當的位置(要 求和室内機安裝的空間位置一致)如果這個開關没有設 定正確,那此空調可能不能達到最佳的運行狀態.(圖示 參看第4頁)
- 注:如果室内機組安裝在距離側面墻壁或橱櫃或其他附近對象超過50cm時,設定此開關在"中間"位置。 ③在電池盒内放入兩節(AAA)1.5V電池。 滑動開關
- ④關上遥控器正面下方的電池盒蓋子。
- ⑤用尖細東西(筆)按下復位按鈕。



#### 2.室内機組的安裝

#### 2-1 固定安裝板

●尋找墻上的結構部分(如柱子等),請一定將安裝板固 定水平, 如果室内機傾斜將會產生機組滴水弄濕, 污 損家具物品等情况。



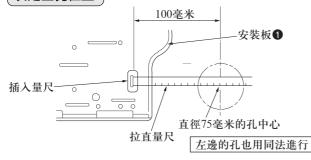
爲防止安裝板的微振動, ← 位置的孔一定 要加以固定。← 部分也盡可能加以固定。

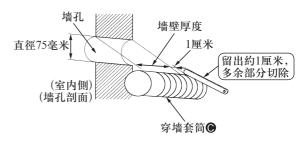
- 如用户安裝需要將安裝板背面中部橢圓孔擊穿時請 在該孔端面全部貼上防劃傷用的塑料膠帶(該膠帶 用户自備)
- ●采用埋入水泥墻壁的膨脹螺絲時,應使用45厘米間距 的11×20、11×26橢圓孔以固定安裝板。如果膨脹螺 絲太長時,請改用市場出售的短螺絲。

#### 2-2 在墻壁上鑽孔

- ①確定墻壁孔的位置。
- ②使用鑽頭鑽一個由內至外稍微向下傾斜的直徑75毫 米的孔。
- ③ 墙孔裏插入套筒 ❻
- ④將膩子 嵌入墻孔與套筒之間。

#### 决定壁孔位置





應始終使用穿墻套筒●, 能避免室内和室外連接導綫與 墙内的金屬部件接觸,同時能防止鼠害。

#### 2-3 電源和連接電綫規格

- 本機種爲室外供電。
- 應使用空氣調節器的專用電纜。

室内/室外機連接 電綫規格

截面1.5平方毫米 YZW電纜

• 從室内機組的左或右側底部角落引出電源綫。

#### ♠ 警告

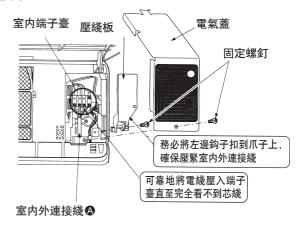
- 每臺空調必須配置專用供電綫路,且供電電源應符 合國家標准的規定,并裝有獨立的電源開關。
- •禁止割斷電源綫并連接到其他綫路,可能會引起火灾。

#### 2-4 連接室内/室外電綫

不卸下前框,便可連接室内/室外引綫。

- ① 打開前面板。
- ② 卸下電氣蓋的固定螺絲,卸下電氣蓋。
- ③ 卸下電綫固定夾的固定螺絲, 卸下電綫固定夾。
- 將室内外連接電綫從室内機組背后穿到前面, 然后對綫端進行加工,再把它固定到接綫端 子板上。
- ⑤ 將電綫固定夾和電氣蓋結實地裝在原位, 擰 上固定螺絲。

(圖1)



#### ♠ 警告

- 室内外機組之間的配綫,須使用規定的電綫連接妥當 并使接綫端子不直接受到外力的影響確實固定好。 如果連接或固定不妥,可能引起火灾事故。
- 電綫固定夾、電氣蓋必須確定固定好,如没有裝好,則可能因爲灰塵、水份進入而引起火灾或觸電事故。
- → 注意不能連錯綫。
- 如果地綫連接錯誤,有可能導致觸電。

#### 注意

- 旋緊端子螺釘以防松脱。
- 旋緊螺釘后,輕輕拉動電綫確認是否能拉動。
- 如果接綫不正確連接到端子盒,空調機就不會正常運轉

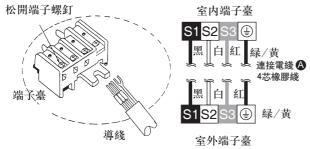
#### 



### MSZ型 變

變頻型

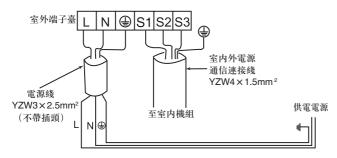




#### 警告

- ●家中電源插座内火綫、零綫、接地綫必須按如圖連接,位置不能接錯,并連接可靠,無內部短路。
- •連接錯誤,有可能導致火灾。

#### 電源檢查 用户家中供電插座示意圖



#### 2-5 自動重新啓動功能

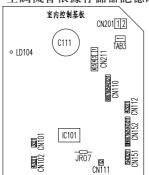
使用遥控器控制空調機時,室内電控基板會記憶運轉模式、設定温度以及風扇速度,如果運轉時發生斷電,自動重新啓動功能就會在恢復供電后工作,使空調機自動重新啓動,如果空調機在斷電前是以"I FEEL CONTROL(體感控制)"模式運轉,此模式就會被記憶。在"I FEEL CONTROL(體感控制)"模式下,空調機的運轉由(重新)啓動時的室内温度决定。

#### 如何設定"自動重新啓動功能"

- ①卸下前面板。
- ②卸下電氣蓋的螺釘,拆下電氣蓋。
- ③從CN151、CN152拔下葉片電動機接頭, 拆下電氣盒內的風葉電動機導綫; 從CN112拔下温度傳感器接頭; 從CN110拔下動態地面温度傳感器接頭。
- ④拉出電控基板,切斷其上的電阻JR07(近CN111)。

#### 海輔

- ①如果切斷了主電源,運轉設置仍被保留。
- ②恢復供電3分鐘后,空調機會根據存儲器記憶的內容自動重新啓動。



#### 注:

- ●操作遥控器10秒鐘之后,運轉設置就會被保存。
- ●當啓動了自動開機/關機定時器時,如果關閉了主電源或是發生斷電,定時器設置就會被取消。由于這些型號都具備自動重新啓動功能,一旦恢復供電,3分鐘后空調機就會開始運轉。
- ●如果在斷電前用遥控器關閉了空調機,由于遥控器上 的電源鍵關閉,自動重新啓動功能就會不起作用。
- ●爲了防止起動電流對電源的衝擊,請有序安排其他家 用電器開機時間,避免同時開機。

#### 2-6 配管作業

- ●一定要將排水軟管配置在制冷劑管道的下方。
- 不要使排水管隆起或盤曲。
- •不要拉着排水軟管進行包扎。
- ●排水軟管須通過室内時,一定請用市售的隔熱材料纏 繞包扎。
- 先用管道包扎帶**⑤**包扎,然后用毛氈膠帶**⑤**包裹配管, 排水軟管,并收納在本機后面的配管收納部裏面。



#### 向后、向右和向下鋪設管道

#### 管道鋪設

● 管道配置

將制冷劑管道和排水軟管匯總在一起, 使用包扎帶進行



往右側配管時切掉此部分。往下側配管時切掉此部分。

- ●把管道和排水管插入墙壁孔套管 ②,并把室内機組的 上半部分挂在安裝板10上。
- 左右移動空調機,檢查空調機是否可靠地挂在安裝板 **①**上。
- 把室内機組的下半部分推進安裝板①上。

#### 向左或者左后鋪設管道

● 管道配置

將制冷劑管道和排水軟管匯總在一起, 先用管道包扎 帶進行纏繞,再用毛氈包扎帶每進行纏繞。

注意, 切勿使排水軟管 抬高起來。

往左側方向配管時,在此 切斷去掉



應從管道末端開始纏繞毛氈包扎 帶⑤(毛氈包扎帶⑥重叠部分應爲 毛氈包扎帶寬度的1/3)

在毛氈包扎帶❺終端 上, 使用膠帶固定。

#### 排水軟管的改裝法

左、左背后配管時,一定也要把排水管改裝過,如果 不加改裝,可能產生滴露水。



#### ① 室内機組背面右側的橡膠塞

抓住尖端凸緣部分把橡膠塞拔下來。



#### (2)卸下室内機組背面左側的排水軟管

抓住箭頭所指捏手部分按□▷方向拔出排水軟管。



### ③ 將橡膠塞塞入室内機組背面裝插排水管的部位)

用内六角扳手把橡膠塞壓入排水盤接口處。



#### (4) 將排水軟管接插到室内機組背面右側的排水軟管接插部位)

請將排水軟管插到排水盤接口處。一定要確認軟管是 否確實卡住排水盤的突起卡爪。



#### 制冷劑管與延長配管的連接

如果在墻中已埋設有延長配管或配綫時,即請按照下圖 所示要領進行配管連接工作。

①將室内機組上部鈎住安裝板 ①,并考慮到配管的收納而 盡可能向左邊靠緊之后,切下一塊包裝材料(當襯墊用)使 卡住背面凸緣,如右圖所示抬高室内機組。

•把制冷劑管與延長管 B 連接起來。

切下包裝材料的一部分(襯墊用) 卡住背面凸緣



室内機組包裝紙板

用剪刀或刀具切下紙板。



側所附膠帶固 如右圖所示卷 起切下部分。 定末端。

如右圖所示, 邊注意方向一邊 將襯墊確實地套 進背面凸緣的凹 陷部分。 襯墊



#### 室内機組的安裝

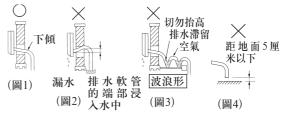
●將管道穿過墻壁,將機 組吊裝在安裝板1上, 推入室内機組直到它發 出咔嗒一聲。

室内機組 安裝板1 將卡鈎壓入在安裝板**●**孔中

#### 2-7 排水管道鋪設

爲了使排水順暢,應使排水管道形成往下傾斜狀態配 管。(圖1)

切勿使排水管道連接形成如圖2~圖3上所示。



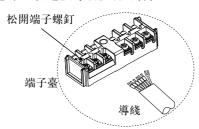
假如裝在室内機組上的排水軟管,使用時長度還不够, 可采用附件中的排水軟管 🗗 連接使用。

