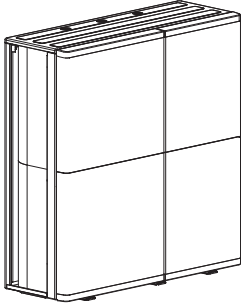




Operating Instructions

Air-to-Water Heatpump Outdoor Unit /

Air-to-Water Heatpump Outdoor Unit and Indoor Unit



Model No. _____

Outdoor Unit

WH-WXG20ME8

WH-WXG25ME8

WH-WXG30ME8

ENGLISH

Before operating the system, please read these operating instructions thoroughly and keep them for future reference.



Thank you for purchasing Panasonic product.

Installation Instructions attached.

Serial number and production year please refer to name plate.

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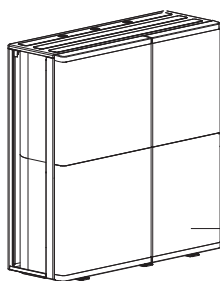


Before use, make sure the system has been installed correctly by an authorised dealer/specialist according to the given instructions.

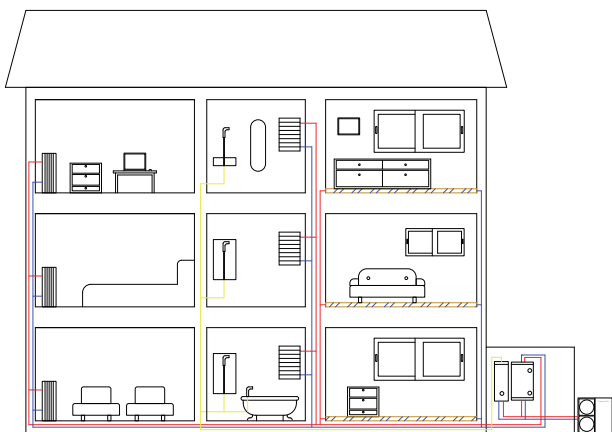
- **Panasonic Air-to-Water** is a system that consists of a single outdoor unit or two units: an indoor unit and an outdoor unit. The indoor unit consists of the control module.
- These operating instructions describe how to operate the system using a single outdoor unit or the indoor and outdoor units.
- As for the operation of other products such as radiator, external thermo controller, and underfloor units, refer to the operating instructions of each product.
- System could be locked to operate in HEAT mode and disable COOL mode.
- Some functions described in this manual may not be applicable to your system.
- Ensure that incoming water is clean. When water tapped from a private well or spring water, it may be necessary to supplement with an extra water filter.
- Do avoid using water containing salt, acid, and other impurities which may corrode the tank and its component.
- Consult your nearest authorised dealer/specialist for further information.
- Install the outdoor unit outdoors.

System overview

(Structure of units varies by models.)



Outdoor Unit



Note:

Do Not Open the front grilles except authorised dealer/specialist.
(For authorised dealer/specialist use only)

The illustrations in this manual are for explanation purposes only and differ from the actual unit.
They are subject to change without notice for future improvement.

In the future explanations, there will be parts that will explain the outdoor unit alone or in combination with the indoor unit, but the content will differ depending on the user's system.

! Children aged from 3 to 8 years are only allowed to operate the tap connected to the water heater.

Operating conditions

| | HEATING (TANK) | HEATING (CIRCUIT) | *1,*2 COOLING (CIRCUIT) |
|---|----------------|--|-------------------------|
| Water outlet temperature (°C) (Min. / Max.) | - / 70 *3 | 25 / 55 (Below Ambient -20 °C) ** 25 / 65 (Above Ambient -15 °C) ** 25 / 70 (Above Ambient -7 °C) 25 / 75 (Above Ambient 15 °C) | 7 / 20 |
| Outdoor ambient temperature (°C) (Min. / Max.) | -25 / 43 | -25 / 35 | 10 / 43 |

When the outdoor temperature is out of the range in the table, the heating capacity will drop significantly and the unit may stop operating for its protection.

The unit will restart automatically after the outdoor temperature returns to the specified range.

*1 The system is locked to operate without COOL mode. It can be unlocked only by authorised installers or our authorised service partners.

*2 Only displayed when COOL mode is unlocked (This means when COOL mode is available)

*3 When outdoor ambient is under -15 °C, only the backup heater operate above 55 °C. (Outdoor unit don't have backup heater.)

*4 Between outdoor ambient -15°C and -20°C, the water outlet temperature gradually decreases from 65°C to 55°C

Safety precautions


To prevent personal injury, injury to others or property damage, please comply with the following:

Incorrect operation due to failure to follow instructions below may cause harm or damage, the seriousness of which is classified as below:

| | |
|---|---|
|  WARNING | This sign warns of death or serious injury. |
|---|---|

| | |
|---|--|
|  CAUTION | This sign warns of injury or damage to property. |
|---|--|

The instructions to be followed are classified by the following symbols:

| | |
|--|---|
|  | This symbol denotes an action that is PROHIBITED . |
|--|---|

| | |
|--|--|
|  | These symbols denote actions COMPULSORY . |
|--|--|



WARNING

Indoor unit and outdoor unit



This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Please consult an authorised dealer or specialist to clean the internal parts, repair, install, remove, disassemble and reinstall the unit. Improper handling may cause leakage, electric shock or fire.

Confirm with authorised dealer or specialist on usage of any specified refrigerant type. Using refrigerant type other than the specified may cause product damage, burst and injury etc.



Do not use means to accelerate the defrosting process or to clean, other than those recommended by manufacturer. Any unfit method or using incompatible material may cause product damage, burst and serious injury.

Do not install the unit in a potentially explosive or flammable atmosphere. Otherwise, fire may be caused.



Do not insert your fingers or other objects into the Air to water indoor or outdoor unit, rotating parts may cause injury.



Do not touch the outdoor unit during lightning, it may cause electric shock.

Do not sit or step on the unit, you may fall down accidentally.



Do not install the indoor unit outdoors. Indoor unit is designed for indoor installation only.

Power supply



Do not use a modified cable, joint cable, extension cable or unspecified cable to prevent overheating and fire.



To prevent overheating, fire or electric shock:

- Do not share the same power outlet with other equipment.
- Do not operate with wet hands.
- Do not over bend the power supply cable.



If the supply cable is damaged, it must be replaced by the manufacturer, service agent or similarly qualified persons in order to avoid a hazard.



A residual current protective device (RCD) must be installed on site to prevent electric shock or fire.

Before obtaining access to terminals, all supply circuits must be disconnected.

Stop using the product if any abnormality/failure occurs and disconnect the power supply. (Risk of smoke/fire/electric shock)

Examples of abnormality/failure

- RCCB/ELCB trips frequently.
- Burning smell is observed.
- Abnormal noise or vibration of the unit is observed.
- Hot water leaks from the indoor unit or outdoor unit.

Contact your local dealer/specialist immediately for maintenance/repair.

Wear gloves during inspection and maintenance.



This equipment must be earthed to prevent electrical shock or fire.



Prevent electric shock by switching off the power supply:
-Before cleaning or servicing,
-When extended non-use.

To avoid electric shock, burn and/or fatal injury, make sure to disconnect all power supplies before accessing any terminal in the indoor unit and outdoor unit.

Safety precautions



CAUTION

Indoor unit and outdoor unit



Do not wash the indoor unit with water, benzene, thinner or scouring powder to avoid damage or corrosion at the unit.

Do not install the unit close to any combustibles or at bathroom. Otherwise, it may cause electric shock and/or fire.

Do not touch the sharp aluminium fin, sharp parts may cause injury.



Do not use the system during sterilisation in order to prevent scalding with hot water, or overheating of shower.

Do not dismantle the unit for cleaning purpose to avoid injury.

Do not step onto an unstable bench when cleaning the unit to avoid injury.

Do not place a vase or water container on the unit. Water may enter the unit and degrade the insulation. This may cause an electric shock.



Prevent water leakage by ensuring drainage pipe is:

- Connected properly,
- Kept clear of gutters and containers, or
- Not immersed in water

After a long period of use or use with any combustible equipment, aerate the room regularly.

After a long period of use, make sure the installation rack does not deteriorate to prevent the unit from falling down.



Water piping in the occupied space shall be installed in such a way to protect against accidental damage in operation and service.

Precautions shall be taken to avoid excessive vibration or pulsation to Water piping.

Protect the Water piping from accidental rupture due to moving furniture or reconstruction activities.

Remote Controller



Do not wet the Remote Controller. Failure to do so may result in electric shock and/or fire.

Do not press the buttons on the Remote Controller using hard and sharp objects. Failure to do so may cause damage to the unit.

Do not wash the Remote Controller using water, benzene, thinner or scouring powder.

Do not inspect or maintain the Remote Controller by yourself. Consult an authorised dealer/ specialist in order to prevent personal injury caused by incorrect operation.



WARNING

This appliance is filled with R290 (Extremely flammable gas, safety A3 group per ISO 817).

If the refrigerant is leaked and exposed to an external ignition source, there is a risk of fire.



Indoor unit and outdoor unit



Protective zone is defined near the product. See section Protective zone.

Be aware that refrigerant may not contain an odour, highly recommended to ensure suitable flammable refrigerant gas detectors are present, operating and able to warn of a leak.

Keep any required ventilation openings clear of obstruction.



Do not pierce or burn as the appliance is pressurized. Do not expose the appliance to heat, flame, sparks, or other sources of ignition. Else it may explode and cause injury or death.

Precaution for using R290 refrigerant



The mixing of different refrigerants within a system is prohibited.

- Operation, maintenance, repairing and refrigerant recovery should be carried out by trained and certified personnel in the use of flammable refrigerants and as recommended by the manufacturer. Any personnel conducting an operation, servicing or maintenance on a system or associated parts of the equipment should be trained and certified.
- Any part of refrigerating circuit (evaporators, air coolers, AHU, condensers or liquid receivers) or piping should not be located in the proximity of heat sources, open flames, operating gas appliance or an operating electric heater.
- The user/owner or their authorised representative shall regularly check the alarms, mechanical ventilation and detectors, at least once a year, where as required by national regulations, to ensure their correct functioning.
- A logbook shall be maintained. The results of these checks shall be recorded in the logbook.
- In case of ventilations in occupied spaces shall be checked to confirm no obstruction.

Safety precautions



- Before a new refrigerating system is put into service, the person responsible for placing the system in operation should ensure that trained and certified operating personnel are instructed on the basis of the instruction manual about the construction, supervision, operation and maintenance of the refrigerating system, as well as the safety measures to be observed, and the properties and handling of the refrigerant used.
 - The general requirement of trained and certified personnel are indicated as below:
 - a) Knowledge of legislation, regulations and standards relating to flammable refrigerants; and,
 - b) Detailed knowledge of and skills in handling flammable refrigerants, personal protective equipment, refrigerant leakage prevention, handling of cylinders, charging, leak detection, recovery and disposal; and,
 - c) Able to understand and to apply in practice the requirements in the national legislation, regulations and Standards; and,
 - d) Continuously undergo regular and further training to maintain this expertise.
 - e) Ensure protection devices, refrigerating cycle are well protected against adverse environmental effects (such as the danger of water collecting and freezing in relief pipes or the accumulation of dirt and debris).
-



1. Installation (Space)

- Must ensure that water pipe-work shall be protected from physical damage.
 - Must ensure mechanical connections be accessible for maintenance purposes.
 - In cases that require mechanical ventilation, ventilation openings shall be kept clear of obstruction.
 - Must comply with national gas regulations, state municipal rules and legislation. Notify relevant authorities in accordance with all applicable regulations.
 - When disposal of the product, do follow to the precautions in #12 and comply with national regulations. Always contact to local municipal offices for proper handling.
-



2. Servicing

2-1. Service personnel

- The system is inspected, regularly supervised and maintained by a trained and certified service personnel who is employed by the person user or party responsible.
 - Ensure refrigerant charge not to leak.
 - Any qualified person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants safely in accordance with an industry recognised assessment specification.
 - Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
 - Servicing shall be performed only as recommended by the manufacturer.
-



2-2. Work

- Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimised. For repair to the refrigerating system, the precautions in #2-2 to #2-8 must be followed before conducting work on the system.
 - Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapour being present while the work is being performed.
 - All maintenance staff and others working in the local area shall be instructed and supervised on the nature of work being carried out.
 - Avoid working in confined spaces. Always ensure away from source, at least 2 meter of safety distance, or zoning of free space area of at least 2 meter in radius.
 - Wear appropriate protective equipment, including respiratory protection, as conditions warrant.
 - Keep all sources of ignition and hot metal surfaces away.
-

Safety precautions



2-3. Checking for presence of refrigerant

- The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres.
- Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non sparking, adequately sealed or intrinsically safe.
- In case of leakage/spillage happened, immediately ventilate area and stay upwind and away from spill/release.
- In case of leakage/spillage happened, do notify persons down wind of the leaking/spill, isolate immediate hazard area and keep unauthorized personnel out.



2-4. Presence of fire extinguisher

- If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available at hand.
 - Have a dry powder or CO₂ fire extinguisher adjacent to the charging area.
-



2-5. No ignition sources

- No person carrying out work in relation to a refrigerating system shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. They must not be smoking when carrying out such work.
 - All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space.
 - Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks.
 - “No Smoking” signs shall be displayed.
-



2-6. Ventilated area

- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work.
 - A degree of ventilation shall continue during the period that the work is carried out.
 - The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.
-



2-7. Checks to the refrigerating equipment

- Where electrical components are being changed, they shall be fit for the purpose and to the correct specification.
 - At all times the manufacturer's maintenance and service guidelines shall be followed.
 - If in doubt consult the manufacturer's technical department for assistance.
 - The following checks shall be applied to installations using flammable refrigerants.
 - The ventilation machinery and outlets are operating adequately and are not obstructed.
 - If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant.
 - Marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected.
 - Refrigerating pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are properly protected against being so corroded.
-



2-8. Checks to electrical devices

- Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures.
 - Initial safety checks shall include but not limit to:-
 - That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking.
 - That there are no live electrical components and wiring are exposed while charging, recovering or purging the system.
 - That there is continuity of earth bonding.
 - At all times the manufacturer's maintenance and service guidelines shall be followed.
 - If in doubt consult the manufacturer's technical department for assistance.
 - If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.
 - If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used.
 - The owner of the equipment must be informed or reported so all parties are advised thereafter.
-

Safety precautions



3. Repairs to sealed components

- During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc.
- If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.
- Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected. This shall include damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc.
- Ensure that apparatus is mounted securely.
- Ensure that seals or sealing materials have not degraded such that they no longer serve the purpose of preventing the ingress of flammable atmospheres.
- Replacement parts shall be in accordance with the manufacturer's specifications.

NOTE: The use of silicon sealant may inhibit the effectiveness of some types of leak detection equipment.

Intrinsically safe components do not have to be isolated prior to working on them.



