



# ATW INDOOR UNIT OPTIONAL PARTS

## 2 ZONE KIT

### PAC-TZ02-E

## INSTALLATION MANUAL

- This 2 zone kit **MUST** be used with Cylinder unit or Hydrobox **except for E\*SE models**.
- Before starting installation, read the following description together with the installation manual included with the Cylinder unit (Hydrobox).
- Please read carefully and observe fully the following safety precautions.

<b>WARNING</b>	Precaution that must be observed to prevent injuries or death.
<b>CAUTION</b>	Incorrect handling could lead to injury or damage to house and household articles.

- After installation, carry out a test run to ensure correct operation, then explain operation method and safety precautions to the end user.  
Tell your customers to keep this installation manual, and when they give or sell this machine to any other person include this installation manual with it.

### **WARNING**

- If Cylinder unit (Hydrobox) has already been connected to the power supply, ensure circuit breaker is off before carrying out electrical work.
- If the 2 zone kit is installed incorrectly or modified after installation by the user, water may leak or 2 zone kit may fall from Cylinder unit or wall.
- All installation should be performed by a qualified technician according to local regulations and the instructions given in this manual.
- Connections must be made securely and without tension on the terminals.

### **CAUTION**

- The 2 zone kit must be installed by 2 or more people.
- All exposed water pipework should be insulated to prevent unnecessary heat loss and condensation.
- To also use the 2 zone kit in Cooling mode, securely apply heat-insulation to draining pipework. If heat-insulation is inadequate, condensation could occur on the surface of pipes and dew could drop on the floor or important goods.
- To prevent dirty water from draining onto the floor next to Cylinder unit or under Hydrobox, please connect appropriate discharge pipework from the 2 zone kit to its disposal location.
- Secure 2 zone kit to prevent it from falling.
- Do not hold piping or drain socket when moving the 2 zone kit.
- Avoid the connection of piping or drain socket from damage. Otherwise, it may cause water leakage.
- To prevent incorrect installation, please connect the flexible hose at the bend radius of 150 mm or more.
- The water flow rate between the Cylinder unit (Hydrobox) and the 2 zone kit must be greater than the total flow rate of Zone1 and Zone2. Otherwise, Zone1 and Zone2 may not be heated properly.

## ■ Disposal of the Unit

**Note: This symbol mark is for EU countries only.**

**This symbol mark is according to the directive 2012/19/EU Article 14 Information for users and Annex IX, and/or to the directive 2006/66/EC Article 20 Information for end-users and Annex II.**

Your Mitsubishi Electric heating system products have been manufactured with high quality materials and components which can be recycled and/or reused. The symbol in Figure 1.1 means that electrical and electronic equipment, batteries and accumulators at the end of their life, should be disposed of separately from your household waste.

If a chemical symbol is printed beneath the symbol (Figure 1.1), this chemical symbol means that the battery or accumulator contains a heavy metal at a certain concentration. This is indicated as follows;

Hg: mercury (0.0005%), Cd: cadmium (0.002%), Pb: lead (0.004%)

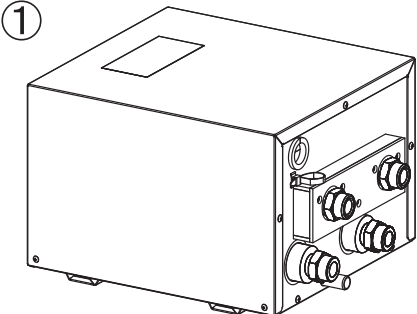

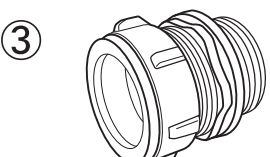
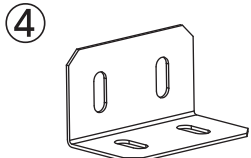
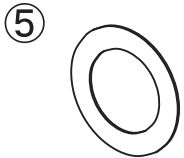
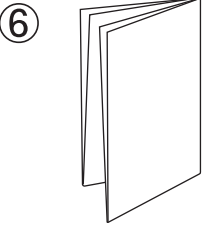
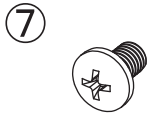
In the European Union there are separate collection systems for used electrical and electronic products, batteries and accumulators.

<Figure 1.1>

Please dispose of this equipment, batteries and accumulators correctly at your local community waste collection/recycling centre.

**Contact your local Mitsubishi Electric dealer for country-specific details on disposal.**

Please, help us to conserve the environment we live in.