排水軟管需通過室内時,一定要使用市場上銷售的隔熱 材料纏繞包扎。

#### 3.室外機組的安裝

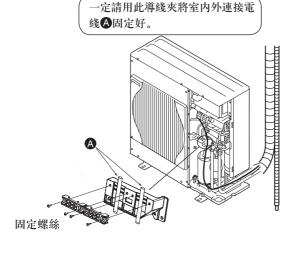
#### 室内/室外連接

- 將來自室内機組的電綫,正確地連接在接綫端子臺上。
- 注意禁止使連接導綫接觸配管。



#### ⚠ 注意

- 注意不能連錯綫。如果接綫不正確,空調機就不會 正常運轉。
- 旋緊端子螺釘以防松脱。
- 旋緊螺釘后,輕輕拉動電綫確認是否能拉動。



確實固定好室外機組的維修板。維修板如果没固定好, 将因爲灰塵、水份等進入而引起火灾、觸電事故。

#### 注意

- 空調器的安裝面應堅固結實, 具有足够的承載能 力, 其承載能力不低于實際所承載的重量(至少  $200 \text{kg/m}^2$
- 安裝面爲木質、 金屬或非金屬等結構, 如果其强度明 顯不足時,應采用相應的加固、支撑和减震等措施。
- 安装架必須使用能使空調器可靠地固定在安裝面上 的緊固件
- 安裝時使用的緊固體,應根據安裝面材質堅硬程度確 定安裝孔直徑和深度,并選擇適用的膨脹螺栓規格, 確保安裝空調器穩定、牢固、可靠。 ● 安裝時避開雨天、風雪天、雷雨天進行安裝,必要時
- 采取相應措施保證自身和他人不受傷害。

#### 4. 完成室内/室外機組連接以及進行試行運轉

#### 4-1 管道連接

- ①室内機組接管
- 連接液, 氣配管至室内機組。
- 首先對准中心,然后用手旋上管螺母至無法轉動。参考下面扭矩表,使用兩只扳手擰緊室內機組側接管接 頭部分。請注意勿過度扭緊, 以免損壞擴口部分。

管徑 旋緊		旋緊打	H矩
毫米 英寸 牛頓・米(N・m)		牛頓・米(N・m)	公斤力・厘米(kgf・cm)
9.52	3/8	34.3到41.2	350到420
15.88	5/8	73.5到78.4	750到800

#### ⚠ 警告

- 裝機時, 在啓動壓縮機前, 確保管子安全的連接。
- ②室外機組接管
- 與室内機組相同方法把配管接到室外機組的截止閥(2通 和3通閥)管接頭
- 使用扭矩扳手或普通扳手,用和室内機組同樣的扭矩旋緊。

#### 隔熱及纏繞包扎帶

- ①室外機組側的各配管及閥都須作隔熱處理
- ②從室外機組的配管入口起的全部配管都須用管道包扎 帶 🛭 纏繞包裹
- ●用膠帶固定管道包扎帶 的末端
- 如果配管通過天花板, 盥洗間或其他高温高濕的地方 時,請加包裹以市售隔熱絶緣材料,以防凝露。

#### 4-2 抽真空・泄漏試験

#### 抽真空過程

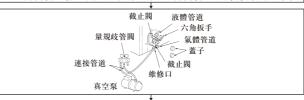
連接室内機組與室外機組之間制冷劑管道(液體及氣體管道)。

卸下室外機組氣體管道側的截止閥的維修口蓋(不卸下蓋子無法進 行抽真空過程。

將量規歧管閥和真空泵連接到室外機組氣體管道側上面的截止閥 的維修口上。

轉動真空泵(抽真空達15分鐘以上)。

| | 用量規歧管閥檢查真空,然后關閉量規歧管閥,并停掉真空泵。



#### 迅速地從截止閥的維修口卸下量規歧管閥

全開氣體和液體管道側的所有截止閥,若不全開截止閥運轉,將降低機器性能或引起故障等。



	緊固力矩		
	牛頓·米	公斤力・厘米	
維修蓋	13.7到17.7	140到180	
截止閥蓋	19.6到29.4	200到300	

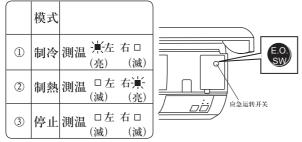
#### 4-3 試運行運轉

#### MSZ型 參頻型

- 在進行運行之前,應再次檢查是否有錯誤的接綫。錯誤的接綫會妨礙正常的操作,或熔斷保險絲而不能 起作用。
- 可用應急開關開始試運轉。按下應急開關,機器即根據 所選模式開始連續制冷運轉30分鐘。在此30分鐘內,恒 温器不起作用。30分鐘后,機器將開始以24℃的固定設 定温度進行制冷模式應急運轉。
- 按下列程序進行試運行。

#### 〔程 序〕

- 按下應急開關。
  - ①按一次開關即試運行30分鐘后應急制冷模式啓動。
  - ②再按一次開關即開始應急制熱運轉。
  - ③再按一次即停止運轉。
- 每次按下應急開關即將作①→②→③的反復。 運轉模式將體現在室内機組的房間温度顯示屏上。



#### 注意:

• 這是應急運轉模式的指示。

#### 確認接收到遥控器的信號

按了遥控器的運轉/停止按鈕后,請確認室內機組的本機上是否發出嘟!聲。然后再按一次按鈕以關掉機器。

## 用遥控器控制時,遥控器指令運轉后,應急運轉都將被解除。

■爲了保護壓縮機,空調器停止后3分鐘內即使重新開機,室外機也不會被啓動。

#### 4-4 應對用户説明的事項

●請按照使用説明書,向客户介紹有關温度調節控制的 方法,空氣過濾網的拆卸、清掃方法、及在操作使用 時的注意事項等。

#### 5. 安裝后的遷移安裝和維修

#### 5-1 如何安裝前框

- ①在安裝前框以前,請將上下導風板設定于3號(第 10頁)位置。
- ②在上下導風板下方插入前框底邊。
- ③固定好前框頂部。
- ④按下前框上搭扣,将前框固定于空調器上。

#### 5-2 卸下室内機組

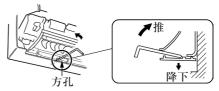
從安裝板上拉出室内機組的底部。

#### 松脱兩角

按下圖所示,把室内機組的左右下角往下和往前拉,松開鎖鈎。

#### 如果不能采用上述方法時

如果不能采用上述的方法,即請卸下前框并如下圖所示 將六角板手插入左和右邊方孔中,然后將六角扳手往上 推。室内機組底部被壓下,挂鈎即被釋放。

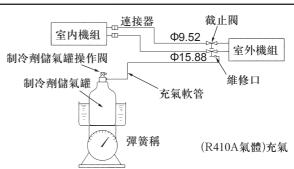


#### 5-3 補充制冷劑

- ①將儲氣瓶接在截止閥(3路)的維修口。
- ②用來自儲氣瓶的制冷劑進行管道(或軟管)的氣洗。
- ③在空調機以制冷狀態運行時,補充指定量的制冷劑。

### ⚠ 注意事項

■補充時,請勿倒轉儲氣瓶灌制冷劑,否則,可能發生問題。



爲使儲氣瓶保持高壓,在寒冷季節時,請用温水(40℃)加熱。

但禁止使用火烤或用熱蒸氣蒸熱。

注:①室内接綫圖貼在室内機組前框内側。 ②室外接綫圖貼在維修板内側。

#### 5-4 如何回收制冷劑

- ①務必使用壓力表。
- ②首先進行制冷運轉
- ③再完全關閉高壓側的閥門(液閥),壓力表讀數必須在 0~0.05MPa時(約30~40秒后),完全關閉低壓側閥門 (氣閥),立即停止運轉。
- ④在確保關閉液閥/氣閥閥門后并切斷電源,才能拆卸 連接管道。

#### ⚠ 警告

在回收制冷劑時,拆下連接管前先關閉壓縮機。如果空氣等混入,會造成壓縮機爆裂。

# 技術規格

型號	MSZ-WG20VA-H1	MSZ-WG25VA-H1	
防觸電保護	l類		
電 源	220V~50Hz		
制冷量(W)	6000(1840~6700)	7200(2850~8000)	
制熱量(W)	7000(1500~8700)	9000(2420~10300)	
制冷輸入功率(W)	1700(315~2260)	2340(570~3300)	
制熱輸入功率(W)	1950(280~2610)	3300(550~3660)	
制冷輸入電流(A)	8.0	10.9	
制熱輸入電流(A)	9.1	15.3	
中間制冷量(W)	3000	3600	
中間制熱量(W)	3500	4500	
中間制冷輸入功率(W)	560	740	
中間制熱輸入功率(W)	730	1000	
低温制熱量(W)	6300	7450	
低温制熱輸入功率(W)	2220	3100	
循環風量 (m³/h)	900/960	900/960	
加液量R410A(g)	2050	2200	
室内噪音 制冷時 (dB(A))(高速檔/低速檔)	46/36	46/36	
室内噪音 制熱時 (dB(A))(高速檔/低速檔)	44/30	44/30	
室外噪音 (dB(A)) 制冷/制熱	53/55	53/55	
室内净質量(kg)	18	18	
室外净質量(kg)	57	57	
室内尺寸 高×長×寬(mm)	326×1142×273		
室外尺寸 高×長×寬(mm)	740×950×330		
排氣側最高工作壓力	4.15MPa		
吸氣側最高工作壓力	1.64N	/IPa	
熱交换器的最大工作壓力	4.711	1Pa	
儲罐允許工作過壓	1.94N	/IPa	

### 注: ●本産品適用環境温度範圍:

		室内	室外
制冷	上限	32℃干球 23℃濕球	43℃干球
9.4.4	下限	21℃干球 15℃濕球	21℃干球

		室内	室外
<b>そりまし</b>	上限	27℃干球	24℃干球 18℃濕球
制熱	下限	20℃干球	-8.5℃干球 -9.5℃濕球

- ②噪音值是表示出廠前全消音試驗室環境下測得數據。
- ③ 産品執行:GB/T7725 IEC 60335-1 IEC 60335-2-40 IEC 62233

# **Specifications**

Model	MSZ-WG20VA-H1	MSZ-WG25VA-H1
Protection class	I Ту	pe
Power supply	220V~	
Cooling capacity (W)	6000(1840~6700)	7200(2850~8000)
Heating capacity (W)	7000(1500~8700)	9000(2420~10300)
Power input of cooling (W)	1700(315~2260)	2340(570~3300)
Power input of Heating (W)	1950(280~2610)	3300(550~3660)
Cooling rated current (A)	8.0	10.9
Heating rated current (A)	9.1	15.3
Medium cooling capacity (W)	3000	3600
Medium heating capacity (W)	3500	4500
Power input of medium cooling (W)	560	740
Power input of medium heating (W)	730	1000
Heating capacity in low temperature (W)	6300	7450
Power input of heating in low temperature (W)	2220	3100
Air flow volume (cooling/heating) (m³/h)	900/960	900/960
Refrigerant charging (g)	2050	2200
Indoor noise cooling (dB(A)) (SHi/Lo)	46/36	46/36
Indoor noise heating (dB(A)) (SHi/Lo)	44/30	44/30
Outdoor noise (cooling/heating) (dB(A))	53/55	53/55
Indoor net weight (kg)	18	18
Outdoor net weight (kg)	57	57
Indoor size: Height × Width × Depth (mm)	326×1142	
Outdoor size: Height × Width × Depth (mm)	740×950	×330
Max operation pressure of discharge	4.15MF	Pa
Max operation pressure of suction	1.64MF	²a
Maximum operation pressure of heat exchanger	4.71MP	'a
Limit pressure of accumulator	1.94MP	'a

#### Note:

Guaranteed operating range:

	The state of the s		
		Indoor	Outdoor
	Upper limit	32°C DB	43°C DB
Cooling		23°CWB	_
Cooling	Lower limit	21°C DB	21°C DB
		15°CWB	-

		Indoor	Outdoor
	Upper limit	27°C DB	24°C DB
Heating		-	18°CWB
···oating	Lower limit	20°C DB	-8.5°C DB
		-	-9.5°c WB

<sup>2</sup> The noise value is measured under the environment of laboratory (No background noise) before product's leaving factory.