4. Repairs to intrinsically safe components

- Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use.
 - Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere.
 - The test apparatus shall be at the correct rating.
 - Replace components only with parts specified by the manufacturer. Unspecified parts by manufacturer may result ignition of refrigerant in the atmosphere from a leak.
-



5. Cabling

- Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects.
 - The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.
-



6. Detection of flammable refrigerants

- Under no circumstances shall potential sources of ignition be used in the searching or detection of refrigerant leaks.
 - A halide torch (or any other detector using a naked flame) shall not be used.
-



7. The following leak detection methods are deemed acceptable for all refrigerant systems

- No leaks shall be detected using detection equipment with sensitivity to detect leakage of 5g/year of refrigerant or better under a pressure of at least 0.25 times the maximum allowable pressure (>0.98 MPa, max 3.90 MPa), for example, a universal sniffer.
- Electronic leak detectors may be used to detect flammable refrigerants, but the sensitivity may not be adequate, or may need re-calibration.
(Detection equipment shall be calibrated in a refrigerant-free area.)
- Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.
- Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25 % maximum) is confirmed.
- Leak detection fluids are also suitable for use with most refrigerants, for example, bubble method and fluorescent method agents. The use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.
- If a leak is suspected, all ignition sources shall be removed/ extinguished.
- If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system. The precautions in #8 must be followed to remove the refrigerant.



8. Removal and evacuation

- When breaking into the refrigerant circuit to make repairs – or for any other purpose – conventional procedures shall be used. However, it is important that best practice is followed since flammability is a consideration. The following procedure shall be adhered to: remove refrigerant -> purge the circuit with inert gas -> evacuate -> purge with inert gas -> open the circuit by cutting. Brazing must not be used.
- The refrigerant charge shall be recovered into the correct recovery cylinders.
- The system shall be purged with OFN to render the appliance safe.

OFN = oxygen free nitrogen, type of inert gas.

- This process may need to be repeated several times.
- Compressed air or oxygen shall not be used for this task.
- Purging shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum.
- This process shall be repeated until no refrigerant is within the system (Until the concentration of purge gas is 0.25 LFL or less by the leak detector).
 $\times 0.25 \text{LFL} = 0.525 \text{Vol}\%$
- When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.
- This operation is absolutely vital if brazing operations on the pipe work are to take place.

Safety precautions



- Ensure that the outlet for the vacuum pump is not close to any potential ignition sources and there is ventilation available.



9. Charging procedures

- In addition to conventional charging procedures, the following requirements shall be followed.
 - Ensure that contamination of different refrigerants does not occur when using charging equipment.
 - Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
 - Cylinders shall be kept in an appropriate position according to the instructions.
 - Ensure that the refrigerating system is earthed prior to charging the system with refrigerant.
 - Label the system when charging is complete (if not already).
 - Extreme care shall be taken not to over fill the refrigerating system.
- Prior to recharging the system it shall be pressure tested with OFN (refer to #8).
- The system shall be leak tested on completion of charging but prior to commissioning.
- A follow up leak test shall be carried out prior to leaving the site.
- Electrostatic charge may accumulate and create a hazardous condition when charging and discharging the refrigerant. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before charging/discharging.



10. Decommissioning

- Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its details.
- It is recommended good practice that all refrigerants are recovered safely.
- Re-use of recovered refrigerant is prohibited.
- It is essential that electrical power is available before the task is commenced.
 - a) Become familiar with the equipment and its operation.
 - b) Isolate system electrically.
 - c) Before attempting the procedure ensure that:
 - mechanical handling equipment is available, if required, for handling refrigerant cylinders;
 - all personal protective equipment and leak detectors are available and being used correctly;
 - the recovery process is supervised at all times by a competent person;
 - recovery equipment and cylinders conform to the appropriate standards.
 - d) Make sure that cylinder is situated on the scales before recovery takes place.
 - e) Start the recovery machine and operate in accordance with instructions.
 - f) Do not over fill cylinders. (No more than 80 % volume liquid charge).
 - g) Do not exceed the maximum working pressure of the cylinder, even temporarily.



h) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.

- Electrostatic charge may accumulate and create a hazardous condition when charging or discharging the refrigerant. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before charging/discharging.



11. Labelling

- Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant.
- The label shall be dated and signed.
- Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.



12. Recovery

- When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.
- When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed.
- Ensure that the correct number of cylinders for holding the total system charge are available.
- All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant).
- Cylinders shall be complete with pressure relief valve and associated shut-off valves in good working order.
- Recovery cylinders are evacuated and, if possible, cooled before recovery occurs.
- The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of flammable refrigerants.
- Make sure the recovery equipment is not a potential ignition source and is suitable for the refrigerant you are using.
- In addition, a set of calibrated weighing scales shall be available and in good working order.
- Hoses shall be complete with leak-free disconnect couplings and in good condition.

Safety precautions



- Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.
- The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant Waste Transfer Note arranged.
- Do not mix refrigerants in recovery units and especially not in cylinders.
- If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant.
- The evacuation process shall be carried out prior to returning the compressor to the suppliers.
- Only electric heating to the compressor body shall be employed to accelerate this process.
- When oil is drained from a system, it shall be carried out safely.

Protective zone

This outdoor unit is filled with R290 (Extremely flammable gas, safety A3 group per ISO 817). Note that this refrigerant has a higher density than air. In case of a refrigerant leak, the leaked refrigerant may accumulate near the ground.

Prevent accumulation of refrigerant in any way that is potentially dangerous, explosive or risk suffocation. Prevent refrigerant from entering the building through building openings. Prevent accumulation of refrigerant in the drain grooves.

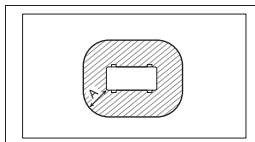
A protective zone is defined around this outdoor unit. There must be no building openings, windows, doors, light shafts, cellar entrances, escape hatches, flat-roof windows or ventilation openings in the protective zone.

There must be no ignition sources, such as heat above 360 °C, sparks, open flame, plug sockets, light switches, lamps, electrical switches or other permanent ignitions sources, in the protective zone.

The protective zone must not extend to adjacent buildings or public traffic areas (boundaries of neighbors, the public road, neighbor's private roads, subsidence area, depressions, pump shafts, sewers intakes, waste water shafts and so on.).

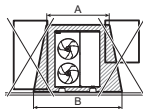
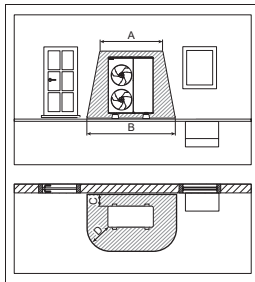
In the protective zone, you are not permitted to make any subsequent structural alterations which infringe the stated rules for the protective zone.

1) Protective zone for ground installation (or flat-roof installation) at the open areas



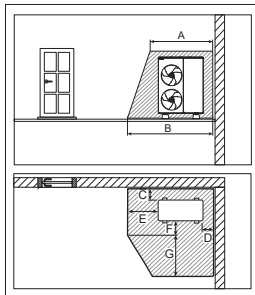
A 1500 mm

2) Protective zone for ground installation in front of a building wall



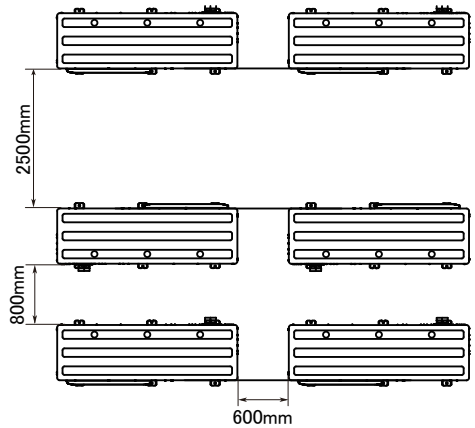
A 2400 mm
B 4500 mm
C 500 mm
D 1500 mm

3) Protective zone for ground installation in a building corner



A 2400 mm
B 3600 mm
C 500 mm
D 600 mm
E 1500 mm
F 500 mm
G 2000 mm

4) Minimum distance when units are connected in close proximity



Remote Controller buttons and display

The LCD display as shown in this manual are for instructional purpose only, and may differ from the actual unit.

Buttons / Indicator

- ① **Quick Menu button**

- ② **Back button**
Returns to the previous screen

- ③ **LCD Display**
(Actual - Dark background with white icons)

- ④ **Main Menu button**
For function setup

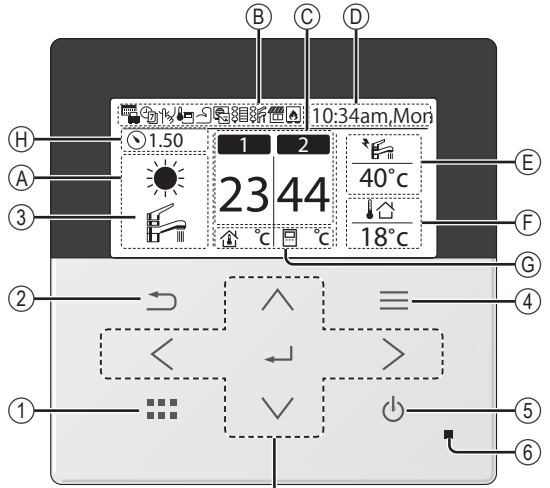
- ⑤ **ON/OFF button**
Starts/Stops operation

- ⑥ **Operation indicator**
Illuminates during operation, blinks during alarm.

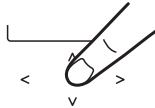
When the backlight is off, press any button to turn it on.


(Do not press button ⑤)

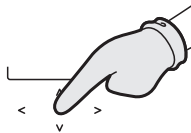
The time until the backlight turns off can be changed in the Menu (Personal setup)



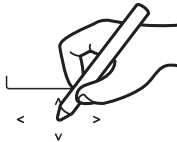
 Press centre



 No glove

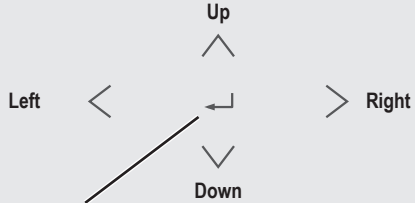


 No pen



Cross key buttons

Selects an item.

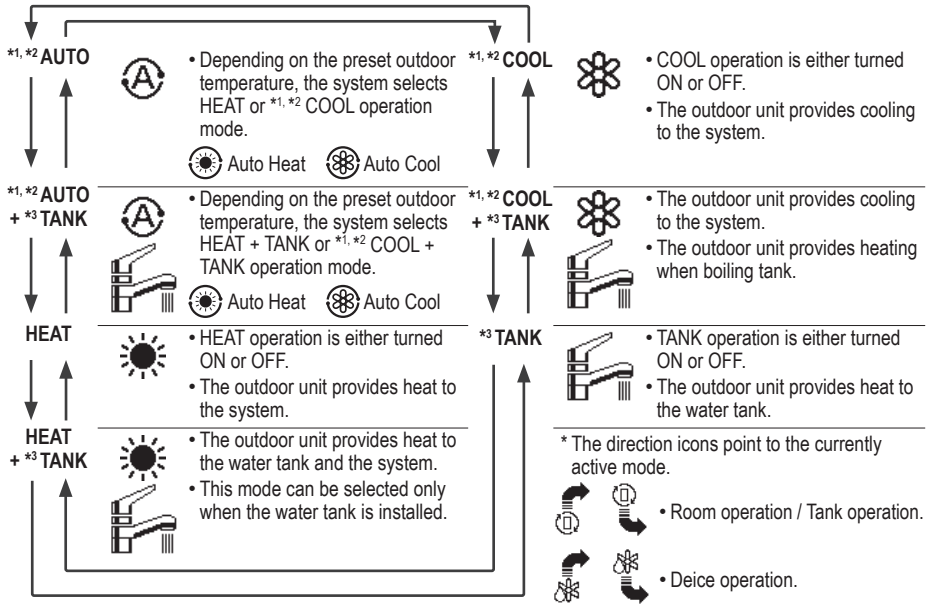


Enter button

Fixes the selected content.

Display

(A) Mode selection



(B) Operation icons

The status of operation is displayed.

Icon will not display (under operation OFF screen) whenever operation is OFF except weekly timer.

| | | |
|--|-------------------------------|---|
| Holiday operation status | Weekly Timer operation status | Quiet operation status |
| Zone:Room Thermostat ->Internal sensor status | Powerful operation status | Demand Control or SG ready or SHP status |
| Room Heater status | Tank Heater status | Solar status |
| Bivalent status (Boiler) | | |

(C) Temperature of each zone

(D) Time and day

(E) Water Tank temperature (with electric anode operation icon)

(F) Outdoor temperature

(G) Sensor type/Set temperature type icons

| | | |
|---|-------------------------------|-----------------|
| Water Temperature ->Compensation curve | Water Temperature ->Direct | Pool only |
| Room Thermostat ->External | Room Thermostat ->Internal | Room Thermistor |

(H) Water pressure (bar)

- *1 The system is locked to operate without COOL mode. It can be unlocked only by authorised installers or our authorised service partners.
- *2 Only displayed when COOL mode is unlocked (This means when COOL mode is available).
- *3 Only displayed when Tank connection is Yes.

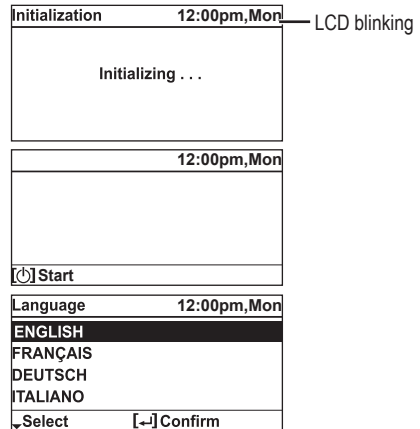
Initialization

Before starting to install the various menu settings, please initiate the Remote Controller by selecting the language of operation and installing the date and time correctly. When power is turned on for the first time, it becomes the setting screen automatically. It can also be set from personal setting of the menu.

Selecting the language

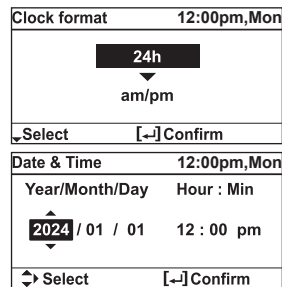
Wait while the display is initializing.
 When initializing screen ends, it turns to normal screen.
 When any button is pressed, language setting screen appears.

- ① Scroll with ∇ and \blacktriangle to select the language.
- ② Press \leftarrow to confirm the selection.



Setting the clock

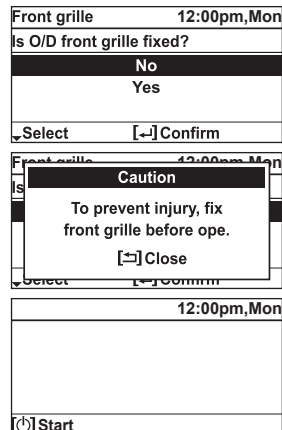
- ① Select with ∇ or \blacktriangle how to display the time, either 24h or am/pm format (for example, 15:00 or 3:00pm).
- ② Press \leftarrow to confirm the selection.
- ③ Use ∇ and \blacktriangle to select year, month, day, hour and minutes. (Select and move with \blacktriangleright and press \leftarrow to confirm.)
- ④ Once the time is set, time and day will appear on the display even if the Remote Controller is turned OFF.



