

Control Unit
RC120MHXGA
RC140MHXGA
RC160MHXGA
RC090MHXEA
RC120MHXEA
RC140MHXEA
RC160MHXEA

Air to Water Heat Pump -Mono Control Unit user manual



imagine the possibilities

Thank you for purchasing this Samsung product.
To receive more complete service, please
register your product at

www.samsung.com/register

© S F I P D DB98-00000A(1)








SAMSUNG

Safety precautions

Before using your new air conditioner, please read this manual thoroughly to ensure that you know how to safely and efficiently operate the extensive features and functions of your new appliance.


Because the following operating instructions cover various models, the characteristics of your air conditioner may differ slightly from those described in this manual. If you have any questions, call your nearest contact center or find help and information online at www.samsung.com.

Important safety symbols and precautions:

| | | | |
|--|--|---|---|
|  WARNING | Hazards or unsafe practices that may result in severe personal injury or death . | | |
|  CAUTION | Hazards or unsafe practices that may result in minor personal injury or property damage . | | |
|  | Follow directions. |  | Unplug the power plug from the wall socket. |
|  | Do NOT attempt. |  | Do NOT disassemble. |
|  | Make sure the machine is grounded to prevent electric shock. | | |

FOR INSTALLATION

WARNING

 **Plug the power cord into a wall socket with the power specifications of the product or higher and use the socket for this appliance only. In addition, do not use an extension cord.**

- Sharing a wall socket with other appliances using a power strip or extending the power cord may result in electric shock or fire.
- Do not use an electric transformer. It may result in electric shock or fire.
- If the voltage/frequency/rated current condition is different, it may cause fire.

The installation of this appliance must be performed by a qualified technician or service company.

- Failing to do so may result in electric shock, fire, explosion, problems with the product, or injury.

Install a switch and circuit breaker dedicated to the air conditioner.

- Failing to do so may result in electric shock or fire.

Fix the outdoor unit firmly so that the electric part of the outdoor unit is not exposed.

- Failing to do so may result in electric shock or fire.

 **Do not install this appliance near a heater, inflammable material. Do not install this appliance in a humid, oily or dusty location, in a location exposed to direct sunlight and water (rain drops). Do not install this appliance in a location where gas may leak.**

- This may result in electric shock or fire.

Never install the outdoor unit in a location such as on a high external wall where it could fall.


- If the outdoor unit falls, it may result in injury, death or property damage.

 **This appliance must be properly grounded. Do not ground the appliance to a gas pipe, plastic water pipe, or telephone line.**

- Failure to do so may result in electric shock, fire, an explosion, or other problems with the product.
- Never plug the power cord into a socket that is not grounded correctly and make sure that it is in accordance with local and national codes.

FOR INSTALLATION

CAUTION

 **This appliance should be positioned in such a way that it is accessible to the power plug.**

- Failing to do so may result in electric shock or fire due to electric leakage.

Install your appliance on a level and hard floor that can support its weight.

- Failing to do so may result in abnormal vibrations, noise, or problems with the product.

Install the draining hose properly so that water is drained correctly.

- Failing to do so may result in water overflowing and property damage.

When installing the outdoor unit, make sure to connect the draining hose so that draining is performed correctly.

- The water generated during the heating operation by the outdoor unit may overflow and result in property damage. In particular, in winter, if a block of ice falls, it may result in injury, death or property damage.

- The air conditioner should be used only for the applications for which it has been designed : the indoor unit is not suitable to be installed in areas used for laundry.

- Our units must be installed in compliance with the spaces indicated in the installation manual to ensure either accessibility from both sides or ability to perform routine maintenance and repairs. The units' components must be accessible and that can be disassembled in conditions of complete safety either for people or things. For this reason, where it is not observed as indicated into the Installation Manual, the cost necessary to reach and repair the unit (in safety, as required by current regulations in force) with slings, trucks, scaffolding or any other means of elevation won't be considered in-warranty and charged to end user.

FOR POWER SUPPLY

 WARNING

Remove all foreign substances such as dust or water from the power plug terminals and contact points using a dry cloth on a regular basis.

- Unplug the power plug and clean it with a dry cloth.
- Failing to do so may result in electric shock or fire.

Plug the power plug into the wall socket in the right direction so that the cord runs towards the floor.

- If you plug the power plug into the socket in the opposite direction, the electric wires within the cable may be damaged and this may result in electric shock or fire.

When the appliance or power plug or power cord is damaged, contact your nearest service center



Plug the power plug into the wall socket firmly. Do not use a damaged power plug, damaged power cord or loose wall socket.

- This may result in electric shock or fire.
- Do not pull the power cord, when unplugging the power plug.**

- Unplug the power plug by holding the plug.
- Failing to do so may result in electric shock or fire.