<sup>3</sup> The standard applied to the product: GB/T7725 IEC 60335-1 IEC 60335-2-40 IEC 62233



# Split Type, Wall-Mounted Inverter Heat Pump Room Air Conditioner

### **OPERATING AND INSTALLING INSTRUCTIONS**

R410A

Product names MSZ-WG20VA-H1 MSZ-WG25VA-H1

Please do not connect the power of air conditioner to other generation and supply electric equipments.

If connected, the air conditioner may be damaged.

Contents

Safety precautions
Part name3
Preparation before operation4
"I FEEL" Auto operation 6
Manual operation (Cooling, Dry, Heating) <sub>7</sub>
"MOVE EYE" control operation8
AREA setting9
Airflow velocity and direction adjustment 10
Long operation12
Econo cool operation12
Timer operation (ON-Timer • OFF-Timer)13
When the air conditioner is not used for a long time $  13$
Maintenance 13
Filter cleaning 14
Please check the following items
before connecting a serviceman15
When you think trouble occurs15
Removal and inspection16
Safety precautions for installation 16
Installation instructions19
Specifications25

Incorrect handling could cause serious hazard, such as death, serious injury, property loss, etc., with a high probability.

Incorrect handling could make the conditioners not working normally or causing damage.

After installation, installers should take care to attach a barcode according to settlement bill and warranty card.

#### Thank you very much for purchasing this Mitsubishi room air conditioner.

- To use this unit correctly and safely, be sure to read this instruction manual before use. Keep this manual carefully for later reference.
- Be sure to receive a guarantee card from your dealer and check that the purchased data and shop name, etc. are entered correctly.
- This air conditioner should not be installed by the customer (Safety and performance functions cannot be assured due to customer's installation. Our company is not responsible for the resulting safety problem. Conditioners installed by customer are not covered in the range of 3-R guarantee.)

# Safety precautions

- Please read this [safety precautions] before use.
- The precautions mentioned here are about very important contents for safety, which should be followed.

#### Symbols used in text

- O: Forbidden.
- ①: Be sure to do following instructions.
- (A): Inserting fingers or sticks is not allowed.
- 3: Stepping or piling on the indoor/outdoor unit is not allowed.
- Please keep the manual in a place which is accessible for reference after reading.
- Young children or weak people must be supervised to use the air conditioner.

#### ♠ Warning



Don't connect wires in the middle section of a power cord or extend the cord and use multi-cable socket.

· Fire or electric shock may result from poor contact, poor insulation and overcurrent.

Don't damage the power cord or use it for connecting or processing.

· Piling on the power cord and damaging or heating/connecting/processing the power cord may damage the cord to cause fire or electric shock.

: Risk of electric shock, take care.

. Must be grounded.

: Be sure to turn off the power supply.

Don't let the cold airflow blow the skin directly for a long time.

· May do harm to health.

Don't install the machine by yourself.

 Improper installation may cause fire, electric shock, water leakage or injury from machine falling. Please contact the specialty shop or technical service center for help.

Don't use the air conditioner in an environment to place or use volatile, corrosive and combustible chemicals.

- Don't use the air conditioner when volatile, corrosive and combustible chemical products (such as xylene, iacquer thinner and methanol) are used in room.
- Doors and windows should be opened for ventilation if the paint in decorated room is not dried. The air conditioner can't be used until the gas from thinner evacuates. Otherwise, corrosion, deformation and even fire may result.

Don't put a combustion apparatus in a place directly facing the airflow outlet

· Incomplete combustion for combustion apparatus may result.

Don't spray directly with pesticide, disinfector and combustible spraying material.

· Fire and distortion may result.

If the installation stand is antiquated, don't ignore it.

The unit may tumble and cause injury.

Standing on an unstable footstool is not allowed in case of unit maintenance.

· Fall and injury may result.



Inserting fingers or sticks in the air inlet, exit or outlet is not allowed. Mounting height of indoor unit should ensure that the height of fan blade is 2.3 m above the ground.





• Young children must be supervised to ensure that they don't play with the air conditioner.



In case of abnormity (a burnt taste), stop operation at once, switch off power supply.

· Keeping on operation in case of abnormity may lead to fire and failure. Please contact the specialty shop or technical service center for help.



When using the air conditioner together with a combustion apparatus, you shall ventilate the room frequently. Insufficient oxygen may result.

Turn off the power switch in case of long term out-of-service.



· Fire and accident may result from dust pileup.

Stepping or piling on the indoor/outdoor unit is not allowed. · May fall down to be injured or get injured due to unit fall.



Don't try to repair the unit by yourself or remove the unit.

• Maloperation may cause fire, electric shock, water leakage or injury from unit fall.

Please contact the specialty shop or technical service center for help.

· If a power cord is damaged, the manufacturer or service provide shall replace it to avoid loss.

## Safety precautions

#### **↑** Caution 0 When removing the filter, you shall take care not to touch the metallic part of the indoor unit. · Probability of being scratched. Don't put animals and plants in a place directly facing the airflow outlet of the air conditioner. · May have bad impact on the animals and plants. Don't charge or remove the battery, and don't put it in fire. · May cause battery leakage, fire or explosion. Don't open doors and windows and let the air conditioner operate in high humidity for long period. • In cooling mode, if the air conditioner operates in high humidity (over 80%) for long period, condensed water may drop from the unit, wet and contaminate furniture. Don't use the air conditioner for other applications. • The air conditioner is not used to preserve precise apparatus, food, animals and plants and artwork due to probability of lowering their quality. When cleaning the air conditioner, you shall stop operation and turn off the power supply. **(1)** · High-speed revolving fan may cause injury in operation. Change two new batteries of the same type. • Combination of new and old batteries can cause heating, leakage or explosion. If the battery fluid splashes against the skin or clothes, please clean them carefully with clear water. • If the battery fluid splashes into the eyes, wash them immediately and see a doctor. Don't operate a switch by a wet hand. · Risk of electric shock Don't wash the air conditioner with water. • If there is water inside the unit, the insulating performance will be lowered and electric shock may result.

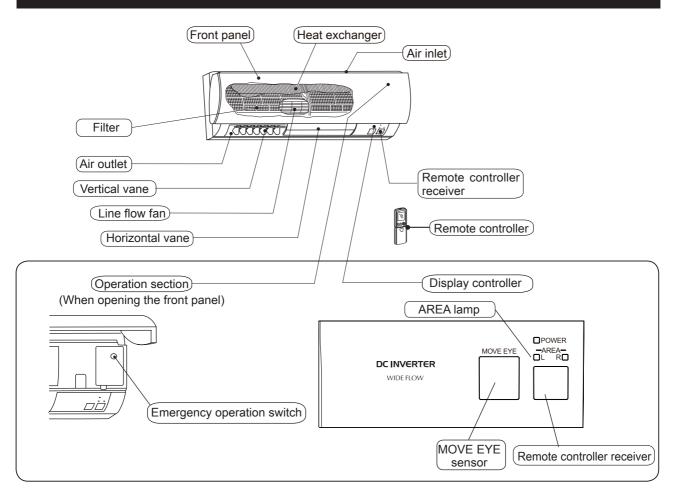
### Installation of air conditioner

# • At the time of installing a machine, please contact the specialty shop or technical service center for help.

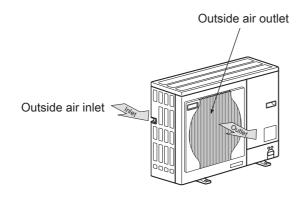
<u> </u>			
0	Don't install the unit in a place where corrosive and combustible gases may leak.  • There is a risk of explosion or machine damage in case of gas leakage or gas deposit around the unit.  Don't pile up other electric appliances or furniture under the indoor/outdoor unit.  • Contamination or device failure may result from drips from the unit.		
•	Must be grounded  • The socket for air conditioner should be connected with special earthing wire. The earthing wire shall not be connected to gas pipe, tap water pipe, lightning conductor or telephone earthing wire. Electric shock may result in case of no earthing wire or poor grounding. Thus, before using the unit, you have to confirm whether there is an earthing wire or grounding connection as required.		
0	Earth leakage circuit breakers must be installed.  • If an earth leakage circuit breaker is not installed, an electric shock may result.  Make sure to have a smooth draining at the draining port.  •If the draining is in poor condition, the unit may wet and contaminate the furniture.		

# Part name

### **Indoor unit**

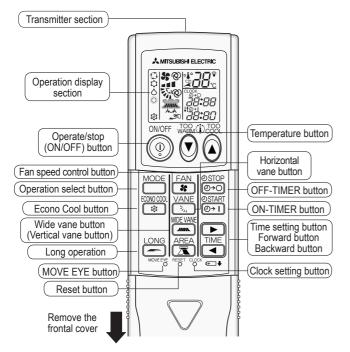


### **Outdoor unit**



# Preparation before operation

### Remote controller



#### How to install battery and set current time

Remove the frontal cover and install batteries. Then, reinstall the cover. Insert the cathode of the batteries in the first. Check if the polarity is correct.

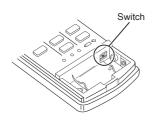


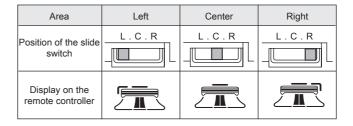
- Press the reset button.
  Use sharp thing to press it.
  - If the reset button is not pressed, the remote controller can't work normally.
  - · Note that the pressing shall not be done forcibly.
- Press the Clock setting button.
  Use something sharp at the end to press it.
- Press (forward) and (backward) button (time setting button), set current time.
  - Each press of the Forward button increases one minute;
     Each press of the Backward button decreases one minute.
  - If you press and hold down the button for a long time, the set time will increase/decrease in ten minutes intervals.
- Repress the Clock setting button and close the frontal cover.

Important setting

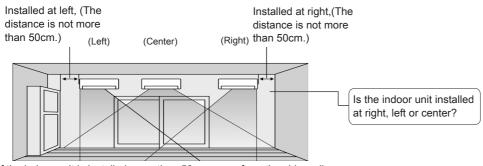
### **HOW TO SWITCH OVER < REMOTE CONTROLLER>**

■ Be sure to set the slide switch inside the remote controller to an appropriate position in accordance with the installed position of the indoor unit. If the switch is not set correctly, the air conditioner may not function properly.





Where is the indoor unit installed in the room?



\* If the indoor unit is installed more than 50 cm away from the side walls, cabinets or other nearby objects, set the slide switch to the "center" position.