Checking the front grilles

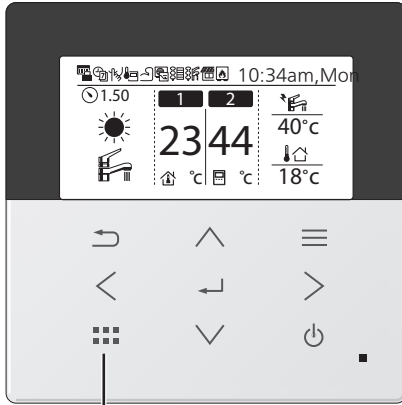
Final precaution step to check and confirm whether outdoor front grille is fixed before operating the unit for safety purpose. Select Yes if outdoor front grille is already fixed. Then it will proceed to main screen. Select No if outdoor front grille is not yet fixed. A caution message will pop up to remind on the installation.

*The display will not appear once you set it.

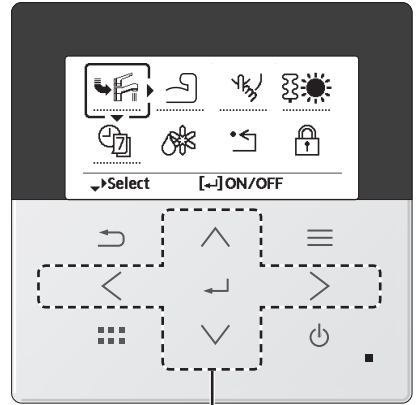


Quick Menu


After the initial settings have been completed, you can select a quick menu from the following options and edit the setting.



① Press  to display the quick menu.



② Use     to select menu.

③ Press  to turn on/off the select menu.

Quick Menu



Force DHW



Powerful



Quiet



Force Heater



Weekly Timer



Force Defrost



Error Reset



R/C Lock

 Select

 ON/OFF

Select each setting and confirm the setting according to the instructions displayed at the bottom of the screen. (The icons refer to each selection key.)

To return to the Main Screen,

Press  or .

*1 Only displayed when Tank connection is Yes.

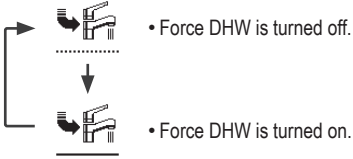
*2 It is not displayed when the outdoor unit is used alone. When the indoor unit has the heater, it is displayed even if set not to operate the heater.

How to use the Quick Menu

Force DHW

Select this icon to turn the Tank DHW on or off.

Press  to confirm your selection.



Note:

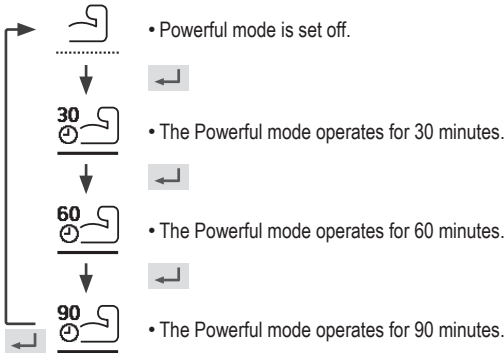
- Force DHW is disabled when Force Heater is turned on.
 - When Force DHW is turned off, operation & mode should change back to the previous memorized status.
-

Powerful

Select this icon to operate the heating system powerfully.

Press  to confirm your selection.

(The powerful operation starts approximately 1 minute after  is pressed.)




Note:

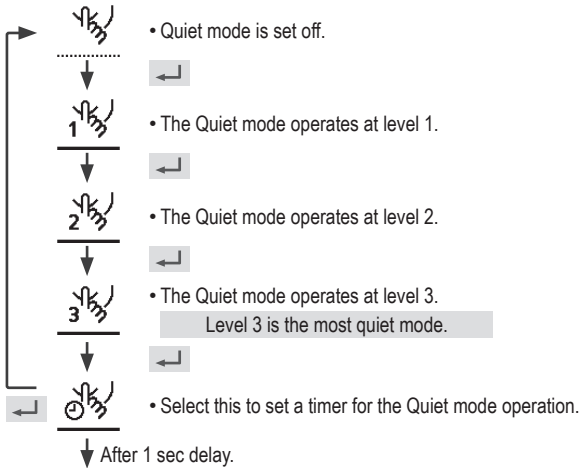
- Powerful is disabled when operation is turned OFF.

Quiet

Select this icon to operate quietly.

Press  to confirm your selection.

(The quiet operation starts approximately 1 minute after  is pressed.)



Do you want to edit
Quiet timer pattern?

Yes No

Select "Yes".

• Select "Yes" using < > buttons.

| Pattern | Time | Level |
|---------|----------|-------|
| 1 | 6:00 am | 2 |
| 2 | 8:00 pm | 1 |
| 3 | 10:00 pm | 0 |

Select pattern "1" ~ "6".

Edit

Delete

Select "Edit".

• If you select "Delete", the timer setting of the selected pattern will be deleted.

12 : 00 pm

Set the hour and minutes.



Select the level of Quiet.

Set time is overlapped!

[>]Close

Note:

• If the time overlaps with another pattern, "Set time is overlapped!" will appear on the screen.

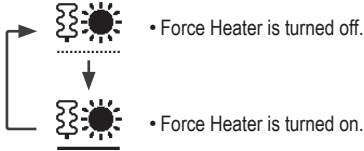
How to use the Quick Menu

Force Heater

Select to force the Heater on.

Press  to confirm your selection.

(The Force Heater mode starts approximately 1 minute after  is pressed.)



Note:

- Force Heater is disabled whenever operation is already on and "Disabled due to operation ON!" will be displayed.
- It is not displayed when the outdoor unit is used alone, and when the heater is set to OFF even if the indoor unit is connected.

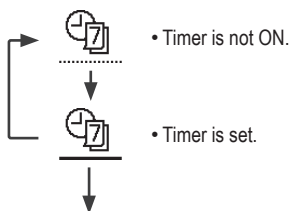
Disabled due to
operation ON!

Close

Weekly Timer

Select this icon to delete (cancel) or change the pre-set Weekly Timer.

Press  to confirm your selection.



Do you want to edit Weekly timer pattern?

Yes

Select "Yes".

• If you select "No", the screen will return to the Main Screen.



Timer setup
Timer copy

• Timer setup: Select Timer setup to edit the Weekly Timer.

• Timer copy: Select to copy a timer setting.

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-----|-----|-----|-----|-----|-----|-----|
| - | ✓ | ✓ | ✓ | ✓ | ✓ | - |







[Example of a Timer setup]

Select the day(s) which you wish to edit using   buttons.

All 6 patterns are not set!
Do you want to edit?

Yes

If all 6 patterns are not preset, this screen will be displayed.

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|-----|-----|-----|-----|-----|-----|
| 1. 12:00am ON   25/20°C 40°C | | | | | | |
| 2. 2:00am ON   25/25°C 40°C | | | | | | |
| 3. 4:00am ON   30/20°C 40°C | | | | | | |
| ① | ② | ③ | ④ | ⑤ | ⑥ | |



① Select pattern "1" ~ "6".

② Set the hour and minutes of the Timer.




③ Select ON/OFF of the Timer.

④ Select the operation mode.



• Select mode using   buttons.

⑤ Set the temperature for both Zone 1 and 2 (if your system has the 2-Zone setting).

| Saturday: Pattern 1: Set Temp | | | |
|-------------------------------|---|-------|---|
| Zone1 |  | Zone2 |  |
| ON | 25 °C | ON | 25 °C |
| | | |  45 °C |

⑥ Set the Tank temperature.

Note:

- Timer is disabled when Force Heater is turned on or Heat-Cool SW is enabled.
- If you have preset the Weekly Timer on 2 zones, you must repeat the same procedure with Zone 2.

How to use the Quick Menu



Force Defrost

Select to defrost the frozen pipes.

Press to confirm your selection.

(When the mode is accepted, below screen will be displayed.)

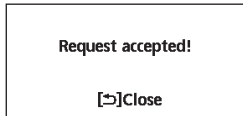


Error Reset

Select to restore the previous settings when error has occurred.

Press to confirm your selection.

(When the mode has been accepted, below screen will be displayed.)



- Make sure all units are turned off before selecting this mode which restores the whole system to the previous settings.

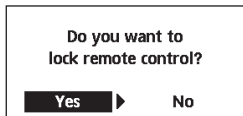


R/C Lock

Select to lock the Remote Controller.

Press to confirm your selection.

(When the mode has been accepted, below screen will be displayed.)



Select "Yes".

(The Main Screen will be locked.)

• If "No" is selected, the screen will return to the Main Screen.

To unlock the Remote Controller

Press any key.

(When the mode has been accepted, below screen will be displayed.)

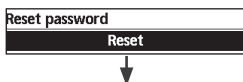


Enter any 4 digits of number (if the number is correct, the screen will be unlocked).

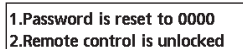
To reset forgotten password (under operation OFF screen)

Press , and continuously for 5 seconds.

(When the mode has been accepted, below screen will be displayed.)



Select "Reset".



(The screen will be off after 3 seconds.)

Menus

For user

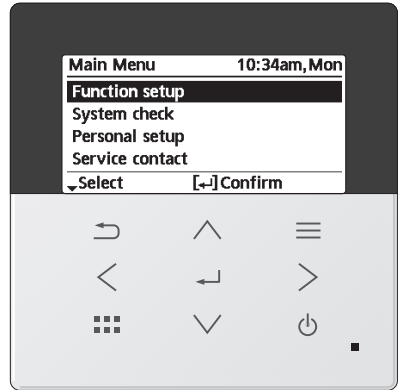
Select menus and determine settings according to the system available in the household. All initial settings must be done by an authorised dealer or a specialist. It is recommended that all alterations of the initial settings are also done by an authorised dealer or a specialist.

- After initial installation, you may manually adjust the settings.
- The initial setting remains active until the user changes it.
- The Remote Controller can be used for multiple installations.
- Ensure the operation indicator is OFF before setting.
- The system may not work properly if set wrongly.
Please consult an authorised dealer/specialist.

To display <Main Menu>: ☰

To select menu: ^ v < >

To confirm the selected content: ←



| Menu | Default Setting | Setting Options / Display | |
|---|--|--|--|
| 1 Function setup | | | |
| 1.1 > Weekly timer | | | |
| <p>Once the weekly timer is set up, User can edit from Quick Menu. To set up to 6 patterns of operation on a daily basis.</p> <ul style="list-style-type: none"> • Disabled if Heat-Cool SW is select "Yes" or if Force Heater is on. | Timer setup Select day of the week and set the patterns needed (Time / Operation ON/OFF / Mode) | Weekly timer 10:34am, Mon Sun Mon Tue Wed Thu Fri Sat 1. 8:00am ON 24/28°C 40°C 2. 12:00pm ON 12/10°C 3. 1:00pm ON 12/10°C ◀Day ▶Pattern [+]-Edit | |
| | Timer copy Select day of the week | | |
| 1.2 > Holiday timer | | | |
| <p>To save energy, a holiday period may be set to either turn OFF the system or lower the temperature during the period.</p> <ul style="list-style-type: none"> • Weekly timer setting may be temporarily disabled during Holiday timer setting but it will be restored once the Holiday timer is completed. | OFF | ON OFF | |
| | > ON | Holiday start and end. Date and time | Holiday: End 10:34am, Mon Year/Month/Day Hour : Min 2024 / 01 / 01 10 : 34 am Select [+]-Confirm |
| | OFF or lowered temperature | | |
| 1.3 > Quiet timer | | | |
| <p>To operate quietly during the preset period. 6 patterns may be set. Level 0 means the mode is off.</p> | Time to start Quiet : Date and time | Quiet 10:34am, Mon Pattern Time Level 1 8:00am 0 2 5:00pm 1 3 11:00pm 3 Select [+]-Edit | |
| | Level of quietness: 0 ~ 3 | | |

| Menu | Default Setting | Setting Options / Display |
|---|-----------------|---|
| 1.4 > Quiet priority | | |
| <ul style="list-style-type: none"> To select priority during Quiet mode between Sound and Capacity. If Sound priority is selected, unit will operate in quiet condition only. If Capacity priority is selected, unit will operate in quiet condition but it will prioritize on providing required capacity at the same time. | Sound | <div style="text-align: center;"> <div style="background-color: black; color: white; padding: 2px 5px;">Sound</div> <div style="font-size: 10px;">▼</div> <div style="background-color: black; color: white; padding: 2px 5px;">Capacity</div> </div> |
| 1.5 > *1 Room heater | | |
| To set the room heater ON or OFF. | OFF | <div style="text-align: center;"> <div style="background-color: black; color: white; padding: 2px 5px;">ON</div> <div style="font-size: 10px;">▲</div> <div style="background-color: black; color: white; padding: 2px 5px;">OFF</div> </div> |
| 1.6 > *2 Tank heater | | |
| To set the tank heater ON or OFF. | OFF | <div style="text-align: center;"> <div style="background-color: black; color: white; padding: 2px 5px;">ON</div> <div style="font-size: 10px;">▲</div> <div style="background-color: black; color: white; padding: 2px 5px;">OFF</div> </div> |
| 1.7 > *2 Sterilization | | |
| To set the auto sterilization ON or OFF. | ON | <div style="text-align: center;"> <div style="background-color: black; color: white; padding: 2px 5px;">ON</div> <div style="font-size: 10px;">▼</div> <div style="background-color: black; color: white; padding: 2px 5px;">OFF</div> </div> |
| <ul style="list-style-type: none"> Do not use the system during sterilization in order to prevent scalding with hot water, or overheating of shower. Ask an authorised dealer/specialist to determine the level of sterilization function field settings according to the local laws and regulations. | | |
| 1.8 > *3 DHW mode (Domestic Hot Water) | | |
| <p>To set the DHW mode to Standard or Smart.</p> <ul style="list-style-type: none"> Standard mode have faster DHW Tank heat up time. Meanwhile Smart mode take longer time to heat up DHW time with lower energy consumption. | Standard | <div style="text-align: center;"> <div style="background-color: black; color: white; padding: 2px 5px;">Standard</div> <div style="font-size: 10px;">▼</div> <div style="background-color: black; color: white; padding: 2px 5px;">Smart</div> </div> |
| <p>To set the tank sensor to Top or Center.</p> <ul style="list-style-type: none"> Selection of the tank sensor to top slow down the start of boiling up the tank and reduce power consumption. Please change this selection to "Center" when the hot water becomes insufficient. | Top | <div style="text-align: center;"> <div style="background-color: black; color: white; padding: 2px 5px;">Top</div> <div style="font-size: 10px;">▼</div> <div style="background-color: black; color: white; padding: 2px 5px;">Center</div> </div> |

*1 It is not displayed when the outdoor unit is used alone or depending on the settings.

*2 Only displayed when Tank connection is Yes.

*3 Only displayed when connect Panasonic AIR-TO-WATER CONTROL MODULE+TANK.