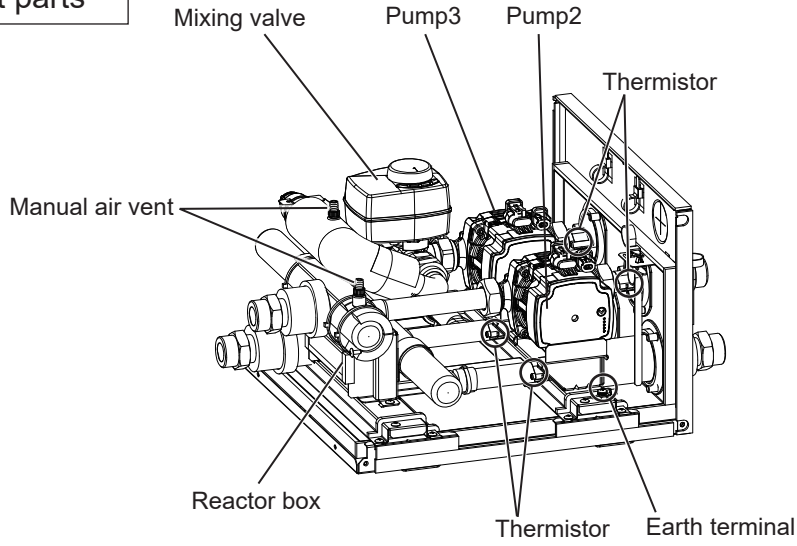
Contents	
	
	
	
	

Item	Q'ty
① 2 zone kit	1
② Flexible hose (520mm)	2
③ Conversion joint (Φ28 → G1)	2
④ Fixing plate	2
⑤ Gasket	4
⑥ Installation manual	1
⑦ Screw (M5×8)	2

Outline	

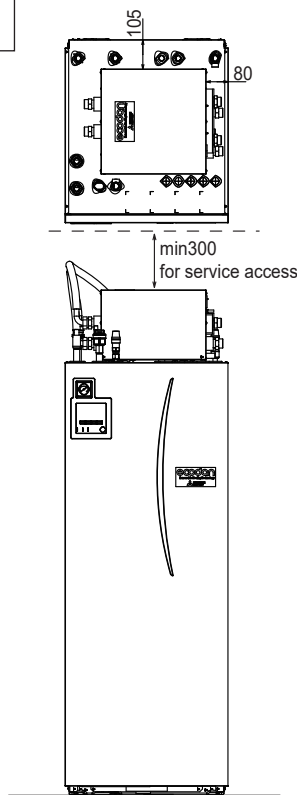
Unit: mm	Legend
A	From Cylinder unit (Hydrobox)
B	To Cylinder unit (Hydrobox)
C	From Zone1
D	To Zone1
E	From Zone2
F	To Zone2