## Preparation before operation

#### How to use the remote controller

- The signal can travel up to 6 meters (in a straight line) away from the frontal face of indoor unit.
- At the time of pressing the button, the indoor unit beeps once or twice to confirm the signal received. If the unit doesn't beep, press the button again.
- Use the remote controller carefully.
   If it falls down to the ground, is thrown or soaked in water, malfunction may result.

#### **Battery**

- ■Standard for replacing battery
  Two new alkaline batteries (No.7, LR03) shall be replaced in the following condition:
- The indoor unit has no response to the signal sent from the remote controller.
- The display of the remote controller becomes light.
   Please don't use manganese battery, or the remote controller will be in failure.
- The lifespan of a alkaline battery is about one year. However, it's recommended to consider the expiration date (year/month) at the bottom of a battery. If the expiration date draws near, the battery should be replaced as soon as possible.
- In order to avoid fluid leakage, please take out the battery if it is not used for a long time.

### ⚠ Note:

If the battery fluid splashes against skin or clothes, please wash them with clear water carefully. If the battery fluid splashes into eyes, please wash them with clear water immediately and see a doctor.

- · Don't use rechargeable battery.
- Two batteries shall be of the same type.
- · Obsolete batteries shall be disposed of properly.

### **Auto-restart function**

■ The unit is set with auto-restart function, which is set to OFF when the unit leaves factory. If you want to use the function, contact the technical service center.

### Auto-restart function refers to the following contents:...

When the indoor unit is controlled by the remote controller, the unit will automatically remember the operation mode, set temperature and fan speed. If power cut or power-off occurs during operation, Autorestart function will enable the unit to start automatically and operate in the previous mode set by the remote controller after power-on.

#### **Indoor unit**

■ Insert the power plug in the socket. Turn the power switch to ON position.

### **⚠** Warning

Confirm a firm connection by removing the dust on the power plug. Fire or electric shock may result from a plug with dust or socket in failure.

# When the remote controller can't be used (emergency operation)

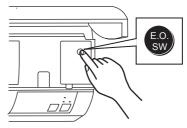
When the dry batteries in the remote controller are exhausted, or when the remote controller is in failure, you can use the emergency operation button on the unit to control the operation.

Press the emergency operation button.

 Each press of the button enables the unit to change operation mode following the order of Cooling

Heating

Stop.



 The operation mode is indicated by the AREA lamp on the indoor unit as follows:

Emergency cooling	AREA	Operation indicator Light Black out
Emergency heating	AREA	□ L R - ♣
Stop	AREA	☐ L R ☐ Black out Black out

#### NOTE:

This displayed in emergency operation.

• The operation is described as follows: The operation is described as follows. In the first 30 minutes, the unit only operates continuously without impact from room temperature. The fan speed is constant. After 30-minute operation, the unit status is as follows:

Operation mode	Cooling	Heating
Set temperature	24°C	24°C
Fan speed	Medium	Medium
Horizontal (vane)	Automatic	Automatic
Vertical vane	Front	Front

- To stop the Emergency operation, press the Emergency operation switch.
  - Each press of the button enables the unit to change operation mode following the order of Cooling 

    Heating 

    Stop.

# "I FEEL..." Auto Operation

In the mode of " 🗖 I FEEL..." Auto Operation, one press of the button enables the room condition to reach optimum status.

### When starting "I FEEL..." Auto Operation

■Press ( button.

At the time of displaying (Auto Operation), the air conditioner is automatically controlled to the optimum temperature.

### When stopping

■Press ( button

About 15 minutes after the start of operation:

### If you feel too hot:

■Press button to decrease the temperature.

Each press of the button decreases the temperature by about 1°C

### If you feel too cold:

■Press button to increase the temperature.

Each press of the button increases the temperature by about 1°C.

At the time of not displaying (Auto Operation), please press button to set Auto Operation mode. Each press of the button enables the unit to change operation mode following the order of  $(Auto Operation) \rightarrow (Cooling) \rightarrow (Dry) \rightarrow ($ 

### **Auto Operation mode**

#### **Auto Operation**

The operation mode is automatically set to Cooling, Dry or heating based on the room temperature at initial operation. However, if the unit operates again within 2 hours after stopping, it will operate following the same set points with the previous operation. Once the set points are set, the operation will not vary with the room temperature. If you don't like the set points, you can press button, then select proper set points.

### Set points for "I FEEL..." Auto Operation

Room temperature at initial operation	Operation mode	Target temperature (initial status)
Over 25°C	Cooling	About 24°C
Below 25°C	Dry	_
Below 23°C	Heating	About 26°C

#### Note:

Cooling: When the room temperature is  $2^{\circ}C$  higher than the set temperature, the latter will not change. Because the air conditioner is operating to reach the target (set point) temperature. Meanwhile, please wait for room temperature to decrease to the temperature around the set one ( $+2^{\circ}C$ ), then you can change the set temperature. Heating: When the room temperature is  $2^{\circ}C$  lower than the set temperature, the latter will not change. Because the air conditioner is operating to reach the target (set point) temperature. Meanwhile, please wait for room temperature to increase to the temperature around the set one ( $+2^{\circ}C$ ), then you can change the set temperature.

# Manual operation (Cooling, Dry, Heating)

### When selecting operation mode (Cooling, dry, heating)

1 Press button.

Press button to select operation mode.

Each press of the button enables the unit to change operation mode following the order of ⟨ (Auto Operation) → ⟨ (Cooling) → ⟨ (Dry) → ⟨ (Heating).

#### When stopping

■Press ( button.

Set the operation mode. Once you press button, the air conditioner will operate following the set mode.

- ■When changing set temperature
- At the time of decreasing temperature, press 🖲 button. Each press of the button decreases about 1°C .
- At the time of increasing temperature, press about 1°C.

#### When operating in Dry mode

- · Unable to control temperature (temperature setup)
- Operate at the temperature slightly lower than room temperature.

#### Note:

- When the environmental temperature is too high, room temperature may not reach the set temperature due to excessive load in cooling operation.
- Heating principle for heat pump type air conditioner: The unit absorbs heat from outdoor air by refrigerant cycling, transmit the heat inside the room and heat up the air in the room. The heating capacity decreases with the temperature drop of outdoor temperature.
- If outdoor temperature becomes extremely low, please use the unit together with other heating equipment.

#### Notice for using air conditioner

Cooling:

How to make an efficient cooling operation

- 1. Close the windows tightly, put down the curtain, and reduce sunshine amount.
- 2. Stick commercially available heat shielding film to the windows for reduction of sunshine heat.
- 3. The outdoor unit shall be installed in a place where the sunshine is absent.

(Heating:)

The warmth beneficial to health mainly depends on the temperature difference between indoor and outdoor environment!

The set temperature for heating operation shall not differ from outdoor temperature excessively. Although it varies with the region, generally speaking, the set temperature can be set to 20°C ~24°C.

Dry:

A humidity of 70% is a divergence point at which people feel comfortable.

When people feel sultry, it indicates that there is a great number of vapor in the air, that is to say, the humidity is high. Humidity is concerned with temperature and airflow. Generally speaking, a humidity of 60%~75% in summer and that of 55%~70% in winter shall be the ideal condition at which people feel most comfortable.

# MOVE EYE CONTROL OPERATION...Sensible temperature

- The proceed of the unit's temperature control is a gerneral temperature control proceed, that accord to the temperature of wall, floor and room measured by MOVE EYE sensors (MOVE EYE control operation).
- When cancel MOVE EYE control, the gerneral temperature control proceed will instead.

# **Starting MOVE EYE control**



MOVE EYE control operation is activated when MOVE EYE button is pressed with a thin stick in manual COOL mode.

#### Note:

MOVE EYE control operation is activated when the remote controller is first used following replacement of the batteries or resetting of the remote controller.

# **Cancelling MOVE EYE control**



MOVE EYE control operation is canceelled when MOVE EYE button is pressed with a thin stick once again.

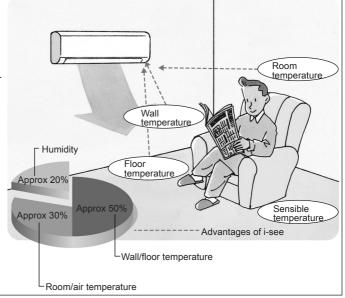
#### Note:

If the conditioner is turned OFF without cancelling MOVE EYE control operation, MOVE EYE control operation is activated the next time the air conditioner is turned ON.

## MOVE EYE control operation

The sensors constantly measure the room and floor/wall temperatures to automatically adjust to the set temperature by estimating the temperature actually perceived by a person inside the room ("sensible temperature"). Advantages:

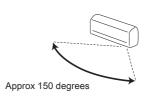
- The air inside the room is conditioned quickly to a comfortable condition.
- The room will not become too cold or hot even when the air conditioner is kept on for a long period.



#### MOVE EYE sensor

• When AREA setting is not activated, the sensing range of MOVE EYE Sensor differs depending on the installation location of the air-conditioner.

Installation opsition	Installation at left	Installation at center	Installation at right
Image of sensing range			
Driection of sensor	Left	Center	Right



Refer to the description for slide switch setting (Page 4).

- •This setting of temperature measurement is mnemonic (previous status setting), this temperature sensor in full range may detect the radiant temperature of floor / wall in the 150° range (one of three installation spaces, left / center / right); there fore, the detected temperature may be different, because the standard temperature (near measured value by market-sold thermometer) is classified according to the temperature near the room or ground and/or wall.
- •After maintenance or repair, please install the front frame components properly so as to detect the radiant temperature of floor / wall.

# **AREA** setting

When AREA have been set, horizontal air flow (Horizontal Vane) can adjust automatically according to the temperature measure from the wall and floor.

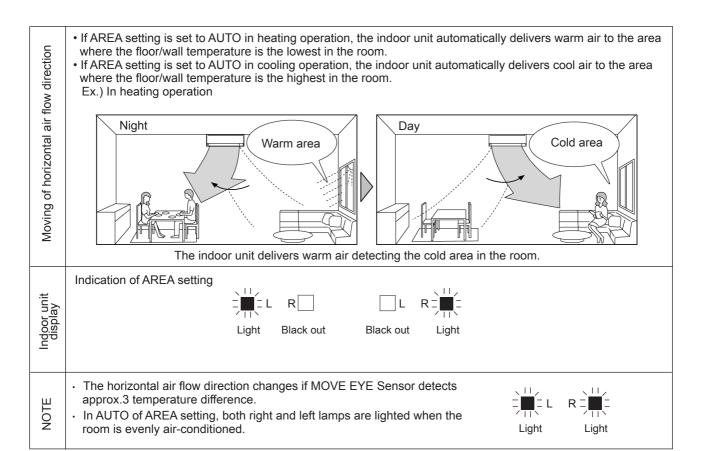
# AREA setting

- Press AREA button.
- Each time the button is pressed, the area is changed in sequence:
   Auto → Left → Right → Cancel (Recover to previous setting)

Cancel MOVE EYE Sensor moves intermittently, measuring the floor and wall temperature.