2 System check

2.1 > Energy monitor

| | | | | | | | | | | | | | | |
|---|---------------------------------------|---|----------------------------------|--|-----|--|-----|--|---------------------------------------|--|------------|-------------------|--------------|----|
| Present or historical chart of energy consumption, generation or COP. | Present Select and retrieve | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: right;">Total consumption (1year)</td> </tr> <tr> <td style="text-align: right;">0.0</td> <td style="border-bottom: 1px dashed black;"></td> </tr> <tr> <td style="text-align: right;">kWh</td> <td></td> </tr> <tr> <td style="text-align: right;">1year 1 2 3 4 5 6 7 8 9 10 11 12 6Min</td> <td></td> </tr> <tr> <td style="text-align: right;">Jan, 2024:</td> <td style="text-align: right;">0.0 kWh [Approx.]</td> </tr> <tr> <td style="text-align: right;">↔Month ↕Mode</td> <td style="text-align: right;">*6</td> </tr> </table> | Total consumption (1year) | | 0.0 | | kWh | | 1year 1 2 3 4 5 6 7 8 9 10 11 12 6Min | | Jan, 2024: | 0.0 kWh [Approx.] | ↔Month ↕Mode | *6 |
| | Total consumption (1year) | | | | | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | |
| kWh | | | | | | | | | | | | | | |
| 1year 1 2 3 4 5 6 7 8 9 10 11 12 6Min | | | | | | | | | | | | | | |
| Jan, 2024: | 0.0 kWh [Approx.] | | | | | | | | | | | | | |
| ↔Month ↕Mode | *6 | | | | | | | | | | | | | |
| Historical chart Select and retrieve | | | | | | | | | | | | | | |

- COP= Coefficient of Performance.
- For historical chart, the period is selected from 1 day/1 week/1year.
- Energy consumption (kWh) of heating, *1, *2 cooling, *5 tank and total may be retrieved.
- The total power consumption is an estimated value based on AC 230 V and may differ from value measured by precise equipment.

2.2 > *3 System information

| | | | | | | | | | | | | | | |
|--|---|--|--|--|----------|--------|-----------|--------|-----------|--------|-----------|--------|-------|--|
| Shows all system information in each area. | Actual system information of 11 items: Inlet / Outlet / Zone 1 / Zone 2 / Tank / Buffer tank / Solar / Pool / COMP frequency / Pump flowrate / Water pressure *7 Select and retrieve | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: right;">System information 10:34am, Mon</td> </tr> <tr> <td style="text-align: right;">1. Inlet</td> <td style="text-align: right;">: 0 °C</td> </tr> <tr> <td style="text-align: right;">2. Outlet</td> <td style="text-align: right;">: 0 °C</td> </tr> <tr> <td style="text-align: right;">3. Zone 1</td> <td style="text-align: right;">: 0 °C</td> </tr> <tr> <td style="text-align: right;">4. Zone 2</td> <td style="text-align: right;">: 0 °C</td> </tr> <tr> <td colspan="2" style="text-align: right;">↕Page</td> </tr> </table> | System information 10:34am, Mon | | 1. Inlet | : 0 °C | 2. Outlet | : 0 °C | 3. Zone 1 | : 0 °C | 4. Zone 2 | : 0 °C | ↕Page | |
| System information 10:34am, Mon | | | | | | | | | | | | | | |
| 1. Inlet | : 0 °C | | | | | | | | | | | | | |
| 2. Outlet | : 0 °C | | | | | | | | | | | | | |
| 3. Zone 1 | : 0 °C | | | | | | | | | | | | | |
| 4. Zone 2 | : 0 °C | | | | | | | | | | | | | |
| ↕Page | | | | | | | | | | | | | | |

2.3 > Error history

| | | | | | | | | | | | | | | |
|--|---------------------|--|-----------------------------------|--|-------|--|-------|--|-------|--|-------|--|-------------------|--|
| <ul style="list-style-type: none"> • Refer to Troubleshooting for error codes. • The most recent error code is displayed at the top. | Select and retrieve | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: right;">Error history 10:34am, Mon</td> </tr> <tr> <td style="text-align: right;">1. --</td> <td></td> </tr> <tr> <td style="text-align: right;">2. --</td> <td></td> </tr> <tr> <td style="text-align: right;">3. --</td> <td></td> </tr> <tr> <td style="text-align: right;">4. --</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: right;">[←] Clear history</td> </tr> </table> | Error history 10:34am, Mon | | 1. -- | | 2. -- | | 3. -- | | 4. -- | | [←] Clear history | |
| Error history 10:34am, Mon | | | | | | | | | | | | | | |
| 1. -- | | | | | | | | | | | | | | |
| 2. -- | | | | | | | | | | | | | | |
| 3. -- | | | | | | | | | | | | | | |
| 4. -- | | | | | | | | | | | | | | |
| [←] Clear history | | | | | | | | | | | | | | |

2.4 > Compressor

| | | | | | | | | | | | | |
|-----------------------------------|---------------------|--|--------------------------------|--|----------------------|--------|---------------------|-----|------------------|-------|----------|--|
| Shows the compressor performance. | Select and retrieve | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: right;">Compressor 10:34am, Mon</td> </tr> <tr> <td style="text-align: right;">1. Current frequency</td> <td style="text-align: right;">: 0 Hz</td> </tr> <tr> <td style="text-align: right;">2. (OFF-ON) counter</td> <td style="text-align: right;">: 0</td> </tr> <tr> <td style="text-align: right;">3. Total ON time</td> <td style="text-align: right;">: 0 h</td> </tr> <tr> <td colspan="2" style="text-align: right;">[↩] Back</td> </tr> </table> | Compressor 10:34am, Mon | | 1. Current frequency | : 0 Hz | 2. (OFF-ON) counter | : 0 | 3. Total ON time | : 0 h | [↩] Back | |
| Compressor 10:34am, Mon | | | | | | | | | | | | |
| 1. Current frequency | : 0 Hz | | | | | | | | | | | |
| 2. (OFF-ON) counter | : 0 | | | | | | | | | | | |
| 3. Total ON time | : 0 h | | | | | | | | | | | |
| [↩] Back | | | | | | | | | | | | |

2.5 > Heater

| | | | | | | | | | | | | |
|--|---------------------|--|----------------------------|--|----------------------|--|---|----|---|----|----------|--|
| Total hours of ON time for *4 Room heater/ *5 Tank heater. | Select and retrieve | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: right;">Heater 10:34am, Mon</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total ON time</td> </tr> <tr> <td style="text-align: right;"> :</td> <td style="text-align: right;">0h</td> </tr> <tr> <td style="text-align: right;"> :</td> <td style="text-align: right;">0h</td> </tr> <tr> <td colspan="2" style="text-align: right;">[↩] Back</td> </tr> </table> | Heater 10:34am, Mon | | Total ON time | | : | 0h | : | 0h | [↩] Back | |
| Heater 10:34am, Mon | | | | | | | | | | | | |
| Total ON time | | | | | | | | | | | | |
| : | 0h | | | | | | | | | | | |
| : | 0h | | | | | | | | | | | |
| [↩] Back | | | | | | | | | | | | |

(NOTE) : If [Approx.] is shown on Energy Monitor display, data displayed on the remote controller is obtained through heat pump's internal calculation.
 If [Approx.] is NOT shown on Energy Monitor display, data** displayed on the remote controller is obtained by External Meters.
 Data stored on the Aquarea unit can be mixed between internal calculation and External Meters.
 **In order to know the exact consumption or generation, please use as reference always the External Meters' data.

*1 The system is locked to operate without COOL mode. It can be unlocked only by authorised installers or our authorised service partners.

*2 Only displayed when COOL mode is unlocked (This means when COOL mode is available).

*3 The items displayed differ depending on the Appliance and connected units.

*4 It is not displayed when the outdoor unit is used alone.


*5 Only displayed when Tank connection is Yes.

*6 If [Approx.] is shown on Energy Monitor display, data displayed on the remote controller is obtained through heat pump's internal calculation.
 If [Approx.] is NOT shown on Energy Monitor display, data displayed on the remote controller is obtained by External Meters.

*7 Only displayed when each connection is Yes.

| Menu | Default Setting | Setting Options / Display |
|---|---------------------------------|--|
| 3 Personal setup | | |
| 3.1 > Remote control No. | | |
| <ul style="list-style-type: none"> To display remote control number of a particular remote controller so that installer and end user are well informed. Main remote controller is displayed as RC-1. Second remote controller is displayed as RC-2. | Select and retrieve | RC No. 10:34am,Mon RC-1 [←] Confirm |
| 3.2 > Touch sound | | |
| Turns the operation sound. | 3 | Touch sound 9:53am,Mon Level 3 ↻Select [←] Confirm |
| 3.3 > LCD contrast | | |
| Sets the screen contrast. | 3 | LCD contrast 10:34am,Mon Low High ◀ [Progress bar] ▶ ↻Select [←] Confirm |
| 3.4 > Backlight | | |
| Sets the duration of screen backlight. | 1 min | Backlight 10:34am,Mon 15 secs 5 mins 1 min 10 mins ↻Select [←] Confirm |
| 3.5 > Backlight intensity | | |
| Sets screen backlight brightness. | 4 | Backlight intensity 10:34am,Mon Dark Bright ◀ [Progress bar] ▶ ↻ Select [←] Confirm |
| 3.6 > *1 Clock format | | |
| Sets the type of clock display. | am/pm | Clock format 10:34am,Mon 24h am/pm ↻Select [←] Confirm |
| 3.7 > Date & Time | | |
| Sets the present date and time. | Year / Month / Day / Hour / Min | Date & Time 10:34am,Mon Year/Month/Day Hour : Min 2024 / 01 / 01 10 : 34 am ↻ Select [←] Confirm |

*1 The default setting is am/pm, but **24h** is displayed on the selection screen.

| Menu | Default Setting | Setting Options / Display |
|---|--|--|
| 3.8 > Language | | |
| Sets the display language for the top screen. | ENGLISH / FRANÇAIS / DEUTSCH / ITALIANO / ESPAÑOL / DANISH / SWEDISH / NORWEGIAN / POLISH / CZECH / NEDERLANDS / TÜRKÇE / SUOMI / MAGYAR / SLOVENŠČINA / HRVATSKI / LIETUVIŲ / PORTUGUÊS / БЪЛГАРСКИ / EESTI / LATVIEŠU / ROMÂNĂ / SHQIP / SLOVENČINA / МАКЕДОНСКИ / УКРАЇНСЬКА / ΕΛΛΗΝΙΚΑ | <p>Language 10:34am, Mon</p> <p>ENGLISH</p> <p>FRANÇAIS</p> <p>DEUTSCH</p> <p>ITALIANO</p> <p>↕Select [←] Confirm</p> |
| 3.9 > Unlock password | | |
| 4 digit password for all the settings. | 0000 | <p>Unlock password 10:34am, Mon</p> <p>0000</p> <p>↕Select [←] Confirm</p> |
| 4 Service contact | | |
| 4.1 > Contact 1 / Contact 2 | | |
| Preset contact number for installer. | Select and retrieve | <p>Service setup 10:34am, Mon</p> <p>Contact 1</p> <p>Name : Bryan Adams</p> <p> : 08812345678</p> <p>↕Select</p> |

| Menu | Default Setting | Setting Options / Display |
|------|-----------------|---------------------------|
|------|-----------------|---------------------------|

5 Installer setup > System setup

5.1 >*1 Optional PCB connectivity

To connect to the external PCB required for servicing.

No

Yes
▲
No

• If the external PCB is connected (optional), the system will have following additional functions:

- ① Control over 2 zones (including the swimming pool and the function to heat water in it).
- ② Solar function (the solar thermal panels connected to either the DHW (Domestic Hot Water) Tank or the Buffer Tank.
 - DHW is not applicable for WH-ADC *models.
- ③ External compressor switch.
- ④ External error signal.
- ⑤ SG ready control.
- ⑥ Demand control.
- ⑦ Heat-Cool SW

5.2 > Zone & Sensor

To select the sensors and to select either 1 zone or 2 zone system.

Zone

- After selecting 1 or 2 zone system, proceed to the selection of room or swimming pool.
- If the swimming pool is selected, the temperature must be selected for ΔT temperature between 0°C ~ 10 °C.

Sensor

- * For room thermostat, there is a further selection of external or internal.
- If select internal, there is a further selection of RC-1 or RC-2 (only available when Zone selection is 1 zone system).
Select RC-1 if main remote controller's thermistor is to be used for room temperature control and vice versa.

Zone & Sensor 10:34am, Mon

Zone

1 Zone system
2 Zones system

▼Select [←] Confirm

Zone & Sensor 10:34am, Mon

Sensor

Water temperature
Room thermostat
Room thermistor

▼Select [←] Confirm

unnecessary.*

3 kW / 6 kW / 9 kW

* Options of kW vary depending on the model.

*1 It is not displayed when the outdoor unit is used alone.

*2 It is not displayed when connect Panasonic AIR-TO-WATER CONTROL MODULE+TANK.

| Menu | Default Setting | Setting Options / Display |
|---|-----------------|---------------------------|
| 5.3-1 > *1 Heater capacity To reduce the heater power if unnecessary.* if selected 18kW or less in 5.29-2, 6 kW /12 kW / 18 kW * Options of kW vary depending on the model. * Please use a separate power supply when connecting heaters over 18kW. * When using the SG-ready function, use a heater with a capacity less than the required value. | | |
| 5.3-2 > *1 Heater capacity To reduce the heater power if unnecessary.* if selected over 18kW in 5.29-2, 1heater / 2heater /3heater * Options of heater number vary depending on the model. * Please use a separate power supply when connecting heaters over 18kW. | | |
| 5.4 > Anti freezing To activate or deactivate the water freeze prevention when the system is OFF | Yes | |
| 5.5 > *2 Tank connection To connect tank to the system. | No | |

*1 It is not displayed when the outdoor unit is used alone.

*2 It is not displayed when connect Panasonic AIR-TO-WATER CONTROL MODULE+TANK.

| Menu | Default Setting | Setting Options / Display |
|---|-----------------|--|
| 5.6 >*1 DHW capacity | | |
| To select tank heating capacity to variable or standard. Variable capacity heat up tank with fast mode and keep the tank temperature with efficient mode. While standard capacity heat up tank with rated heating capacity. | Variable | <div style="text-align: center;"> Variable ▲ Standard </div> |
| | > Yes | |
| To connect tank to the system and if selected YES, to set ΔT temperature. | No | <div style="text-align: center;"> Yes No </div> |
| | 5 °C | Set ΔT for Buffer Tank Buffer tank 10:34am, Mon ΔT for Buffer tank Range: (0°C~10°C) Steps: $\pm 1^\circ\text{C}$ 5 °C ▲ ▼ ↕Select [←] Confirm |
| 5.8 >*1 Tank heater | | |
| To select external or internal tank heater and if External is selected, set a timer for the heater to come on. * This option is available if Tank connection is selected (YES). | External | Tank heater 10:34am, Mon <div style="text-align: center;"> External ▲ Internal </div> ↕Select [←] Confirm |
| | 1:30 | Tank heater 10:34am, Mon Tank heater: ON time Range: (0:20~3:00) Steps: $\pm 0:05$ 1:30 ▲ ▼ ↕Select [←] Confirm |
| 5.9 > Base pan heater | | |
| To select whether or not optional base pan heater is connected. * Type A - The base pan heater activates only during deice operation. * Type B - The base pan heater activates when outdoor ambient temperature is 5 °C or lower. | No | <div style="text-align: center;"> Yes No </div> |
| | A | Base pan heater type 10:34am, Mon <div style="text-align: center;"> A ▲ B </div> ↕Select [←] Confirm |
| 5.10 >*3 Alternative outdoor sensor | | |
| To select an alternative outdoor sensor. | No | <div style="text-align: center;"> Yes No </div> |

*1 Only displayed when Tank connection is Yes.

*2 It is not displayed when the outdoor unit is used alone and Panasonic AIR-TO-WATER CONTROL MODULE+TANK 2Zone model.