Do not pull or excessively bend the power cord. Do not twist or tie the power cord. Do not hook the power cord over a metal object, place a heavy object on the power cord, insert the power cord between objects, or push the power cord into the space behind the appliance.

- This may result in electric shock or fire.

FOR POWER SUPPLY

 CAUTION

When not using the air conditioner for a long period of time or during a thunder/lightning storm, cut the power at the circuit breaker.

- Failing to do so may result in electric shock or fire.

FOR USING

 WARNING

If the appliance is flooded, please contact your nearest service center.

- Failing to do so may result in electric shock or fire.
- If the appliance generates a strange noise, a burning smell or smoke, unplug the power plug immediately and contact your nearest service center.**

- Failing to do so may result in electric shock or fire.

In the event of a gas leak (such as propane gas, LP gas, etc.), ventilate immediately without touching the power plug.

Do not touch the appliance or power cord.

- Do not use a ventilating fan.
- A spark may result in an explosion or fire.

To reinstall the air conditioner, please contact your nearest service center.

- Failing to do so may result in problems with the product, water leakage, electric shock, or fire.
- A delivery service for the product is not provided. If you reinstall the product in another location, additional construction expenses and an installation fee will be charged.
- Especially, when you wish to install the product in an unusual location such as in an industrial area or near the seaside where it is exposed to the salt in the air, please contact your nearest service center.



Do not touch the power plug or the circuit breaker with wet hands.

- This may result in electric shock.

Do not unplug the power plug or turn the air conditioner off with the circuit breaker while it is operating.

- Plugging the power plug into the wall outlet or turning the air conditioner on from the circuit breaker may cause a spark and result in electric shock or fire.

After unpacking the air conditioner, keep all packaging materials well out of the reach of children, as packaging materials can be dangerous to children.

- If a child places a bag over its head, it may result in suffocation.

Do not insert your fingers or foreign substances into the outlet when the air conditioner is operating.

- Take special care that children do not injure themselves by inserting their fingers into the product.

Do not touch the air flow blade with your hands or fingers during the heating operation.

- This may result in electric shock or burns.

Do not insert your fingers or foreign substances into the air inlet/outlet of the air conditioner.

- Take special care that children do not injure themselves by inserting their fingers into the product.

Do not strike or pull the air conditioner with excessive force.

- This may result in fire, injury, or problems with the product.

Safety information

FOR USING

WARNING



Do not place an object near the outdoor unit that allows children to climb onto the machine.

- This may result in children seriously injuring themselves.

Do not use this air conditioner for long periods of time in badly ventilated locations or near infirm people.

- Since this may be dangerous due to a lack of oxygen, Open a window at least once an hour.



If any foreign substance such as water has entered the appliance, cut the power by unplugging the power plug and turning the circuit breaker off and then contact your nearest service center.

- Failing to do so may result in electric shock or fire.



Do not attempt to repair, disassemble, or modify the appliance yourself.

- Do not use any fuse (such as cooper, steel wire, etc.) other than the standard fuse.
- Failing to do so may result in electric shock, fire, problems with the product, or injury.

FOR USING

CAUTION



Do not place objects or devices under the indoor unit.

- Water dripping from the indoor unit may result in fire or property damage.

Check that the installation frame of the outdoor unit is not broken at least once a year.

- Failing to do so may result in injury, death or property damage.

Max current is measured according to IEC standard for safety and current is measured according to ISO standard for energy efficiency.



Do not stand on top of the appliance or place objects (such as laundry, lighted candles, lighted cigarettes, dishes, chemicals, metal objects, etc.) on the appliance.

- This may result in electric shock, fire, problems with the product, or injury.

Do not operate the appliance with wet hands.

- This may result in electric shock.

Do not spray volatile material such as insecticide onto the surface of the appliance.

- As well as being harmful to humans, it may also result in electric shock, fire or problems with the product.

Do not drink the water from the air conditioner.

- The water may be harmful to humans.

Do not apply a strong impact to the remote controller and do not disassemble the remote controller.

Do not touch the pipes connected with the product.

- This may result in burns or injury.

Do not use this air conditioner to preserve precision equipment, food, animals, plants or cosmetics, or for any other unusual purposes.

- This may result in property damage.

Avoid directly exposing humans, animals or plants from the air flow from the air conditioner for long periods of time.

- This may result in harm to humans, animals or plants.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

FOR CLEANING

WARNING



Do not clean the appliance by spraying water directly onto it. Do not use benzene, thinner or alcohol to clean the appliance.

- This may result in discoloration, deformation, damage, electric shock or fire.

Before cleaning or performing maintenance, unplug the air conditioner from the wall socket and wait until the fan stops.

- Failing to do so may result in electric shock or fire.

FOR CLEANING

CAUTION



Take care when cleaning the surface of the heat exchanger of the outdoor unit since it has sharp edges.