Component parts

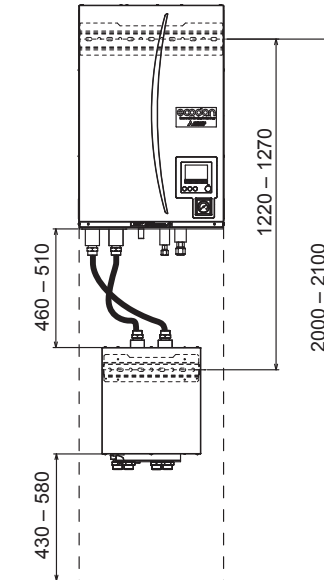


Installation position

<Cylinder unit>

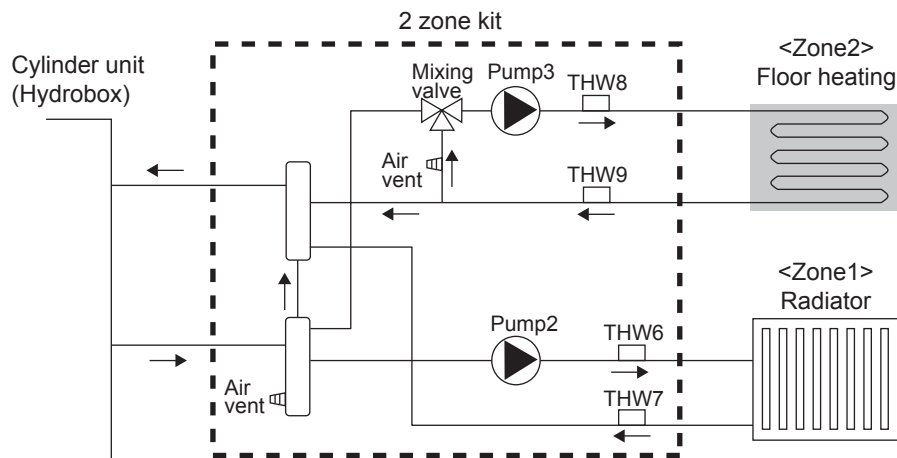


<Hydrobox>

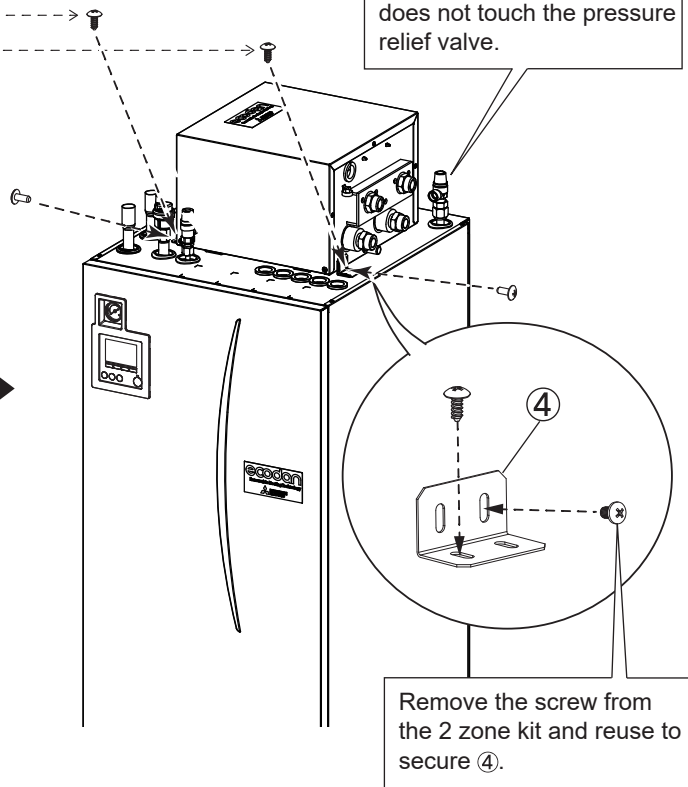
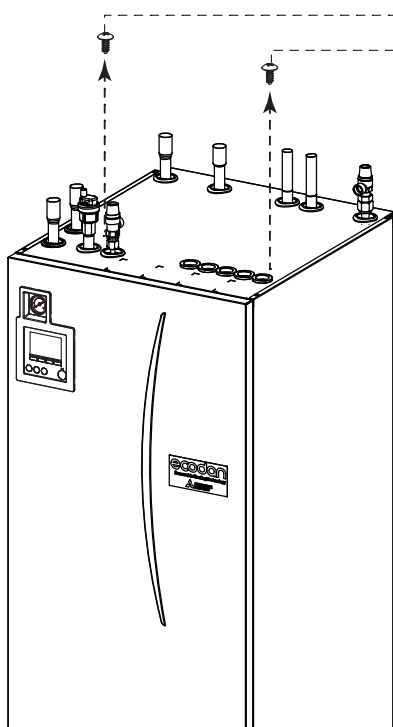


Unit: mm

Water circuit and system figure

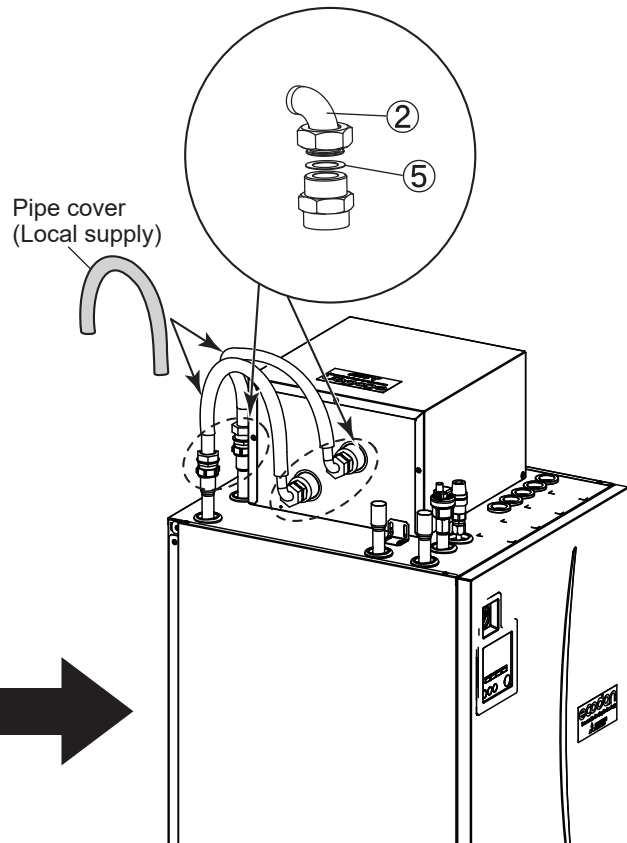
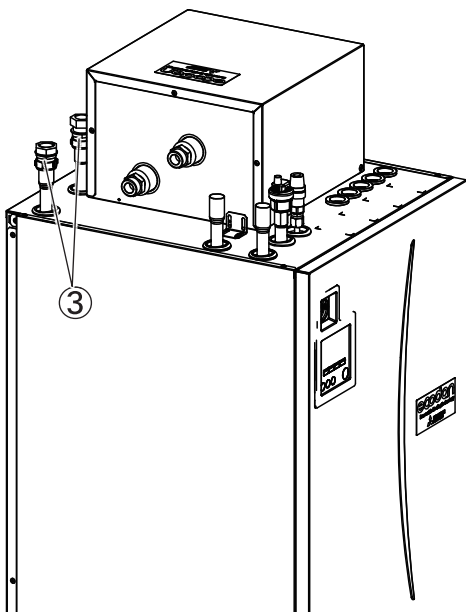