*3 It is not displayed when the outdoor unit is used alone.

| Menu | Default Setting | Setting Options / Display |
|---|--|--|
| 5.11 > Bivalent connection | | |
| To select to enable or disable bivalent connection. | No | Yes ▲ No |
| > Yes | | |
| To select either auto control pattern or SG ready input control pattern or smart control pattern. * This selection only display to select when optional pcb connection set to Yes. | Auto | Auto SG ready Smart |
| > Yes > Auto | | |
| To select a bivalent connection to allow an additional heat source such as a boiler to heat-up the buffer tank and domestic hot water tank when heatpump capacity is insufficient at low outdoor temperature. The bivalent feature can be set-up either in alternative mode (heatpump and boiler operate alternately), or in parallel mode (both heatpump and boiler operate simultaneously), or in advance parallel mode (heatpump operates and boiler turns on for buffer-tank and/or domestic hot water depending on the control pattern setting options). | -5 °C | Bivalent connection 10:34am, Mon Turn ON: Outdoor temp Range: (-15°C-35°C) Steps: ±1°C ▲ -5 °C ▼ ↕Select [-] Confirm |
| Yes > After selecting the outdoor temperature | | |
| Control pattern | | Bivalent connection 10:34am, Mon |
| Alternative / Parallel / Advanced parallel | | Control pattern |
| • Select advanced parallel for bivalent use of the tanks. | | Alternative Parallel Advanced parallel |
| | | ^Select [-] Confirm |
| Control pattern > Alternative | | |
| OFF | Option to set external pump either ON or OFF during bivalent operation. Set to ON if system is simple bivalent connection. | Bivalent connection 10:34am, Mon External pump ON ▲ OFF |
| | | ^Select [-] Confirm |
| Control pattern > Advanced parallel | | |
| Heat | Selection of the tank | Bivalent connection 10:34am, Mon |
| • "Heat" implies Buffer Tank and "DHW" implies Domestic Hot Water Tank. | | Advanced parallel |
| | | Heat DHW |
| | | ↵Select [-] Confirm |

Control pattern > Advanced parallel > Heat > Yes

| | | |
|---|--|---|
| <p>• Buffer Tank is activated only after selecting "Yes".</p> | | <p>Bivalent connection 10:34am, Mon Advanced parallel: Heat</p> <p style="text-align: center;">Yes No</p> <p>↙Select [↔] Confirm</p> |
| -8 °C | Set the temperature threshold to start the bivalent heat source. | <p>Bivalent connection 10:34am, Mon Heat start: Target temp.</p> <p>Range: (-10°C-0°C) Steps: ±1°C</p> <p style="text-align: center;">-8 °C</p> <p>↕Select [↔] Confirm</p> |
| 0:30 | Delay timer to start the bivalent heat source (in hour and minutes). | <p>Bivalent connection 10:34am, Mon Heat start: Delay time</p> <p>Range: (0:00-1:30) Steps: ±0:05</p> <p style="text-align: center;">0:30</p> <p>↕Select [↔] Confirm</p> |
| -2 °C | Set the temperature threshold to stop the bivalent heat source. | <p>Bivalent connection 10:34am, Mon Heat stop: Target temp.</p> <p>Range: (-10°C-0°C) Steps: ±1°C</p> <p style="text-align: center;">-2 °C</p> <p>↕Select [↔] Confirm</p> |
| 0:30 | Delay timer to stop the bivalent heat source (in hour and minutes). | <p>Bivalent connection 10:34am, Mon Heat stop: Delay time</p> <p>Range: (0:00-1:30) Steps: ±0:05</p> <p style="text-align: center;">0:30</p> <p>↕Select [↔] Confirm</p> |

Control pattern > Advanced parallel > DHW > Yes

| | | |
|--|--|--|
| <p>• DHW Tank is activated only after selecting "Yes".</p> | | <p>Bivalent connection 10:34am, Mon Advanced parallel: DHW</p> <p style="text-align: center;">Yes No</p> <p>↙Select [↔] Confirm</p> |
| 0:30 | Delay timer to start the bivalent heat source (in hour and minutes). | <p>Bivalent connection 10:34am, Mon DHW: Delay time</p> <p>Range: (0:30-1:30) Steps: ±0:05</p> <p style="text-align: center;">0:30</p> <p>↕Select [↔] Confirm</p> |

SG ready input control for bivalent system follow below input condition.

| SG signal | | Operation pattern |
|-----------|----------|---------------------------|
| Vcc-bit1 | Vcc-bit2 | |
| Open | Open | Heat Pump OFF, Boiler OFF |
| Short | Open | Heat Pump ON, Boiler OFF |
| Open | Short | Heat Pump OFF, Boiler ON |
| Short | Short | Heat Pump ON, Boiler ON |

> Yes > SG ready

| | | |
|-----|--|--|
| OFF | Option to set external pump either ON or OFF during bivalent operation. Set to ON if system is simple bivalent connection. | <p>Bivalent connection 10:34am, Mon External pump</p> <p style="text-align: center;">ON OFF</p> <p>↙Select [↔] Confirm</p> |
|-----|--|--|

| Menu | Default Setting | Setting Options / Display |
|---|--|---|
| To do settings related to electricity and boiler so that unit is able to determine whether to operate heat pump or boiler at a particular period depends on operating cost of both heat sources. These settings are electricity price, boiler price, season, schedule etc. | > Yes > Smart OFF | Option to set external pump either ON or OFF during bivalent operation. Set to ON if system is simple bivalent connection. <div style="text-align: right; margin-top: 10px;"> Bivalent connection 10:34am,Mon External pump <div style="text-align: center;"> ON OFF ↕ ↕ Select [↔] Confirm </div> </div> |
| | > Yes > Smart > After selecting for the external pump > Energy price - Select Electricity to set on electricity price. - Select Boiler to set on boiler price and its efficiency. | |
| > Yes > Smart > After selecting for the external pump > Energy price > Electricity 0.0 * / kWh - There are total 10 different prices can be set for Electricity: Electricity price 1 ~ Electricity price 10 - Range is 0 ~ 999.9 * / kWh - Press \wedge or \vee to enter a setting screen as shown in Figure 1. Then start setting the value of electricity price. - After finish setting a particular electricity price (eg. Electricity price 1), press \leftarrow or \rightarrow to go and set for other electricity price. * Set the price according to value provided by electrical supply company. | | <div style="text-align: right;"> Bivalent connection 10:34am,Mon <div style="text-align: center; border: 1px solid black; padding: 2px;"> Electricity price 1 </div> Range: (0~999.9 * /kWh) Steps: ± 0.1 * /kWh 0.0 ↕ Select Figure 1 <div style="text-align: center; border: 1px solid black; padding: 5px;"> Bivalent connection 10:34am,Mon <div style="text-align: center; border: 1px solid black; padding: 5px;"> 0 0.0 0 </div> ↕ Select [↔] Confirm </div> ↕ Select </div> |
| > Yes > Smart > After selecting for the external pump > Energy price > Boiler 0.0 * / kWh - Refer to method of Electricity price setting above for setting of boiler price. - After finish setting of boiler price, set the boiler efficiency (Range : 0 ~ 99%). 0% * Set the price according to value provided by boiler or gas supply company. | | <div style="text-align: right;"> Bivalent connection 10:34am,Mon Boiler price Range: (0~999.9 * /kWh) Steps: ± 0.1 * /kWh 0.0 ↕ Select [↔] Confirm Bivalent connection 10:34am,Mon Boiler efficiency Range: (0~99%) Steps: ± 1% 0 ↕ Select [↔] Confirm </div> |

Remark : * Currency setting depends on where you use this product.

| Menu | Default Setting | Setting Options / Display | | | | | | | | | | |
|------------|--|--|----------|--------------|------------|---------------|-----------|-----|-----------|-----|-----------|-----|
| | <p>> Yes > Smart > After selecting for the external pump > Schedule > Season setting</p> <p>Season 1 : Dec (Refers to Winter season) Season 2 : Mar (Refers to Spring season) Season 3 : Jun (Refers to Summer season) Season 4 : Oct (Refers to Autumn season)</p> <p>- There are total 4 seasons to be set - Set the starting month for each season. (Eg. when Season 1 is set to Dec and Season 2 is set to Mar, month of December to February will be treated as Season 1).</p> <p>> Yes > Smart > After selecting for the external pump > Schedule > Schedule setting</p> <p>Start time (Pattern 1) : 3:00am Start time (Pattern 2) : 9:00am Start time (Pattern 3) : 4:00pm Start time (Pattern 4) : 9:00pm</p> <p>- For each season, there are total 4 patterns can be set.</p> <p>Price (Pattern 1/2/3/4) : 1</p> <p>- Set the target start time and the appropriate electricity price for each pattern.</p> <p>- Select "1" to edit both start time and electricity price. Select "2" to edit electricity price only.</p> | <p>Bivalent connection 10:34am, Mon Schedule</p> <p>Season setting Schedule setting</p> <p>↓Select [←] Confirm</p> <p>Bivalent connection 10:34am, Mon Season 1: Start month Range: (Jan-Dec) Steps: ±1month Dec</p> <p>↓Select [←] Confirm</p> <p>Bivalent connection 10:34am, Mon Schedule setting</p> <p>Season 1 Season 2 Season 3</p> <p>↓Select [←] Confirm</p> <table border="1"> <thead> <tr> <th>Season 1</th> <th>10:34am, Mon</th> </tr> <tr> <th>Start time</th> <th>Price(*./kWh)</th> </tr> </thead> <tbody> <tr> <td>1. 3:00am</td> <td>0.0</td> </tr> <tr> <td>2. 9:00am</td> <td>0.0</td> </tr> <tr> <td>3. 4:00pm</td> <td>0.0</td> </tr> </tbody> </table> <p>↓Select [←] Edit</p> <p>Bivalent connection 10:34am, Mon S Select</p> <p>1: To edit time & price 2: To edit price only</p> <p>1 ▶ 2</p> <p>↓Select [←] Confirm</p> | Season 1 | 10:34am, Mon | Start time | Price(*./kWh) | 1. 3:00am | 0.0 | 2. 9:00am | 0.0 | 3. 4:00pm | 0.0 |
| Season 1 | 10:34am, Mon | | | | | | | | | | | |
| Start time | Price(*./kWh) | | | | | | | | | | | |
| 1. 3:00am | 0.0 | | | | | | | | | | | |
| 2. 9:00am | 0.0 | | | | | | | | | | | |
| 3. 4:00pm | 0.0 | | | | | | | | | | | |

| Menu | Default Setting | Setting Options / Display | |
|--|---|---|--|
| | <p>- Range of start time displayed can be in "24h" or "am/pm" format depend on setting of "Clock format".</p> <p>- Range of electricity price is 0 ~ 10 which refers back to the 10 different electricity price set previously (under "Energy price > Electricity": Electricity price 1 ~ Electricity price 10). The price displayed on the upper right corner indicates the previous set value of Electricity price 1 to Electricity price 10.</p> <p>* When the price is set to "0", the electricity price will be treated as 0.0 * / kWh. It is for the convenience of installer when 0.0 is the desired setting value for a particular time.</p> | <p>Season 1 10:34am,Mon Pattern 1: Start time Range: (0.00~23.00) Steps: ±1hour 3.00</p> <p>↔Select [↔]Confirm</p> <p>Season 1 10:34am,Mon Pattern 1: Price 0.0 */kWh Range: (0~10) Steps: ±1 0</p> <p>↔Select [↔]Confirm</p> | |
| 5.12 >*1 External SW | | | |
| | No | Yes ▲ No | |
| 5.13 >*1 Solar connection | | | |
| <ul style="list-style-type: none"> The optional PCB connectivity must be selected YES to enable the function. If the optional PCB connectivity is not selected, the function will not appear on the display. DHW is not applicable for WH-ADC models. | No | Yes ▲ No | |
| | > Yes | | |
| | Buffer tank | Selection of the tank | Solar connection 10:34am,Mon Buffer tank DHW tank ↕Select [↔]Confirm |
| | > Yes > After selecting the tank | | |
| 10 °C | Set ΔT ON temperature | Solar connection 10:34am,Mon ΔT Turn ON Range: (6°C~15°C) Steps: ±1°C 10 °C ↔Select [↔]Confirm | |
| > Yes > After selecting the tank > ΔT ON temperature | | | |
| 5 °C | Set ΔT OFF temperature | Solar connection 10:34am,Mon ΔT Turn OFF Range: (2°C~9°C) Steps: ±1°C 5 °C ↔Select [↔]Confirm | |

*1 It is not displayed when the outdoor unit is used alone.

| Menu | Default Setting | Setting Options / Display |
|------|----------------------------|--|
| | | <p>> Yes > After selecting the tank > ΔT ON temperature > ΔT OFF temperature</p> |
| | 5 °C | Set Antifreeze temperature Solar connection 10:34am, Mon Anti freeze Range: (-20°C~10°C) Steps: ±1°C 5 °C ↕Select [-] Confirm |
| | | <p>> Yes > After selecting the tank > ΔT ON temperature > ΔT OFF temperature > After setting the antifreeze temperature</p> |
| | 80 °C | Set Hi limit Solar connection 10:34am, Mon Hi limit Range: (70°C~90°C) Steps: ±5°C 80 °C ↕Select [-] Confirm |
| 5.14 | > *1 External error signal | |
| | No | Yes No |
| 5.15 | > *1 Demand control | |
| | No | Yes No |
| 5.16 | > *1 SG ready | |
| | No | Yes No |
| | | <p>> Yes > After selecting Capacity</p> |
| | 120 % | Capacity (1) & (2) of DHW (in %), Heat (in %) and Cool (in %) SG ready 10:34am, Mon Capacity [1-0]: DHW Range: (50%~150%) Steps: ±5% 120 % ↕Select [-] Confirm |
| | | <p>> Yes > After selecting Power consumption > *HPU stop consumption</p> |
| | *2, *4 3.6kW | *HPU stop consumption SG ready 10:34am, Mon HPU stop consumption Range: (0.5kW~10.0kW) Steps: ±0.1kW 3.6 ↕Select [-] Confirm |
| | | <p>> Yes > After selecting *HPU stop consumption > Consumption</p> |
| | *3 3.6kW | Consumption (1) & (2) of DHW (in kW), Heat (in kW) and Cool (in kW) SG ready 10:34am, Mon Consumption [1-0]: DHW Range: (0.5kW~10.0kW) Steps: ±0.1kW 3.6 ↕Select [-] Confirm |

Remark : * HPU means Heat pump unit (Outdoor unit).

*1 It is not displayed when the outdoor unit is used alone.

*2 Depending on the model, it may be less than 3.6kW.

*3 Depending on the model, it may be less than 3.6kW or more than 3.6kW.

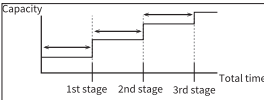
*4 Even though the setting value is lower than 3.0kW, actual power consumption can be 3.0kW caused by back-up heater operation.