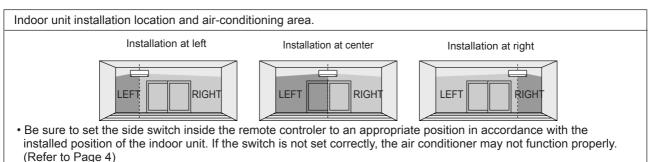
#### Note:

- AREA setting is only available during MOVE EYE control operation. (Refer to page 8)
- If AREA setting is canceled, the vertical vane returns to the previously set position before AREA setting.
- The horizontal air flow direction (vertical vane), can not be set during AREA setting.



# **Cancelling AREA setting**

- ■Press AREA button (select cancel)
- AREA setting is cancelled when WIDE VANE button is pressed.



# **AREA** setting

AREA setting		To air-condition mainly the left area of the room.	To air-condition the entire room. The horizontal air flow direction and indoor unit display are switched according to the room temperature (floor/wall).	To air-condition mainly the right area of the room.
Remote cor	ntroller button	Press AREA button to select LEFT	Press AREA button to select AUTO	Press AREA button to select RIGHT
Control range of horizontal air flow direction. The vertical	Installed at center			
air flow direction conforms to the setting on the remote controller	Installed at left			
(The horizontal air flow direction is controlled in this range.)	Installed at right			
Indoor unit display	AREA	AREA - ↓ R□	AREA ※LR口 or ※LR※ or □LR※	AREA □L R ☀️

# Airflow velocity and direction adjustment

■ To change the airflow velocity, press the  $\stackrel{\text{FAN}}{\clubsuit}$  button.  $\blacksquare$  (Lo) $\rightarrow$   $\blacksquare$  (Me) $\rightarrow$   $\blacksquare$  (Hi) $\rightarrow$  (Auto).

How to select fan speed:

Principle of the air conditioner: The greater the air volume, the more effective the energy saving, and the higher the noise. The air outlet temperature increases at cooling mode and decreases at heating mode. Therefore, selecting the fan speed of Lo enables you to get a quiet environment for rest. Selecting the fan speed of Hi or SHi enables you to get an effective energy saving.

■At the time of changing vertical airflow direction, press button.

Each press of the button enables the unit to change vertical airflow direction following the order of

 $(1) \rightarrow (2) \rightarrow (3) \rightarrow (4) \rightarrow (5) \rightarrow (Swing) \rightarrow (Auto).$ 

Airflow with swing

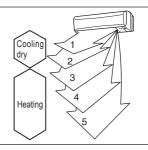
Swing operation enables the airflow to reach all corners of a room.

Recommended scope for vertical airflow direction.

Usually, please turn to @(Auto).

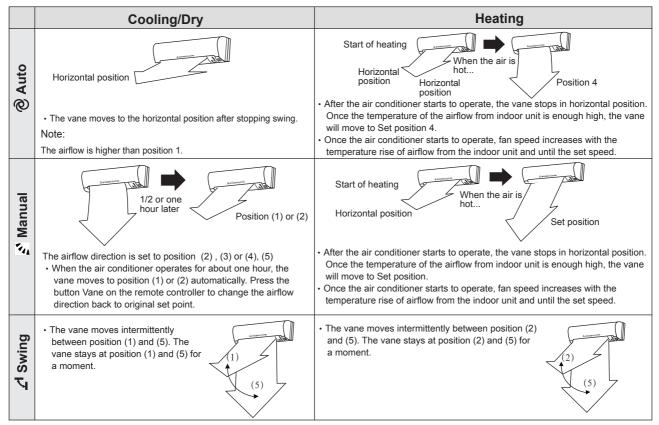
Turn to position  $\checkmark$ (2)in cooling or dry mode.

Turn to position  $\checkmark$  (3)~  $\blacktriangle$ (5) in heating mode.



# Airflow velocity and direction adjustment

#### Movement of horizontal vane



## Note:

- Adjust the airflow direction by the remote controller. Moving the vertical vane or horizontal vane by hand may cause failure.
- When the operation mode changes to mode "♣ (auto)", the horizontal vane changes to different positions automatically mentioned above.
- Press button wide to change airflow direction (left/right)
  Each press of the button enables the unit to change the vertical vane angle following the order of:

Blow with swing.

Blow with swing enables the airflow to reach each corner of the room.

# Long operation

## **HOW TO USE LONG OPERATION**

Perform the following operations while the unit is operating.

button.

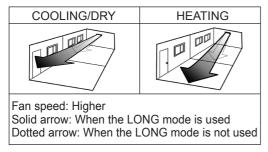
The fan speed increase.

When the fan speed is set to AUTO, the fan speed is higher than a fan speed determined by the room temperature and the set tempera-

In addition, the HORIZONTAL VANE moves to the position for LONG mode.

Mechanism of the LONG operation

In the following example, the VERTICAL VANE is sent to 🕮 (front).



- To Release the LONG mode.
- Press the button again.

### Note

- LONG mode is also released in the following ways.

  - By pressing the button
     By pressing the button (only during COOL mode)
- Even when the LONG mode is being used, the air may not reach a long distance due to the installation location of the air conditioner.

In this case, press the  $\begin{picture}(60,0) \put(0,0){\line(1,0){100}} \put(0,0){\line(1,0){100}$ 

to (Hi), and then press the LONG button.

MODE FAN and WIDE buttons, temperature buttons and the ON/OFF timer are available.

# Econo cool operation

Enable this mode to enjoy healthy, comfortable and power-saving cooling operation.

# Please operate as follows in manual cooling mode

Press button.

Select the air conditioner operating in the (Econo Cool) control mode, which controls the horizontal vane to swing periodically and automatically according to the outlet temperature.

Moreover, the set temperature increases by 2°C automatically based on cooling operation.

# When quitting Econo Cool operation

■ Press button again.

- In Econo Cool operation, press button or change operation mode to quit Econo Cool button.
- Airflow speed button 🕏 , Extreme Hot 🗑 or Extreme Cold 🔊 button and Timing ON/OFF button can be used continuously.

What is Econo Cool?

Swinging airflow (variable flow) feels cooler than constant airflow, therefore, even if the set temperature is set to a higher one by 2°C you can feel comfortable and power is saved.

# Timer operation (ON-Timer and OFF-Timer)

You can preset the air conditioner to ON-Timer and OFF -Timer at the time of sleeping, going home or getting up.

# **How to set ON-Timer**

- Press on-Timer button.

  Press ON-Timer button " o i the figure flashes.
- Set time for the timer by pressing Time button

  (increase) and (decrease).

  Each press of button increases the set time in 10 minutes intervals and each press of button decreases the set time in 10 minutes intervals.

# **QUIT ON-Timer**

Press On button.

Combination of ON-Timer and OFF-Timer

Combine ON-Timer with OFF -Timer. The unit will operate first at the earlier set time.

(The mark " $\uparrow \downarrow$ " shows operation order of timer.)

• If the current time is not set, timer operation will be disabled.

#### Note:

If main power supply is switched off or power failure occurs during timer operation, timer setting will be canceled.

# **How to set OFF-Timer**

- 1 Press @+o button.
- Press OFF-Timer button " , the figure flashes. Set time for the timer by pressing Time button (increase) and (decrease).

  Each press of button increases the set time in 10 minutes intervals and each press of button decreases the set time in 10 minutes intervals.

# Quit OFF-Timer

Press ostop button.

# When the air conditioner is not used for a long time

# Not used for a long time

- Enable the fan to run for 3~4 hours so as to dry the inside of the air conditioner.
  - Before fan operation, set to Cooling operation mode and select highest set temperature.
- 2 Switch off the power supply .

### ⚠ Warning

Be sure to switch off the power supply when the air conditioner is not used for a long time. Fire may result from possible dust deposit.

3 Take out the batteries in the remote controller.

### ⚠ Note:

When the remote controller is not used for a long time, be sure to take out all batteries in the remote controller to avoid fluid leakage.

# To be used again

- Clean the filter and return it to the unit. (Refer to page 15)
- Be sure to confirm whether the air inlets and air outlets of indoor and outdoor units are covered.
- Confirm whether the earth wire is connected firmly.

# ⚠ Warning

# Must be grounded.

The earthing wire should not be connected to gas pipe, tap water pipe, lightning conductor and telephone line. If you don't connect the earthing wire as required, electric shock may result.

# Maintenance

## Before cleaning

Switch off the power supply .



### **Marning**

When cleaning the unit, you have to stop unit operation by switching off the power supply. Because fan blades in high-speed rotation may hurt you.

## Cleaning for indoor unit

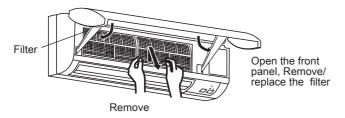
Clean with soft dry cloth.

- If there is distinct smear, use a piece of cloth soaked with neutral detergent to clean the unit, and wipe off the water with soft dry cloth.
- Never use gasoline, volatile oil, friction powder or disinfectant.
   Otherwise, they may damage the unit.
- Never use market-sold detergent that is marked with "No use for cleaning of metal products" to clean the panel of indoor unit.

# Filter Cleaning

# Filter Cleaning (Cleaning is done once two weeks)

1 Pull out the filter slightly.



### **⚠ Note**

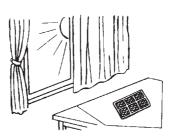
During disassembly of the filter, take care not to touch the metallic part of the indoor unit, as you may be scratched.

- 2 Use a cleaner to clean or use water to wash.
- Don't clean the filter with brush or hard sponge, otherwise, the filter will be distorted.
- If the filter is too dirty, use warm solution mixed with neutral detergent to wash the deodorizing filter.
- $\bullet$  Don't use hot water (about over  $50^{\circ}\text{C}$  ) to wash the filter to avoid distortion.

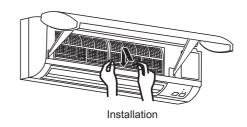




- After washing with water, the filter can't be used until it is dried.
  - Don't dry the filter under sunshine or with fire.



4 Installing the filter.



# Please check the following items before connecting a serviceman

Is there a failure?	Check point
The air conditioner can't operate.	<ul><li>Is the power supply turned on?</li><li>Is the fuse blown?</li><li>Is ON-Timer set?(Page 14)</li></ul>
The horizontal vane can't operate.	Are the horizontal vane and vertical vane installed in the indoor unit correctly?(Page 19)     Is the protective screening of the fan distorted?
Indoor cooling is not enough.	Is the temperature setting correct?(Page 7)     Is the filter clean?(Page 15)     Is the indoor unit fan clean?(Page 19)     Is the air inlet or air outlet of the indoor or outdoor unit covered?     Are the doors and windows in room opened?
The indoor unit gives off odor.	<ul><li>Is the filter clean?(Page 15)</li><li>Is the indoor unit fan clean?(Page 19)</li></ul>

Is there a failure?	Check point
The remote controller has no message to display or darkens. The indoor unit has no response to the signal from the remote controller.	<ul> <li>Are batteries exhausted?(Page 5)</li> <li>Is the polarity of a battery placed correctly?(Page 5)</li> <li>Are buttons on the remote controller of other electric appliance pressed?</li> </ul>

If the air conditioner can't still operate after the above items have been checked, please stop using the machine and contact the specialty shop or technical service center for help.