1 In the case of Cylinder unit



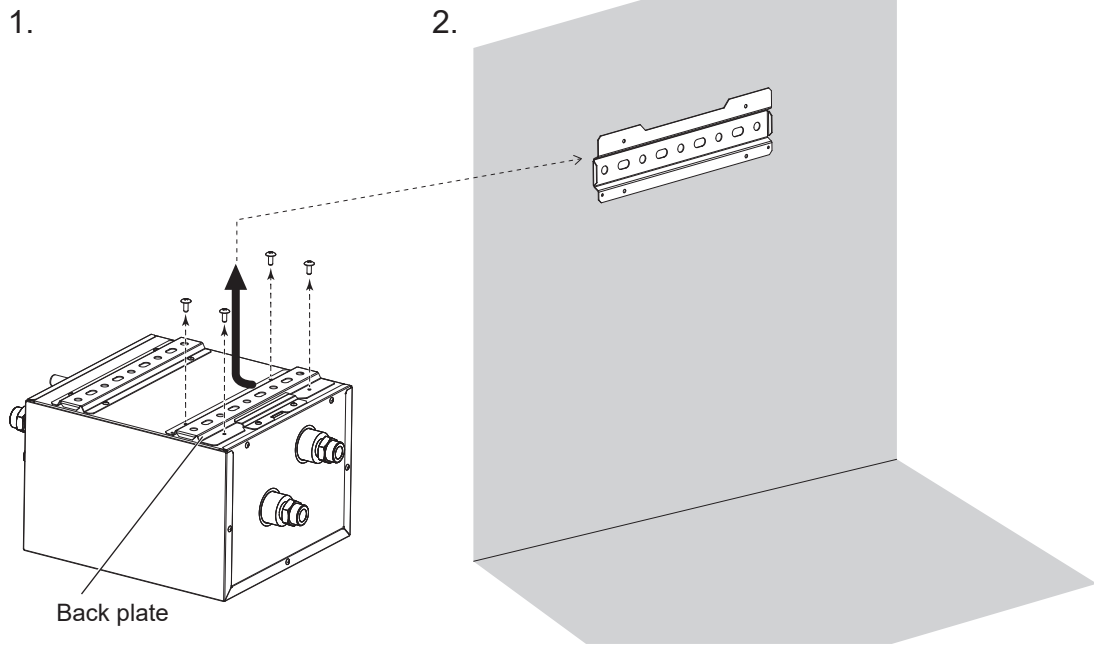
2 In the case of Cylinder unit

After hand tighten the nut, tighten the joint 1 turn.  
If necessary, tighten by another 1/4 of a turn.

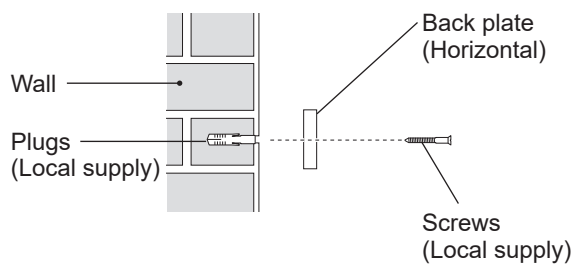


Tightening torque: 42N·m  
Use double spanners.  
Do not use the flexible hose below the bend radius of 150 mm.