Menus For installer

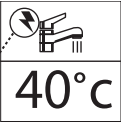
| Menu | Default Setting | Setting Options / Display |
|--|-----------------|--|
| 5.17 > *1 External compressor SW | | |
| | No | Yes ▲ No |
| | > Yes | |
| | Heat source | Ext. compressor SW 11:34am, Mon Heater ▲ Heat source |
| | | ↖Select [↔]Confirm |
| 5.18 > Circulation liquid | | |
| To select whether to circulate water or glycol in the system. | Water | Circulation liquid 10:34am, Mon Water ▼ Glycol |
| | | ↙Select [↔]Confirm |
| 5.19 > *1, *2 Heat-Cool SW | | |
| | No | Yes ▲ No |
| 5.20 > *1 Force heater | | |
| To turn on Force heater either manually (by default) or automatically. | Manual | Force heater 10:34am, Mon Auto ▲ Manual |
| | | ↖Select [↔]Confirm |
| 5.21 > Force defrost | | |
| If auto selection is set, outdoor unit will start defrost operation if long heating hour operate during low outdoor temperature. | Manual | Auto ▲ Manual |
| 5.22 > *1 Defrost signal | | |
| To turn on defrost signal to stop fan coil during defrost operation. (If defrost signal set to yes, bivalent function will not available to use) | No | Yes ▲ No |

*1 It is not displayed when the outdoor unit is used alone.

*2 Only displayed when COOL mode is unlocked. (This mean when COOL mode is available)

| Menu | Default Setting | Setting Options / Display |
|---|--|--|
| 5.23 > Pump flowrate | | |
| To set variable flow pump control or fix pump duty control. | ΔT | <div style="text-align: center;"> ΔT ▼ Max. Duty </div> |
| 5.24 > DHW Defrost | | |
| Allow system to run defrost by using hot water instead of room unit for better room comfort. | Yes | <div style="text-align: center;"> Yes ▼ No </div> |
| 5.25 > Heating control | | |
| To select unit operation condition whether to achieve set temperature faster or to save energy. When "Efficiency" is selected, the time setting will transition to 1st, 2nd, and 3rd stage. Increasing the time will slowly increase the capacity. | Comfort | <div style="text-align: center;"> Comfort ▼ Efficiency </div> |
| | > Efficiency | <div style="border: 1px solid black; padding: 5px;"> <p>Heating control 10:34am, Mon</p> <p>Efficiency: Stage 1</p> <p>Range: (0:00~1:00)</p> <p>Steps: ±0:05 0:20</p> <p>↕Select [↔] Confirm</p>  </div> |
| 5.26 > External meter | | |
| To set which external meter to be used depends on meter connection. There are generation meters and various types of electricity meters. For generation meters, there are two connection systems :- a) One generation meter system : Heat-cool meter only b) Two generation meter system : Heat-cool meter and Tank meter | Heat-cool meter : No * Tank meter : No Elec. meter HP : No Elec. meter 1 (PV) : No Elec. meter 2 (Building) : No Elec. meter 3 (Reserve) : No | <div style="border: 1px solid black; padding: 5px;"> <p>External meter 10:34am, Mon</p> <p style="background-color: black; color: white; padding: 2px;">Heat-Cool meter</p> <p>Tank meter</p> <p>Elec. meter HP</p> <p>Elec. meter 1 (PV)</p> <p>↕Select [↔] Confirm</p> </div> |
| | * Only available if both Heat-cool meter and Tank connection are set to Yes. | <div style="border: 1px solid black; padding: 5px;"> <p>External meter 10:34am, Mon</p> <p>Elec. meter HP</p> <p>Elec. meter 1 (PV)</p> <p>Elec. meter 2 (Building)</p> <p style="background-color: black; color: white; padding: 2px;">Elec. meter 3 (Reserve)</p> <p>^Select [↔] Confirm</p> </div> |
| | > Heat-cool meter | <div style="border: 1px solid black; padding: 5px;"> <p>- Set Heat-cool meter to Yes when this generation meter is connected.</p> <p>- It is to measure energy generation of heat pump unit during heating and cooling only operation (one generation meter system) or during heating, cooling and DHW operation (two generation meter system).</p> <div style="text-align: center; margin-top: 10px;"> Yes ▲ No </div> </div> |

Remark : Elec. means "Electricity"
HP means "Heat pump"

| Menu | Default Setting | Setting Options / Display |
|---|--|---|
| | <p>> Tank meter</p> <ul style="list-style-type: none"> - Set Tank meter to Yes when this generation meter is connected. - It is to measure energy generation of heat pump unit during DHW operation*. <p>* Only available if both Heat-cool meter and Tank connection are set to Yes. Only set Tank meter to Yes when the connection is two generation meter system.</p> | <p>Yes No</p> |
| | <p>> Elec. meter HP</p> <ul style="list-style-type: none"> - Set Elec. meter HP to Yes when this electricity meter is connected. - It is to measure energy consumption of heat pump unit. | <p>Yes No</p> |
| | <p>> Elec. meter 1 (PV)</p> <ul style="list-style-type: none"> - Set Elec. meter 1 (PV) to Yes when this electricity meter is connected. - It is to measure energy generation of solar system. This data will be displayed only on Cloud system. | <p>Yes No</p> |
| | <p>> Elec. meter 2 (Building)</p> <ul style="list-style-type: none"> - Set Elec. meter 2 (Building) to Yes when this electricity meter is connected. - It is to measure energy consumption of the building. This data will be displayed only on Cloud system. | <p>Yes No</p> |
| | <p>> Elec. meter 3 (Reserve)</p> <ul style="list-style-type: none"> - Set Elec. meter 3 (Reserve) to Yes when this electricity meter is connected. - It is to measure energy consumption. This data will be displayed only on Cloud system. | <p>Yes No</p> |
| <p>5.27 > Electrical anode</p> <p>To enable or disable operation of electrical anode.</p> | <p>Yes (for -AN models) No (for non -AN models)</p> <p>Yes : display No : no display error : blinking</p> |  <p>Yes No</p> |

Remark : Elec. means "Electricity"
HP means "Heat pump"

| Menu | Default Setting | Setting Options / Display | |
|--|---|--|---|
| 5.28 >*1 Extra pump | | | |
| <p>Selects whether the extra pump is used in the circulation circuit for heating or in the circulation circuit for DHW, or it is not used. If set to "No", the pump is not used.</p> <p>If set to "Heat", the extra pump is used as a pump for the circulation circuit (for heating/cooling).</p> <p>If set to "DHW", the extra pump circulates domestic hot water in the circuit for DHW to prevent the domestic hot water from getting cold.</p> <ul style="list-style-type: none"> - If set to "Comfort", hot water is continuously circulated during DHW operation. - If set to "Efficiency", the extra pump turns ON and OFF alternatively following ON/OFF time setting. | No | <div style="text-align: right;"> No Heat DHW </div> | |
| | > DHW | | |
| | 8:00 am / 8:00 | Set Pump ON time | DHW 11:34pm, Mon Pump ON time <hr/> <div style="text-align: center;"> 8 : 00 am ▲ ▼ </div> <hr/> Select [↔] Confirm |
| | 8:00 pm / 20:00 | Set Pump OFF time | DHW 11:34pm, Mon Pump OFF time <hr/> <div style="text-align: center;"> 8 : 00 pm ▲ ▼ </div> <hr/> Select [↔] Confirm |
| | Efficiency | Select Comfort or Efficiency | DHW 11:34pm, Mon <div style="text-align: center;"> ▲ Comfort Efficiency ▼ </div> <hr/> Select [↔] Confirm |
| | > DHW > After selecting Efficiency | | |
| | 0:15 | Set ON time | DHW 11:34pm, Mon ON time Range: (0:05~1:00) Steps: ±0:05 <div style="text-align: right;"> 0:15 ▲ ▼ </div> <hr/> Select [↔] Confirm |
| 0:15 | Set OFF time | DHW 11:34pm, Mon OFF time Range: (0:05~1:00) Steps: ±0:05 <div style="text-align: right;"> 0:15 ▲ ▼ </div> <hr/> Select [↔] Confirm | |
| 5.29-1 > External heater | | | |
| Set to "YES" after an external heater is installed. (This menu is only displayed for the Control Module model (indoor unit)) | No | <div style="text-align: right;"> Yes No </div> | |
| 5.29-2 > External heater | | | |
| 18kW threshold Set to whether the total heater capacity is 18kW or less, or over 18kW. ※Please use a separate power supply when connecting heaters over 18kW. | Default setting =<18kW | Ext. heater 9:34pm, Mon <div style="text-align: center;"> ▲ ≤18kW >18kW ▼ </div> <hr/> Select [↔] Confirm | |

| Menu | Default Setting | Setting Options / Display |
|---|-----------------|----------------------------|
| 5.30 > Static pressure | | |
| <p>If set to "No", the fans in the outdoor unit rotate at a normal speed.</p> <p>If set to "YES", the fans in the outdoor unit rotate at a higher speed than normal for response to high static pressure.</p> | No | Yes ▲ No |
| 5.31 > *1 Cooling capacity | | |
| <p>Selects the cooling capacity.</p> <p>If set to "Efficiency", the cooling operation is performed at rated capacity for efficient cooling.</p> <p>If set to "Comfort", the cooling operation is performed at maximum capacity.</p> | Efficiency | Comfort ▲ Efficiency |

*1 Only displayed when COOL mode is unlocked (This means when COOL mode is available).

| Menu | Default Setting | Setting Options / Display |
|---|---|---|
| 6 Installer setup > Operation setup | | |
| To access to the four major functions or modes. | 4 main modes Heat / *1, *2 Cool / *1, *2 Auto / *3 Tank | Operation setup 10:34am, Mon Heat Cool Auto Tank ↓Select [←] Confirm |
| 6.1 > Heat | | |
| To set various water & ambient temperatures for heating. | Water temp. for heating ON / Outdoor temp. for heating OFF / ΔT for heating ON / Heater ON/OFF | Operation setup 10:34am, Mon Heat Water temp. for heating ON Outdoor temp. for heating OFF ΔT for heating ON ↓Select [←] Confirm |
| > Water temp. for heating ON | | |
| Compensation curve | Heating ON temperatures in compensation curve or direct input. | Operation setup 10:34am, Mon Heat ON: Water temp. Compensation curve Direct ↓Select [←] Confirm |
| > Water temp. for heating ON > Compensation curve | | |
| X axis: -5 °C, 15 °C Y axis: 55 °C, 35 °C | Input the 4 temperature points (2 on horizontal X axis, 2 on vertical Y axis). | Heat ON: Water temp.:Zone1 55°C 75 35°C 25 -20 -5°C 15°C 15 ↔Select [←] Confirm |
| <ul style="list-style-type: none"> • Temperature range: X axis: -20 °C ~ 15 °C, Y axis: See below • Temperature range for the Y axis input: WH-WXG model: 25 °C ~ 75 °C Regardless of the above setting, there is a limit to the water temperature. Refer to the operating condition on page 3. • If 2 zone system is selected, the 4 temperature points must also be input for Zone 2. • "Zone 1" and "Zone 2" will not appear on the display if only 1 zone system. | | |
| > Water temp. for heating ON > Direct | | |
| 35 °C | Temperature for heating ON | Operation setup 10:34am, Mon Heat ON: Water temp.:Zone2 Range: (25°C~75°C) Steps: ±1°C 35 °C ↕Select [←] Confirm |
| <ul style="list-style-type: none"> • Min. ~ Max. range is 25 °C ~ 75 °C: WH-WXG model: 25 °C ~ 75 °C Regardless of the above setting, there is a limit to the water temperature. Refer to the operating condition on page 3. • If 2 zone system is selected, temperature set point must input for Zone 2. • "Zone 1" and "Zone 2" will not appear on the display if only 1 zone system. | | |

*1 The system is locked to operate without COOL mode. It can be unlocked only by authorised installers or our authorised service partners.

*2 Only displayed when COOL mode is unlocked (This means when COOL mode is available).

*3 Only displayed when Tank connection is Yes.

| Menu | Default Setting | Setting Options / Display |
|--|---|--|
| > Outdoor temp. for heating OFF | | |
| > Outdoor temp. for heating OFF > Heat OFF outdoor temp. | | |
| 24 °C | Set outdoor temp to stop heating. Setting range is 6°C~35°C | Operation setup 10:34am, Mon Heat OFF: Outdoor temp. Range: (6°C~35°C) Steps: ±1°C 24 °C ↕Select [-] Confirm |
| > Outdoor temp. for heating OFF > Heat ON outdoor temp. | | |
| 23 °C | Set outdoor temp to start heating. Setting range is 5°C~X°C (X is heating OFF temp. -1) | Operation setup 10:34am, Mon Heat ON: Outdoor temp. Range: (5°C~23°C) Steps: ±1°C 23 °C ↕Select [-] Confirm |
| > Outdoor temp. for heating OFF > Heat ON Delay time. | | |
| 0:30 min | Set delay time from heating OFF to heating ON. | Operation setup 10:34am, Mon Heat ON: Delay time Range: (0:30~24:00) Steps: ±0:30 0:30 ↕Select [-] Confirm |
| > ΔT for heating ON | | |
| 5 °C | Set ΔT for heating ON. * This setting will not available to set when pump flowrate set to Max. duty. | Operation setup 10:34am, Mon Heat ON: ΔT Range: (1°C~15°C) Steps: ±1°C 5 °C ↕Select [-] Confirm |
| > *1 Heater ON/OFF | | |
| > Heater ON/OFF > Outdoor temp. for heater ON | | |
| 0 °C | Temperature for heater ON | Operation setup 10:34am, Mon Heater ON: Outdoor temp. Range: (-20°C~15°C) Steps: ±1°C 0 °C ↕Select [-] Confirm |
| > Heater ON/OFF > Delay time for heater ON | | |
| 0:30 min | Delay time for heater to turn on | Operation setup 10:34am, Mon Heater ON: Delay time Range: (0:10~1:00) Steps: ±0:10 0:30 ↕Select [-] Confirm |
| > Heater ON/OFF > Water temperature for heater ON | | |
| -4 °C | Setting of water temperature to turn on from water set temperature. | Operation setup 10:34am, Mon Heater ON: ΔT of target Temp. Range: (-10°C~-2°C) Steps: ±1°C -4 °C ↕Select [-] Confirm |

*1 It is not displayed when the outdoor unit is used alone.

| Menu | Default Setting | Setting Options / Display |
|--|--|--|
| | > Heater ON/OFF > Water temperature for heater OFF | |
| | -2 °C | Setting of water temperature to turn off from water set temperature. Operation setup 10:34am, Mon Heater OFF: ΔT of target Temp. Range: (-8°C-0°C) Steps: ±1°C -2 °C ↕Select [-] Confirm |
| 6.2 | > *1, *2 Cool | |
| To set various water & ambient temperatures for cooling. | Water temperatures for cooling ON and ΔT for cooling ON. | Operation setup 10:34am, Mon Cool Water temp. for cooling ON ΔT for cooling ON ↓Select [-] Confirm |
| | > Water temp. for cooling ON | |
| | Compensation curve | Operation setup 10:34am, Mon Cool ON: Water temp. Compensation curve Direct ↓Select [-] Confirm |
| | > Water temp. for cooling ON > Compensation curve | |
| | X axis: 20 °C, 30 °C Y axis: 15 °C, 10 °C | Input the 4 temperature points (2 on horizontal X axis, 2 on vertical Y axis) Cool ON: Water temp: Zone1 ↓Select [-] Confirm |
| | <ul style="list-style-type: none"> • If 2 zone system is selected, the 4 temperature points must also be input for Zone 2. • "Zone 1" and "Zone 2" will not appear on the display if only 1 zone system. | |
| | > Water temp. for cooling ON > Direct | |
| | 10 °C | Operation setup 10:34am, Mon Cool ON: Water temp.: Zone2 Range: (5°C-20°C) Steps: ±1°C 10 °C ↕Select [-] Confirm |
| | <ul style="list-style-type: none"> • If 2 zone system is selected, temperature set point must input for Zone 2. • "Zone 1" and "Zone 2" will not appear on the display if only 1 zone system. | |
| | > ΔT for cooling ON | |
| | 5 °C | Set ΔT for cooling ON * This setting will not available to set when pump flowrate set to Max. duty. Operation setup 10:34am, Mon Cool ON: ΔT Range: (1°C-15°C) Steps: ±1°C 5 °C ↕Select [-] Confirm |