- To avoid cutting your fingers, wear thick cotton gloves when cleaning it.



Do not clean the inside of the air conditioner by yourself.

- For cleaning inside the appliance, contact your nearest service center.

When cleaning the internal filter, refer to the descriptions in the 'Cleaning the air conditioner' section.

- Failure to do may result in damage, electric shock or fire.

STATUS INDICATOR



| Mode | Status | Display | Function |
|--------|----------------------------|---------|---|
| Status | Compressor On | | This icon indicates that the compressor in the outdoor unit is running. |
| | Back-up heater On | | This icons indicate that the backup heater of the unit is operating, when there is a high demand for heating capacity. The backup heater provides extra heating capacity in case of low ambient outdoor temperature (high heating load). |
| | Booster heater On | | This icon indicates that the booster heater is active. The booster heater provides auxiliary heating for the domestic hot water tank. The booster heater is located in the domestic hot water tank. The icon is not used when the domestic hot water tank is not installed. |
| | Solar thermal panel On | | It indicates when the solar panel is powered on. DHW mode is stopping while solar panel is on in order to save your energy cost. |
| | Back up boiler On | | The Back up boiler shall start to work as soon as outdoor temperature reach to the targeted temperature. Users can adjust the temperature to allow the back up boiler work. The icon shall not be displayed without the Installation of the back up boiler. |
| | Water pump On | | This icon indicates that the circulation pump is active. |
| | Domestic water On | | This icon indicates when the domestic water heating mode is operating. |
| | Defrost operation On | | This icon indicates that the defrost mode is active. |
| | Anti freezing operation On | | The system automatically maintains the water temperature above a freezing point to prevent from freezing-fracture of piping system. |
| | Sanitary operation On | | This function disinfects the DHW tank by periodically heating the domestic water to a specific temperature. |

DOMESTIC WATER HEATING OPERATION

In this mode, domestic water heating will be activated as required by the water temperature set point.

- The set point can be set manually.

1. Press **Power(DHW mode)** button to turn on DHW tank.

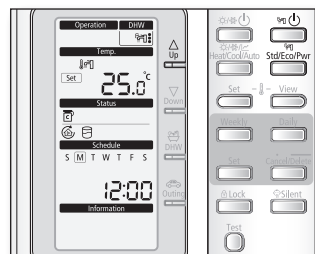
The priority between heating/cooling/water-law and DHW modes are depending upon the user's input of Field Setting Value of Wired Remote Controller. The default priority is on the DHW mode.



- This mode can not be used when the DHW tank is not installed.

- The **Power(Space mode)** button and the **Power(DHW mode)** button can be selected at the same time.

- In order to provide domestic hot water throughout the day, it is advised to keep the domestic water heating operation on continuously.
- When the ☀ icon is displayed, hot water is delivered to the DHW tank by the solar panel. The operation between solar panel and heat pump can be determined by using Wired Remote Controller's Field Setting Mode.



2. Press **Mode(DHW mode)** button until required operating mode is displayed.

The heat pump will run on selected domestic water heating mode.

- Economic domestic water heating
- Standard domestic water heating : (may operate)
- Powerful domestic water heating : (operate immediately)

3. Press **Up**▲ or **Down**▼ button to set the desired temperature.

The temperature can be set between 30°C and 70°C.



- The temperature is adjusted by 0.5°C.

OUTING MODE

If you want to take a vacation, you can use the Outing hot key. When this mode is enabled, it is assured that the heat pump maintains your house at a lower temperature to save energy cost.

1. Press **Outing** Hot key.


The heat pump delivers heat at a low temperature.

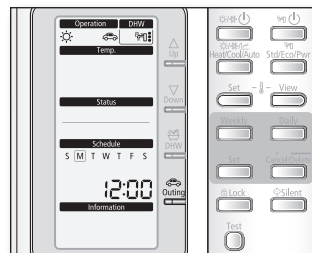
 If the **Power(Space mode)** button has not been turned on, this key does not work.

To cancel the outing mode

1. Press **Outing** Hot key once again to exit.

The heat pump is turned on a normal operation.

 It will return to a normal heating mode or DHW mode.



ENGLISH

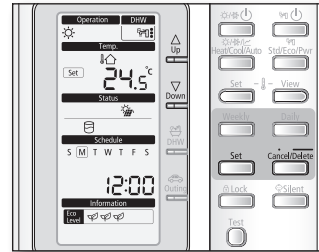
Operating advanced function

SETTING THE TIME

Your hydro unit contains a clock used to start and stop the unit automatically at a given time. You must set the time when you purchase the hydro unit or reset the main power.

1. Push the **Set** button for 3 seconds.

- Mode : Normal operation.
- When setting the time, you can only use **Up**△, **Down**▽, **Set**, **Cancel/Delete** button.
- To cancel the setting, press the **Cancel/Delete** button.