## 1 In the case of Hydrobox

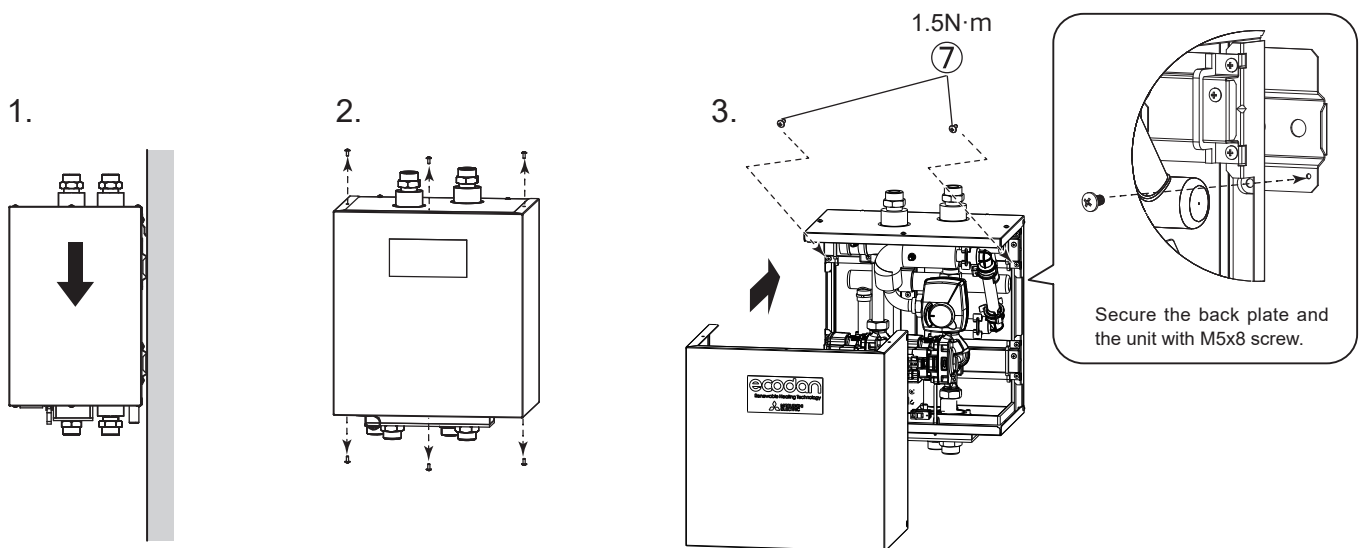


<Side view>

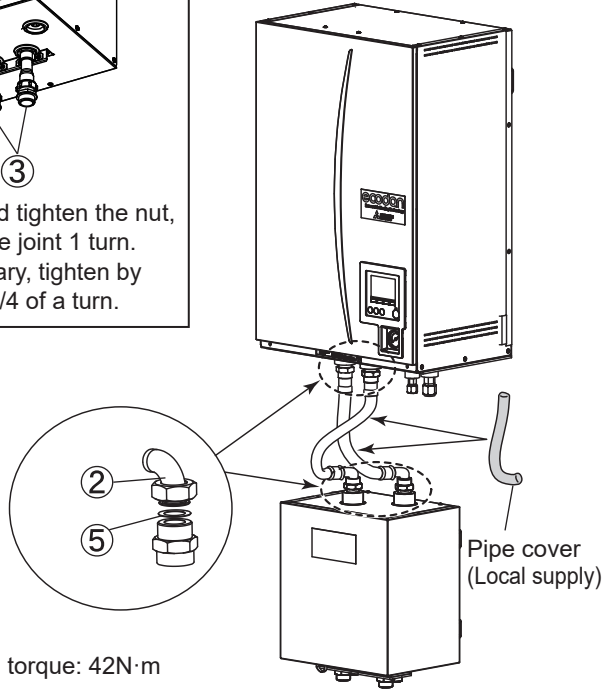
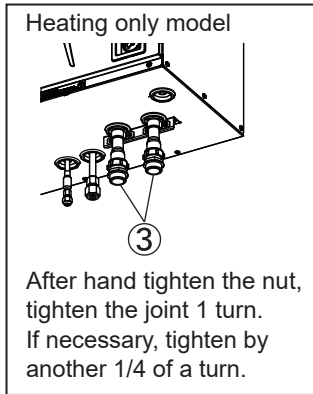


- Ensure that the notch is positioned at the TOP of the back plate. The back plate is provided with screw mounting holes that are round or oval. To prevent the 2-zone kit from falling off the wall, choose the appropriate number of holes or hole positions and horizontally secure the back plate to the appropriate wall location.

## 2 In the case of Hydrobox

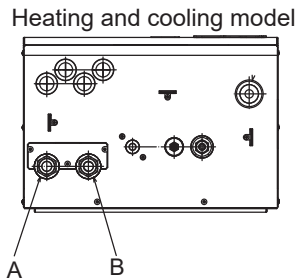
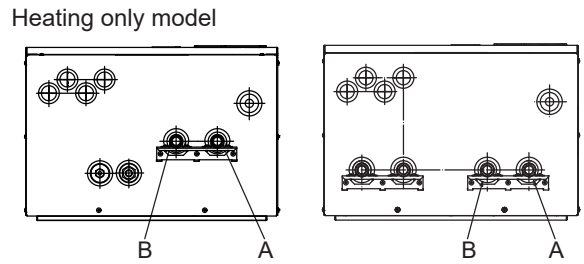


### 3 In the case of Hydrobox



Tightening torque: 42N·m  
Use double spanners.  
Do not use the flexible hose below the bend radius of 150 mm.

#### <View from below>

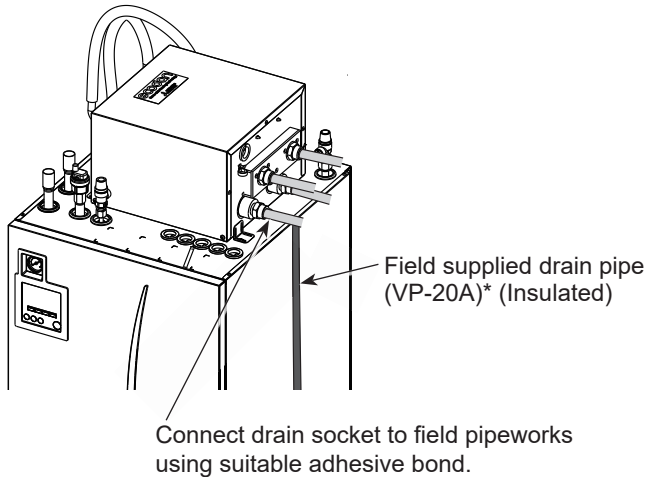


Letter	Pipe description
A	Space heating/Indirect DHW tank (primary) return connection
B	Space heating/Indirect DHW tank (primary) flow connection

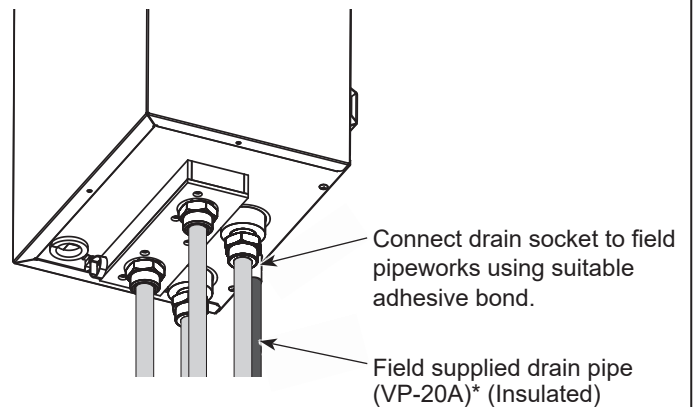
### Drain piping

Connect the drain pipe only for Heating/Cooling models.