## Please pay attention to the following condition before asking a serviceman for repair.

- In a room decorated with electronic fluorescent lamp, the
- In a room decorated with electronic habrescent ramp, the signal from the remote controller may be unacceptable.
   In circumstances with weak radio wave, the air conditioner may disturb the signal acceptance of broadcast or TV, thus, the affected equipment may need a magnifier.
- When thunder appears, you have to stop operation and remove power plug or turn off the power supply. Otherwise, there is a risk of damaging the electrical part in the air conditioner.

# When you think trouble occurs

Is there a failure?	Answer (it's normal)
The air conditioner can't operate within 3 minutes after you restart the machine.	In accordance with the microcomputer's display, it means the protection of the air conditioner, please wait.
A crack is heard.	<ul> <li>The noise results from the expansion/ shrinkage of the front panel due to temperature change.</li> </ul>
The air out of the indoor unit has an odor smell.	The air conditioner may absorb the peculiar smells from wall, carpet, furniture and clothes, then mix them with air for blowout.
Voice similar to current is heard.	<ul> <li>This is a voice from refrigerant flowing inside the air conditioner.</li> <li>This is a voice from the flowing of condensed water drop inside the heat exchanger.</li> <li>This is a voice from thaw of the heat exchanger.</li> </ul>
Voice similar to air bubble is heard.	•This is a voice from the ejection of water flowing inside the drainage hose when the outdoor air is absorbed in the hose and when a soot absorption machine or a vent fan is activated. If the outside airflow is strong and blown into the drainage hose, you can hear the voice too.
Fog is blown out from the indoor unit outlet during operation.	•The fog results from quick condensation between moisture in the air and cold airflow from indoor unit outlet.
Snapping can be heard from indoor unit.	•This is a voice from the switching (ON and OFF) of compressor or fan.
Hiss can be heard from indoor unit.	This is a voice in which the air conditioner starts or stops refrigerant flowing.

Is there a failure?	Answer (it's normal)
The horizontal vane and vertical vane pause to swing and then start to swing again.	•The condition appears so that normal blowing with swing is enabled for the horizontal vane and vertical vane.
White mist from the outdoor unit.	<ul> <li>In heating operation, the steam from thawing operation looks like white mist.</li> </ul>
Air does not flow out quickly in the heating operation.	Please wait as the conditioner is operating to blow arm air.
The operation is stopped for about 10 minutes in the heating operation.	Defrosting of the outdoor unit is being done (Defrosting operation). Since this is completed within 10 minutes, please wait. (When the external temperature is too low and humidity is too high, frost is formed).
The room is not cooled or heated sufficiently.	<ul> <li>The cooling load is high, because the exhaust fan or stove is in use. So the cooling capacity is not enough.</li> <li>The cooling or heating capacity is not enough because the outdoor temperature is too high or too low.</li> </ul>
The airflow direction changes during operation. The remote controller can't adjust the movement of the horizontal vane.	<ul> <li>When the air conditioner operates in cooling mode, if the air is blown downwards for one hour, the airflow direction is set to (1) or (2) automatically, which is to prevent condensed water drop from dropping.</li> <li>In the heating operation, if the output air temperature is too low or when defrosting is done, the horizontal vane position is automatically set to horizontal.</li> </ul>
Water leaks from the outdoor unit	During the cooling operation, pipe connector sections are cool and this causes water condensed.     Water or water vapor created by the defrosting operation is connected.     Water adhering to the heat exchanger during heat operation drips.

# Removal and inspection

## Check and repair

- The performance of the air conditioner decreases due to long-term service and internal dirt.
- Odor may result from using condition, or poor drainage of condensed water may result from dust deposit.
- The check and repair are different from common ones. You'd better ask for special technical service. Please contact the specialty shop or technical service center for help.

# Operation noise should be also considered.

- Don't place articles at the outlets of outdoor unit. For the placement will reduce the efficiency and increase noise in operation.
- If there is abnormity in operation, please contact the specialty shop or technical service center for help.

# When you want to remove the machine

When removing and reinstalling the air conditioner due to room enlargement or relocation, please ask for special technical service.

## / Warining

Don't reapair or remove the air conditioner by yourself.
Maloperation may cause fire, electric shock, injury by unit drop and water leakage. If the air is mixed in the refrigerant, pressure may increase to lead to breakage. Thus, please contact the specialty shop or technical service center for help.

# Safety precautions for Installation

1. For the sake of safety, please pay attention to the following safety precautions

## Warning

# Users are not allowed to install the machine by themselves.

 Improper installation may cause fire, electric shock, water leakage or injury from machine falling.
 Please contact the specialty shop or technical service center for help.

# The machine should be installed in a place which can support its weight.

• If the machine is installed in a place which is not solid enough, there will be a risk of injury from machine falling.

Cables between indoor and outdoor unit shall be connected properly as specified, and connecting terminals for the cables be fixed firmly without being affected by external force.

· Poor connection or fixture may cause fire.

# Installation shall be implemented properly based on installation instructions

 Improper installation may cause fire, electric shock, water leakage or injury from machine falling.

# Please ventilate room in the event of refrigerant leakage during installation.

• Exposure of refrigerant to open flame can produce toxic gas.

# When installing or servicing the unit, use appropriate protective equipment and tools for safety.

· Failure to do so could cause injury.

# ♠ Warning

# In the event of installation or removing, any substance other than refrigerant shouldn't be mixed into the refrigerant circuit.

• If air is mixed in the circuit, system pressure will increase to cause breakage.

# Don't fill other refrigerant than specified while installing or moving the unit.

 If so, it may become the cause of problems such as malfunction, false action and mechanical fault and possibly leads to major safety accidents in some cases.

# When pumping down the refrigerant, stop the compressor before disconnecting the refrigerant pipes.

 If the refrigerant pipes are disconnected while the compressor is running and the stop valve is open, air could be drawn in and the pressure in the refrigeration cycle could become abnormally high. This could cause the pipes to burst or injury.

# When installing the unit, securely connect the refrigerant pipes before starting the compressor.

 If the compressor is started before the refrigerant pipes are connected and when the stop valve is open, air could be drawn in and the pressure in the refrigeration cycle could become abnormally high. This could cause the pipes to burst or injury.

# Electrical work should be performed according to installation instructions. Be sure to use special power supply of circuit.

 Fire or electric shock may result from insufficient capacity or incomplete construction for the power supply circuit.

# Safety precautions for Installation

## **Marning**

# The electrical cover of indoor unit or the service board should be installed correctly.

• If the cover and the service board are not installed well, fire or electric shock may result due to entrance of water and dust.

# Attached or specified parts should be used for installation construction.

 Improper parts may cause fire, electric shock, water leakage or injury from machine falling.

# For the power supply circuit, connection in the middle section, extension of power cord or use of multi-cable socket are not suggested.

Poor contact, poor insulation or overload may cause electric shock.

### Grounding construction shall be done.

- The air conditioner socket shall be connected with special earth wire. Electric shock may result from no grounding or poor grounding.
- grounding.

  Don't connect the earth wire to gas pipe, tap water pipe, lightning rod or telephone earth wire.

# Don't install the unit in a place where combustible gas may leak.

 In case the combustible gas leaks and accumulates around the unit, explosion may result.

### A leakage protector shall be installed.

· If the leakage protector has not been installed, an electric shock may result.

# Be sure to implement drainage and piping construction in terms of installation instructions.

 If there are improper drainage and piping construction or inclined indoor unit, furniture will be wet and contaminated by water drop from indoor unit.

# The connection wire from the middle section of connection wire/signal connection line should not be adopted.

 Misoperation of the unit will occur, causing the unit not to operate normally.

# Please install the unit in terms of national rules of wiring.

After installation construction, be sure to confirm whether there are positions in which refrigerant gas leakage occurs.

If the power cord is damaged, be sure to replace it with special power cord or with special components bought from manufacturer or service center.

Moreover, if you have no notion of something, contact the specialty shop for help.

# 2.Atlention for R410A refrigerant systems

## 2-1 Using R410A refigerant air conditioners

## **A**Caution

- Use C1220 copper phosphorus (for copper and copper alloy seamless pipes) to connect the refrigerant pipes. Make sure the insides of the pipes are clean and do not contain any harmful contaminants such as sulfuric compounds, oxidants, debris, or dust. Use pipes with the specified thickness.
- Use ester oil, ether oil, alkylbenzene oil (small amount) as the refrigeration oil applied to the flared sections. If mineral oil is mixed in the refrigeration oil, oil deterioration may result.
- Do not use refrigerant other than R410A refrigerant. If another refrigerant is used, the chlorine will cause the oil to deteriorate.
- Use the following tools specifically designed for use with r410a REFRIGERANT. The following tools are necessary to use R410A refrigerant. Contact your nearest dealer for any questions.

Tools (for R410A)		
Gauge manifold Flare tool Change hose Size adjustment gauge Gas leak detector Vacuum pump adapter Torque wrench Electronic refrigerant charging sca		

- Be sure to use the correct tools. If dust, debris, or moisture enters the refrigerant lines, refrigeration oil deterioration may result.
- Do not use a charging cylinder. If a charging cylinder is used, the composition of the refrigerant will change and the efficiency will be lowered.

# 2-2 Precautions for devices that use R410A refrigerant

# **∴** Caution

When installing or moving the air conditioner, use only the specified refrigerant (R410A) to charge the refrigerant lines. Do not mix it with any other refrigerant and do not allow air to remain in the lines. Air enclosed in the lines can cause pressure peaks resulting in a rupture and other hazards.

MSZ-WG20/25VA-H1		
Liquid pipes Φ9.52mm(Thickness 0.8mm)		
Gas pipes Φ15.88mm(Thickness 1.0mm)		

- •Do not use pipes thinner than those specified
- Do not share the vacuum pump with R22 refrigerant systems.

# Safety precautions for Installation

## 3. Selection of installation location

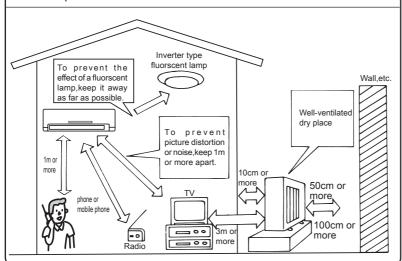
#### 3-1 Indoor unit

- · A place where inlet/outlet airflow shall not be obstructed.
- A place where blown cold air can reach each corner of the room.
- The maximum distance and maximum height difference between indoor and outdoor unit: Refer to Extreme Pipe Length.
- · A solid wall where vibration can't occur.
- · A place where direct sunlight is avoided.
- · A place where drainage becomes easy.
- · A place where the unit is 1 meter apart from radio and TV or 3 meters apart from antenna (Otherwise, the TV image will be disturbed or noise may occur.)
- A place where the unit is far away from fluorescent or incandescent lamp(Otherwise, wireless remote controller may in maloperation).
- · A place where it's easy to install and remove the air filter freely.