2. Set the day by pressing **Up**△ or **Down**▽ button.

The 'day' indicator will blink. Set the day and press **Set** button to save the setting.



3. Set the hour by pressing **Up**△ or **Down**▽ button.

The 'hour' indicator will blink. Set the hour and press **Set** button to save the setting.



4. Set the minute by pressing **Up**△ or **Down**▽ button.


The 'minute' indicator will blink. Set the minute and press **Set** button to save the setting.
After setting the minute, the operation returns to normal.



Operating advanced function

SETTING THE DAILY SCHEDULE

Set the daily schedule to reserve On / Off timer of DHW(Eco/Std/Power) and Silent mode.
At most 15 schedules may be set for day.

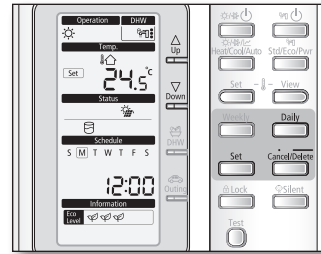
-  • If the field setting is for no use DHW and use other manufacturer tank, it is impossible to reserve "DHW" mode.
- If daily schedule reserved 15 schedules is on the same day, it is impossible to reserve. In that case, when pressing the **Daily** button, change the View mode of reservation.
- It is impossible to reserve several times for the same time.

1. Press the **Daily** button.

The mode changes to the Daily schedule.

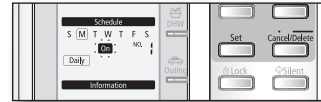
In this mode, you can only use **Up**△, **Down**▽, **Daily**, **Set**, **Cancel/Delete** button.

To cancel the setting, press **Cancel** button.



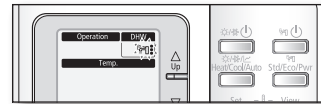
2. Set the On/Off by pressing **Up**△, **Down**▽ button.












The 'On/Off' indicator will blink. Set the On/Off status and press **Set** button to save the setting.



3. Set the operation mode by pressing **Up**△ or **Down**▽ button.

The 'operation indicator' will blink. Set the operation mode and press **Set** button to save the setting.



-  • When using other company DHW Tank or setting no use DHW mode, the reservation mode is fixed to "Silent" mode.
- When setting use DHW mode, the mode is changed as followings with **Up**△ or **Down**▽ button.
 - "On" Mode ;  →  →  () →  → .
 - Pwr mode () is selected in "Booster heater On"
 - "Off" Mode ;  →  → .

4. Set the hour by pressing the **Up**△ or **Down**▽ button.

The 'hour' indicator will blink. Set the hour and press **Set** button to save the setting.



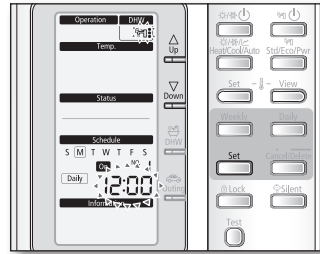
5. Set the minute by pressing the **Up**△ or **Down**▽ button.

The 'minute' indicator will blink. Set the minute and press **Set** button to save the setting.



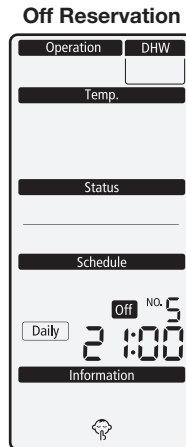
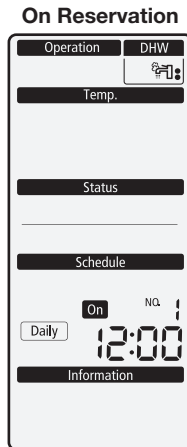
6. Confirm the Schedule.

After step 5, all indicators are blinking except "Reservation No", "Daily". Then press **Set** button.



- On this step, you can only use **Set** or **Cancel/Delete** button.
- If there is a reservation on the same day and time, it will not be confirmed and "Not Available" indicator will blink for 3 seconds. In this case, go back to the step 4.

Viewing the Daily Schedule (On / Off) Display



Operating advanced function

SETTING THE DAILY SCHEDULE

Deleting the daily schedule

1. Select the schedule from Reservation View Mode.
2. Push the **Cancel/Delete** button for 3 seconds.
3. The LCD pictures change to the reservation mode after deleting the schedule.

Operating the daily schedule

1. Operate automatically according to schedule.
2. If On schedule starts during the Urgent DHW mode, the Urgent DHW mode will be turned off.



In the following conditions, the schedule function will not operate.

- Outing
- Tracking of communication
- Installation of room thermostat
- If the field setting is set for without DHW or another manufacturers tank is used, it is not possible to reserve DHW mode.
- If the field setting is set for not using the booster heater, it is not possible to reserve Pwr DHW mode.