#### <Cylinder unit>



#### <Hydrobox>



#### NOTE

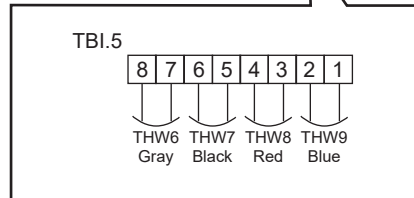
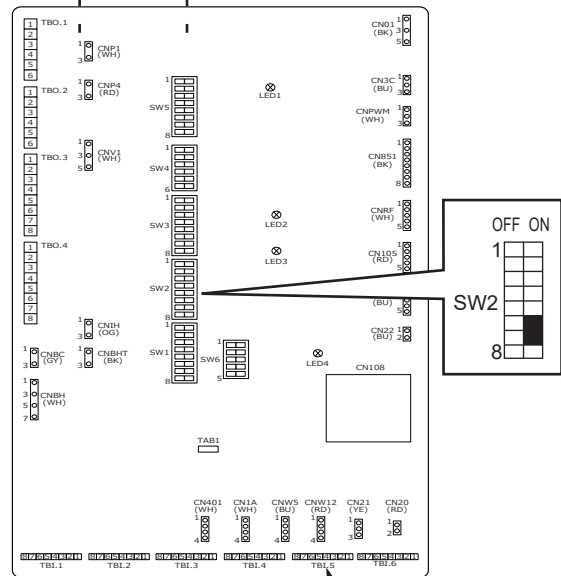
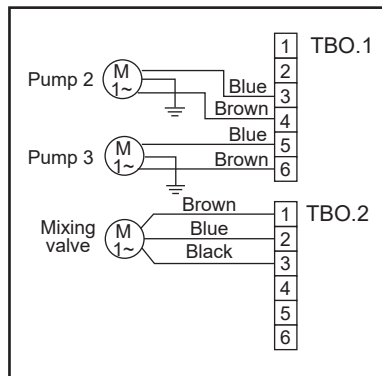
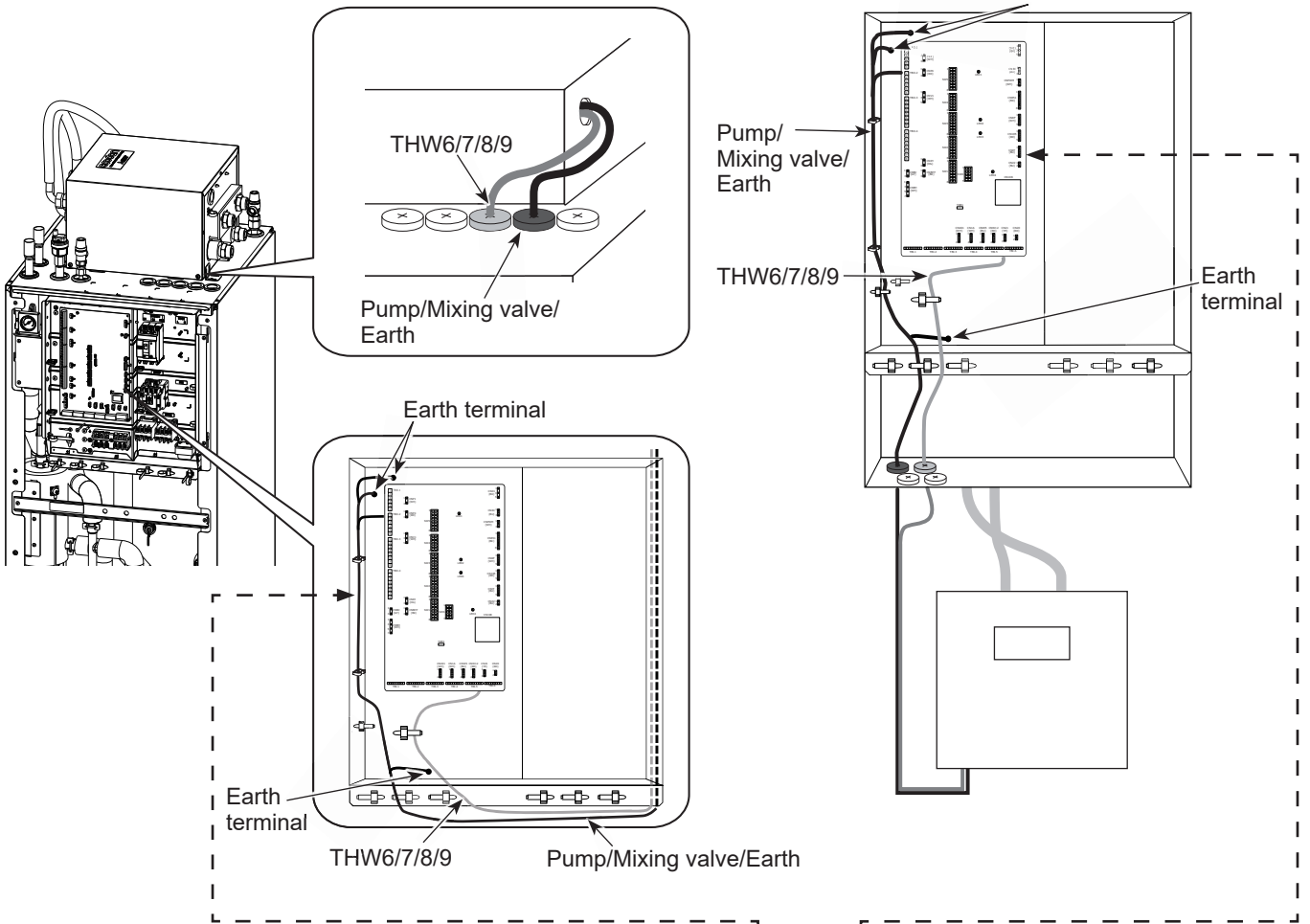
- Please use PVC pipe for drain piping.
- Use only compatible adhesive/glue for pipe joint.
- For proper drain-off, install pipework with gradient/fall of min. 1/100.
- Install pipe to fall continuously without bowing.
- Do not install any air purge points on condensate drain pipe run.
- Condensate drain pipe must discharge to suitable and safe outlet location. It should not be directly connected to any sewer-connected pipework that may introduce sulphurous gases/smells to the building.