#### 3-2 Outdoor unit

- · A place with less influence from gale and heavy snow. If the unit is installed in a region of heavy snow, measures shall be taken for prevention of heavy snow(You are advised to install a covering or base frame).
- A place with good ventilation and less dust.
- · A place with less rain or less direct sunlight.
- A place where operation noise or blown hot air can't bother neighbor.
- In order to reduce operation noise or vibration, you shall install the unit in a solid frame.
- A place where there is no leaked combustible gas.
- · When installing the unit in a higher place, you have to fix the foot of the unit.
- · Be sure to install the unit horizontally.
- · Easy for maintenance and repair.

The installation location of the outdoor unit should be at least 3 m away from the antennas for TV sets, radios, etc. In areas where the reception is weak, provide greater space between the outdoor unit and the antenna of the affected device if operation of the air conditioner interferes with radio or TV reception.



### **⚠** Notice

Don't install the air conditioner in the following places.

- A place where plenty of machine oil is used.

  Seashore with a great deal of salt.

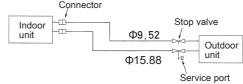
  A place where there are hot spring and sulfurized gas.

  A place where there is a problem with other environmental atmosphere.
- ·A place where there are volatile, corrosive and combustible chemicals. ·A place where cranes and ships move.

#### 1.Installation diagram and accessory (Before installation, users are advised to verify the amount of parts based on the packing list) Part name Part name Installation No Installation No. Indoor unit Outdoor unit 1 Mounting plate 1 0 1 Indoor and outdoor connection cables 0 **A** \* 2 Screw 4×25 mm 7 Power line 1 t d o o r 3 2 Battery (No.7) 1 Connection pipe (gas) o o r **B**\* 4 Remote controller 1 1 Connection pipe (liquid) 0 6 Felt strap 1 1 Wall hole sleeve O U Guarantee 1 1 Wall hole cover U n i **B**\* 1 Operating and 1 n Pipe strap ● \* Extension drainage hose installing instructions 1 **G** Concentration drainage component \* This components need to be purchased. Installation dimensions (Unit:mm) 175 175 950 g:82mm or more 123mm or more ⚠Note: (1) Don't use the drainage pipe connector and rubber stopper t piping:8 piping:12 in cold areas. Failure may result from drainage freezing.

## Flared joint

- · The unit is equipped with flared joints at indoor/outdoor unit side.
- · As shown in the figure below, refrigerant pipe is used to connect indoor/outdoor unit.

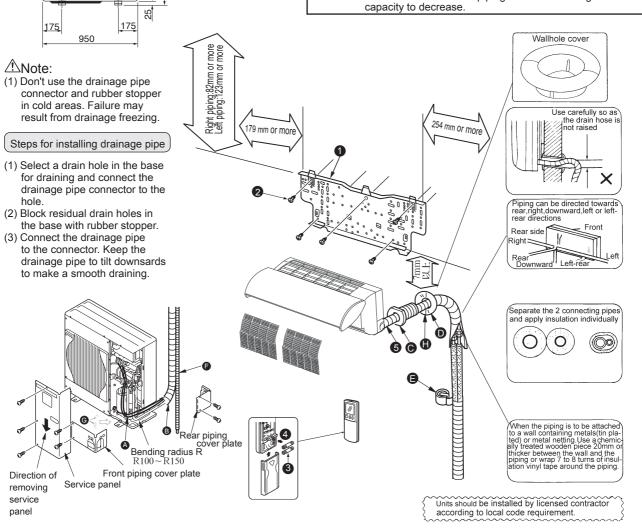


Limit		
Pipe length 15m		
Height difference	5m	
Amount of bends	10pieces	

· Adjustment of refrigerant · · · If the pipe length exceeds the scope in the table below, refrigerant (R410A) should be supplemented. (Filling refrigerant to the outdoor unit with refrigerant shall be subject to the following pipe length.)

Pipe length	Туре	Dosage of refrigerant
Over 7 meters	MSZ (Inverter)	30g×(pipe length (m)-7)

· Note: Excessive extension of piping will cause cooling and heating



- 1-1 How to set slide switch (inside battery box of remote controller) Details of slide switch.
  - ①Remove the front lid
  - ②Be sure to place the slide switch in right position inside the battery box of remote controller (identical to space position of indoor unit installation, according to requirement). Or else, this conditioner will not run under the optimum state (Refer to page 4).

#### NOTICE

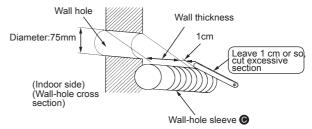
If the indoor unit has been installed more than 50cm away from the side walls, cabinets or other objects nearby, place this slide switch to the "center" position.

Slide switch

③Insert two (AAA) 1.5V batteries into battery box.

④ Reattach the front lid.

⑤ Press the RESET button with a thin object (pen).



Always use the wall hole sleeve ②, which prevents the connection wires between indoor and outdoor unit from contacting the metallic parts inside wall and rodent pest from occurring.

## 2-3 Specifications for power supply and connection wires

- · This unit is powered outdoors.
- · Use special cables for air conditioner.

Specifications of connection wires between indoor and outdoor unit

YZW type cable with the section area of 1.5 mm<sup>2</sup>

 Lead out a power cord from the left or right bottom of the indoor unit.

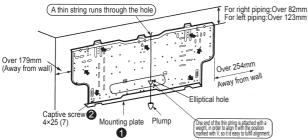
## 

- Each air conditioner should be equipped with special power supply line. Power supply specification should accord with national regulations and be installed with independent switch.
- It is prohibited to cut off the power cord and connect it to other lines, or else fire may occur.

# 2. Installation for indoor unit

## 2-1 Fixing of mounting plate

 Look for a structural part (such as a pole) so that you are sure to fix the mounting panel horizontally. If the indoor unit declines, the furniture will be wet and contaminated by water drop from the unit.



To prevent the slight vibration of mounting plate, holes marked with  $\leftarrow$  should be fixed, and parts marked with  $\hookleftarrow$  should be also fixed as possible.

If user needs to break through the middle elliptical hole in the back of mounting plate when installing the unit, please affix the scratchproof plastic adhesive tape on the end face of this hole (this adhesive tape shall be provided by user).
When using expansion screws buried into cement wall, you shall use elliptical holes of 11×20 and 11×26 with 45cm apart from each other to fix the mounting plate. If the expansion screw is too long, use short screws sold in market.

# 2-2 Drilling hole in the wall

- ① Confirm the hole position in wall.
- ② Drill a hole (diameter: 75mm) tilting slightly downwards from inside to outside.
- ③ Insert Wall-hole sleeve in the Wall-hole.

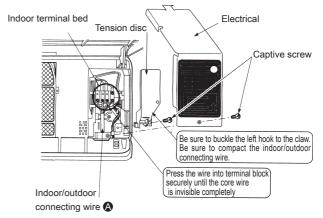
# 2-4 Connection of indoor/outdoor wires Connect indoor/outdoor lead wire without removing front

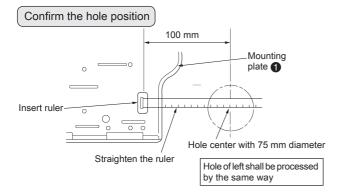
frame.

① Open the front panel.

- ② Unscrew the captive screws in electrical cover to remove
- 3 Unscrew the captive screws in cable clip to remove it.
- ④ Pass the connecting wire of indoor and outdoor units to the front side from the back of the indoor unit, then pro cess the wire end and then fix it to the terminal board.
- ⑤ Place the wire clip and the electrical cover in its home position securely and tighten the captive screws.

## (Figure 1)





## ⚠ Warning

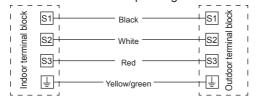
- ·Cables between indoor and outdoor unit shall be connected in good order using specified cables and connecting terminals be fixed well without being affected by external force. Fire may result from poor connection or fixture.
- •Electrical cover shall be fixed well, otherwise, fire or electric shock may result from entry of dust and moisture.
- Be sure not to make wrong connection.
   Electric shock may result from wrong grounding.

#### ⚠ Note

- •Tighten terminal screws to avoid looseness.
- After tightening of the screws, pull the wires slightly to verify whether they are tightened.
- •The air conditioner can operate correctly only when the wires are connected correctly to the terminal block.

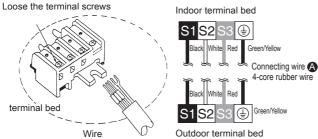
## ⚠ Warning

•Wires between indoor and outdoor terminal block shall be marked with number for corresponding connection.



MSZ model Frequency conversion model

<Detailed connecting diagram>

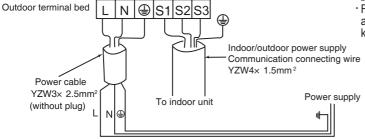


# Warning

- Neutral line, live line and earthing wire inside power socket shall be connected as shown in figure reliably without wrong connection and internal short circuit.
- Fire may result from wrong connection.

# Power supply check

Diagram for power socket in user's home



#### 2-5 Auto restart function

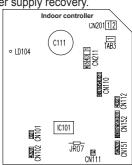
When the air conditioner is controlled by the remote controller, indoor unit electrical board will memorize operation mode, set temperature and fan speed. If there is a power-off during operation, Auto restart function is enabled to restart the air conditioner after recovery of power supply. If the air conditioner operates in the mode of "I FEEL CONTROL" before power-off, the mode will be memorized. In "I FEEL CONTROL" mode, air conditioner operation depends on indoor temperature at restarting.

## How to set Auto Restart Function

- ①Remove the front panel.
- ②Remove the screws of electrical cover. Remove the electrical cover.
- ③ Remove the connector of blade motor from CN151 and CN152: Remove the wires of blade motor inside the electrical terminal block: Remove the temperature sensor connector from CN112:
- Remove the dynamic ground temperature sensor connector from
- @Pull out the electrical control board and disconnect the resistor JR07 on it (near CN111).

## Operation)

- The operation setting is still reserved at power-off.
- The air conditioner will restart automatically according to the memory after 3 minutes of power supply recovery.

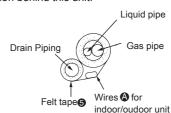


#### Note:

- •The operation setting will be reserved after 10 seconds of remote controller operation.
- •When the Auto ON/OFF timer is activated, the timer setting will be cancelled in the event of power-off or power failure. As Auto Restart function is equipped inside these models, once the power is recovered, the air conditioner will start to operate three minutes later.
- •If the air conditioner is turned off by the remote controller before power-off, Auto Restart function will be disabled due to power button's OFF status in the remote controller.
- •In order to prevent impulse current from affecting the power supply, please arrange a sequence to start other household appliances to avoid simultaneous power-on.

## 2-6 Piping work

- · Be sure to place drainage hose under refrigerant pipe.
- Don't make the drainage hose uplifted or bended.
- Don't bind up the hose by pulling it.
- Be sure to bind up the drainage hose with commercially available insulated material when the hose goes through room.
- Firstly wrap pipes with pipe bandage tape @ and package piping and drainage hose with felt tape 6 and put them into the pipe keeping section behind this unit.