*1 The system is locked to operate without COOL mode. It can be unlocked only by authorised installers or our authorised service partners.
 *2 Only displayed when COOL mode is unlocked (This means when COOL mode is available).

| Menu | Default Setting | Setting Options / Display |
|---|---|--|
| 6.3 > *1, *2 Auto | | |
| Automatic switch from Heat to Cool or Cool to Heat. | Outdoor temperatures for switching from Heat to Cool or Cool to Heat. | Operation setup 10:34am, Mon Auto Outdoor temp. for (Heat to Cool) Outdoor temp. for (Cool to Heat) ↓Select [–] Confirm |
| | > Outdoor temp. for (Heat to Cool) | |
| | 15 °C | Set outdoor temperature for switching from Heat to Cool. Operation setup 10:34am, Mon Auto: Outdoor temp.(Heat to Cool) Range: (11°C~25°C) Steps: ±1°C 15 °C ⇅Select [–] Confirm |
| | > Outdoor temp. for (Cool to Heat) | |
| | 10 °C | Set outdoor temperature for switching from Cool to Heat. Operation setup 10:34am, Mon Auto: Outdoor temp.(Cool to Heat) Range: (5°C~14°C) Steps: ±1°C 10 °C ⇅Select [–] Confirm |
| 6.4 > *3 Tank | | |
| Setting functions for the tank. | Floor operation time (max) / Tank heat up time (max) / Tank re-heat temp. / Sterilization | Operation setup 10:34am, Mon Tank Floor operation time (max) Tank heat up time (max) Tank re-heat temp. ↓Select [–] Confirm |
| | • The display will show 3 functions at a time. | |
| | > Floor operation time (max) | |
| | 8:00 | Maximum time for floor operation (in hours and minutes) Operation setup 10:34am, Mon Tank: Floor ope. time (max) Range: (0:30~10:00) Steps: ±0:30 8:00 ⇅Select [–] Confirm |
| | > Tank heat up time (max) | |
| | 1:00 | Maximum time for heating the tank (in hours and minutes) Operation setup 10:34am, Mon Tank: Heat up time (max) Range: (0:05~4:00) Steps: ±0:05 1:00 ⇅Select [–] Confirm |
| > Tank re-heat temp. | | |
| -8 °C | Set temperature to perform reboil of tank water. Operation setup 10:34am, Mon Tank: Re-heat temp. Range: (-12°C~-2°C) Steps: ±1°C -8 °C ⇅Select [–] Confirm | |

*1 The system is locked to operate without COOL mode. It can be unlocked only by authorised installers or our authorised service partners.
 *2 Only displayed when COOL mode is unlocked (This means when COOL mode is available).
 *3 Only displayed when Tank connection is Yes.

| Menu | Default Setting | Setting Options / Display | | | | | | | | | | | | | | |
|--|---|--|-----|-----|-----|-----|-----|-----|-----|---|---|---|---|---|---|---|
| > Sterilization | | | | | | | | | | | | | | | | |
| Monday | Sterilization may be set for 1 or more days of the week. Sun / Mon / Tue / Wed / Thu / Fri / Sat | Operation setup 10:34am, Mon Sterilization: Day <table border="1"> <tr> <td>Sun</td> <td>Mon</td> <td>Tue</td> <td>Wed</td> <td>Thu</td> <td>Fri</td> <td>Sat</td> </tr> <tr> <td>—</td> <td>✓</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> </table> ↔Day ⏪☑/☐ [↔]Confirm | Sun | Mon | Tue | Wed | Thu | Fri | Sat | — | ✓ | — | — | — | — | — |
| Sun | Mon | Tue | Wed | Thu | Fri | Sat | | | | | | | | | | |
| — | ✓ | — | — | — | — | — | | | | | | | | | | |
| > Sterilization: Time | | | | | | | | | | | | | | | | |
| 12:00 | Time of the selected day(s) of the week to sterilize the tank 0:00 ~ 23:59 | Operation setup 10:34am, Mon Sterilization: Time <div style="text-align: center; font-size: 2em; font-weight: bold;">12:00 pm</div> ⏪ Select [↔] Confirm | | | | | | | | | | | | | | |
| > Sterilization: Boiling temp. | | | | | | | | | | | | | | | | |
| 65 °C | Set boiling temperatures for sterilize the tank. | Operation setup 10:34am, Mon Sterilization: Boiling temp. *1 Range: (55°C-65°C) Steps: ±1°C 65 °C ⏪ Select [↔] Confirm | | | | | | | | | | | | | | |
| > Sterilization: Ope. time (max) | | | | | | | | | | | | | | | | |
| 0:10 | Set sterilizing time (in hours and minutes) | Operation setup 10:34am, Mon Sterilization: Ope. time (max) Range: (0:05-1:00) Steps: ±0:05 0:10 ⏪ Select [↔] Confirm | | | | | | | | | | | | | | |

7 Installer setup > Service setup

7.1 > Pump maximum speed

| | | |
|---------------------------------------|--|--|
| To set the maximum speed of the pump. | Setting the flow rate, max. duty and operation ON/OFF of the pump. Flow rate: XX.X L/min Max. Duty: 0x40 ~ 0xFE, Pump: ON/OFF/Air Purge | Service setup 10:34am, Mon Flow rate Max. Duty Operation 46.0 L/min 0xCE OFF ⏪ Select |
|---------------------------------------|--|--|

7.2 > *2 Zone2 pump speed

| | | |
|------------------------------|--|--|
| To set the zone2 pump speed. | Flow rate: XX.X L/min Max. Duty: 0x46 ~ 0xC5, Pump: ON/OFF | Service setup 11:34pm, Mon Flow rate Max. Duty Operation 0.0 L/min 0x50 OFF ⏪ Select [↔] Confirm |
|------------------------------|--|--|

*1 When using external heater, 55°C ~ 75°C.

*2 Only displayed when Panasonic AIR-TO-WATER CONTROL MODULE+TANK 2Zone model.

| Menu | Default Setting | Setting Options / Display | | | | | | | | | | | | | | | | | |
|---|--|--|---|--|--|-----------------------------|-------------------------------|--|------------------------|--|--------------------------|--|--|--|---|--|---|------------------------|--|
| 7.3 > Dry concrete To dry the concrete (floor, walls, etc.) during construction. Do not use this menu for any other purposes and in period other than during construction | Edit to set the temperature of dry concrete. ON / Edit | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Service setup</td> <td style="text-align: right;">10:34am, Mon</td> </tr> <tr> <td colspan="2">Dry concrete</td> </tr> <tr> <td colspan="2" style="text-align: center;">ON</td> </tr> <tr> <td colspan="2" style="text-align: center;">Edit</td> </tr> <tr> <td colspan="2" style="text-align: right;">↙Select [↔] Confirm</td> </tr> </table> | Service setup | 10:34am, Mon | Dry concrete | | ON | | Edit | | ↙Select [↔] Confirm | | | | | | | | |
| | Service setup | 10:34am, Mon | | | | | | | | | | | | | | | | | |
| | Dry concrete | | | | | | | | | | | | | | | | | | |
| | ON | | | | | | | | | | | | | | | | | | |
| Edit | | | | | | | | | | | | | | | | | | | |
| ↙Select [↔] Confirm | | | | | | | | | | | | | | | | | | | |
| > Edit | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center;"> Stages: 1 Temperature: 25 °C </td> <td style="width: 35%;"> Heating temperature for drying the concrete. Select the desired stages: 1 ~ 10, range: 1 ~ 99 </td> <td style="width: 35%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Service setup</td> <td style="text-align: right;">10:34am, Mon</td> </tr> <tr> <td colspan="2">Dry concrete: 1/10</td> </tr> <tr> <td colspan="2">Range: (25°C~55°C)</td> </tr> <tr> <td style="text-align: right;">Steps: ±1°C</td> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">25 °C</div> </td> </tr> <tr> <td colspan="2" style="text-align: right;">↖Select [↔] Confirm</td> </tr> </table> </td> </tr> </table> | Stages: 1 Temperature: 25 °C | Heating temperature for drying the concrete. Select the desired stages: 1 ~ 10, range: 1 ~ 99 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Service setup</td> <td style="text-align: right;">10:34am, Mon</td> </tr> <tr> <td colspan="2">Dry concrete: 1/10</td> </tr> <tr> <td colspan="2">Range: (25°C~55°C)</td> </tr> <tr> <td style="text-align: right;">Steps: ±1°C</td> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">25 °C</div> </td> </tr> <tr> <td colspan="2" style="text-align: right;">↖Select [↔] Confirm</td> </tr> </table> | Service setup | 10:34am, Mon | Dry concrete: 1/10 | | Range: (25°C~55°C) | | Steps: ±1°C | <div style="border: 1px solid black; padding: 2px; display: inline-block;">25 °C</div> | ↖Select [↔] Confirm | | | | | | |
| Stages: 1 Temperature: 25 °C | Heating temperature for drying the concrete. Select the desired stages: 1 ~ 10, range: 1 ~ 99 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Service setup</td> <td style="text-align: right;">10:34am, Mon</td> </tr> <tr> <td colspan="2">Dry concrete: 1/10</td> </tr> <tr> <td colspan="2">Range: (25°C~55°C)</td> </tr> <tr> <td style="text-align: right;">Steps: ±1°C</td> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">25 °C</div> </td> </tr> <tr> <td colspan="2" style="text-align: right;">↖Select [↔] Confirm</td> </tr> </table> | Service setup | 10:34am, Mon | Dry concrete: 1/10 | | Range: (25°C~55°C) | | Steps: ±1°C | <div style="border: 1px solid black; padding: 2px; display: inline-block;">25 °C</div> | ↖Select [↔] Confirm | | | | | | | | |
| Service setup | 10:34am, Mon | | | | | | | | | | | | | | | | | | |
| Dry concrete: 1/10 | | | | | | | | | | | | | | | | | | | |
| Range: (25°C~55°C) | | | | | | | | | | | | | | | | | | | |
| Steps: ±1°C | <div style="border: 1px solid black; padding: 2px; display: inline-block;">25 °C</div> | | | | | | | | | | | | | | | | | | |
| ↖Select [↔] Confirm | | | | | | | | | | | | | | | | | | | |
| > ON | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"> Confirm the setting temperatures of dry concrete for each stage. </td> <td> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Service setup</td> <td style="text-align: right;">10:34am, Mon</td> </tr> <tr> <td colspan="2">Dry concrete: Status</td> </tr> <tr> <td style="text-align: right;">Stage</td> <td style="text-align: right;">: 1/10</td> </tr> <tr> <td style="text-align: right;">Water set temp.</td> <td style="text-align: right;">: 25°C</td> </tr> <tr> <td style="text-align: right;">Actual water temp.</td> <td style="text-align: right;">: 25°C/25°C</td> </tr> <tr> <td colspan="2" style="text-align: right;">[OFF] OFF</td> </tr> </table> </td> </tr> </table> | Confirm the setting temperatures of dry concrete for each stage. | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Service setup</td> <td style="text-align: right;">10:34am, Mon</td> </tr> <tr> <td colspan="2">Dry concrete: Status</td> </tr> <tr> <td style="text-align: right;">Stage</td> <td style="text-align: right;">: 1/10</td> </tr> <tr> <td style="text-align: right;">Water set temp.</td> <td style="text-align: right;">: 25°C</td> </tr> <tr> <td style="text-align: right;">Actual water temp.</td> <td style="text-align: right;">: 25°C/25°C</td> </tr> <tr> <td colspan="2" style="text-align: right;">[OFF] OFF</td> </tr> </table> | Service setup | 10:34am, Mon | Dry concrete: Status | | Stage | : 1/10 | Water set temp. | : 25°C | Actual water temp. | : 25°C/25°C | [OFF] OFF | | | | | |
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| Service setup | 10:34am, Mon | | | | | | | | | | | | | | | | | | |
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| Actual water temp. | : 25°C/25°C | | | | | | | | | | | | | | | | | | |
| [OFF] OFF | | | | | | | | | | | | | | | | | | | |
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| 7.4 > Service contact To set up to 2 contact names and numbers for the User. | Service engineer's name and contact number. Contact 1 / Contact 2 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Service setup</td> <td style="text-align: right;">10:34am, Mon</td> </tr> <tr> <td colspan="2">Service contact:</td> </tr> <tr> <td colspan="2" style="text-align: center;">Contact 1</td> </tr> <tr> <td colspan="2" style="text-align: center;">Contact 2</td> </tr> <tr> <td colspan="2" style="text-align: right;">↙Select [↔] Confirm</td> </tr> </table> | Service setup | 10:34am, Mon | Service contact: | | Contact 1 | | Contact 2 | | ↙Select [↔] Confirm | | | | | | | | |
| | Service setup | 10:34am, Mon | | | | | | | | | | | | | | | | | |
| | Service contact: | | | | | | | | | | | | | | | | | | |
| Contact 1 | | | | | | | | | | | | | | | | | | | |
| Contact 2 | | | | | | | | | | | | | | | | | | | |
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| Contact 1 | | | | | | | | | | | | | | | | | | | |
| Name : | Bryan Adams | | | | | | | | | | | | | | | | | | |
| : | 08812345678 | | | | | | | | | | | | | | | | | | |
| ↙Select [↔] Edit | | | | | | | | | | | | | | | | | | | |
| Input name and number Contact name: alphabet a ~ z. Contact number: 1 ~ 9 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Contact-1</td> </tr> <tr> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">ABC/abc</div> </td> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0-9/Other</div> </td> </tr> <tr> <td> ABCDEFGH I JKLMNOPQR Space </td> <td> STUVWXYZ a b c d e f g h i BS </td> </tr> <tr> <td> j k l m n o p q r s t u v w x y z Conf </td> <td> ↖Select [↔] Enter </td> </tr> <tr> <td colspan="2">Number:</td> </tr> <tr> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">1 2 3 (</div> </td> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">4 5 6)</div> </td> </tr> <tr> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">7 8 9 -</div> </td> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">BS</div> </td> </tr> <tr> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">* 0 # _</div> </td> <td style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">Conf</div> </td> </tr> <tr> <td colspan="2" style="text-align: right;">↙Select [↔] Enter</td> </tr> </table> | Contact-1 | | <div style="border: 1px solid black; padding: 2px; display: inline-block;">ABC/abc</div> | <div style="border: 1px solid black; padding: 2px; display: inline-block;">0-9/Other</div> | ABCDEFGH I JKLMNOPQR Space | STUVWXYZ a b c d e f g h i BS | j k l m n o p q r s t u v w x y z Conf | ↖Select [↔] Enter | Number: | | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1 2 3 (</div> | <div style="border: 1px solid black; padding: 2px; display: inline-block;">4 5 6)</div> | <div style="border: 1px solid black; padding: 2px; display: inline-block;">7 8 9 -</div> | <div style="border: 1px solid black; padding: 2px; display: inline-block;">BS</div> | <div style="border: 1px solid black; padding: 2px; display: inline-block;">* 0 # _</div> | <div style="border: 1px solid black; padding: 2px; display: inline-block;">Conf</div> | ↙Select [↔] Enter | |
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| ↙Select [↔] Enter | | | | | | | | | | | | | | | | | | | |

| 8 Installer setup > Remote control setup |
|--|
|--|

| | | | |
|--|--------|---|--|
| <ul style="list-style-type: none"> To select whether to use one remote controller or two remote controllers. Select Single when one remote controller is connected. Select Dual when two remote controllers are connected. Second remote controller can be used for zone 2 room temperature control. | Single | Selection of one or two remote controllers. | <div style="background-color: #333; color: white; padding: 2px; display: inline-block;">Single</div> ▼ Dual |
| | | When Dual is selected, Main remote controller (RC-1) will start to communicate with second remote controller (RC-2) and display "RC-1 & RC-2 sync. in progress". They are ready to be used after this pop up screen disappears. | RC-1 & RC-2 sync. in progress! |
| | | When both remote controllers have communication failure, it will display "Communication with RC-2 failed". | Communication with RC-2 failed! [↵]Close |

Cleaning instructions

To ensure optimal performance of the system, cleaning has to be carried out at regular intervals. Consult an authorised dealer/specialist.