\* "VP-20" is a PVC pipe with an outside diameter of 26 mm and an inside diameter of 20 mm.

# Wiring

<Cylinder unit>

<Hydrobox>



## DIP Switch settings of Cylinder unit (Hydrobox)

Setting the following DIP switches are necessary for 2 zone control. (See the installation manual of Cylinder unit (Hydrobox) for more information.)

DIP switch	Function	OFF	ON	Setting when using 2 zone kit
SW2-6	Mixing tank	WITHOUT Mixing tank	WITH Mixing tank	ON
SW2-7	2-zone temperature control	Inactive	Active *	ON

\* Active only when SW3-6 is set to OFF.

## Specifications

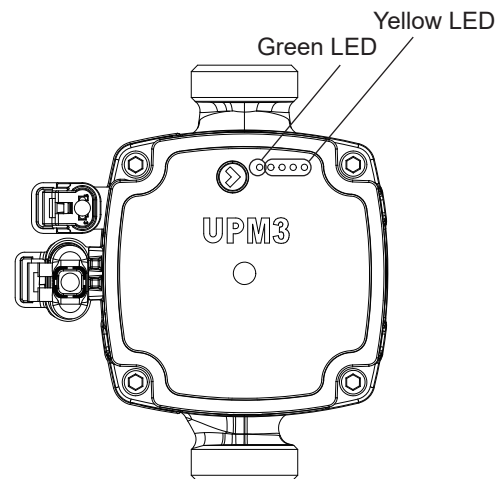
Model name	PAC-TZ02-E
Dimension	265mm × 383mm × 383mm
Weight	17kg
Power supply	230V/single phase/50Hz from Cylinder unit (Hydrobox)
Sound pressure level	28dB(A)
Sound power level	40dB(A)
Pump2, 3	Max. 52W/0.52A
	Max. head 7.0m <sup>*1</sup>
Mixing valve	5W
	Running time 90° 120s
Water flow rate range	Depend on outdoor unit

Note:

- Max. flow rate is 36.9L/min. If the flow rate exceeds 36.9L/min, pipes would be eroded.
- The water flow rate between the Cylinder unit (Hydrobox) and the 2 zone kit must be greater than the total flow rate of Zone1 and Zone2.

## Pump performance view

Display	Performance in % of MAX consumption
One green LED	0
One green LED + one yellow LED	0-25
One green LED + two yellow LED	25-50
One green LED + three yellow LED	50-75
One green LED + four yellow LED	75-100



## Pump key lock function

If you press the button for more than 10 seconds, you can toggle between enabling/disabling the key lock function.



## Pump setting selection

You can check the setting by pressing the push button.

If you press the button for 2 to 10 seconds, the user interface switches to “setting selection” if the user interface is unlocked.

You can change the settings as below table.

Mode	LED1 green	LED2 yellow	LED3 yellow	LED4 yellow	LED5 yellow
PP1	•	•			
PP2	•	•		•	
PP3	•	•		•	•
PP AA	•	•			•
CP1	•		•		
CP2	•		•	•	
CP3	•		•	•	•
CP AA	•		•		•
CC1	•	•	•		
CC2	•	•	•	•	
CC3	•	•	•	•	•
CC max.	•	•	•		•

### PP: Proportional Pressure

The head (pressure) is reduced at falling heat demand and increased at rising heat demand.