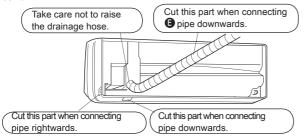


Laying pipes backwards, rightwards and downwards

#### **Piping**

· Pipe layout

Put refrigerant pipe and drainage pipe together, wrap them with band.

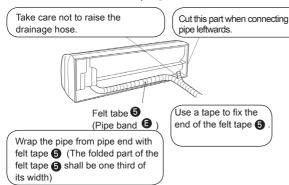


- Insert the refrigerant pipe and drainage pipe into the wall hole sleeve
   hang the indoor unit's upper half on the mountingpanel
- Move the air conditioner right and left to check if it is hung on the panel firmly.
- Push the unit's lower half into the mounting panel **1**.

### Lay pipes leftwards or rear leftwards.

Pipe layout

Put refrigerant pipe and drainage pipe together, wrap them with band first and then with felt tape § .



## Refitting for drainage hose

The drainage hose should be refitted in the event of piping leftwards and rear leftwards. Otherwise, water dripping may result.



### 1) The rubber stopper at the rear right of indoor unit.

Remove the rubber stopper by grasping the sharp lug.



(2) Remove the drainage hose at the rear left side of the indoor unit.

Pull out the drainage hose by grasping the handle knob shown by arrow in the direction



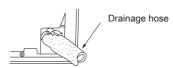
3 Slip the rubber stopper into the position in which the drainage pipe is installed at the rear of indoor unit.

Use an allen key to press the stopper into the joint of the drain plate.



Connect the drainage hose to the corresponding connection

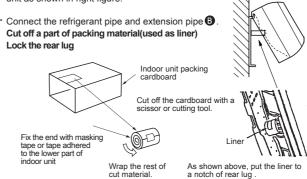
Insert the drainage hose in the joint of the drain plate. Be sure to confirm if the hose is clamped into the prominent detent.



## Connection between the refrigerant pipe and extension pipe

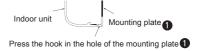
If extension pipes or wires have been buried into a wall, please perform piping as described in the following key points.

①Hook the mounting plate ① with indoor unit's upper part. After considering inclusion of the pipe and placing the unit as possible as close to the left, cut off a piece of packing material (used as liner) to lock the rear lug, raise the indoor unit as shown in right figure.



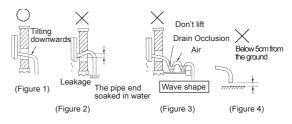
### Installation of indoor unit

• Pass the pipe through the wall, hang and install the unit on the t. mounting plate ①, then push in the unit until a click is heard.



### 2-7 Laying drainage pipe

In order to make a smooth drainage, the drainage pipe shall be connected tilting downwards.(figure 1)
Don't connect the pipe as shown in figure2-3.



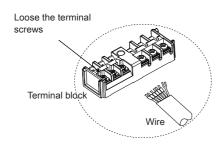
If it is not long enough for the drainage hose installed at the indoor unit, you can use the hose **()** in accessory for connection.

When the hose goes through room, be sure to bind up the drainage hose with commercially available insulated material.

### 3. Installation of outdoor unit

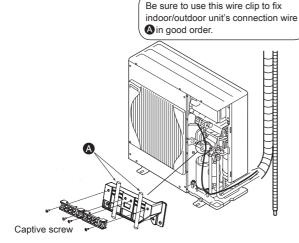
Connection between indoor and outdoor unit

- · Connect the wires from the indoor unit to the terminal bed correctly.
- · Take care not to enable the wires to contact pipe.



#### ⚠ Caution

- •The air conditioner can't operate normally in case of wrong connection.
- •Tighten terminal screws to avoid looseness.
- •After tightening of the screws, pull the wires slightly to verify whether they are tightened.



# **⚠** Warning

Fix the service board of outdoor unit well. Otherwise, fire and electric shock may result from entry of dust and moisture.

# **⚠** Caution

- The mounting surface of the air conditioner should be solid enough to bear the weight. The bearing capacity shall not be lower than actually born weight (at least 200kg/m²).
- The mounting surface is decorated with wooden, metallic or nonmetallic structure. Corresponding measures like reinforcement, support and anti-vibration shall be taken in case of insufficient strength.
- · Installation rack shall be such a fixture that the air conditioner can be fixed securely on the mounting surface.
- Confirm the diameter and depth of the mounting hole for the fixture based on hardness of the mounting surface material, select applicable expansion bolt to ensure unit's stability, firmness and reliability.
- Try to avoid rainy days, windy and snowy days as well as thundery days during installation. If necessary, relevant measures shall be taken to protect people from injury.

# Complete indoor/outdoor unit connection and perform test run

#### 4-1 Piping connection

1 Indoor unit piping

Connect liquid and gas pipes to the unit.

- \* First, align with the center, tighten the pipe nut with hand until you can't proceed.
- Refer to the following torque table, use two wrenches to tighten the indoor unit side connection pipe connector. Take care not to tighten it excessively to avoid damaging the flared part.

Pipe diameter		Torque tightened	
mm	Inch	N·m	kgf⋅cm
9.52	3/8	34.3-41.2	350-420
15.88	5/8	73.5-78.4	750-800



## 

When installing the unit, securely connect the refrigerant pipes before starting the compressor.

#### ② Outdoor unit connection

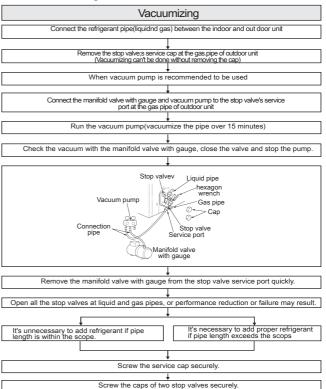
As the same connection with that of indoor unit, connect the pipe to the outdoor unit stop valve (two or three-way) pipe connector.

Tighten the connector with the same torque as that of indoor unit by torque wrench or common wrench.

## Heat insulation and wrapping band

- Pipes and valves connected at side of indoor unit should be heat insulated
- ② All pipes starting from the outdoor unit's pipe entrance shall be wrapped with band ⑤.
  - · Fix the end of band (a) with tape.
  - If the pipe goes through ceiling, toilet or other locations with high temperature and high humidity, please wrap the pipe with commercially available heat insulated band to avoid condensation.

## 4-2 Vacuumizing and leak detection test



Make a leakage detection test

	Tightening torque  N · m kgf · cm		
Service cap	13.7-17.7	140-180	
Shut off valve cap	19.6-29.4	200-300	

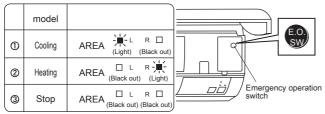
#### 4-3 Test run

## MSZ model Frequency conversion model

- Before the trial run, recheck if there is wrong connection. Wrong connection may hinder normal operation or lead to fusing as well as malfunction.
- Perform the trial run by emergency button. At the time of pressing the emergency button, the machine begins to operate in cooling mode based on optional mode for 30 minutes. The thermostat will be disabled within the 30 minutes. After the duration, the machine starts emergency operation in cooling or heating mode at the set temperature of 24°C.
- · Trial run shall be performed in the following process.

## Operation process

- · Press the emergency button
- ① Press the button firstly to enable cooling operation in emergency after running for 30 minutes.
- ② Press the button secondly to enable heating operation in emergency.
- ③ Press the button thirdly to disable the operation. Each press of the emergency button enables the unit to operate following the order of ①→②→③repeatedly.



## Caution:

· This is the indication of emergency operation mode.

## Make sure to receive the signal from the remote controller

After pressing the ON/OFF button of the remote controller, please confirm whether there is beep from the indoor unit.

Under the control of remote controller, the unit will quit the emergency operation when receiving the signal from the remote controller.

 In order to protect the compressor, the outdoor unit will not be enabled even if the air conditioner restarts three minutes after stopping operation.

## 4-4 Notice for user information

 Based on operating instructions, please describe the way to adjust and control temperature, disassembly of air filter, way of cleaning and precautions in operation.

### 5. Relocation and maintenance after installation

## 5-1 How to install front panel

- Set the horizontal vane to position No.3 (page 10) before installing the front panel.
- ② Insert the bottom side of front panel under the horizontal guide vane.
- <sup>③</sup> Fix the top of the front panel securely.
- Press the agraffe of front panel and fix the front panel on the air conditioner.

#### 5-2 Remove the indoor unit

Pull out the bottom part of indoor unit from the mounting panel.

Loosen two angles

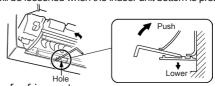
As shown below, pull the left and right corner part of indoor unit downwards and forwards and loosen the hook.



#### If the methods above can't be adopted

If the above methods can't be adopted, remove the front panel, insert a hexagon wrench into left and right square hole, then push it upwards.

The hook will be loosened when the indoor unit bottom is pressed.

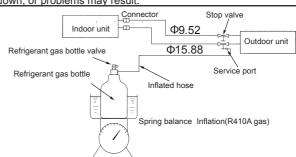


## 5-3 Supply of refrigerant

- ① Connect a gas bottle to the service port of stop valve(three way).
- <sup>②</sup> Purge the pipe or hose using the refrigerant from the gas bottle.
- Supply the refrigerant with specified amount during air conditioner operation in cooling mode.

# **⚠** Precautions

 During supply of the refrigerant, don't place the gas bottle upside down, or problems may result.



In order to keep high pressure in gas bottle, heat the bottle with warm water (40°C) in cold weather. But don't heat it with fire or steam.

#### Note:

- ① An indoor wiring diagram is stuck inside indoor unit front panel.
- <sup>2</sup> Outdoor wiring diagram is stuck on inside of service plate.

### 5-4 How to reclaim the refrigerant

- ① Be sure to use a pressure gauge.
- ② Enable a cooling operation first.
- Then, close the valve (liquid valve) at high pressure side completely with the readings of 0-0.05MPa (about 30-40s) in pressure gauge, finally close the valve (gas valve) at low pressure side to stop operation immediately.
- You can't remove the connection pipe until you ensure the closure
   of the two valves (liquid and gas) and power-off.

### **⚠ WARNING**

When reclaiming the refrigerant, stop the compressor before disconnecting the refrigerant pipes. The compressor may burst if gas (air, for example) gets into it.

三菱電機株式會社 日本東京都千代田區丸之内2-7-3東京大厦 MITSUBISHI ELECTRIC CORPORATION TOKYO BLDG,2-7-3,MARUNOUCHI CHIYODA-KU,TOKYO,100-8310,JAPAN
上海三菱電機・上菱空調機電器有限公司 中國上海市浦東新區南洋涇路505號
SHANGHAI MITSUBISHI ELECTRIC & SHANGLING AIR-CONDITIONER AND ELECTRIC APPLIANCE CO.,LTD NO.505 NAN YANGJING RD. PUDONG NEW AREA SHANGHAI CHINA