- **Disconnect the power supply before cleaning.**
- Do not use benzine, thinner, scouring powder or hydrocarbon based solvent.
- Use only soap (\approx pH7) or neutral household detergent.
- Do not use water hotter than 40 °C.

Regular Checks

Water pressure check



- Ensure that the water pressure is between 0.5 bar and 4.0 bar.
- In case the water pressure is out of the above range, consult an authorised dealer/specialist.
- Water pressure can be checked through following method:-
 - See 'Remote Controller buttons and display' (H)
 - Go to System check > System information > Water pressure

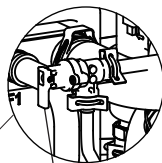
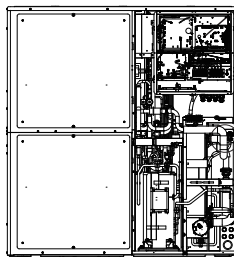
Outdoor unit

- Do not obstruct the air inlet and outlet vents. Failure to do so may result in low performance or system breakdown. Remove any obstruction to ensure the ventilation.
- When it snows, clean and remove snow around the outdoor unit to prevent the air inlet and outlet vents from being covered with snow.
- Safety relief valve in this water circuit must be completely closed and most not normally release any water.

Water filter

- Clean the water filter at least once a year. Failure to do so may cause the filter to clog up, which may lead to system breakdown. Consult an authorised dealer/specialist.
- Please remove the magnet, after that please remove the accumulated dust inside.

*See section Maintenance in the AIR-TO-WATER HEATPUMP OUTDOOR UNIT Installation Manual.



Safety relief valve

Tips: For extended non-use

Do not switch off the power supply.

Switching off the power supply will stop the automatic water pump operation and will occur water leakage or breakage of parts due to water freezing. In Case of switch will be continued off, Drain water from water circuit.

Info: Non serviceable criteria

Disconnect the power supply

then please consult an authorised dealer/specialist under the following conditions:

- Abnormal noise during operation.
- Water/foreign particles have entered the Remote Controller.
- Water leak from the indoor unit.
- Circuit breaker switches off frequently.
- Power supply cable becomes excessively warm.

Maintenance

FILLING THE CIRCUIT SYSTEM

If the pressure is too low in the CIRCUIT system, it needs to be topped up. See the installation Manual for more information.

VENTING THE CIRCUIT SYSTEM

In the event of repeated filling of the CIRCUIT system, or if bubbling sounds are heard from the indoor module, the system may need venting. This is done as follows:

1. Turn off the power supply to the indoor module.
2. Vent the indoor module via the vent valves and the rest of the climate system via the relevant vent valves.
3. Keep topping up and venting until all air has been removed and the pressure is correct.

The climate system may require topping up after venting.

In rare cases, flammable gas may be mixed in, so when venting, keep ignition sources away and ventilate well.

User

- In order to ensure optimal performance of units, user may inspect and clear any obstruction on the air inlet and outlet vents of the outdoor unit.
- User should not try to service or replace parts of the unit.
- Contact authorised dealer/specialist for scheduled inspection.
- Contact authorised dealer/specialist in case that the Network Adaptor is built in the indoor unit and therefore user cannot operate it.

Dealer/Specialist

- In order to ensure safety and optimal performance of the units, seasonal inspections on the units, functional check of RCCB/ELCB, field wiring and piping have to be carried out at regular intervals by authorised dealer/specialist.
- If the Water Filter Set installed specific to the Sanitary Water Tank, it is important to service the Water Filter Set periodically.

Troubleshooting

The following symptoms do not indicate malfunction.

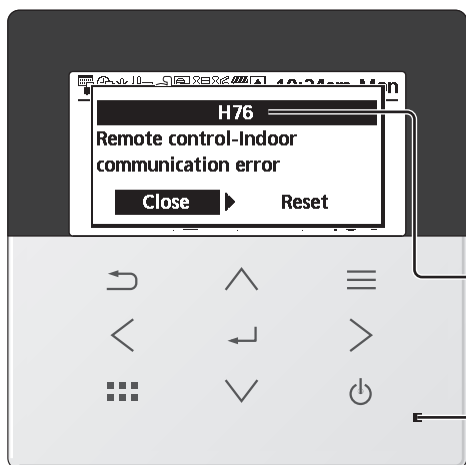
| Symptom | Cause |
|--|---|
| Water flowing sound during operation. | <ul style="list-style-type: none"> Refrigerant flow inside the unit. |
| Operation delayed for a few minutes after restarting. | <ul style="list-style-type: none"> The delay is a protection for the compressor. |
| The outdoor unit emits water/steam. | <ul style="list-style-type: none"> Condensation or evaporation occurring in the pipes. |
| Steam comes out of the outdoor unit in the heating mode. | <ul style="list-style-type: none"> It is caused by defrost operation in the heat exchanger. |
| The outdoor unit does not operate. | <ul style="list-style-type: none"> It is caused by the protection control of the system when outdoor temperature is out of the operating range. |
| The system operation switches off. | <ul style="list-style-type: none"> It is caused by the protection control of the system. When the water inlet temperature is lower than 18 °C, the compressor stops and the backup heater power turns on. |
| The system is hard to heat up. | <ul style="list-style-type: none"> When the panel and the floor are heated simultaneously, warm water temperature may decrease, which may reduce the heating ability of the system. When the outdoor air temperature is low, the system may need longer time to heat up. Discharge outlet or intake inlet in the outdoor unit is blocked by some obstacle, such as a pile of snow. When the preset water outlet temperature is low, the system may need longer time to heat up. |
| The system does not heat up instantly. | <ul style="list-style-type: none"> System will take some time to heat up the water if it starts to operate at cold water temperature. |
| Operation starts automatically even though the timer is not set. | <ul style="list-style-type: none"> Sterilization timer has been set. Anti-stick mode runs automatically at 3:00am every Monday. |
| Loud refrigerant noise continues for several minutes. | <ul style="list-style-type: none"> It is caused by protection control during deice operation at outdoor ambient temperature lower than -10 °C. |
| *2 COOL mode is unavailable. | <ul style="list-style-type: none"> System has been locked to operate in HEAT mode only. |

Check the following before calling for servicing.

| Symptom | Check |
|--|--|
| Operation in HEAT/*1, *2 COOL mode is not working efficiently. | <ul style="list-style-type: none"> Set the temperature correctly. Check the panel heater/cooler valve is opened. Clear any obstruction in the air inlet and air outlet vents of the outdoor unit. |
| Noisy during operation. | <ul style="list-style-type: none"> Outdoor unit or indoor unit has been installed at an incline. Close the cover properly. |
| System does not work. | <ul style="list-style-type: none"> Circuit breaker has tripped/activated. |
| Operation LED is not lit or nothing is displayed on the Remote Controller. | <ul style="list-style-type: none"> Power supply is working correctly, or a power failure has occurred. |


*1 The system is locked to operate without COOL mode. It can be unlocked only by authorised installers or our authorised service partners.

*2 Only displayed when COOL mode is unlocked (This means when COOL mode is available).



Below is a list of error codes that may appear on the display when there is some trouble with the system setting or operation.

When the display shows an error code as indicated below, contact the number registered in the Remote Controller or a nearest authorised installer.

All switches are disabled except < > and .

| Error No. | Error explanation |
|-----------|--|
| H12 | Capacity mismatch |
| H15 | Compressor sensor error |
| H17 | Zone 2 pump error |
| H20 | Pump error |
| H21 | Water pressure error |
| H22 | Tank sensor 2 error |
| H23 | Refrigerant sensor error |
| H27 | Service valve error |
| H28 | Solar sensor error |
| H31 | Pool sensor error |
| H36 | Buffer tank sensor error |
| H42 | Low pressure protection |
| H43 | Zone 1 sensor error |
| H44 | Zone 2 sensor error |
| H62 | Water flow error |
| H64 | High pressure sensor error |
| H65 | Deice water circulation error |
| H67 | External thermistor 1 error |
| H68 | External thermistor 2 error |
| H70 | Back-up heater OLP error |
| H72 | Tank sensor 1 error |
| H74 | PCB communication error |
| H75 | Low water temp protection |
| H76 | RC-1 & Indoor communication error RC-1 & RC-2 communication error |
| H90 | Indoor-Outdoor communication error |
| H91 | Tank heater OLP error |
| H98 | High pressure protection |
| H99 | Indoor freeze prevention |

| Error No. | Error explanation |
|-----------|--|
| F12 | Pressure switch activated |
| F14 | Poor compressor rotation |
| F15 | Fan motor lock error |
| F16 | Current protection |
| F20 | Compressor overload protection |
| F22 | Transistor module overload protection |
| F23 | DC peak |
| F24 | Refrigerant cycle error |
| F25 | *1,*2 Cool / heat cycle error |
| F27 | Pressure switch error |
| F30 | Water outlet sensor 2 error |
| F32 | RC-1's internal thermostat error RC-2's internal thermostat error |
| F35 | External meter communication error |
| F36 | Outdoor ambient sensor error |
| F37 | Water inlet sensor error |
| F40 | Outdoor discharge sensor error |
| F41 | Power factor correction error |
| F42 | Outdoor heat exchanger sensor error |
| F45 | Water outlet sensor error |
| F46 | Current transformer disconnection |
| F48 | Evaporator outlet sensor error |
| F49 | Bypass outlet sensor error |
| F50 | Water inlet 2 sensor error |
| F51 | Economizer outlet sensor error |
| F52 | Bypass inlet sensor error |
| F53 | Main expansion valve overcurrent protection |
| F54 | Bypass expansion valve overcurrent protection |
| F55 | Electrical anode error |
| F56 | Outdoor heat exchanger middle sensor error |
| F71 | Compressor open phase |
| F72 | Compressor overcurrent |
| F73 | DCCT(Direct Current Current Transducer) |
| F74 | DC(Direct Current) voltage error |
| F75 | Communication error in outdoor |
| F95 | *1,*2 Cooling high pressure error |

* Some error code may not be applicable to your model. Consult authorised dealer/specialist for clarification.

*1 The system is locked to operate without COOL mode. It can be unlocked only by authorised installers or our authorised service partners.
*2 Only displayed when COOL mode is unlocked (This means when COOL mode is available).

Information

Information when connect to Network Adaptor (Accessories parts for Outdoorunit)



WARNING

Before use, check the safety around the Air-to-Water system. Confirm human and living objects at surrounding before operation.

Incorrect operation due to failure to follow instructions may cause harm and damage.



Confirm the below before operation (inside premises)

- Timer setting condition. Unpredictable on/off operation may cause serious injury or damage to human and living objects.

Confirm the below before and during operation (outside from premises)

- If it is known someone in the premises, notify the person from outside of new operation setting prior executing. This is to avoid sudden shock to the person and any serious health breakdown duly from operation changed.
- Please do not use this appliance when infant, physical disability person or elderly who unable to operate the appliance by themselves in the premises.
- Check the setting and operation status frequently.
- Stop the operation when error code is displayed and consult an authorised dealer or specialist.

Please confirm before use

- The system may not usable when communication condition is bad. Please check "Operation Status" from the application display after operation. The following condition may happen in the remote operation.
 - Cannot operate, operation time is not reflected.
 - Air-to-Water operation is not reflected when operation is set outside of premises.
- It is recommended to lock screen the smart phone device to prevent miss-operation.
- Do not use other remote control, communication and operation device not specified by an authorised dealer or specialist.
- Use under the agreement of "Terms of Service" and "Handling of Personal Information" of Panasonic Smart Application.
- For extended non-use of Panasonic Smart Application, disconnect the network adaptor from the device.

Information for Users on Collection and Disposal of Old Equipment



Only for European Union and countries with recycling systems

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries must not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points in accordance with your national legislation.

By disposing of them correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment.

For more information about collection and recycling, please contact your local authority.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.



For business users in the European Union and some other European countries





If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

[Information on Disposal in other Countries outside the European Union]

These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authority or dealer and ask for the correct method of disposal.

Information

Symbols: Explanation of symbols that may be present in this manual.

| | | | |
|---|---|---|--|
|  WARNING | This symbol shows that this equipment uses a flammable refrigerant with safety A3 group per ISO 817. If the refrigerant is leaked, together with an external ignition source, there is a possibility of fire / explosion. |  | This symbol shows that the Operation Instructions should be read carefully. |
|  | This symbol shows that a service personnel should be handling this equipment with reference to the Installation Instructions. |  | This symbol shows that there is information included in the Operation Instructions and/or Installation Instructions. |

Installation

This equipment complies with IEC 61000-3-12 provided that the short-circuit power S_{sc} is greater than or equal to 5300kVA(30kW model)/4500kVA(25kWmodel)/3600kVAw(20kW model) at the interface point between the user's supply and the public system. It is the responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment is connected only to a supply with a short-circuit power S_{sc} greater than or equal to 5300kVA(30kW model)/4500kVA(25kWmodel)/3600kVAw(20kW model) at the interface .

| Country | Hotline Phone Number |
|----------------|----------------------|
| Austria | 0800 - 700666 |
| Baltic | +46 8 680 26 50 |
| Bulgaria | +359 2 971 29 69 |
| Croatia | +36 1 382 60 60 |
| Czech Republic | +420 236 032 511 |
| Denmark | +45 369 277 99 |
| Finland | +358 923 195 432 |
| France | +33(0) 892 183 184 |
| Germany | 0800 - 2002223 |

| Country | Hotline Phone Number |
|-------------|----------------------|
| Hungary | +36 1 382 60 60 |
| Netherlands | +31(0)736402538 |
| Norway | +47 210 339 99 |
| Poland | +48 22 29 53 727 |
| Spain | +34 (0) 902 153 060 |
| Sweden | +46 (0)8 566 426 88 |
| Switzerland | 0800 - 001074 |
| UK/Ireland | +44 (0) 1344 853 393 |

Manufactured by:
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