PP1: lowest proportional pressure curve

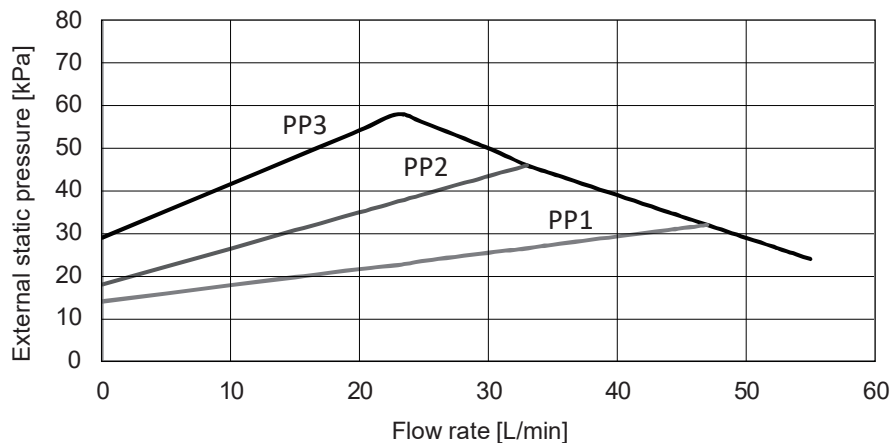
PP2: intermediate proportional pressure curve

PP3: highest proportional pressure curve

PP Auto Adapt: highest to lowest proportional pressure curve

The Auto Adapt function enables the circulator to adjust the pump performance automatically to the size of the system or the variations in load over time.

### <Proportional Pressure>



### CP: Constant Pressure

The head (pressure) is kept constant, irrespective of the heat demand.

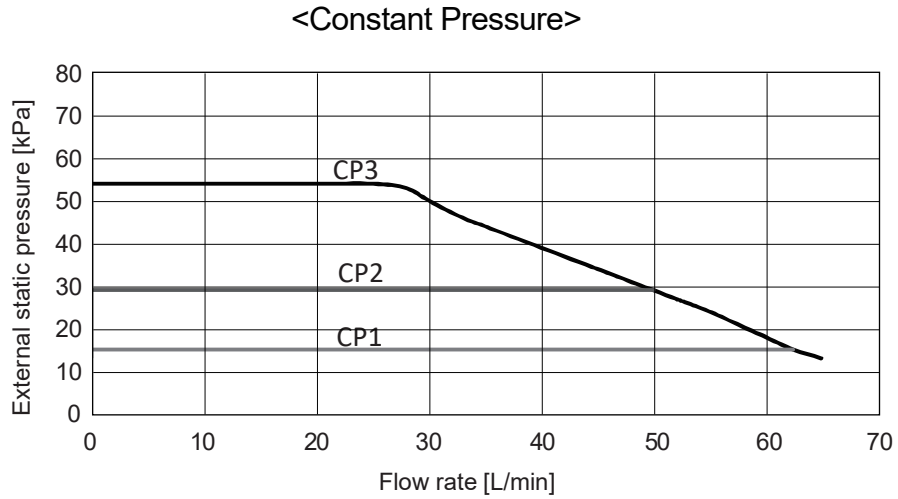
CP1: lowest constant pressure curve

CP2: intermediate constant pressure curve

CP3: highest constant pressure curve

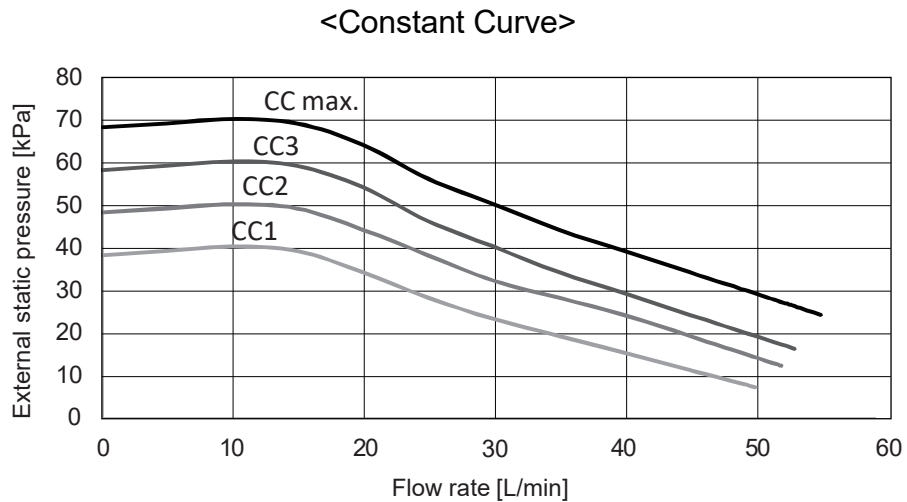
CP Auto Adapt: highest to lowest constant pressure curve

The Auto Adapt function enables the circulator to adjust the pump performance automatically to the size of the system or the variations in load over time.



### CC: Constant Curve

The circulator runs on a constant curve.





Please be sure to put the contact address/telephone number on  
this manual before handing it to the customer.



**mitsubishi electric corporation**

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